



Tonga Special Management Area Strategy

2025–2030

Ministry of Fisheries



Tonga Special Management Area Strategy

2025–2030

Ministry of Fisheries



Pacific
Community
Communauté
du Pacifique

Noumea, New Caledonia, 2025

© Ministry of Fisheries, Tonga, 2025

All rights for commercial/for profit reproduction or translation, in any form, reserved. The Ministry of Fisheries, Tonga, authorises the partial reproduction or translation of this material for scientific, educational or research purposes, provided that the Ministry of Fisheries, Tonga and the source document are properly acknowledged. Permission to reproduce the document and/or translate in whole, in any form, whether for commercial/for profit or non-profit purposes, must be requested in writing. Original SPC artwork may not be altered or separately published without permission.

Original text: English

Pacific Community Cataloguing-in-publication data

Tonga Special Management Area Strategy: 2025–2030 / Ministry of Fisheries

1. Fisheries – Tonga.
2. Fishery management – Tonga.
3. Fishery resources – Tonga.
4. Fishery policy – Tonga.
5. Coastal zone management – Tonga.

I. Title II. Tonga. Ministry of Fisheries (2016-) III. Pacific Community

338.3727099612

AACR2

ISBN: 978-982-00-1610-1

Cover picture : Céline Muron, SPC

Prepared for publication at SPC's headquarters, B.P. D5, 98848 Noumea Cedex, New Caledonia, 2024

www.spc.int | spc@spc.int

Foreword

Tonga's coastal fisheries are diverse, encompassing a wide range of fishing practices and species. From reef and pelagic fish to spiny rock lobsters and sea cucumbers, our coastal waters are a vital source of food and livelihood. The special management area (SMA) approach empowers local communities to manage their coastal resources effectively, with the Ministry of Fisheries providing the necessary support and guidance. This collaborative effort is essential for achieving sustainable coastal fisheries management.

In the face of growing challenges to our coastal fisheries, this SMA strategy emerges as a critical guide for the Community Development and Advisory Section (CDAS), relevant government staff, and our esteemed partners and donors. The strategy articulates the processes, activities, criteria, and standards necessary to achieve and sustain community-based coastal fisheries management through SMAs in Tonga. Anchored in the objectives of the Tonga National Fisheries Policy 2018 and supported by the Coastal Fisheries Management and Development Plan 2022–2025, the Fisheries Corporate Plan 2022–2025, the Joint National Action Plan 2 on Climate Change and Disaster Risk Management (JNAP 2) 2018–2028, and Tonga's Ocean Management Plan, this strategy paves the way for a sustainable and resilient future for our coastal communities.

The SMA strategy is designed to support the establishment and maintenance of SMAs, setting clear targets and providing detailed steps to realise the government's overarching and specific objectives. With a focus on cost-effectiveness, simplicity, innovation, and inclusivity, the strategy ensures that proposed activities and solutions are both feasible and sustainable, even under normal budget conditions. By systematically reaching at least 100 targeted communities and addressing broader coastal fisheries, ecosystem, and disaster issues, the SMA strategy aims to sustain and improve the effectiveness of all SMAs.

The strategy acknowledges the challenges faced by the CDAS, including staff availability and budget constraints, and seeks to address these issues through streamlined practices and evidence-based justifications for increased investment.

As we move forward, this strategy will provide clear milestones with short-term (three years) and medium-term (five years) timelines, establishing a robust system of operations that aims to be sustained beyond the five-years mark. It is through these efforts that we will enhance the capacity of Tongan communities to manage their coastal fisheries resources effectively, ensuring a sustainable future for our fisheries and the livelihoods that depend on them.

Together, with the dedication of our communities and the commitment of our partners, we can realise the vision of sustainable coastal fisheries management in Tonga. This SMA strategy is not just a document but a promise to our people and future generations to manage, protect, and nurture our invaluable coastal resources.

We would like to acknowledge the invaluable assistance of the Community-Based Fisheries Unit of the Pacific Community (SPC), within the Fisheries, Aquaculture and Marine Ecosystems division, for its rapid response to our request for assistance and for its collaboration in the development of our first-ever SMA strategy.

We dedicate this strategy to the late Poasi Fale Ngaluafe, who led the Tonga Ministry of Fisheries in the development of this strategy. His leadership and vision were instrumental in bringing this strategy to fruition, and we honour his memory as we work towards the sustainable management of our coastal fisheries alongside local communities.



Dr Sione Vailala Matoto

Chief Executive Officer
Ministry of Fisheries

3 February 2025



Table of contents

Foreword	vii
Acknowledgements	viii
Abbreviations	viii
1. Purpose of the Special Management Area Strategy	1
2. Basis for the strategy	2
2.1. Tonga coastal fisheries context	2
2.2. Tonga coastal fisheries policy guidance	2
2.3. Implementation guidance for SMAs	2
2.4. Community Development and Advisory Section operations	4
2.5. Main issues to be addressed or clarified by the strategy	4
3. Strategic action areas	5
3.1. Information and awareness support	5
3.2. Implementation support for new SMAs	6
3.2.1. Criteria for prioritising SMAs to be established	6
3.2.2. District, multi-village, landlocked inclusivity sites	7
3.2.3. Increasing the adoption of other resource management tools	7
3.2.4. Inclusivity assessments.	7
3.3. Management support for existing SMAs	9
3.3.1. Compliance and enforcement support (MCS)	9
3.3.2. Monitoring and survey support	10
3.3.3. Broad coastal fisheries and ecosystem support	12
4. Implementation plan and/or workplan	13
5. Resource requirements – human, financial and capacity	14
5.1. Current human, financial and capacity	14
5.2. Staff, financial and capacity implications of this strategy	16
6. Appendices	19
6.1. Appendix 1: List of relevant legislation and policy	19
6.2. Appendix 2: Potential additional questions for quarterly meetings or reports from the committees	20

Acknowledgements

This publication was produced with the assistance of the Pacific Community, and the financial support of the European Union and the Government of Sweden under the Pacific-European Union Marine Partnership (PEUMP) programme.

Disclaimer

The contents of this publication are the sole responsibility of the authors and do not necessarily reflect the views of the European Union and the Government of Sweden.



Abbreviations

CBFM	community-based fisheries management
CCMC	coastal community management committee
CCMP	coastal community management plan
CDAS	Community Development and Advisory Section
FAD	fish aggregating device
MoF	Ministry of Fisheries
SMA	special management area
SOP	standard operating procedure

1. Purpose of the Special Management Area Strategy

The Special Management Area (SMA) Strategy is a guide for the Community Development and Advisory Section (CDAS), other government staff and partners on the processes, activities, criteria and standards which should be implemented to achieve and sustain community-based coastal fisheries management through special management areas (SMAs) in Tonga.

This strategy supports the implementation of the Tonga National Fisheries Policy 2018 (the proposed SMA reforms), Coastal Fisheries Management and Development Plan 2022–2025 (Objective 1 and contributes to 4, 6, 8), Fisheries Corporate plan 2022–2025 (Output 18) as well as the Joint National Action Plan 2 on climate change and disaster risk management 2018–2028 and Tonga's Ocean Management Plan.

These policies set targets for numbers of new SMAs and the need for ongoing support activities. The fisheries policy provides outline guidance on reforming SMA processes. The present SMA strategy seeks to provide detail and steps towards implementing and sustaining systems that may realistically achieve the government's overall and specific objectives and outline the resources required.

The implementation plan of this strategy will provide clear milestones and have a short term (one year) and medium term (three years) horizons that envisage setting up the system of operations that aim to be sustained beyond the three-year horizon.

Objectives of the strategy

- Sustainably reach at least 100 targeted communities in a systematic manner
- Sustain and improve effectiveness of all SMAs
- Ensure wider coastal fisheries, ecosystem and disaster issues are addressed

Principles to ensure suitability and sustainability

- Cost-effectiveness: ensure proposed activities and solutions can be afforded under normal budget conditions and at the scales envisaged
- Simplicity: solutions that are robust to varying capacities of community and staff and likely to require a minimum of continued capacity building
- Innovations through “test, pilot and implement”: move our paradigm forward based on experience, evaluation and testing new approaches
- Leave no one behind through ensuring equitable and inclusive approaches



2. Basis for the strategy

2.1. Tonga coastal fisheries context¹

Tonga's coastal fisheries cover intertidal areas and coastal waters and are hugely diverse. They range from net fishing, trolling, and the use of baited lines, for reef and pelagic fish, to spear fishing and gathering by hand. Fishers work from the shore and from small boats (generally below 8 m). Migratory species such as mahi-mahi, Spanish mackerel, trevallies, yellowfin tuna, and skipjack tuna are key target species for coastal commercial fishing, and along with other species like spiny rock lobster and some snappers are considered part of broader regional stocks. Other reef species, such as sea cucumbers, parrot fish, groupers, octopus, giant clams, mud crabs and aquarium fish, are considered as local stocks.

2.2. Tonga coastal fisheries policy guidance

A summary and annotated list of relevant legislation is provided as Appendix 1. The Tonga National Fisheries Policy 2018 strongly supports the SMA approach to coastal fisheries management and proposes to implement it wherever communities are supportive. Coastal communities are therefore being given the opportunity to set up SMAs. These areas give local community committees the power to control fishing, and to determine who can fish, with the support of the ministry. A series of reforms were proposed along the following themes:

- Increase the level of delegated authority over SMA decision-making to communities.
- Streamline the establishment of SMAs and improve the process.
- Modify and simplify SMA monitoring.
- Standardise template approach to SMA planning.
- Gain a greater understanding of the effects of SMAs on landlocked communities.
- Explore joint coastal community management involving more than one village for larger SMAs.

The Ministry of Fisheries Corporate Plan (2022–2025) provides an updated focus and calls for increasing levels of support for SMAs, strengthening voluntary compliance in SMAs, sets a target of SMAs established in 80% of villages,² aiming initially at the establishment of five new SMAs and increasing monitoring support of the existing SMAs.

The National Coastal Fisheries Management and Development Plan 2023–2026 focuses on wider coastal fisheries management but relies on SMAs for habitat protection and adds aspects of relevance:

- Restrict fish nets and fences near SMAs
- Increase transparency and ensure boat registration and licencing for small-scale vessels
- Improve monitoring programmes
- Strengthen the participation of communities in management of coastal and marine resources
- Enhance the capacity of Tongan communities to respond effectively to climate change.

The recent development of Tonga's Ocean Management Plan makes provision for SMAs but does not detail how its future implementation could adequately support SMAs. SMAs have emerged as the only functional MPAs in Tonga so far and are a proven management strategy for the key biodiversity and livelihood habitats in coastal areas. This SMA strategy should guide how the Ocean Management Plan can improve support for the SMA approach.

2.3. Implementation guidance for SMAs

Tonga has developed specific guidance on the implementation of SMAs in the form of a Special Management Area Manual³ (2022) which describes the steps in the SMA approach (Table 1).

¹ Extracted from Tonga National Fisheries Policy 2018

² 111 coastal villages are reported in Tonga <https://kasmira-dev.spc.int/countries/tonga>

³ MoF/FAO/SPC. 2022. Special Management Area Manual. Noumea, New Caledonia: Pacific Community. <https://purl.org/spc/digilib/doc/384k5>

Table 1: Description of the steps in the SMA approach

A. Establishing a Special Management Area

- 1 Expression of interest from community
- 2 Community confirmation meeting
- 3 Coastal Community Management Committee (CCMC) election
- 4 Coastal Community Management Plan (CCMP) development
- 5 Consultation processes
- 6 Submission of CCMP for approval
- 7 Gazette and regulation of plan (CCMP)
- 8 Announcement and implementation

B. Implementing and monitoring a Special Management Area

- 1 Developing an implementation plan
- 2 Developing a monitoring strategy

C. Ensuring compliance in the Special Management Area

- 1 Community Compliance Strategy
- 2 Implementing compliance monitoring in the SMA

The SMA Manual details the establishment process from expression of interest by communities through to community planning, plan approval and gazettal, as well as ongoing monitoring and compliance.

The SMA Manual provides guidance on establishing a monitoring strategy and indicators while Compliance is further detailed in SMA Compliance Standard Operating Procedures 2022 (SOPs).⁴

The SOPs detail compliance and enforcement procedures for the Coastal Community Management Committee members and for Ministry of Fisheries staff.

⁴ Ministry of Fisheries of Tonga, the Food and Agriculture Organization of the United Nations (FAO) and the Pacific Community. 2022. SMA Compliance Standard Operating Procedures [Technical guide]. Noumea, New Caledonia: Pacific Community. <https://purl.org/spc/digilib/doc/9bqw5>



2.4. Community Development and Advisory Section operations

The Community Development and Advisory Section (CDAS) comprises a relatively small workforce of four staff tasked with a large range of responsibilities nation-wide. For some activities, CDAS is fortunate to be able to count on staff from other sections, principally two officers from Inshore Resources and occasionally compliance and legal officers. For work in the outer islands, five locally based staff are usually available (see Section 5). However, the staff assigned to SMA core activities have multiple other and sometimes unpredictable duties and may often be on study leave (currently two). Some of the burden is taken up by project-funded staff (currently two) but they also have other duties. Staff availability, continuity and capacity remains a major challenge despite the formation of a dedicated CDAS.

Staff salaries, domestic travel, other wages and allowances and technical supplies constitute the major budgetary expenses of CDAS (see Section 5) which amount to some TOP 267,000 annually.

The strategy for SMA establishment requires that the Ministry of Fisheries (MoF) funds staff, but many of the associated expenses far exceed the CDAS budget and are sourced on a project basis from various donors. This introduces risk and dependence on donor project availability and guidelines.

2.5. Main issues to be addressed or clarified by the strategy

The large geographic coverage attained by the SMA approach and the intended increase in coverage urgently requires that current practices are reviewed and streamlined. The implications of supporting a network intended to increase from the current 64⁵ to 100 SMAs requires new considerations. The priority issues the strategy intends to address are:

- Rational and effective monitoring and tracking of status and needs of SMAs
- Improving insights into the effectiveness of the SMA approach
- Consolidating and streamlining support services provided to SMAs, including compliance
- Incorporating considerations of disaster response, ecosystem approaches and inclusiveness
- Justifying through evidence the needed increase in budget and investment in the SMA programme.

5 As at March 2024



3. Strategic action areas

The strategy sets out to clarify minimum standards or guidance (as appropriate), identify legislation development needed and detail recommended activities to consider in delivering annual work plans, as well as recommending minimum staffing and resourcing requirements.

The strategy lists what is considered the bare minimum of new actions to be initiated and incorporated into the existing workplan and schedule of CDAS. The main three areas of action are listed below with the anticipated initiation timing for individual actions, staggered to minimise the burden on existing commitments. A summary is represented in Table 2 and more detail on each action area is presented in the remainder of this section and in the workplan at Table 4.

Table 2: Summary of main action areas in this Strategy and implementation timing of individual actions across 2025 (quarters), 2026 (half yearly) and 2027.

	2025			2026		2027
Information and awareness support	A1.1	A1.2	A1.3	A1.4	A1.4	A1.4
Implementation support for new SMAs	A2.1, A2.3, A2.6	A2.2, A2.4, A2.5	A2.2	A2.4, A2.5, A2.2	A2.2, A2.4	A2.2, A2.4
Management support for existing SMAs	A3.1, A3.4, A3.8	A3.2, A3.3	A3.5, A3.7	A3.9	A3.6	A3.10

The priority actions for the first year (2025) are:

- Develop and test an information strategy in collaboration with SPC support [Actions A1.1, 1.2, 1.3.]
- Develop and agree criteria for new and joint SMAs [Actions 2.1, 2.3]
- Clarify and clearly describe the legal basis and protocols for MCS and train staff [Action 3.1, 3.2]
- Review and simplify approaches to monitoring and surveys at least as regards community monitoring [Action 3.4]
- Ensure that anticipated staffing needs and extra costs are proposed to Ministry of Finance in good time each year (by September). This would be required to fulfil and sustain this SMA strategy, as key to achieving the higher-level policy commitments [sustaining all actions]

National SMA conferences: In addition to these actions, CDAS and supporting donors should prioritise ensuring a national SMA conference in 2024 which will serve as an important consultation and discussion opportunity with all stakeholders on the content and priorities proposed in this SMA strategy. National SMA conferences should be held as regularly thereafter as funding allows.

3.1. Information and awareness support

The coastal fisheries section and particularly the SMA programme needs procedures and responsibilities to ensure aligned messaging and awareness supporting communities and to better liaise with the media section concerning:

- New and established SMAs (sharing the locations of SMAs, and the rules and regulations governing them)
- Broader sustainable coastal fisheries management (in general/outside SMAs) and landlocked communities
- Awareness materials that are locally appropriate and consistent across SMA processes
- Compliance and enforcement within SMA and in wider coastal areas
- Networking and two-way communications – community-to-community
- Elements of ecosystem, threats to fisheries, climate change proofing and disaster preparedness
- Procedures, involvement of public, women and youth and other inclusivity issues
- Annual and other regular reporting.

Issues that may be considered or defined as part of an information strategy

- Objectives, target audiences (including women and youth) and geographic coverage

- Messaging: priority information and messages (including basic ecology, threats to fisheries, management tools, fisheries regulations, sea safety, rules and changes in rules, ciguatera and public health, fisheries administration and contact points)
- Dissemination of information: best methods
- Mechanisms for feedback from stakeholders and communities to government
- Available mechanisms for networking between communities and community member (e.g. WhatsApp groups)
- Budget and monitoring. Includes staffing allocations, roles and responsibilities
- Responsibilities and roles (across different sections).

Rather than proposing a dedicated information section (for which resources are not available), it is proposed that a designated officer should be the contact point for each section i.e. SMA, Science, MCS, Inshore and a specific officer designated as information and awareness coordinator. All positions involve a low proportion of staff time but must receive training in the elements of information and awareness that support the above elements relevant to CDAS and SMAs including compliance in and out of SMAs, networking, general awareness, campaigns and announcements. The procedures and roles will be detailed in a short and practical guide or information strategy.

Action 1.1. Develop information strategy. [in collaboration with SPC support]

Action 1.2. Develop a workplan.

Action 1.3. Test the potential campaign brand/logos and core messaging.

Action 1.4. Implement information strategy.

3.2. Implementation support for new SMAs

The large number of applications for new SMAs and joint SMAs means that it will not be possible to implement all these SMAs in the short term. The number of new SMAs (single or joint) will need to be reduced to three per year until other support services, such as monitoring, are improved. Ensuring the most effective approach – which is also transparent and fair – is necessary to ensure the best use of public funding and being able to respond to any community frustration with the pace of progress. At an early stage it will be useful to agree criteria for new and joint SMA selection and incorporate into relevant CDAS or MoF operations.

Communications with the communities concerned should ensure that Town Officers and District Officers are used as they are important in the CCMC as well as in the community. These officers have the authority to arrange formal community meetings – fono – once a month and can inform communities of the status of their SMA area or SMA application.

3.2.1. Criteria for prioritising SMAs to be established

The CDAS and implementing staff should discuss and agree criteria at the earliest possible stage. The consultations for this strategy provide starting points as follows:

Criteria for ordinary new SMA selection

- In chronological order of correctly submitted village expression of interest
- Community confirmation meeting achieves minimum attendance, gender balance and participation criteria (80% of community)
- Cost and strategic considerations e.g., wait until SMA team visits a particular island so as to implement several SMAs in one trip.

Action 2.1. Develop and agree criteria for new SMAs

Action 2.2. Implement new SMA sites

3.2.2. District, multi-village, landlocked inclusivity sites

The new concept of joint or multiple village SMAs offers opportunities in some situations but has not been tested and is not provided for under current regulations. The CDAS will pilot one (or two) multi-village or district SMAs to determine effectiveness including of the committee organisation and ownership under this expanded approach. Criteria to be evaluated include cost, compliance, governance (functioning of the committee, awareness and ownership by different villages and members of those) and the legal support required and improvements to current legal framework.

The main legal issues related to joint SMAs include CCMC membership and chairperson (the need to accommodate more than one Town Officer and a District Officer); fishing rights allocation in the larger SMA (who can fish where); and registration of fishers and boats (who keeps the register of those authorised to fish in the SMA). Draft amendment regulations to the Fisheries (Coastal Communities) (Amendment) Regulations were prepared but further consultations are needed to propose truly viable solutions.

The CDAS and implementing staff should discuss and agree criteria for joint SMAs first. This could be carried out during implementation of Strategic Action Area 3.2.1 or separately. The consultations for this strategy provide starting points as follows:

Criteria for Joint SMA selection

- Political cohesion: villages are used to working together
- Small marine area that will be hard to manage as village units otherwise
- Consideration of enforcement challenge e.g., proximity to city
- Suitability as a pilot site.

Pilot site selection could consider a relatively challenging site (e.g. Eua) to detect more problems and enhance lessons learned (see 3.2.1). An emphasis on evaluating the experience objectively and regularly will be central to determine future approaches.

Action 2.3. Develop and agree criteria for joint SMAs

Action 2.4. Implement joint site pilot/s and evaluate.

3.2.3. Increasing the adoption of other resource management tools

The variety of different habitats and species of interest makes each SMA different. Excluding outside fishers through SMA boundary definition and creation of fish habitat reserves are vital but not sufficient steps for the management of many species.⁶

The option of using specific management rules tailored to the threats faced by local ecosystems and species should be more clearly proposed to communities when designing new SMAs or reviewing existing coastal community management plans (CCMPs). Information and best practice guidance on species and topics relevant to community-based fisheries management is available⁷ and simple information materials could be developed in Tongan for SMAs. SPC could assist in this matter.

Rules selected would be incorporated into the (reviewed) CCMPs and then gazetted through the yearly Fisheries (Coastal Communities) (Amendment) Regulations. Adaptive management will be possible upon regular review and appropriate modification of plans.

Action 2.5. Discuss and introduce other resource management tools at SMAs

3.2.4. Inclusivity assessments.

The SMA programme has made great efforts to ensure inclusivity. In going forward, to scale up and sustain the programme, some outstanding topics remain to be assessed and the most locally and nationally appropriate ways these could be addressed should be identified. Should the opportunity arise for further analysis, other issues may be identified. Optimum ways forward should be developed with staff well versed in the matter and with external support where required (e.g. SPC).

⁶ E.g. Smallhorn-West, P., van der Ploeg, J., Boso, D., Sukulu, M., Leamae, J., Isihanua, M., Jasper, M., Saeni-Oeta, J., Batalofo, M., Oirana, G. and Konamalefo, A., 2022. Patterns of catch and trophic signatures illustrate diverse management requirements of coastal fisheries in Solomon Islands. *Ambio*, 51(6), pp.1504-1519.

⁷ <https://cbfm.spc.int/which-marine-resource>

Topics that staff are aware of and have been raised in reports⁸ include:

- The possibility, however unlikely, that landlocked or other fishery-dependent fishers outside the SMA could have reduced access to fish or even be denied subsistence permits. If the risk exists, whether there any potential safeguards, such as their inclusion in a joint/multi-village SMA.
- Ensure safety requirements are met for boats under 8 m.
- Develop alternative and appropriate mechanisms for youth to be actively engaged in SMA processes (e.g. monitoring, surveillance, science) which also enable them to better inform their representatives should they be called on to report to coastal community management committee (CCMC) meetings or other bodies.
- Seek to reduce appropriately the disincentives that women and youth may experience to fully participate in processes that they are formally part of.
- Identify and implement mentoring opportunities for women and youth, including through women's associations or Ministry of Fisheries staff, and support of appropriate associations.
- Explore potential women's involvement in inshore fisheries which do not yet have management plans: fish fences and their impact on reef fisheries; octopus, shellfish gleaning, best practices for 'clam gardens', and sustainable financing of community fish aggregating devices (FADs) (Tonga Fisheries Sector Plan, p17).

Potential avenues discussed by staff focused on means to ensure that when youth or women are called on in CCMC meetings that they have had previous opportunity to develop and prepare reports or issues statements with their peers. CCMCs might benefit from examples of women and youth participating more pro-actively (and not just as secretary) in some CCMCs. SMA staff could be briefed to look out for apparently interested youth and proactively engage these in monitoring or other activities with a view to supporting them or youth groups should opportunities arise.

Action 2.6. Carry out inclusivity assessment/s and implement priorities

⁸ FAO. 2016. A Review of Special Management Areas in Tonga, by Robert Gillett. FAO Fisheries and Aquaculture Circular No. 1137. Apia, Samoa. SAP/C1137 (En); Graham A. and D'Andrea A. 2021.

Gender and human rights in coastal fisheries and aquaculture: A comparative analysis of legislation in Fiji, Kiribati, Samoa, Solomon Islands, Tonga and Vanuatu. Noumea, New Caledonia: Pacific Community, 108 p. <https://purl.org/spc/digilib/doc/zz6mn>; Anon. 2019.

Gender and fisheries in Tonga - Summary of key issues. Noumea, New Caledonia: Pacific Community. 16 p. <https://purl.org/spc/digilib/doc/aormq>

3.3. Management support for existing SMAs

The increase of the number of SMAs by 60% in the near future poses challenges for ensuring that systems are in place for their ongoing support and improved effectiveness. As the establishment of new SMAs progresses, it will be important that increasing emphasis is placed on management support.

3.3.1. Compliance and enforcement support (MCS)

Encouraging voluntary compliance,⁹ also known as the preventive approach, aims to reduce the expense of hard approaches to enforcement by ensuring local understanding and support for the management rules and is a key rationale for choosing community-based approaches. The SMA Compliance SOPs (2022) provides mostly guidance on “hard approaches” or deterrence and enforcement but there is a need to supplement these by providing guidance on voluntary compliance.

To maximise voluntary compliance, fishers and other local stakeholders should feel sufficient degree of ownership of the rules after being adequately involved in the SMA process. This awareness of the existence of rules and regulations and, particularly, the reason for these (i.e. to ensure fish supplies for now and future generations), as well as scientific rationale for each one (e.g. to allow a species to reach breeding size), will need refreshing. Therefore, close coordination of the MCS team with SMA, Inshore and Science teams to ensure that the information strategy is delivering appropriate messaging and information and awareness (Strategic action area 3.1) is a core and prerequisite activity.

- Public information and messaging is developed and regularly delivered (see 3.1).
- Information and awareness materials are produced specifically for use of CCMC and SMA, including posters of the SMA rules to be placed in public areas.

Enforcement is the vital backstop for community-based fisheries management within SMAs, as well as management of coastal fisheries outside SMAs. Unlike many other staff functions, enforcement is less rewarding, unpopular, or even conflictive. Staff efforts in this matter should be strongly encouraged, supported, acknowledged and, if possible, incentivised.

The SMA Compliance SOPs are considered an improvement and clarify the distinct roles of SMA CCMC members and MoF authorised officers (staff). Risks of conflict between CCMC and transgressors should be reduced if the SOPs are applied correctly. The increased role required of MoF staff will likely imply an increased workload which will need to be factored in by ensuring that staff time and clear roles are allocated, and relevant budgets allocated. The new SOPs represent a shift from past practices and the following steps are needed:

- Seek legal guidance to confirm the final interpretation of the SOPs and supportive legislation. SPC legal support would be useful when initiating this discussion with local legal experts.¹⁰
- Assess any possibilities that penalties can be paid to CCMC. Discuss with the Attorney General, judges and legal advisers and establish routine guidance for MoF staff.
- Develop interactive and more effective training for all relevant staff and any outer island staff that are expected to be involved in implementation and enforcement. Training would benefit from assistance in design to be engaging and empowering – e.g. role play, scenarios, field trials. Trainings need to be repeated sufficiently regularly.
- Consider whether amendments could or should be proposed to the Fisheries (Coastal Communities) Regulations to require proper training of CCMC members who are given enforcement powers within each SMA. Also, guidance on how to legally restrict fish nets and fences near SMAs.
- Ensure staff are obliged to respond to complaints from SMAs within a set time and provide feedback and follow up as cases progress. Such communications will reinforce community actions and their absence will put at risk community faith in the SMA process.
- Produce posters that show the SMA rules to be used in districts and relevant places. May include national rules as well.
- Assess and source the minimum of required equipment for MoF staff and CCMCs e.g. IDs, flashlights, GPS and vests.

⁹ FAO, 2002. Recent trends in monitoring, control and surveillance systems for capture fisheries. FAO Fisheries Technical Paper. No. 415. Rome, FAO. 200p

¹⁰ It is recommended that any person intending to exercise enforcement functions within an SMA be specifically authorised to do so under a Ministerial Notice in the Gazette. They should also carry proper identification like the other authorised fisheries officers. Training requirements for SMA enforcement officers can be added through an amendment to the Fisheries (Coastal Communities) Regulations.

Action 3.1. Clarify and describe legal basis for MCS

Action 3.2. Train staff – develop improved training system and implement regularly

Action 3.3. Ensure adequate resourcing for MCS in next budgets and include in duties or ToR.

3.3.2. Monitoring and survey support

Monitoring imposes a considerable burden on communities and staff at the expense of other potential activities. The information generated at present is not suitable to inform community or government management decisions. It is vital to rationalise and simplify monitoring.

As a first step, objectives of different types of monitoring need to be separately identified at the start of (re)design of monitoring strategies. Communities should monitor exclusively information of direct relevance to their management responsibilities and objectives. Information needed by CDAS to improve the programme or demonstrate its effectiveness may require additional monitoring through separate tailored approaches and without imposing additional burden on communities. The likely financial cost and human burden should be carefully gauged in view of likely yearly budgets and staffing. Technical support and advisers should be encouraged to err on the side of over-simplicity as opposed to the current tendency to over-design impractical systems.

Action 3.4. Community monitoring

Objective: provide information that is likely to give the community feedback on whether their SMA activities are sustaining or improving the fishery or whether problems are emerging.

- 1 Immediate action:** Additional questions should be included in the quarterly CCMC meetings for discussion in this committee and ideally the wider community (if possible, at least including youth, women and fishers not represented in the CCMC). The questions to be included are proposed for discussion in Appendix 6.1. The most important species determined by the village or SMA should be considered as key indicators.¹¹ The focus of CCMC discussions should be encouraged to shift towards the effects of management and away from the requests for material and other projects – to this effect perhaps the resource status questions could be moved to the beginning of the agenda. The intention is that these be additional questions so that past recording can be continued. The outcome is a first qualitative assessment (perception rankings) that may be used quickly by both community and government oversight to detect emerging issues at the individual community level, i.e. not to provide average results across all sites. This process should be kept simple, with clear guidance considering the varied experience of staff that may be available at such meetings.
- 2 Pilot testing:** Community monitoring of fish catches. Several methods should be tested in easily accessible sites or where outer island staff have the capacity to support. At least one option should include an approach that requires quarterly (or annual/biannual) implementation that could inform the subsequent CCMC meeting. To be considered in designing the monitoring approach are the following:
 - a. Simplicity
 - b. Ease of use and attractiveness
 - c. Potentially a smartphone/tablet application that reduces the need to identify the species and that can record the whole catch including sizes of all animals. If so, it will need to be fast and not require consistent internet access at the time of recording and be able to generate automatic or, at least, swift reports
 - d. Consideration of how the data will be stored and the amount of work this may imply at CDAS. The immediate results of this monitoring should be apparent in the community (e.g. comparing with last monitoring record).

The potential for changes in sizes of different species to serve as an indicator should be seriously considered. The outcome should be a simple flag of good progress, stability, or emerging problems (e.g. green, amber and red alert). After pilot testing, the different approaches trialled should be assessed for their cost effectiveness and applicability to be rolled out at large scale (e.g. dozens or 100 SMAs). The outcome is basic quantitative assessment that, while not providing scientific/publication-level certainty, may provide sufficient data confidence for community and government to detect or confirm emerging issues at the community level. It is important for the data to be used at individual SMA level though it will also be of use for island and national reporting.

¹¹ Local names do not necessarily match scientific names. Preferably, indicators should correspond with a single species and should be selected instead of those where the local name covers a variety of different species. These discussions will ideally be had during CCMP development process for new SMAs.

Action 3.5. survey – biological and socio-economic

The main surveys are costly, take up much staff time and are not possible to carry out before SMA management planning and therefore do not inform the planning process. Their main purpose is therefore to better understand the impacts of SMAs and the SMA programme. However, relatively few surveys are carried out and no repeat surveys that might detect impacts or changes have been performed. While assessing the impact of the SMA programme is still a priority, it would be important to perform one or several follow up surveys to evaluate whether the methodology is fit for purpose and improve it accordingly. An improved design should be piloted with attention to replicability, cost, capacity needs and quality of outputs. The appropriateness of an underwater visual census for fish should be evaluated against alternatives as it is costly and rarely robust enough in this sort of setting.

Action 3.6. Overall SMA oversight, monitoring and survey strategy

For the long-term oversight and administration of SMA sites by CDAS, a strategic approach should be adopted. This involves a minimum of reporting that all SMAs must provide, more detailed local monitoring wherever possible and strategically located in-depth research and surveys. The backbone of the CDAS SMA oversight and monitoring is the (currently) quarterly CCMC meetings which are attended whenever possible by CDAS staff.

Important: The quarterly CCMC meetings provide the most practical opportunity for basic feedback and monitoring as well as general CDAS support to SMAs. An outline of the SMA survey and monitoring strategy to be considered is presented in Table 3.

Table 3: Proposed overall SMA monitoring and survey strategy for discussion and development.

Category	How	When	Who	Main objective
1. All SMAs	Qualitative. Committee/focus group report new questions. Locally appropriate – little training needed	Quarterly committee meetings	Community through CCMC meetings	Tracking and problem detection of individual SMAs – for community and support staff. Immediately available data. May coincide with routine staff visits to villages and CDAS support
2. SMAs with training (as many as possible – 20–50%)	Quantitative. Basic catch/effort/size survey. Locally applicable – some training needed	Quarterly or annual (depends on advice)	Designated CCMC officer, possibly with CDAs support	Effectiveness and problem detection of SMAs. For community and government tracking. To be reported back to the next quarterly meeting (could optimally be carried out the week before the meeting)
3. One site per island (or per major habitat?)	Major survey and resurvey. Costly and must be implemented by trained officers or scientists	Every five years or to be determined	Trained CDAS officers and/or visiting academics	Performance of SMA model in each island or habitat. Scientifically robust.

In this monitoring strategy all SMAs are obliged to perform Category 1 monitoring as part of participation in the SMA programme but only those with training and capacity perform Category 2. Category 3 applies to a small number of select sites prioritising repeat surveys and improvement of methods. This category can incorporate studies from visiting researchers.

Other considerations:

- Mismatch between local names and scientific names. This means that locally collected data will be most likely grouped at family level. Indicators could be selected that correspond to a single species. Where this is inadequate, photographic identification and automated systems should be explored.
- The SMA team and the data collection team need improved coordination. This may be achieved through increased regularly scheduled joint working group meetings.
- Monitoring would benefit from advice from relevant sections of SPC or other academic partners, but the advice needs to be guided and tailored by the community-based fisheries management (CBFM)/SMA implementers based on the realities on the ground and CDAS criteria (such as developed by CDAS in the present strategy) not the other way round. Trials with tablets and smartphones have been promising but delays due to connectivity are unacceptable to fishers.
- Criteria for community monitoring (Category 2) include cost effectiveness, simplicity, ease of use or even

fun to use, collection only of data of use to community priority, ensure indicators identification is single species, ease of interpretation and that the system produces rapid feedback for community and staff.

- Consider whether the effectiveness of FADs needs priority attention and simple monitoring or whether evaluation should be designed.

All these monitoring actions may benefit from the involvement of relevant expertise from the community and appropriate monitoring from staff, ex-staff and some regional experts.

3.3.3. Broad coastal fisheries and ecosystem support

3.3.3.1. *Coastal fisheries management*

Improving coastal fisheries management outside of SMAs will be vital to ensure national sustainable coastal fisheries. The scaling up of SMAs intends that all major fisheries areas will eventually be covered by SMAs, but some areas will remain outside of SMAs and should be managed through appropriate measures, many of which are already outlined in the Coastal Fisheries Management and Development Plan.

The need to restrict fish nets and fences near SMAs requires more discussion and, if it is deemed necessary, whether there are any legal means to achieve this.

Action 3.7. Incorporate nation-wide coastal fisheries management rules into information and MCS strategies under CDAS

3.3.3.2. *Livelihoods and FADs*

Livelihood responsibilities attributed to CDAS are far in excess of anything that could reasonably be carried out. CDAS should provide a link to responsible authorities or outside expertise but realistically can provide little else. These and other such activities relevant to CDAS/SMAs should be the responsibility of other sections or ministries.

The deployment of FADs is the responsibility of CDAS and they may use this oversight to ensure that FAD deployment has strong links to the overall objectives of the SMA programme. This enables the flexibility to decide where FADs are located, to support SMA communities or to support outside communities which, for example, may have had important fishing grounds denied by the SMA. Current criteria for FAD deployment is that they must be outside any SMA. FADs are deployed drawing on local knowledge.

Action 3.8. Discuss and record guidance and criteria for FAD deployment

3.3.3.3. *Improve disaster response to include fisheries*

CCMCs should maintain a register of fishers and vessels; if this registry also includes information on other fishing materials it would be possible for the CCMC or MoF to inform post-disaster assessment teams of likely impacts on this primary post-disaster subsistence activity and ensure that these impacts are included in reports.

MoF should also contact the responsible authorities to discuss how to incorporate fisheries into the procedures implemented by the National Disaster Management Office (NDMO) or responsible agencies.

Action 3.9. Initiate discussion with NDMO and other responsible authorities on best means to coordinate disaster preparedness and response

3.3.3.4. *Ecosystem and integrated coastal management support*

Ensure that communities and staff are aware of broader impacts on coastal fisheries (e.g. land-based development, pollution, agriculture run-off), can identify any emerging issues and have contact details or avenues to be able to work with the responsible authorities. The information strategy will have an important role here.

Action 3.10. Identify impacts and threats to coastal fisheries that are not due to fishing effort or are outside community control and liaise with responsible authorities to develop appropriate ways forward.

4. Implementation plan and/or workplan

A schematic of the overall workplan is shown in Table 4 and should be compatible and relatively easy to adapt to, or integrate with, existing staff plans.

Table 4: Quarters shown in 2025, six monthly periods in 2026 (S1, S2) and whole of 2027. Full details provided in the main text.

	2025				2026		2027
1. Information and awareness	Q1	Q2	Q3	Q4	S1	S2	
Develop, test, and implement information strategy		A1.1	A1.2	A1.3	A1.4	A1.4	A1.4
2. Implementation support for new SMAs							
Criteria		A2.1, A2.3					
Joint site pilots			A2.4		A2.4	A2.4	
Other management tools			A2.5				
Inclusivity assessments		A2.6					
Implement new sites			A2.2	A2	A2.2	A2.2, A2.4	A2.2, A2.4
3. Management support for existing SMAs							
Compliance and Enforcement (MCS)		A3.1	A3.2, A3.3				
Monitoring and survey		A3.4		A3.5		A3.6	
Coastal fisheries / ecosystem support		A3.8		A3.7	A3.9		A3.10



5.Resource requirements – human, financial and capacity

5.1. Current human, financial and capacity

The annual budget (2022–2023) of the CDAS is approximately TOP 133,000, excluding salaries. Travel and allowances account for most of the remaining costs. Salaries account for an additional TOP 93,000 or 40% (Figure 1).

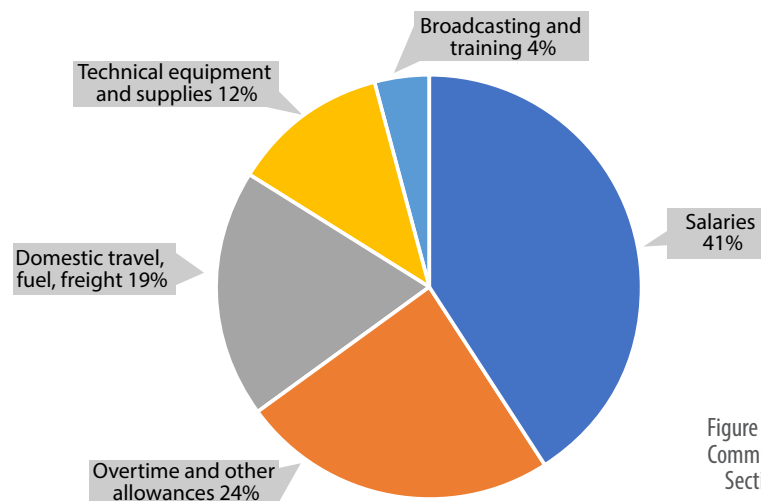


Figure 1: Budget breakdown for Coastal Community Development and Advisory Section of the Ministry of Fisheries, Tonga (2022–2023).

The CDAS workforce of four staff is tasked with a large range of responsibilities nation-wide though for some activities CDAS may draw on staff from other sections, principally two officers from Inshore Resources and occasionally compliance and legal officers. For work in the outer islands, five locally based staff are usually available (see Annexes). However, the staff assigned to SMA core activities have multiple and sometimes unpredictable other duties and may often be on study leave (currently two). Some of the burden is taken up by project-funded staff (currently two) but they also have other duties. The outcome is that though nine staff are nominally available for SMA activities, there are usually constraints in getting sufficient staff for the tasks.

Regarding SMA-related activities, accurate costings are only available for SMA establishment. Costs for SMA establishment are higher for outer islands than in Tongatapu – TOP 74,000 compared to TOP 46,000 owing to travel costs. A major cost is technical supplies for setting markers of the SMA (Figure 2).

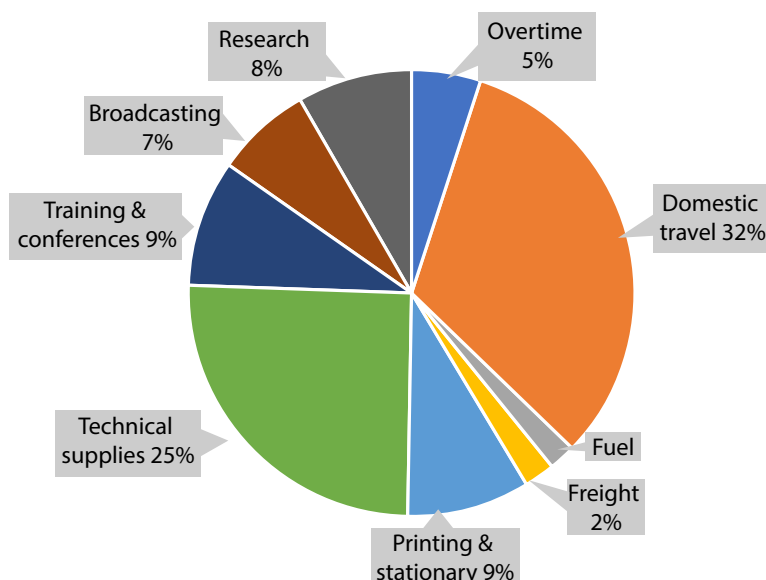


Figure 2 Costs of establishment of an SMA in an outer island (Vava'u).

In terms of staffing, the core steps for establishing an SMA take up 41% of staff time followed by 31% for biological and socio-economic monitoring (Figure 3). The establishment of an SMA may require varying inputs from more than 10 different staff totalling some 140 person-days.

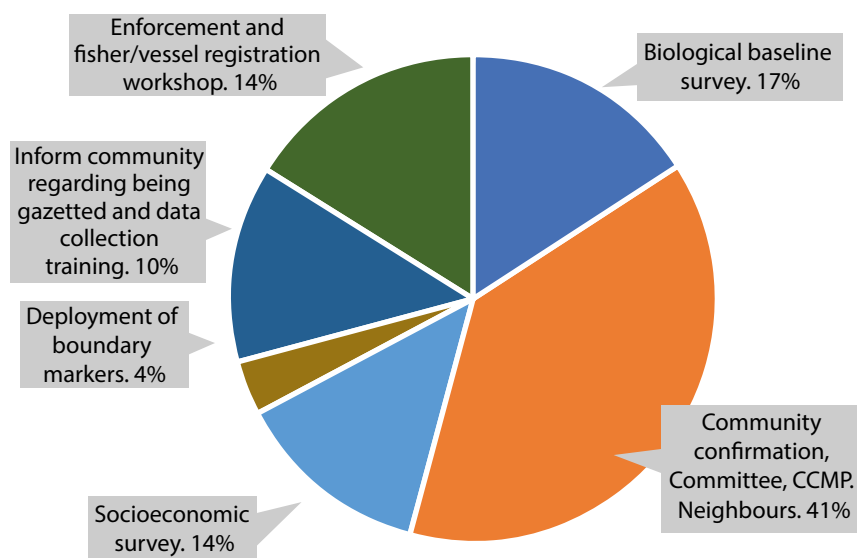


Figure 3: Breakdown of staff time involved in the establishment of an SMA – for Vava'u.

Considerations on current capacity and resources:

- The cost of establishing a single SMA (excluding staff) amounts to some 34–56% (Vava'u) of the total CDAS budget. Establishment is highly dependent on donor project funding.
- Staff posts are theoretically sufficient for the establishment of five new SMAs per year but the challenges to availability and absence of key staff for study leave undermines this.
- Reliance on short-term project staff and high turnover rates mean that capacity and skills are hard to retain.
- Provision for overtime payments is a crucial component of community work – communities only participate after working hours.
- Staff and budget capacity are already exceeded with current duties and SMA establishment below national target (seven per year).
- While donors have been generous in supporting new SMAs, there are reasonable concerns that they will assume the burden of maintaining the eventual national network (FAO 2016).

Potential areas for cost saving and streamlining in the SMA establishment process:

- Reduce or eliminate the biological and socio-economic survey component included in the establishment phase (31% of staff time, requires skilled staff).
- Explore the potential for island-based staff to assume more or sole responsibility for SMA activities (will greatly reduce travel budget).
- Potential for cost-savings in deployment of marker buoys (currently 25% of costs).
- Quarterly CCMC meetings require staff attendance and may be streamlined with the use of local staff or a reduction in the number of meetings e.g. two or three per year.

5.2. Staff, financial and capacity implications of this strategy

The following Table 5 summarises the implications for ministry staffing and recurrent budgets and specifies where activities are one-off and therefore more appropriate for donor projects.

Table 5: SMA Strategy staff and cost implications. The table presents anticipated increase needed in staff time in full-time equivalents (FTE). One-off events are marked with an asterisk (*).

	Staff time (FTE)	Budget cost implications	Notes. One-off denotated with *
3.1 Information and awareness:			
Startup – training workshops – develop strategy and workplan	1.2	Broadcasts, materials initial workshop TOP36,960	2 training workshops*, collaboration of 4 staff (5%) and communications coordinator (100%) SPC or other external staff
3.2. Implementation support for new SMAs and multi-village SMAs		75,000 x 5 / year = TOP 375,000	May be provided by projects. Pilot multi-village SMAs, if successful may reduce costs/number of new SMAs required
Increasing the adoption of other resource management tools (3.2.3.)		2 workshop @ TOP7,200 = TOP14,400	2 x workshop*, 2 x training* SPC or other external staff
Inclusivity assessments (3.2.4.)			
3.3. Management support for existing SMAs			
Compliance and enforcement support (MCS) (3.3.1.)	4	Equipment for MoF staff and CCMCs Travel and response Budget to be developed – anticipated to be large	An increased role required of MoF staff – equipment, legal advice, better training, more staff and transport. This is a big component Optional: SPC or other external staff
Monitoring and survey support (3.3.2.)			
• Increased and maintained support to all SMAs/CCMC meetings	2	Regular trips to all SMAs. Projected to increase to 100 SMAs	Initially increased staff (3.2 establishment) but as SMAs reach target number then these staff may be redeployed to ongoing support
• Improving monitoring and surveys	2	Trips 2 workshop @ TOP4,080 = TOP 8,160	2 x workshops*, test community monitoring* (staff time and trips), pilot improved bio/socio surveys Travel for testing combined with existing trips
Broad coastal fisheries and ecosystem support (3.3.3.)			
• Coastal fisheries management (3.3.3.1.)		Meetings	Workshop.* Incorporate nation-wide coastal fisheries management rules into information and MCS strategies under CDAS*
• Livelihoods and FADs (3.3.3.2.) • Improve disaster response to include fisheries (3.3.3.3.) • Ecosystem and integrated coastal management support (3.3.3.4.)		Meetings	Coordinate with other ministries (NDMO, Environment, Development) – guidance on FADs updated (i.e. to serve SMA villages or those outside but affected)
SMA Conferences		Approx. TOP300,000	Annual or biannual. Combined with projects and other programmes/donors

The major staff implications concern increased implementation of the MCS strategy which implies more personnel either at HQ and/or in the outer islands – an approximation was made to four new staff. There will also be a need for transport and equipment budgets.

The information strategy is very light on staff but does imply a small increase in workload for four staff and enhanced work by a coordinator. If this coordinator already exists in MOF and can be relied on, then this staff implication reduces to 0.2.

Ongoing follow-up with existing SMAs and regular simple monitoring and feedback will require more investment as the numbers of SMAs increase and more emphasis is placed on increasing SMA effectiveness and other services. It would seem prudent to highlight more staff required as well as greatly enhanced transport budget.

Most of the activities do have startup costs such as workshops and training though these are ideally suited to project funding and support by SPC or other specialised support agencies (e.g. FAO). It will be incumbent on CDAS or MOF to ensure that specifications for further potential support from technical agencies is of appropriate fit to the Tonga situation (simplicity, ongoing costs with anticipated budgets, autonomy, capacity) and this strategy would be ideal guidance.

Opportunities for increasing support will need to be highlighted particularly on any ongoing discussions relating to funding the Tonga Ocean Policy and its implementation. The SMA programme plays a vital and unique role in coastal fisheries and biodiversity management, and it is critical that ongoing budget and staffing support are increased and secured if this work is to be sustained and increased in effectiveness over critical habitats and coastal livelihoods.



6. Appendices

6.1. Appendix 1: List of relevant legislation and policy

Legislation

- Fisheries Management Act 2002
- Fisheries (Coastal Community) Regulations 2009
- Tonga Fisheries (Coastal Communities) (Amendment) Regulations 2016

Policies

- National Fisheries Policy 2018 [covers coastal fisheries and the reformed SMA approach]
- Fisheries Corporate Plan (CP) 2022–2025,
- Tonga Fisheries Sector Plan 2016–2024
- Draft Tonga Coastal Fisheries Management and Development Plan (CFMDP) 2022–2025
- Draft Tonga Ocean Management Plan

Standard Operating Procedures

- SMA Compliance SOPs 2021

Budgets and staffing

- Fisheries Budget 2022–2023 – Community Development and Advisory Section
- Staffing data 2022–2023 – Staff directly/supporting work on SMA programme

Other plans and processes informing policy

- Joint National Action Plan 2 on Climate Change and Disaster Risk Management 2018–2028
- National SMA workshop report (2015)
- National Workshop on Special Management Areas SMAs (2019)
- National SMA Workshop Report ‘Eua (2021)
- A Review of Special Management Areas in Tonga, by Robert Gillett. FAO Fisheries and Aquaculture Circular No. 1137. Apia, Samoa. SAP/C1137 (En). (FAO. 2016.)
- Smallhorn-West P., Sheehan J., Rodriguez-Troncoso A., Malimali S., Halafihi T., Mailau S., Le’ota A., Ceccarelli D., Stone K., Pressey B., Jones G. 2020. Kingdom of Tonga Special Management Area report 2020. 87 p. <https://purl.org/spc/digilib/doc/iwyna>
- Von Rotz M., D’Andrea A. and Devez S. 2022. Empowering communities in Tonga to protect marine resources and secure livelihoods: A case study for the Too Big To Ignore Global Partnership on small-scale fisheries SPC Women in Fisheries Information Bulletin #36. Noumea, New Caledonia: Pacific Community. 41–43. <https://purl.org/spc/digilib/doc/f97jx>
- Tonga Ministry of Fisheries (MoF), & Vava’u Environmental Protection Association (VEPA). 2022. Household survey of Special Management Area communities in Tonga. Noumea, New Caledonia: Pacific Community. 60 p. <https://purl.org/spc/digilib/doc/zj35s>
- Graham A. and D’Andrea A. 2021. Gender and human rights in coastal fisheries and aquaculture: A comparative analysis of legislation in Fiji, Kiribati, Samoa, Solomon Islands, Tonga and Vanuatu. Noumea, New Caledonia: Pacific Community. 108 p. <https://purl.org/spc/digilib/doc/zz6mn>;
- Anon. 2019. Gender and fisheries in Tonga - Summary of key issues. Noumea, New Caledonia: Pacific Community. 16 p. <https://purl.org/spc/digilib/doc/aormq>

6.2. Appendix 2: Potential additional questions for quarterly meetings or reports from the committees

1	What were your three most important fish species and the gear used to catch them when you established the SMA? For all subsequent quarterly reports same species/gear should be assessed.		
	Local name (or species?)	Main gear used	What changes noticed in the overall catch rate (and sizes?) during the past three months? 5 Improving a lot 4 Improving a little 3 The same / stable 2 Declining a little 1 Declining a lot
	X		
	X		
2	What were your two most important invertebrate species?		
	Local name (or species?)	Main gear used	What changes noticed in the overall catch rate (and sizes?) during the past three months? 5 Improving a lot 4 Improving a little 3 The same / stable 2 Declining a little 1 Declining a lot
	X		
	X		
3	Has the SMA affected income over the last quarter?		5 Improving a lot 4 Improving a little 3 The same / stable 2 Declining a little 1 Declining a lot
4	Has the SMA affected the amount of marine food for each household over the last quarter?		5 Improving a lot 4 Improving a little 3 The same / stable 2 Declining a little 1 Declining a lot
5	Are there things from outside the SMA affecting the health of the SMA, if so, what? (examples: pollution from industry, run-off from land etc.)		No or List what
6	Have the village members been informed of committee discussions in the last quarter?		Yes No
7	When was the last management plan review?		Date or Never/NA
8	Do you have plan for actions regarding fisheries and the SMA in the event of disaster?		

Notes:

Question 1. Local name of species and the main gear used when the plan was established or reviewed. Make sure that the discussion is about the same species and gear as variations in fishing method will alter the catch composition.

Question 2. As in #1

Question 3. An estimate of whether the SMA fisheries can be considered to have affected profits or money incoming to households.

Question 4. An estimate of whether the SMA fisheries can be considered to have affected the availability of marine food to households. Has implications for health as well as livelihood.

Question 5. Regarding wider ecosystem issues and effects from other communities and users.

Question 6. Important to find out if the committee is keeping the community involved and aware of findings from monitoring, actions taken or proposed changes to the plan.

Question 7. In future, it is intended to regularly review if the plan is working and what changes e.g. new rules may be needed. If it hasn't been reviewed recently, then they should discuss if it should; if it has been reviewed then did this result in new actions proposed and have these been gazetted if relevant.

Question 8. This question to be modified according to how the strategy addresses DRR and collaborates with the ministry involved. Is there an assessment of fishing gear etc., available. Does the committee link to the disaster committee? Ensure fisheries are better captured in the national post-disaster survey.



Notes



ISBN 978-982-00-1610-1



9 789820 016101