



13<sup>th</sup> SPC Heads of Fisheries Meeting  
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Information Paper 14

HoF13 – Day 3 discussion group notes

*FAME Secretariat*

## Day 1 discussion group notes

The notes below provide further detail on what was discussed in each group. The content below was used to formulate the draft outcomes, and will be used to provide further detail to SPC FAME.

Group 1 – [CNMI, AUS, GU, PN and FSM]

Group 2 – [CK, KIR and SB]

Group 3 – [WS, NR and VU]

Group 4 – [MH, NU, PNG and US]

Group 5 – [NZ, TK and FJ]

Group 6 – [TV, PW, AS and TO]

Group 7 – [NC, FP, W&F and France]

### 1. What current aquaculture activities should FAME continue doing to support SPC members as the region transitions to the COVID-19 recovery phase (next 1-3 years)?

*Technical advice, support and knowledge*

- Appui technique et expertise pour des projets identiques ou similaires des différents États et Territoires Insulaires Océaniques (ETIO) à travers une collaboration, et en utilisant – [NC, PF, W&F et France]
  - Les résultats des autres programmes/projets régionaux dont PROTEGE, PEUMP, etc.
  - Les savoir-faire existants dans la grande région Asie-Pacifique
- Online training information on technical supports (input...) for small scale farming – [TV, PW, AS and TO]
- Share lessons learned and advises on species & technologies adapted to the region – [TV, PW, AS and TO]
- VU: need more technical, advice aquaculture assistance from SPC, more engagement, – [WS, NR and VU]
- Provide some guidance to strengthen our aquaculture sector, resilience, cyclone proof, disaster proof aquaculture. – [WS, NR and VU]
- VU, SPC to provide guidance, advice on appropriate small-scale farming. – [WS, NR and VU]
- During COVID impact, VU hardly received technical, advisory assistance from SPC – [WS, NR and VU]
- Expanding hatchery facilities, Samoa needs technical assistance from SPC, hatchery design, construction, management, and operations – [WS, NR and VU]
- Support to strengthen low, home type aquaculture for milkfish (NR) – [WS, NR and VU]

*Scientific support for aquaculture development*

- Fiji – continue capacity building and research, maximising the farm cluster work. Identifying market access. Aquatic biosecurity. Private sector development – [NZ, TK and FJ]
- Fiji – active promotion of cultured products? NDF assessments for high value traded products – [NZ, TK and FJ]

- PNG: indigenous species (freshwater and marine) research for local development and new commodities to be investigated – [MH, NU, PNG and US]
- SPC to explore sustainable aquaculture of lower value species / good protein that are very important for food security (e.g., milkfish and tilapia). – [WS, NR and VU]
- AU - development of key commercial species and support to community-based aquaculture practices. Consider how commercial development can support local production of inputs (feeds, seeds, etc.) – [CNMI, AUS, GU, PN and FSM]

### *Supply*

- NR we are dependent of seed, brood, and feed stock from overseas. We need assistance on feed formulation from local products – [WS, NR and VU]
- PNG/USA: Feed/Seeds → no local provider at commercial level of high quality, high reliance from other countries. Requiring SPC to assist with feed factory setup. Feed hub: importance of evaluating local ingredients – [MH, NU, PNG and US]
- PNG: regional hub for broodstock – [MH, NU, PNG and US]
- Samoa needs resources to obtain good healthy broodstock and the source of these clean brood stock. – [WS, NR and VU]

### *Aquatic biosecurity*

- FAME to continue assisting member in addressing concerns with aquatic biosecurity threat. or a possibility to develop aquatic biosecurity regulation esp. on imported seafood- Kiribati – [CK, KIR and SB]

### *Commercial opportunities*

- AU - Opportunities to link community-based aquaculture fisheries with commercial players in the market – [CNMI, AUS, GU, PN and FSM]
- GU - feasibility studies, partnership with private partners and ensuring environmental impact and biosecurity and habitat restoration is taken into consideration. Explore options for communities for aqua ponds systems and provide linkages to international/commercial markets. Explore more species other than Tilapia. – [CNMI, AUS, GU, PN and FSM]

### *Other comments*

- Utilize the Aquaculture Development Plan for activities and priorities- Seaweed, Tilapia, and new GIFT Tilapia -Solomon Is – [CK, KIR and SB]
- Need to keep SPC support broad and not limit it to COVID recovery – [WS, NR and VU]
- RMI: Acknowledge SPC support – [MH, NU, PNG and US]
- NU: Restocking seaweed project to continue (start again) – [MH, NU, PNG and US]

## **2. What key new directions in aquaculture are important to you that FAME should be considering for the future? For example, are there any high priority gaps in FAME's aquaculture work that you see? If so, what are they?**

### *Knowledge sharing and networks of practice*

- Code of practice for aquaculture for all commodities – [TV, PW, AS and TO]
- Database shared with other countries of the region – [TV, PW, AS and TO]
- Lessons learnt across counties - Take the good. – [WS, NR and VU]

- Aquaculture has been around in the region for 30 years, SPC needs to identify what commodities are work (appropriate for countries), and what is not working – [WS, NR and VU]

#### *Scientific/technical support for development and analyses*

- Tokelau - exploring new species for aquaculture from regional species pool. Climate change impacts – [NZ, TK and FJ]
- Tokelau – technology to be explored as a means to build resilience into aquaculture programs – [NZ, TK and FJ]
- Fiji – new species and/or appropriate species for culture. Genetic improvement of currently cultured product. Explore innovative and emerging technologies – [NZ, TK and FJ]
- RMI: Incoming opportunities + Research for remote islands (including restocking/coral restoration, mining) – [MH, NU, PNG and US]
- RMI: Marine ornamental research – [MH, NU, PNG and US]
- Investigate potential of using underwater robots, drones to conduct aquaculture activities (e.g., Aquarium/ornamental fish aquaculture NR) – [WS, NR and VU]
- Mass production on sandfish requires feed. Feed is an issue too so if possible, to provide assistance on feed formulation – [CK, KIR and SB]

#### *Business support and analyses*

- Tokelau - economic cost-benefit analysis to underpin business decisions – [NZ, TK and FJ]
- (PF) Mettre en place un système de gestion en ligne à destination des petits aquaculteurs, pour les aider à gérer leurs élevages (suivi technique à partir de saisie de données en ligne pour obtention de résultats/graphiques comparés à des référentiels, et pour obtention de calculs et perspectives sur ces élevages), à gérer leurs fermes (suivi financier à partir de saisies en ligne) afin de rendre leur activité viable et résiliente. – [NC, PF, W&F et France]

#### *Identifying funding*

- Reviews or identify funding sources for small scale aquaculture – [WS, NR and VU]

#### *Science for environmentally sound solutions*

- Fiji - support in exploring carbon sequestration through seaweed farming – [NZ, TK and FJ]
- Développement d'une aquaculture moderne plus éco-responsable basée sur une économie davantage circulaire, une diminution de l'empreinte carbone, une valorisation des co-produits et des eaux de process (Bioremédiation, Aquaculture Multitrophique Intégrée, Aquaponie, etc.) et donc une meilleure rentabilité des entreprises/activités – [NC, PF, W&F et France]
- USA/RMI/Niue: Degraded coral reefs (restoration, aquarium industry) → good economics + Prevention on ballast water. Long term planning for restoration work in the region (NU) – [MH, NU, PNG and US]
- Explore mariculture for restocking depleted resources, eg Giant clams – [WS, NR and VU]
- Identify appropriate species, commodities or climate change aquaculture resilience – [WS, NR and VU]
- Environmental restoration and resilience: Seaweed for climate change adaption, reduced nutrient in lagoon, restocking of giant clams and corals, heat tolerant corals for lagoons. Seaweed fertilizers to link with agriculture, tourism attractions and education (Innovative aquaculture)- Cook Islands. – [CK, KIR and SB]

- GU - Restocking of reef fish – [CNMI, AUS, GU, PN and FSM]
- GU - Multitrophic integrated systems for mariculture – [CNMI, AUS, GU, PN and FSM]
- AU - Diversity of other high value aqua species like Seaweed. Looking at integrated food systems anticipating climate change effects – [CNMI, AUS, GU, PN and FSM]

#### *Regulation and policy*

- RMI: Regulatory Framework → Competing interest with private sector - need to connect with int'l standards – [MH, NU, PNG and US]
- Tokelau - policy, planning, and legal frameworks, networks, equitable sharing of water space, protection of biodiversity, business incentives. – [NZ, TK and FJ]
- Aquaculture Bill, Aquaculture regulations and MCS, infrastructure and facilities, value adding for aquaculture products, marketing of aquaculture products – [CK, KIR and SB]
- Priorities on regulations, infrastructure for aquaculture- Solomon Is – [CK, KIR and SB]
- FAME to continue assisting member in addressing concerns with aquatic biosecurity threat, or a possibility to develop aquatic biosecurity regulation esp. on imported seafood- Kiribati – [CK, KIR and SB]

#### *Other comments*

- high level priority are seeds, feeds and improved brood stock – [WS, NR and VU]
- Key directions: Seaweed farming revitalization and export of high-volume low value dried seaweed through carrageenan extraction coupled with capacity building-Kiribati – [CK, KIR and SB]
- Need to keep SPC support broad and not limit it to COVID recovery – [WS, NR and VU]

### **3. What broad topic areas in aquaculture do you suggest should be addressed in the Terms of Reference for a regional aquaculture review?**

#### *Opportunities for commercial and economic support*

- Funding supports & mechanisms for aquaculture activities – [TV, PW, AS and TO]
- USA: investigate inhibitors to move from subsistence to commercial level (incl. Feeds: acknowledging new recent tech progress and use of local fish waste) /identify centres of excellence for seed/feed - transport issues – [MH, NU, PNG and US]
- Review or identify, consideration of funding sources for small scale aquaculture
- engaging Public Private Partnership
- Aqua business and strengthening of public private partnerships- Kiribati and Solomon Islands – [CK, KIR and SB]
- Financial literacy and business skills tools and training for farmers and communities- Cook Islands – [CK, KIR and SB]
  - Most aqua activities now are only small scale mostly for food security...but interests are now for up scaling to commercial level- Solomon Islands. – [CK, KIR and SB]

#### *Gender and social inclusion*

- Aquaculture and Gender- Solomon Islands – [CK, KIR and SB]
- RMI: Gender inclusion in the TOR (alignment with national work) – [MH, NU, PNG and US]

### *Review of what is working well/lessons learned*

- Faire un bilan de l'existant à l'échelle de l'Océanie et de la région étendue (Asie-Pacifique), sur les activités/techniques et sur les marchés. – [NC, PF, W&F et France]
- NZ - should include a review of lessons learned from previous aquaculture programs – [NZ, TK and FJ]
- Fiji - better measurement of the effects of training and capacity building - e.g. is the training working? – [NZ, TK and FJ]
- Aquaculture has been around in the region for 30 years, SPC needs to identify what commodities are work (appropriate for countries), and what is not working. And identify news species
- Lessons learnt across counties, Take the good.

### *Regional coordination*

- Tokelau -Countries work together to produce economies-of-scale – [NZ, TK and FJ]
- RMI: FAO work need to be connected to SPC work as well / Private sector interest – [MH, NU, PNG and US]

### *Capacity building and training*

- South-South exchange viable aquaculture activities
- Identify opportunities for training, national staff and community persons engaged in Aquaculture
- Increase human resources FAME section to answer countries need – [TV, PW, AS and TO]

### *Other comments*

- AU- Viability of appropriate systems, exploration of markets, and supply chain issues. – [CNMI, AUS, GU, PN and FSM]
- Climate change- Cook Islands – [CK, KIR and SB]
- Identify aquaculture that is fit for purpose
- National AAD for OIE network, Aquatic biosecurity framework for quarterly reporting purposes
- Development of a community-based aquaculture for livelihood (food security) – [TV, PW, AS and TO]