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Title:	RTMCF update: Rescheduling, progress on actions and PICT priorities
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Summary/short description/key points:

The purpose of the **Regional Technical Meeting on Coastal Fisheries** is for members and partners to discuss and address some of the main technical issues affecting coastal fisheries and aquaculture in support of better science-based resource management and the equitable access to resources.

The **4th Regional Technical Meeting on Coastal Fisheries (RTMCF4)** was postponed from November 2019 to March 2021 due to ongoing COVID-19 travel restrictions in the region. Just prior to the rescheduled RTMCF4 in March 2021, a COVID-19 related full lockdown in New Caledonia required the postponement to 12-15 and 19 October 2021. The formal Meeting Announcement will be circulated to members and partners in July 2021.

RTMCF4 will be the first meeting to include the two-day Community-Based Fisheries Dialogue session convened by and focused on civil society and non-state actor participation, as approved and endorsed by the 12th Heads of Fisheries meeting and the 1st Regional Fisheries Ministers Meeting.

A summary is provided of the interim progress made by SPC and/or members on RTMCF3 Actions that HoF12 considered and endorsed. An overview is provided of the most common coastal fisheries and aquaculture priorities, issues and challenges submitted by members' nominated participants to the postponed RTMCF4. These will be updated prior to the rescheduled RTMCF4 in October 2021.

Recommendations:

Members and partners are invited to:

- a. Note the rescheduled dates and proposed focus for RTMCF4
- b. Note the interim progress on key RTMCF actions and the preliminary PICT technical priorities and issues

Regional Technical Meeting on Coastal Fisheries update: Rescheduling, progress on actions and PICT priorities

Background

1. The purpose of the **Regional Technical Meeting on Coastal Fisheries** (RTMCF) is to discuss and address some of the main technical issues affecting coastal fisheries and aquaculture in support of better science-based resource management and the equitable access to resources. It links to the direction set out in [*A New Song for Coastal Fisheries – Pathways to Change: The Noumea Strategy*](#), the [*Future of Fisheries: Regional Roadmap for Sustainable Fisheries*](#), as well as assisting with providing the much-needed information for reporting to Leaders through the annual [*Coastal Fisheries Report Card*](#).
2. The RTMCF meetings are intended to focus on specific priority technical issues across the region, identified by member country government and territory administrations, but with input invited from other stakeholders, including civil society and non-governmental organisations, universities, private sector, donors and community representatives. For the first three RTMCF meetings the format has been to maximise input through in-person group discussions and plenary sessions. While this will continue for future RTMCFs, until COVID-19 related travel restrictions are lifted, meetings will need to be held as virtual meetings, which will require them to be very focused on only a limited number of high priority coastal fisheries and aquaculture technical issues.
3. The RTMCF3 (November 2019) was the first meeting of the new, but still evolving, strategic direction setting framework, information flow and decision-making process for Pacific coastal fisheries and aquaculture, from the RTMCF to the HoF to the Regional Fisheries Ministers Meeting, and on to the Forum Leaders. This was introduced by the 11th Heads of Fisheries Meeting (March 2019), endorsed by the Special Regional Fisheries Ministers Meeting (June 2019) and the 49th Meeting of the Committee of Representatives of Governments and Administrations (June 2019). This information flow does not affect governance of SPC's strategic direction by the Committee of Representatives of Governments and Administrations (CRGA) and Conference.
4. The RTMCF3 participants were asked to identify, discuss and agree on clear priority coastal fisheries and aquaculture technical issues, with key actions transmitted to the 12th SPC Heads of Fisheries Meeting (HoF12) for consideration and advice or endorsement. A summary update on those actions is provided below.
5. RTMCF4 will be the first meeting to include the two-day Community-Based Fisheries Dialogue session convened by and focused on civil society and non-state actor participation, as approved and endorsed by the 12th Heads of Fisheries meeting and the 1st Regional Fisheries Ministers Meeting.

4th Regional Technical Meeting on Coastal Fisheries

6. The 4th Regional Technical Meeting on Coastal Fisheries (RTMCF4) was postponed from November 2019 to March 2021 due to ongoing COVID-19 travel restrictions in the region. Just prior to the rescheduled RTMCF4 in March 2021, a COVID-19 related full lockdown in New Caledonia required the virtual meeting to be postponed again. Due to the extremely full regional fisheries meetings calendar in 2021, the RTMCF4 has been rescheduled to October 2021. This realigns it with the original October/November RTMCF timing.
7. Members and partners are advised that the rescheduled dates for the 4th Regional Technical Meeting on Coastal Fisheries are 12-15 and 19 October 2021. The RTMCF4 will be chaired by the Republic of the Marshall Islands. The formal Meeting Announcement with the details of the meeting will be circulated to members in July 2021.
8. With the suspension of all international flights to/from New Caledonia expected to continue through to at least the end of 2021, this meeting will be held virtually, but New Caledonia based participants can attend in person at SPC's Conference Centre in Noumea.
9. The theme of RTMCF4 is to discuss and address some of the main technical issues affecting coastal fisheries and aquaculture in support of better science-based resource management and the equitable access to resources, by capturing lessons learned from the 'response phase' of the COVID-19 pandemic, and identifying approaches and priorities as the region transitions to the 'recovery phase' in 2021 and beyond.
10. As endorsed by HoF12 and the 1st Regional Fisheries Ministers Meeting in 2020, RTMCF4 will include the first two-day Community-Based Fisheries (CBF) Dialogue session convened by, and focused on, Civil Society Organisations (CSO) and Non-State Actor (NSA) participation. The purpose of the CBF Dialogue is to provide the CSO and NSA community with an opportunity to exchange and offer information, advice and key needs, through the RTMCF, to Heads of Fisheries, to assist with informing Leaders on priority issues and needs associated with the sustainable use of coastal fisheries resources. It will also provide an opportunity to share experiences and lessons from community-based initiatives to strengthen efforts to maintain productive and healthy ecosystems and their associated fisheries resources that are critical to the wellbeing of coastal communities.

Interim progress on RTMCF3 Actions endorsed by HoF12

11. RTMCF3 reported to HoF12 in May 2020.¹ RTMCF3 participants were asked to identify, discuss and agree on clear priority coastal fisheries and aquaculture technical issues and opportunities that the RTMCF3 could submit to HoF12 for consideration and action. HoF addressed these actions through an online survey to address 21 actions, and plenary discussion to consider 4 actions from the RTMCF in greater depth.

¹ See: [WP5 Report to HoF12 from the 3rd SPC Regional Technical Meeting on Coastal Fisheries](#)

12. HoF12 noted and endorsed 24 referred actions, with further discussion requested for Action 16² by one member which was followed up by the RTMCF3 Chair and SPC after the meeting.
13. For Action 9³, HoF noted the sentiment expressed in action items 9a., b. and c., and emphasised that PICT fisheries administrations may take appropriate local level action, where feasible. HoF12 discussed and emphasised the need for further development of compliance in the coastal fisheries sector, including capacity development and appropriate protocols, mechanisms and tools to be used.
14. Given the high number of actions which were submitted by RTMCF3 to HoF12, it was recommended that clear guidance should be provided to RTMCF4 on drafting actions suitable for consideration by HoF.
15. Annex 1 summaries progress made by SPC and/or members on the RTMCF3 Actions that HoF12 considered and endorsed.

Initial PICT priorities and issues

16. The RTMCF meetings focus on specific priority issues of concern to member country government and territory administrations, which FAME actively seeks from nominated government participants. For RTMCF3 each member presented their top coastal fisheries and aquaculture priorities, issues and challenges, and reported actions taken since the previous RTMCF.
17. In preparation for the now postponed RTMCF4, nominated government representatives were asked to submit their current coastal fisheries and aquaculture technical priorities, issues and challenges, and any actions taken since RTMCF3. Due to the time and format constraints of meetings, rather than make presentations, for RTMCF4 we requested member participants complete a questionnaire on their national coastal fisheries and aquaculture technical issues and priorities. SPC then compiled the responses received from all members, with the intention of presenting a summary on the first day of RTMCF4. Prior to the postponed March 2021 RTMCF4 dates, we had received 13 responses from members.
18. Based on these initial 13 member responses, the most common coastal fisheries and aquaculture priorities, issues and challenges that emerged are listed in Annex 2. These priorities and needs will be updated by members prior to the rescheduled October 2021 RTMCF4, and reported to HoF14 in 2021.

² **Action 16:** RTMCF encourages PICT governments and administrations to share national Aquatic Biosecurity strategies, legislation, policies and plans, and provide resources in order to capture the benefits of effective biosecurity at the national level.

³ **Action 9:** Members identified the need for countries to address chronic understaffing of science and fisheries staff to conduct fishery and socio-economic surveys: a) RTMCF requests HoF to discuss and agree on a plan to address the capacity limitations, which is limiting effective coastal fisheries data collection, analysis and use in management; b) RTMCF requests HoF to discuss the need for clear and delineated roles for fisheries staff (e.g. the need to separate compliance from science roles); c) RTMCF recognises the problems related to short-term funding arrangements and requests HoF to consider ways to build longevity in funding programmes, through government and donors, for coastal fisheries science and management.

Recommendations

19. Members and partners are invited to:
 - a. Note the rescheduled dates and proposed focus for RTMCF4
 - b. Note the interim progress on key RTMCF actions and the preliminary PICT technical priorities and issues

Annexes

Annex 1: Interim progress on RTMCF3 actions endorsed by HoF12

RTMCF3 Actions transmitted to HoF12	HoF12 Outcomes	SPC Progress	Member Progress
<i>Updates on RTMCF1 and RTMCF2 Action Plans</i>			
<p>Action 3: Members’ request SPC to establish a regional process to develop minimum requirements, standards and protocols for data collection</p> <p>a. RTMCF requests HoF to identify the establishment of this regional process to develop minimum requirements, standards and protocols for data collection as a priority and ensure that adequate funding is made available for its establishment and implementation</p>	<p>Noted and endorsed.</p>	<p>Training programmes have started to be implemented to ensure a clear understanding of the approach being undertaken and to encourage uptake on a regional scale.</p> <p>A draft policy on the governance of fisheries, aquaculture and marine ecosystems data in preparation.</p>	<p>PF: Lagoon fisheries data acquisition, management, and analysis. Currently reliable data on lagoon fisheries are scarce given the low number of registered commercial fishers and how spread out they are in the islands. Objectives need to be set for this observatory, the strategy, and the resources to be implemented to meet them.</p> <ul style="list-style-type: none"> • Developing low-cost methods for assessing the stocks of 5 commercial sea-cucumber species/ including 2 CITES ones • Monitoring the status of stocks in restricted areas, particularly via test fishing. <p>TK: Strengthening data collection program through capacity building and resupply of equipment needed for data collection.</p>
<i>Science – New technologies, e-data processes and systems</i>			
<p>Action 9: Members identified the need for countries to address chronic understaffing of science and fisheries staff to conduct fishery and socio-</p>	<p>HoF noted the sentiment expressed in action items 9a., b. and c., and emphasised that PICT fisheries administrations may take appropriate</p>	<p>Livelihood report for Manihiki prepared for CK</p> <p>Development of community awareness</p>	<p>CK: Livelihood report for Manihiki prepared by SPC. General staff issue, need dedicated staff with Coastal Fisheries and Aquaculture</p>



RTMCF3 Actions transmitted to HoF12	HoF12 Outcomes	SPC Progress	Member Progress
<p>economic surveys</p> <p>a. RTMCF requests HoF to discuss and agree on a plan to address the capacity limitations, which is limiting effective coastal fisheries data collection, analysis and use in management</p> <p>b. RTMCF requests HoF to discuss the need for clear and delineated roles for fisheries staff (e.g. the need to separate compliance from science roles)</p> <p>c. RTMCF recognises the problems related to short-term funding arrangements and requests HoF to consider ways to build longevity in funding programmes, through government and donors, for coastal fisheries science and management</p>	<p>local level action, where feasible.</p> <p>In light of RTMCF3 Action 9, HoF12 discussed and emphasised the need for further development of compliance in the coastal fisheries sector, including capacity development and appropriate protocols, mechanisms and tools to be used.</p>	<p>materials for NR</p> <p>PROTEGE funded lagoon fisheries team strengthened through the addition of a fisheries science officer position for PF.</p>	<p>background/knowledge. Highest priority is provision of pearl seeding/harvest training. The Pearl Industry would also benefit from technical research into spat collection and producing higher quality pearls</p> <p>NR: Development of community awareness materials with help from SPC.</p> <p>PF: Lagoon fisheries team strengthened through the addition of a fisheries science officer position funded by the PROTEGE</p>
<p>Action 13: SPC and members note the need for management strategies to require data input to fisheries management (e.g., make mandatory the reporting of exports of coastal resources from licenced exporters and/or suppliers) and build this into existing e-data tools</p> <p>a. RTMCF requests HoF to ensure that data collection is made mandatory for commercial operators under national legislation and management plans</p>	<p>Noted and endorsed.</p>	<p>SPC currently developing an e-tool approach to reporting data from in-country trade and exports.</p> <p>In all recommendations for management, management plan development, and legislation support, SPC have strongly advised on a national approach to data collection of in-country trade and exports reported from commercial operators.</p>	<p>FJ: Developing a fit for purpose legislative and regulatory framework to enable and support sustainable fisheries and review of fisheries legislations and licensing regime. Strengthening the science through stock assessment for high value commodities (e.g. Sand fish, groupers/coral trout). Strengthening technical know-how of sandfish farming for commercial trade (site selection, tagging and pens setting up).</p>
<p><i>Aquaculture – Implementation of the regional action plan on aquatic biosecurity</i></p>			
<p>Action 14: Members endorse the draft</p>	<p>Noted and endorsed.</p>	<p>HoF12 and the 1st Regional Fisheries</p>	



RTMCF3 Actions transmitted to HoF12	HoF12 Outcomes	SPC Progress	Member Progress
<p>Regional Action Plan on Aquatic Biosecurity</p> <p>a. RTMCF recommends that HoF endorse the draft Regional Action Plan on Aquatic Biosecurity</p>		<p>Ministers Meeting endorsed the “Regional framework on aquatic biosecurity” and the associated “Policy Brief #34: The importance of aquatic biosecurity for the Pacific Islands region”.</p>	
<p>Action 16: RTMCF encourages PICT governments and administrations to share national Aquatic Biosecurity strategies, legislation, policies and plans, and provide resources in order to capture the benefits of effective biosecurity at the national level</p>	<p>Noted and endorsed the action. Further discussion was requested on Action 16 by one member, to be followed up by the RTMCF3 Chair and SPC after the meeting.</p>	<p>SPC has been advising and assisting members with their national Aquatic Biosecurity strategies.</p>	
<p><i>Community-based fisheries – Scaling-up community-based fisheries management</i></p>			
<p>Action 18: Members agree on the need to address existing gaps in legislation in order to support CBFM and enforcement of community management plans</p> <p>a. RTMCF requests HoF to recognise the importance of CBFM and to encourage the adoption of adequate legislation and policies to up-scale CBFM in each country or territory, with the participation of provincial and local governments</p>	<p>Noted and endorsed. HoF12 further considered “Scaling-up community-based fisheries management in a COVID-19 context” under a separate Agenda item.</p> <p>HoF12 identified some immediate impacts and challenges faced for scaling-up CBFM in a COVID-19 context; and support needs from FAME to assist with scaling-up CBFM in a COVID-19 context.</p> <p>HoF12 Requested FAME to work with members and partners to carry-out an assessment on CBFM and scaling-up approaches in the region to assist members in developing and implementing effective CBFM scaling-up approaches which are appropriate</p>	<p>FAME has continued to deliver on this activity within the limits of current funding and capacity. FAME, with the assistance of regional partners, facilitated a series of 3 virtual subregional (Melanesia, Micronesia and Polynesia) workshops on scaling-up of CBFM in the Pacific (Jan-Feb 2021). After the subregional workshops a combined regional workshop was conducted in March 2021. The outcome is the production of a draft <i>Pacific Framework for Action on Scaling-up Community-based Fisheries Management</i>. (See HoF13 WP4).</p>	<p>KI: recognition of CBFM plans in the Coastal Fisheries Regulations.</p> <p>MH: Technical assistance in carrying out the Reimaanlok process throughout the RMI and then, providing support to local communities in the implementation of community management plans (i.e. monitor and surveillance training, ensuring complacency, etc.)</p> <p>NR: Has a new Coastal Fisheries and Aquaculture Bill that supports community-based fisheries management and which we are now rolling out with communities.</p> <p>SB: Clam and coral management plans developed and published in gazette</p>



RTMCF3 Actions transmitted to HoF12	HoF12 Outcomes	SPC Progress	Member Progress
	to specific contexts.		<p>TO: development of coastal fisheries policy underway.</p> <p>PF: Legal study on the feasibility of TURFs in French Polynesia. Amended legal texts to regulate species, catches, and fishing effort in restricted fishing areas.</p> <p>WF: Looking at scaling-up CBFM</p>
<p>Action 19: Members call for SPC to support further south-south exchange programmes on community-based management, assist with the development of appropriate awareness materials/media including a training toolbox, and facilitate various stakeholders to develop appropriate monitoring and evaluation processes</p> <p>a. RTMCF requests HoF to endorse the development of national programmes to address the need for alternative livelihoods for communities when implementing management strategies that leads to restriction of their catches</p>	Noted and endorsed.	<p>Due to COVID-19 travel restrictions, planned south-south exchange between Wallis and Futuna, Fiji and Tonga organised after RTMCF 3, were cancelled.</p> <p>FAME has continued this activity within the limits of current funding and COVID-19 related travel measures.</p>	<p>MH: Development of community awareness materials with help from SPC.</p> <p>FJ: COVID-19 restriction resulted in lay-off of employees and hereby forced the opening of seasonally closed fishery and listed prohibited species.</p> <p>TO: FAD deployment in SMAs coastal areas is on-going and establishment of SMAs</p>
<p>Action 20: RTMCF requests members to clearly identify roles of different stakeholders involved in the establishment of CBFM programmes and ensure allocation of funding to support those programmes</p> <p>a. RTMCF requests HoF to support the clear identification of roles of</p>	Noted and endorsed.	<p>One of the objectives of <i>Pacific Framework for Action on Scaling-up CBFM</i> is for coordination mechanisms supporting the scaling-up of CBFM. The Framework should help national fisheries agencies coordinate CBFM nationally with its partners and for FAME to coordinate CBFM regionally</p>	



RTMCF3 Actions transmitted to HoF12	HoF12 Outcomes	SPC Progress	Member Progress
different stakeholders involved in the establishment of CBFM programmes and ensure allocation of funding to support those programmes		with members and partners (regional organizations, academic institutions, donors, etc). This Action item is specifically targeted to members by RTMCF to clearly identify roles of different stakeholders.	
Action 21: Members call for donor partners to ensure funding flexibility in the implementation of CBFM programmes in order to allow programmes to adapt to stakeholder needs	Noted and endorsed.		
Action 23: RTMCF requests members and partners to prioritise the implementation of CBFM, addressing the need for increased resources for existing CBFM programmes, as well as new CBFM programmes a. RTMCF requests HoF to support members and partners to prioritise the implementation of CBFM, addressing the need for increased resources for existing CBFM programmes, as well as new CBFM programmes	Noted and endorsed.	FAME has continued to deliver on this activity through the EU/Sida funded PEUMP Programme KRA3.	MH: prioritised implementation of CBFM nationally.
Workshop: <i>Coasta</i>/Fisheries and Aquaculture MCS&E			
<i>Fisheries data and information collection and exchange</i>			
Workshop Action 1: The workshop calls for HoF to: a. Consider the establishment of fisheries bodies or services including recognition of community	All the Coastal Fisheries and Aquaculture MCS&E workshop Actions: Noted and endorsed.	No Progress on b and c due to COVID-19 travel measures	KI: Awareness programs and capacity building of coastal MCS staff in order to effectively carry out their duties in both landing sites and fishing grounds in particular to enforcing fisheries



RTMCF3 Actions transmitted to HoF12	HoF12 Outcomes	SPC Progress	Member Progress
<p>contribution in collecting coastal fisheries and aquaculture information</p> <p>b. Develop tools to share information and enhance collaboration among government agencies and NGOs within each country or territory</p> <p>c. Promote exchanges between countries/territories to share best practices</p>			<p>legislation.</p> <ul style="list-style-type: none"> • Technical needs include setting of databases to monitor IUU catches • Review of national fisheries legislations and policies gaps to strengthen fisheries mandates on her responsibilities <p>TO: Compliance training for SMAs and awareness</p>
<i>Professionalisation of the coastal fisheries sector</i>			
<p>Workshop Action 2: The workshop requests HoF to take steps to increase the professional profile of both fishers and authorised officers in each country or territory by:</p> <p>a. Creating a statute for small-scale fishers that would ensure social security, sea safety and access to incentives (e.g. tax exemption or other benefits)</p> <p>b. Enhancing the visibility of authorised officers through the use of identification badges and distinctive uniforms</p> <p>c. Where possible, enhance the visibility of community wardens as well</p>		<p>FAME in collaboration with NZ MPI, continues to support fisheries agencies with provision of high visibility MCS clothing.</p>	<p>NC: Creation by deliberation of country-wide fishing master/skipper status in addition to Provincial Professional Fishing Authorisation.</p>
<i>Awareness raising and education</i>			
<p>Workshop Action 3: The workshop recommends that HoF promote the use of media and other awareness tools to explain regulations and publicise</p>			<p>MH: development of community awareness materials with the support from FAME.</p>



RTMCF3 Actions transmitted to HoF12	HoF12 Outcomes	SPC Progress	Member Progress
violations, and include coastal fisheries law and compliance in education curricula			
<i>Simplified enforcement of coastal fisheries and aquaculture regulations</i>			
<p>Workshop Action 4: The workshop requests HoF to raise the profile of coastal fisheries and aquaculture MCS&E in each country or territory through any or all of the following, as applicable:</p> <ol style="list-style-type: none"> a. Training of authorised officers on regulations and case file building for prosecution b. Use of a step-by-step incident-interview book to facilitate case building c. Development of a tailored app and database for preparation of case files d. Adoption of an enforcement policy for coastal fisheries and aquaculture violations e. Establishment of administrative (or civil) penalties to deal with minor offences, including a demerit point system f. Review of fisheries by-laws and regulations applicable in each country or territory 		<p>Virtual training on the use of Fisheries violation incident book undertaken for KI, discussions with VU on the same and TO expressing interest.</p> <p>FAME is supporting KI drafting penalty notice regulations.</p>	<p>KI: development of aquaculture regulation in final draft.</p>

Annex 2: Initial PICT priorities and issues

Coastal fisheries – Technical priorities:

- Dedicated and qualified local staff with the required technical knowledge and capabilities for specialised tasks, complex actions and processes., including fisheries science, data analysis and interpretation.
- Robust data and information (resources knowledge) collection, storage and analysis systems, to inform management through robust policies, legislation, regulations and management plans.
- Adopting e-technology to improve data collection by both fisheries officers and fishers (commercial and community).
- Low-cost and appropriate methods to assess stocks, e.g. sea cucumbers for non-detriment finding (NDF) assessments.
- Technical capacity for socio-economic assessments and monitoring.
- Managing multi-species fisheries to maximise food security and economic value, and protecting overfished species through effective management plans, guided by good science (e.g. stock assessments).
- Fit for purpose legislative and regulatory frameworks.
- 5-year strategic planning.
- Monitoring programmes and facilities for water quality, ciguatera and other toxins testing.
- Robust coastal MCS – trained fisheries staff with resources; support and training for community wardens/rangers.
- Support to local communities to implement community management plans.
- Scaling-up community-based fisheries management.
- Communications skills and techniques to work effectively with communities.
- Methods and approaches to engage commercial fishers' participation in biological data collection.
- Anchored FAD and fishing technique training and safety at sea.

Coastal fisheries – Issues or challenges:

- Covid-19 restrictions resulting in lay-off of staff and opening seasonally closed fisheries.
- Lack of technology and research capacity and facilities to improve management.
- Limited capacity at national and local levels.
- Challenge of strengthening science and stock assessments for high-value species.
- Small-scale fisheries data collection.
- Lack of appropriately qualified and experienced local fisheries staff (research; monitoring, analysis and interpretation of data; technical report writing; fisheries management; legal, policy and planning; etc.).
- Level of non-compliance by commercial small-scale fishers to fisheries regulations.

- Monitoring and managing across multiple landing sites.
- Lack of data (e.g. catch data; market data; etc.) to develop management measures for species of interest within the coastal fisheries.
- Inter-island transportation and communication.
- CITES requirements for NDF.

Aquaculture – Technical priorities:

- Provision and training of pearl seeding technicians.
- Technical research into spat collection and producing higher quality pearls.
- Strengthening technical know-how of sandfish farming for commercial trade (site selection, tagging and pens set-up).
- Pathway creation for edible oyster (pearl and mangrove oyster) at local and overseas markets.
- Development of a 5-year aquaculture strategy and an aquaculture commodity development plan.
- Promotion of aquaculture business training and investment opportunities for each key commercial and cultured species.
- Technical assistance for spawning and rearing techniques for mass producing of larvae to maximize hatchery production toward new species of interest.
- Parasite management for hygienic operation of the hatcheries.
- Developing and promoting a range of different aquaculture models.
- Promoting technical exchanges on artisanal aquaculture between countries in the region.
- Support sub-regional initiative Micronesia Association Sustainable Aquaculture (MASA).
- Develop guidelines for aquaculture.
- Regulations for new aquaculture sectors such as sea ranching.
- Providing aquaculture support to communities and enhancing skills to all involved in the sector.
- Development of national hatchery quarantine facility and the importation, quarantine and production of the GIFT tilapia for farm grow-out.
- Develop biosecurity SOPs for importing and culturing of introduced species (e.g. revive culture of *Tridacna gigas*, milk fish and tilapia).
- Establish culture techniques of new aquaculture commodities (prawns, milkfish, mud crab, sea cucumber and tilapia).
- Local low-cost aquaculture trials.
- Aquaponics (tilapia) pilots with local farmers.

Aquaculture – Issues or challenges:

- Impossible or difficult to import biological material. Issue of limited or no quarantine facilities.
- Limited local staff capacity, expertise (technicians), experience and resources, especially for key aquaculture commodities.

- Lack of clarity on the status of “marine lands”, no legal basis for occupation of the maritime domain.
- Limited land area for aquaculture.
- Access to markets and affordable technology, strengthening the base for aquaculture development through improved data collection.
- Lack of financial and technical capacity.
- Inter-island transportation and communication.
- Export market access for products and for new species of interest.
- Shortage of quality feed to support fish farming programs.
- Access to finance for aquaculture development, in particular for small holders.