

Working Paper 4

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## Results reporting against FAME Business Plan – 2017–2018

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Pacific  
Community  
Communauté  
du Pacifique

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11<sup>e</sup> Conférence des Directeurs des pêches de la CPS, 11–15 mars 2019, Nouméa, Nouvelle-Calédonie



## RESULTS REPORTING AGAINST FAME BUSINESS PLAN – 2017-2018

### Overview

1. This information paper provides summary of the performance of Fisheries, Aquaculture and Marine Ecosystem (FAME) division of SPC for the past two years (2017-2018). It provides an overview of performance against the current Results Framework set out in the FAME Business Plan.

### *About FAME*

2. FAME is one of SPC's oldest Divisions and it has been providing scientific and technical expertise to support fisheries management and sustainable development in the Pacific for over 60 years. FAME's goal is that **fisheries resources of the Pacific region are sustainably managed for economic growth, food security and environmental conservation.**
3. FAME is composed of two programmes: the Oceanic Fisheries Programme (OFF) and the Coastal Fisheries Programme (CFP), along with the FAME Director's Office. Working with 22 PICTs, FAME has strong partnerships with both regional, sub-regional and national entities working in fisheries.

### *Staffing*

4. In the last 2 years FAME staff numbers have increased slightly from 82 staff (48 men and 34 women) in 2017 to over 87 staff (57 men and 30 women) as at December 2018. There remains a gender imbalance, which has decreased by 7% in the last 2 years. As at December 2018, the Oceanic Fisheries Programme (OFF) has 48 staff, the Coastal Fisheries Programme has 31 staff, and eight staff from the Director's office. Most staff are based in Noumea, with 10 located elsewhere in Fiji, Vanuatu, Kiribati or the Solomon Islands. However, staff number will increase in 2019 as new projects commence – such as the PEUMP Project.

### *FAME performance review*

5. In 2017, FAME commissioned an independent Performance Review to critically assess FAME's current state and its fitness-for-purpose for the future. The review found that FAME has a clearly articulated strategic direction and found FAME to be very successful in delivering against all the identified Divisional objectives. Overall, FAME was found to be an effective and efficient Division, with FAME staff being committed to the Division's vision and having a strong work ethic<sup>1</sup>.
6. Overall FAME was found to be responding well to current priorities and challenges in the region, however, FAME's ability to respond to future challenges and priorities was less clear. The review identified 15 recommendations designed to ensure FAME's fitness for purpose into the future. See Working Paper 2 for further details on actions undertaken in response to these recommendations.

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<sup>1</sup> CIRCA, 2017, FAME Performance Review, Available online: <http://www.spc.int/DigitalLibrary/Get/7shzr>

**Table 1: Ratings against FAME objectives from the FAME Performance Review, 2017**

Objective	Rating
1 Enhance data collection and provide data management services for fisheries and marine ecosystem	
2 Provide analysis and advice for evidence-based fisheries management	
3 Support the sustainable development of aquaculture	
4 Identify diverse and sustainable marine-based livelihood options for fishing communities	
5 Provide, and facilitate access to, fisheries information	
6 Support capacity development in fisheries and aquaculture among PICTs	

**Table 2a: Ratings against Organisation Management from the FAME Performance Review, 2017**

Leadership, Direction and Delivery	Rating	Financial and Resource Management	Rating
Purpose, Vision and Strategy		Asset Management	
Leadership and Governance		Information Management	
Values, Behaviour and Culture		Improving Efficiency and Effectiveness	
Structure, Roles and Responsibilities		Financial Management	
Review		Risk Management	

Table 2b: Ratings against Organisation Management from the FAME Performance Review, 2017

External Relationships	Rating	People Development	Rating
Engagement with Member Countries		Leadership and Workforce Development	
Engagement with NGOs and Academic Institutions		Management of People Performance	
Engagement with Regional Organisations		Engagement with Staff	
Engagement with Industry			
Engagement with Donors			

**Rating System**

**Strong** – Best practice/excellent

**Needing development** - Developing

**Well placed** – capable

**Weak** – Unware or limited capability

## Progress towards FAME Business Plan outcomes and objectives

7. Overall, FAME is tracking well with the implementation of its Business Plan and performance against the objectives and key results areas. The *2017 Performance Review*<sup>2</sup> highlighted progress on the objectives and the results framework, in particular stating that:

‘FAME has been very successful in delivering against all the identified Divisional objectives. FAME’s ability to provide and facilitate access to fisheries information is rated as strong reflecting consistently high level of performance.’

8. Recently, **FAME shifted its focus from reporting on activities, to focussing more on outcome-based results**, as endorsed by HOF10. As such, the key results below are those which demonstrate FAME’s contribution to development outcomes across the region. Table 3 below provides further detail on results by objective<sup>3</sup>.

### *Outcome 1: High-quality science supports fisheries management at regional, sub-regional, national and sub-national levels*

9. In July 2018, **all 16 PICTs met the submission deadline for the WCPFC Part 1 Report**, which was an increase from only six PICTs reporting on time in 2013. The introduction of Tufman 2 (a tuna fisheries data management system) and the Tuna Data Helpdesk supports countries to manage and report on their tuna data, and meet WCPFC reporting requirements.

10. The **TAILS data entry App** uploaded its 20,000<sup>th</sup> fishing trips in November 2018, marking a significant milestone for tablet-based small-scale fisheries data collection in the Pacific region. Two and a half years after the first *Tails* logsheet, there are now nearly 100 data collectors operating in 10 Pacific Island countries and territories, with 451 unique species logged, and 564,092 kg of fish recorded. These data have been used for important management decisions, as well as tracking nearshore FAD effectiveness and reporting of small-scale tuna catch to the WCPFC tuna commission.



*Tokelau fisher using Tails app to enter catch for the first time (24th August 2016.)*

*Photo: Connie Donato-Hunt*

11. **Otolith sample collection and analysis** improved understanding of age and growth of bigeye. In 2017 otolith analyses provided new scientific information which was used in the 2017 bigeye stock assessment. The resulting science advice saw a major change in the **status of the bigeye tuna stock** in the Western and Central Pacific region. In 2018, an extension project examined an additional 125 otoliths from bigeye tuna to update the age and growth estimates, further strengthening the growth analysis reported by Farley (2017), and supporting the updated status of the WCPO bigeye tuna stock. The additional analysis also indicated there were differences in the growth rate of bigeye tuna across

<sup>2</sup> CIRCA, 2017, FAME Performance Review, Available online: <http://www.spc.int/DigitalLibrary/Get/7shzr>

<sup>3</sup> Note: Results from table 3 represents description of much of SPC’s work but not a comprehensive documentation of SPC’s work in the region.

the Pacific, with faster growth in the Eastern Pacific Ocean relative to the Western and Central Pacific Ocean.

12. In 2018, SPC provided ecosystem modelling on **tuna species under climate change** scenarios, which, for the first time, included all four tuna species at once. The analysis also included additional data integrating multiple science disciplines, and incorporated Intergovernmental Panel on Climate Change (IPCC) recommended techniques for climate change modelling (bringing international standards to the region).
13. The **Oceanic Fisheries Programme's scientific data collection and analysis** support to members has led to development and adoption of evidence-based fisheries management policies and regulations in Cook Islands (elimination of commercial longline fishing within 50nm of land), Tonga, Solomon Islands, Samoa and PNG (adoption of the National Strategies on Aquatic Biosecurity).

### *Outcome 2: High-quality technical assistance supports sustainable development*

14. The Australian Centre for International Agriculture Research (ACIAR) funded **Community-based Aquaculture project** completed its final review with the project completed in June 2018. The review highlighted increased production by aquaculture farmers because of improved management practices, and effective farmers' networks and clusters, whereby farmers communicate and share ideas with each other on management practices. The review also highlighted better integration of aquaculture with community-based fisheries management because of the project.
15. In the past five years, SPC has provided technical support to PNG, Vanuatu and RMI to comply with **export requirements of their aquaculture** products for consumptions in areas such as Biosecurity, Food Safety and Food Security Standards. As a result, these countries were able to improve their compliance and exported, for the first time, Pacific threadfin and shrimps to Hawaii and Australia.
16. SPC has been spearheading the use of **safety grab bags** for fishers since the mid-2000s to ensure that local fishers on small vessels have essential safety equipment easily accessible in a compact, waterproof bag to allow them to signal for help and ensure survival in an emergency. Installing grab bags and training fishers in their use does not replace the need for national law reform, but it helps to support and supplement national regulations. In 2018, SPC distributed 66 grab bags (10 full emergency grab bags to Solomon Islands and 56 mini grab bags for Canoes to Vanuatu).
17. The independent evaluation of the **Pacific Fisheries Training Programme (PFTP)** commissioned by MFAT in 2018 found that the extent to which learning from PFTP funded training has been applied by participants after 1-2 years later was high, among the highest from any programme the lead evaluator has reviewed<sup>4</sup>. Under this project FAME provided technical capacity development in the areas of small business development, food safety and safety at sea.

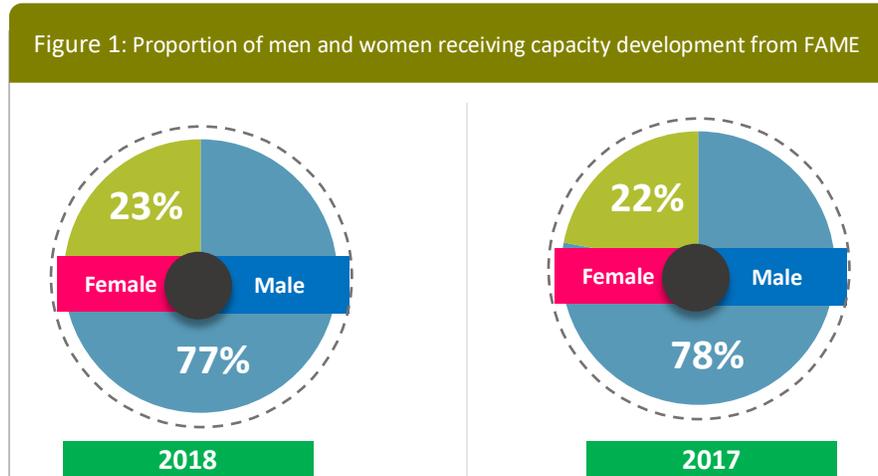
#### Evidence on Use of Grab Bags that save lives - Tuvalu

- 2016 – Three fishermen experience engine failure and drifted for four hours and were rescued
- 2017 – Small vessel with two fishers on board rescued after their vessel experience engine failure
- 2018 – Fishers were rescued after spending 29 hours in sea and they were located when they activated their Personal Locator Beacon from the grab bag

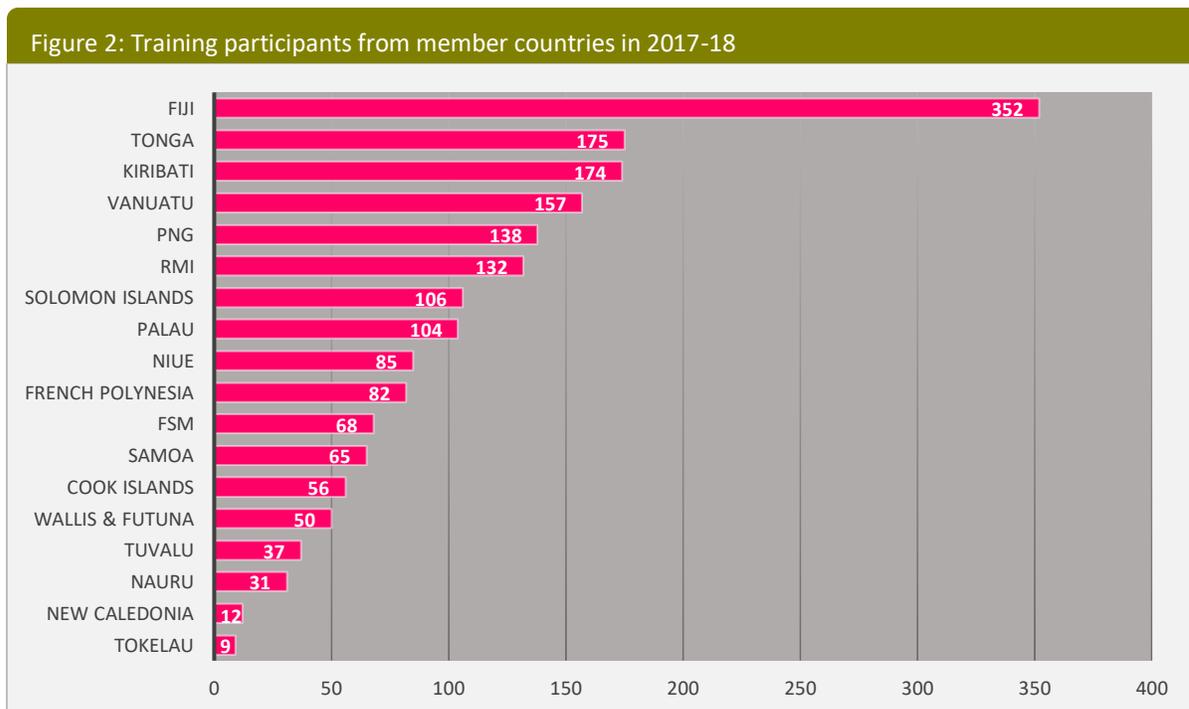
<sup>4</sup> PFLP Evaluation Report: <https://www.mfat.govt.nz/assets/Aid-Prog-docs/Evaluations/2018/PFTP-Evaluation-report-final-Feb-2018.pdf>

*Outcome 3: Information and capacity development empowers Pacific people to manage their fisheries*

18. Between 2017 and 2018, FAME continued with enhancing capacity of PICTs through mentoring and provision of trainings to **1,836** participants (22% female and 78% male) from the 22 countries and territories in the region.



19. In 2017-18, **1,836** participants from member countries attended various SPC mentoring and trainings programmes, with 66% participating through the Coastal Fisheries Programme, and 34% through the Oceanic Fisheries Programme.



20. Post-training evaluations were conducted following a number of training events provided by FAME in 2018. The participants were asked whether the training provided was relevant to their work and whether they gained new skills and knowledge. On average, 90-95% of the participants indicated they gained new skills and knowledge from the training.

In 2018, about 94% of participants in FAME training indicated they gained new knowledge from training (Cert IV in Fisheries and Aquaculture Compliance, Marine Finfish Parasite, Freshwater Parasite, Fisheries Policy and Management Plans and Sub-Regional Electronic Monitoring)

21. The participants were also asked whether they would use the new skills and knowledge when their returned to their home countries. Almost 96% of the participants indicated they would incorporate what they have learned into their work.

In 2018, about 96% of participants in FAME trainings indicated they would incorporate what they have learned into their work. (Cert IV in Fisheries and Aquaculture Compliance, Marine Finfish Parasite, Freshwater Parasite, Fisheries Policy and Management Plans and Sub-Regional Electronic Monitoring)

22. Fiji, Tonga, Kiribati, Vanuatu and PNG make up more than half of the total number of participants (54%) who participated in the training and mentoring programmes.

23. The evaluation of the Pacific Islands Fisheries Professionals (PIFP) Programme was conducted in 2018 utilizing the Kirkpatrick approach. As at December 2018, there have been 14 PIFPs. Most have been in CFP, with the programme being expanded in 2018 to include three positions in OFP. PIFPs have been from Fiji (3), Kiribati (1), Niue (1), PNG (2), RMI (1), Samoa (2), Solomon Islands (1), Tuvalu (1) and Vanuatu (2). Six of these 14 PIJPs have been women, with gender being a consideration during recruitment to promote and support equitable opportunities for women in fisheries. The participants commented positively on their professional development and learning experience at SPC.

Quote from a PIFP: *"I travelled to Pacific Island countries to see first-hand coastal issues and learn how communities and local governance deal with them"*

*"My experience has been vital in leading and assisting in conducting trainings, collecting data, doing monitoring and evaluation of data collection."*



**From left to right:** Lucy Joy, from Vanuatu, Berry Muller, from Marshall Islands and Lui Bell, from Samoa, were the first OFP participants to the SPC PIJP Programme. **Image:** Ariella D'Andrea

24. The fourth **Coastal Fisheries Report Card**<sup>5</sup> was presented to the FFC Officials and Ministers Meetings in Rarotonga in 2018. It was the first time the report included the GDP figures comparing contribution of coastal and offshore local catches to GDP and license fee contribution to the government revenue for member countries. Improved data quality for the eight indicators in the Coastal Fisheries Report Card resulted from using Household Income and Expenditure Survey (HIES) data. In 2018, 10 PICTs' HIES data was used for reporting compared to seven in 2017.
25. Trials by SPC showed PICTs often had difficulty in coastal fish **species identification**. As a result, SPC developed a comprehensive Coastal Fishers Identification Guide (ID Guide) to assist fish identification across the region. The guidebook includes 320 most commonly targeted coastal fishes, sharks and rays in the Pacific. Since its publication in waterproof format in 2016, 900 copies of the ID Guide have been distributed to 30 countries, including all 22 PICTs. In 2017, community-based data collectors using the ID Guide scored highly in species identification tests following trainings. The guidebook was released in electronic format as a mobile application, PacFishID, in March 2017, and in the first 9 months already had 8,500 downloads.

*"It helps us a lot because it makes work easier for finding the fish codes" – Community-based data collector from Naluvea, Fiji*

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<sup>5</sup> Coastal Fisheries Report Card: [http://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/SPC\\_2018\\_Coastal\\_Fishery\\_Report\\_Card.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/SPC_2018_Coastal_Fishery_Report_Card.pdf)

**TABLE 3: 2017-18 KEY RESULTS AGAINST FAME BUSINESS PLAN OBJECTIVES**

**Outcome 1: High-quality science supports fisheries management at regional, sub-regional, national and sub-national levels**

**Objective 1: Enhance data collection and provide data management services for the fisheries and marine ecosystems**

**Key Results Area 1.1: Enhance ecosystem, fisheries and biological data for key species**

*FEMA & CSFM sections within FAME responsible for this Results Area.*

**2017 RESULTS**

- Data collected on invertebrates finfish in 3 PICTs, with a total of 352 stations.  
**Countries:** *FSM, Niue, Wallis & Futuna*
- 3123 additional tissue samples were collected for the Tuna Tissue Bank in 2017. Samples were collected from 10 PICTs and 1,600 otoliths were analysed in partnership with CSIRO Australia. This brings overall totals for the Tissue Bank to 95,307 samples collected from 996 trips, with analysis undertaken for 27,223 samples.  
**Countries:** *Regional (ALL PICTs)*
- One large-scale tuna tagging voyage was undertaken in 2017 and 27,851 tuna (91% skipjack) were tagged as part of the Pacific Tuna Tagging Programme (PTTP). An additional 4418 tag returns were recorded for 2017 to bring the PTTP total to 83,411 tag returns.  
**Countries:** *Regional (ALL PICTs)*
- Otolith analysis provided new scientific information on age and growth of bigeye (previously unknown), which was used in the 2017 bigeye stock assessment.  
**Countries:** *Regional (All PICTs)*

**2018 RESULTS**

- In 2018, data collected on invertebrates in two PICTs and Finfish in two PICTs. Data will contribute to regional assessment of live-history of targeted species.  
**Countries:** *New Caledonia, FSM and Marshall Islands*
- In 2018, 3,559 additional tissues samples were collected for the Tuna Tissue Bank. This brings the overall totals for the Tissue Bank to 98,650 (an increase of 3,343 from 2017) samples collected from 1,075 trips, with analysis undertaken for 34,977 samples.  
**Countries:** *Regional (ALL PICTs)*
- One tuna tagging voyage was undertaken in 2018 and 1,107 tuna (41% bigeye and 30% yellowfin) were tagged as part of the Pacific Tuna Tagging Programme (PTTP). This included 104 archival tags and 153 acoustic tags. An additional 460 tag returns were recorded for 2018 (noting this number is preliminary and will be updated in the 2019 results report) to bring the PTTP total to 83,871 tag returns.  
**Countries:** *Regional (ALL PICTs)*
- In 2018, an extension project of 125 otoliths from bigeye tuna and revised update of age and growth estimates based on new data strengthened the growth analysis reported by Farley<sup>6</sup> (2017). The additional analysis indicated there were differences

<sup>6</sup> Farley, J., Eveson, P., Krusic-Golub, Sanchez, C., Rouspard, F., McKechnie, S., Nicol, S., Leroy, B., Smith, N., and Chang, S-K. 2017. Project 35: Age, growth and maturity of bigeye tuna in the Western and Central Pacific Ocean. WCPFC-SC13-2017/SA-WP 01. Thirteenth regular session of the Scientific Committee of the Western and Central Pacific Fisheries Commission. Rarotonga, Cook Islands, 9-17 August 2017

in the growth rate of bigeye tuna across the Pacific, with faster growth in the Eastern Pacific Ocean relative to the Western Central Pacific Ocean.

**Countries:** *Regional (ALL PICTs)*

### Key Results Area 1.2: Data acquisition, management and dissemination, including processing, auditing and consolidating data holdings

*FEMA, DM and CSFM sections within FAME responsible for this Results Area.*

#### 2017 RESULTS

- For the regional tuna fisheries database, LOGSHEET data acquisitions in 2017 for the regional tuna database cover 169,670 fishing operations (purse seine and longline trips for vessels flagged to 23 countries).

**Countries:** *Regional (ALL PICTs)*

- Observer data for 39,485 fishing operations, including 1,562,716 individual fish measurements, were processed by SPC from 14 PICT observer programmes.

**Countries:** *Cook Islands, Fiji, FSM, Kiribati, Marshall Islands, Nauru, New Caledonia, French Polynesia, PNG, Palau, Solomon Islands, Tonga, Tuvalu and Vanuatu*

- All PICTs submitted their annual catch estimates and other scientific data, as required under the *WCPFC Scientific data to be submitted to the Commission*, by the deadline of 30<sup>th</sup> April 2017.

**Countries:** *Cook Islands, Fiji, FSM, Kiribati, Marshall Islands, Nauru, New Caledonia, French Polynesia, PNG, Palau, Solomon Islands, Tonga, Tuvalu and Vanuatu*

#### 2018 RESULTS

- For the regional tuna fisheries database, LOGSHEET data acquisitions in 2018 for the regional tuna database cover 151,050 fishing operations (107,925 longline and 43,125 purse seine for vessels flagged to 26 countries).

**Countries:** *Regional (ALL PICTs)*

- Observer data for 33,601 fishing operations, including 1,252,885 individual fish measurements, were processed by SPC from 14 PICT observer programmes.

**Countries:** *Cook Islands, Fiji, FSM, Kiribati, Marshall Islands, French Polynesia, Nauru, New Caledonia, Palau, PNG, Solomon Islands, Tonga, Tuvalu and Vanuatu*

- All PICTs submitted their annual catch estimates and other scientific data, as required under the *WCPFC Scientific data to be submitted to the Commission*, by the deadline of 30<sup>th</sup> April 2018.

### Key Results Area 1.3: Develop systems, tools and support services for standardised data collection, management and reporting

*FEMA, DM, NFD and CSFM sections within FAME responsible for this Results Area.*

#### 2017 RESULTS

- *Tails* used in four new PICTs, bringing the total to 9 PICTs by end of 2017. Fisheries staff trained in Niue, Vanuatu, Fiji, Cook Islands and Tonga. 8,525 trips entered using *Tails* in 2017 (only 803 entered from paper).

**Countries:** *Nauru, Samoa, Tokelau, Tuvalu, Vanuatu, Fiji, Cook Islands, Niue and Tonga*

- New app *Onboard* developed for longline electronic reporting by fishing captains. Piloted in three countries.

**Countries:** *French Polynesia, Tonga and Cook Islands*

- 16 of 18 PICTs required to submit WCPFC Part 1 reports met the July reporting deadline in 2017, an increase from 6 PICTs meeting the deadline in 2013 prior to the development and use of *TUFMAN2* and the Tuna Data Helpdesk. Target met in 2017.

**Countries:** *All (PICTs)*

## 2018 RESULTS

- On the 1st of November 2018 the 20,000th fishing trip was uploaded from the *Tails* data entry app, marking a significant milestone for tablet-based small scale fisheries data collection in the Pacific region. Two and a half years after the first *Tail* logsheet, there are now nearly 100 data collectors operating in 10 Pacific Island countries and territories, with 451 unique species logged, and 564,092 kg of fish recorded. These data have been used for important management decisions, as well as tracking nearshore FAD effectiveness and reporting of small-scale tuna catch to the WCPFC tuna commission.

**Countries:** *Nauru, Samoa, Tokelau, Tuvalu, Vanuatu, Fiji, Cook Islands, Niue and Tonga*

- The rollout of *OnBoard* started in 2018 with French Polynesia being the first country to rollout to 11 of its longline fishing vessels. Other countries commencing implementation were Cook Islands, New Caledonia, Tonga and Samoa.

**Countries:** *Cook Islands, New Caledonia, Tonga and Samoa*

- Two additional PICTs required to submit WCPFC Part 1 reports met the July deadline in 2018. This means all 16 PICTs met the requirement by WCPFC Part 1 Reporting July deadline.

**Countries:** *WCPFC Countries*

## Outcome 2: High-quality technical assistance supports sustainable development

### Objective 2: Provide analysis and advice for evidence-based fisheries management

#### Key Results Area 2.1: Provide high quality stock assessments of key renewable oceanic resources and supporting data analyses

*FEMA, DM & SAM sections within FAME responsible for this Results Area.*

#### 2017 RESULTS

- In 2017, 68 papers delivered to WCPFC in 2017 (56 to Scientific Committee plus 8 new or revised papers to the Technical & Compliance Committee meeting and 14<sup>th</sup> Regular Session of the WCPFC ).

**Countries:** *Regional (ALL PICTs)*

- Summary of tuna stock status and national implications provided to 14 PICTs in 2017. Target met.

**Countries:** *Regional (ALL PICTs)*

- National level analysis on purse seine fishing amongst FAD closure periods provided to 9 PICTs in 2017. Target met.

**Countries:** *Cook Islands, FSM, Kiribati, Marshall Islands, Nauru, PNG, Solomon Islands, Tokelau and Tuvalu*

#### 2018 RESULTS

- In 2018, 69 papers were delivered to the WCPFC (49 to Scientific Committee, 14 to the 15<sup>th</sup> Regular Session of the WCPFC and 6 to the Technical & Compliance Committee).

**Countries:** *Regional (ALL PICTs)*

#### Key Results Area 2.2: Provide ecosystem, climate change, biodiversity, marine resource ecology and fisheries assessments, models and analyses

*FEMA, DM, SAM & CFMA sections within FAME responsible for this Results Area.*

#### 2017 RESULTS

- Contributed to analysis on the marine ecosystems of Niue and Beveridge Reef.

**Country:** *Niue*

- In collaboration with SPREP and CLS produced a report entitled ‘Modelling the impact of climate change including ocean acidification on Pacific yellowfin tuna’.

**Countries:** *Regional (ALL PICTs)*

#### 2018 RESULTS

- In collaboration with Conservation International and the World Bank, SPC produced a report entitled ‘Impact of climate change on tropical tuna species and tuna fisheries in Pacific Island waters and high seas areas’.

**Countries:** *Regional (ALL PICTs)*

- National level analysis on the status of invertebrates (lobster and coconut crab) were provided to Wallis and Futuna.
- National level census of Mud Crabs for Pohnpei was completed.
- Field assessment on Climate Change impacts on marine coastal finfish, invertebrates and habitats for Majuro (Marshall Islands) and analysis of the Sea Cucumber Fishery of the Chesterfield reefs in New Caledonia.

**Countries:** *Wallis & Futuna, FSM Marshall Islands and New Caledonia*

- With technical support from SPC, the Niue Marine Ecological analysis was completed and report published in 2018.

**Country:** *Niue*

#### Key Results Area 2.3: Provide integrated economic analysis and advice for informed decision-making

*SAM. AQ & NFD sections within FAME responsible for this Results Area.*

#### 2017 RESULTS

- Contributed to analysis on the socioeconomic cost of the sea cucumber fishery in Fiji.

**Country:** *Fiji*

- A resource for accessing commercial fisheries data and plots provided to 9 PICTs.

**Countries:** *Cook Islands, FSM, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau and PNG*

- Seasonality and value of target tuna and important bycatch species in the longline fishery within PICT EEZs provided to 7 PICTs.

**Countries:** *American Samoa, Kiribati, Nauru, Niue, Samoa, Tokelau, Tuvalu*

- In 2017, Fiji and Solomon Islands limit longline fishing licenses based on bioeconomic analysis provided by FAME

**Countries:** *Fiji and Solomon Islands*

#### 2018 RESULTS

- Completed Marae Moana Fisheries impact analysis and prepared bioeconomic analysis. This analysis was used to justify elimination of commercial longline fishing with 50nm of land, with exemption of a local company.

**Country:** *Cook Islands*

- National level analysis on purse seine fishing amongst FAD closure periods provided to 9 PICTs in 2018.

**Countries:** *Federated States of Micronesia, Papua New Guinea, New Caledonia, Cook Islands, Fiji, Tokelau*

- Report on analyses of artisanal fishing data for Tokelau for last two years sent to Tokelau.

**Countries:** *Tokelau*

- Report summarising the general characteristics of south Pacific Albacore longline fisheries provided to FFA countries.

**Countries:** *ALL FFA*

## Key Results Area 2.5: Strengthen and expand CEA FM and support the implementation of the 'New Song for Coastal Fisheries' strategy across the region

*AQ, SAM & NFD sections within FAME responsible for this Results Area*

### 2017 RESULTS

- In 2015, regional commitments were made on coastal fisheries management, including the New Song, the Regional Roadmap and SDG14. In 2016 Pacific Leaders agreed to expand 'fisheries' to include coastal fisheries.

**Countries:** *Regional (ALL PICTs)*

- Support provided to the development of community-based management plans for 6 communities in Vanuatu.

**Country:** Vanuatu

### 2018 RESULTS

- Improved data quality for 8 indicators in the Coastal Fisheries Report Card using Household Income and Expenditure Survey data. Data included from 10 PICTs in 2018, compared to 7 in 2017. Coastal Fisheries Report card presented to Fisheries Ministers and Forum Leaders.

**Countries:** *Regional (ALL PICTs)*

- Pilot tested a quantitative tool to assess nutritional adequacy of local diets and contribution of community-based food production to diet. Pilot completed in 100 households in Fiji in 2018.

**Country:** *Fiji*

## Key Results Area 2.6: Support the review and implementation of fisheries management legislation, policies, plans and MCS&E

*FEMA, DM, SAM & CFM sections within FAME responsible for this Results Area*

### 2017 RESULTS

- In 2017, Tonga marine aquarium fishery management and development plan developed and implemented with support from FAME.

**Country:** *Tonga*

### 2018 RESULTS

- Coastal fisheries legislation reviews underway for American Samoa, Federated States of Micronesia, French Polynesia, Kiribati, Marshall Islands, Nauru, Samoa, Tonga and Vanuatu.

**Countries:** *American Samoa, FSM, French Polynesia, Kiribati, Marshall Islands, Nauru, Samoa, Tonga and Vanuatu*

## Objective 3: Support the sustainable development of Aquaculture

### Key Results Area 3.1: Enhance regional and national policy, planning, MCS&E and legislation in the aquaculture sector

*Aquaculture (AQ) & CFM section within FAME responsible for this Results Area*

### 2017 RESULTS

- National stakeholder consultations completed in two countries for the development of national aquaculture strategies.
- Contributed to the development of a national code of conduct for aquaculture in one country

- A draft regional aquatic biosecurity framework has been developed.
- National stakeholder consultation completed in one country for the development of a pearl strategic plan.

**Countries:** *Fiji, Solomon Islands, Tonga*

## 2018 RESULTS

- National aquaculture strategies for Tonga and Solomon Islands were launched
- National aquaculture strategies for Fiji and FSM were drafted and are in final stages
- Contributed to French Polynesia's aquaculture development plan
- Kiribati's draft aquaculture regulation reviewed and draft Pearl Strategic Plan completed for Fiji

**Countries:** *Fiji, FSM, French Polynesia, Kiribati, Solomon Islands and Tonga*

- National strategies on aquatic biosecurity have been finalized and adopted in Tonga, Cook Islands, Solomon Islands, Samoa and PNG.

**Countries:** *Cook Islands, PNG, Tonga, Samoa and Solomon Islands*

**Key Results Area 3.2:** Provide technical and analytic support for aquaculture to support production and economic sustainability  
*Aquaculture (AQ) section within FAME responsible for this Results Area*

## 2017 RESULTS

- Twelve (12) hatchery technicians (7 males and 5 females) from Fiji received training on latest prawn hatchery techniques
- Seven (7) participants (2 females and 5 males) in Kiribati representing Fisheries and Communities received training on sea cucumber (sandfish) post-harvest techniques.
- Sixteen hatchery technicians from Fiji and Kiribati representing government, private sector and regional university were trained on micro algae culture
- Three clusters of fish farms established (2 in Fiji and 1 in PNG) established to strengthen exchange of knowledge or economies of scale

**Countries:** *Fiji, PNG and Kiribati*

## 2018 RESULTS

- Tilapia incubator hatchery technology transfer and adaptation by private enterprise (small scale Tilapia farmers) and government hatcheries
- Countries:** *Fiji and Samoa*
- Twenty seven community freshwater aquaculture farms were established/ rehabilitated in rural communities and 23 were operational by December 2018
- Country:** *Vanuatu*
- Small-pond aquaculture of tilapia contributes to rural nutrition during post-cyclone recovery and rehabilitation of fisheries-dependent communities in the Pacific. One of the dramatic impacts of Cyclone Winston in Fiji during 2016 was a sharp reduction in the number of times a week communities were eating fresh fish (Chaston Radway et al 2017<sup>7</sup>). For some communities tilapia fish from ponds was the only source of fresh animal protein available in the initial 2-3 month post-cyclonic disaster period and until international relief efforts could be mobilised.

**Country:** *Fiji*

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<sup>7</sup> Chaston Radway K, Manley M, Mangubhai S, Sokowaqanilotu E, Lalavanua W, Bogiva A, Caginitoba A, Delai T, Draniatu M, Dulunaqio S, Fox M, Koroiwaqa I, Naisililili W, Rabukawaqa A, Ravonoloa K, Veibi T (2016) Impact of Tropical Cyclone Winston on Fisheries-Dependent Communities in Fiji. Report No. 03/16. Wildlife Conservation Society, Suva, Fiji.

- Technical support and advice provided to rebuild hatcheries destroyed by Cyclone Pam and Winston. Rebuild completed with hatcheries rebuilt to be resilient to cyclones / natural disasters, with technical capacity of staff strengthened.  
**Countries:** *Fiji and Vanuatu*
- Independent final review of completed ACIAR project on 'Improving community-based aquaculture in Fiji, Kiribati, Samoa and Vanuatu, noted that impacts included "improved food security from the production and home consumption of farmed fish ... Political recognition of the importance of aquaculture in contributing to food security and livelihoods in many of the participating countries, leading to improved political and financial support for aquaculture development."  
**Countries:** *Fiji, Kiribati, Samoa and Vanuatu*
- Gender analysis of aquaculture sector undertaken in Fiji and Samoa  
**Countries:** *Fiji and Samoa*
- Women respondents of gender analysis of aquaculture sector report benefits from small-pond tilapia aquaculture, including cash income for personal needs and community obligations. There are documented instances where tilapia aquaculture activities are having an impact on the empowerment of women with respect to more decision-making opportunities, and leading to their greater recognition in formal structures within communities.  
**Countries:** *Fiji and Samoa*
- Capacity building strengthened through a sub-regional south-south exchange on sea cucumber (sandfish) aquaculture for restocking.  
**Countries:** *Fiji, Kiribati, Vanuatu, New Caledonia and PNG*

### 3.3 Key Results Area 3.3: Enhance the management of aquatic bio-security risks

*Aquaculture (AQ) section within FAME responsible for this Results Area*

#### 2017 RESULTS

- Biosecurity information facility – Cook Islands Biosecurity Operations Manual launched and accessible online  
**Countries:** *Cook Islands*
- Technical assistance provided for development of the Biosecurity Act, passed in 2017.  
**Countries:** *Federated States of Micronesia*
- Sample collection and diagnosis for screening of OIE notifiable diseases undertaken in 3 PICTs on giant clams, marine shrimps and freshwater prawns.
- National specific trainings to strengthen aquatic biosecurity management has been delivered to four countries: Samoa, Tonga, Cook Islands and French Polynesia  
**Countries:** *Samoa, Tonga and Vanuatu, Cook Islands, French Polynesia*

#### 2018 RESULTS

- ALL countries are up to date with their World Organisation for Animal Health (OIE) aquatic disease reporting.
- Screening of OIE notifiable diseases undertaken in 3 PICTs.  
**Countries:** *Cook Islands, Fiji, French Polynesia, Kiribati, Marshall Islands, FSM, New Caledonia, Palau, PNG, Samoa, Tonga and Vanuatu*
- Import/export standards for aquatic live organisms and aquatic products have been developed/updated.  
**Countries:** *Vanuatu, New Caledonia, French Polynesia, RMI, PNG, Solomon Islands and Tonga*
- Import Risk Analysis have been completed for the introduction of Pacific threadfin (Moi) and milkfish from RMI to Kiribati.
- Import Risk Analysis have been completed for the introduction of the ornamental fish koi carp into PNG from Singapore and Malaysia.
- Import standards have been developed for the introduction of goldfish from Singapore to Vanuatu.  
**Countries:** *Marshall Islands, PNG and Vanuatu*

## Objective 4: Identify sustainable livelihood options for nearshore fisheries

### Key Results Area 4.1: Test and develop innovative small-scale subsistence and commercial fishing opportunities

*NFD section within FAME responsible for this Results Area*

#### 2017 RESULTS

- Post-disaster rehabilitation projects in Fiji, Vanuatu and Solomon Islands with technical assistance, gear provision and training provided in support of FAD work, alternative fishing methods and catch monitoring;
- Feasibility study of marine-based ecotourism and sport fishing development in Kayangel State (Palau);
- Procurement of emergency grab bags and distribution facilitated for Fiji, Vanuatu, Palau and Solomon Island;
- FAD projects implemented in Fiji, RMI, Samoa, Solomon Islands;
- Training on small boat safety and FAD fishing delivered in Fiji, Niue, Palau, Solomon Islands;
- Advisory services on FAD technology provided to FSM (Kosrae), Tokelau, Vanuatu, Kiribati and Solomon Islands; and
- Developing Policy Brief on sustainable national FAD programmes produced.

**Countries:** *Fiji, FSM, Kiribati, Niue, Palau, RMI, Samoa, Solomon Islands, Tokelau and Vanuatu*

#### 2018 RESULTS

- SPC distributed 66 grab bags (110 full emergency grab bags to Solomon Islands and 56 small mini grab bags to Vanuatu). SPC also contributed additional gear to compliment 60 mini grab bags for canoe fishing in Niue.
- Cost benefit analysis undertaken for the Tuvalu emergency grab bag programme and a promotional leaflet on the grab bag produced
- SPC deployed total of eight (8) FADS (7 in Vanuatu funded through the ADB/CI project and one in Cook Islands funded through NFDS/MMR cost-sharing arrangement)
- Capacity-development in FAD work for national fisheries staff in Cook Islands and Wallis & Futuna
- Development of national anchored FAD plans facilitated for Palau, Kiribati and Samoa and FAD monitoring project funded and facilitated in Kadavu (Fiji)
- Diamond-back squid fishing trials successfully completed in Tonga as an alternative fishing method to deep-water snapper fishing; trial tuna mini-longline fishing organized and scheduled for early 2019 in Tonga
- Training in small-pelagic fishing around inshore FADs conducted in Malakula (Vanuatu)
- 'Vaka' fishers in Niue training in alternative canoe fishing methods and small craft safety

**Countries:** *Cook Islands, Fiji, Niue, Palau, Solomon Islands, Tonga, Tuvalu, Vanuatu, Wallis and Futuna*

### Key Results Area 4.2: Improve fish handling practices and promote value-added marine products

*NFD & SAM sections within FAME responsible for this Results Area*

#### 2017 RESULTS

- Five on-board tuna handling workshops delivered to small-scale fishers in Fiji and Palau (88 males trained )

**Countries:** *Fiji and Palau*

#### 2018 RESULTS

- In 2018, SPC deployed total of eight (8) FADS (7 in Vanuatu funded through the ADB/CI project and one in Cook Islands funded through NFDS/MMR cost-sharing arrangement).
- Empowering of women in Malakula (Vanuatu) through training in net construction and repairs, fishing gear construction and fish processing and preservation
- Local small-scale fishers trained in on-board catch handling (Wallis and Futuna and Niue)

**Countries:** *Cook Islands, Niue, Vanuatu, Wallis and Futuna*

## Outcome 3: Information and capacity development empowers Pacific people to manage their fisheries

### Objective 5: Provide, and facilitate access to, fisheries information

#### Key Results Area: 5.1 Develop information and knowledge products

*FEMA, DM, SAM, AQ, NFD, CFSM & IM sections within FAME responsible for this Results Area*

##### 2017 RESULTS

- Production of six posters, four scientific reports and five technical manuals (3 of which in local languages)  
**Countries:** *New Caledonia, Samoa, Tonga, Tuvalu, Wallis & Futuna*
- Production of three SPC Fisheries Newsletters (in English and French), two Biopelagos newsletters (in French) and three special interest bulletins on Women in Fisheries, Traditional marine resource management and Beche-de-mer
- Publication of the 'Western and Central Pacific Tuna Fishery overview on the status of stocks, 2016'
- Free mobile application developed for coastal species identification (*PacFishID*). The app has already had 8,500 downloads since its March 2017 release (3,350 installations for Android and 5,193 downloads for Apple IOS).  
**Countries:** *Regional (ALL PICTs)*

##### 2018 RESULTS

- Production of five posters, nine scientific reports and one 'Information kit on fisheries for Kiribati teachers'. This is the third such kit that has been developed in partnership with national administrations (Cook Islands 2014, Vanuatu 2016)  
**Countries:** *Cook Islands, French Polynesia, FSM, Kiribati, Solomon Islands, Tonga, Wallis & Futuna*
- Production of three SPC Fisheries Newsletters (in English and French), three Biopelagos newsletters (in French) and three special interest bulletins on Women in Fisheries, Traditional marine resource management and Beche-de-mer
- Publication of the 'Western and Central Pacific Tuna Fishery overview on the status of stocks, 2017' and the 'Handling of seafood in the Pacific - Information sheets for fishers, vendors and consumers'
- Addition of a deep bottom fish species dataset to the PacFish ID app.  
**Countries:** *Regional (ALL PICTs)*

#### 5.2 Facilitate information management and circulation

*Information Management (IM) sections within FAME responsible for this Results Area*

##### 2017-18 RESULTS

- Maintenance of FAME digital library (>11,500 documents) to facilitate access to all documents produced by, for or in collaboration with FAME (474 docs added to the DL in 2017 – 305 in English, 118 in French and 51 in local languages – and 420 docs added in 2018 – 330 in English, 84 in French and 6 in local languages. >190,000 downloads in 2017 and >290,000 in 2018, excluding downloads from crawlers.
- Maintenance of Fame website to facilitate access to FAME information or events via quick links, thematic menus, a calendar of events and news.
- Dissemination of thousands of copies of FAME-produced documents throughout the region, in response to specific country demands or as part of regional awareness campaigns.  
**Countries:** *ALL (PICTs)*

## Objective 6: Support capacity development in fisheries and aquaculture among PICTs

### Key Results Area 6.1: Design, deliver and quality assure regional vocational training in fisheries

*Information Management (IM) sections within FAME responsible for this Results Area*

#### 2017 RESULTS

- There are now a total of 11 national observer trainers (4 are full time trainers, 7 are employed by national fisheries as observer coordinators and observer officers), including 5 PIRFO Trainer and Assessors, and 41 national debriefer assessors, which allows observer training to be increasingly delivered by national trainers through PIRFO recognized national maritime schools.

**Country:** *Regional (ALL PICTs)*

#### 2018 RESULTS

- 47 participants (44 males, 3 females) participated in in the Certificate IV in training, evaluation and assessment run by PIRFO in partnership with USP.
- 16 participants (10 males and 6 females) participated in the Certificate IV in Coastal Fisheries and Aquaculture Compliance. 2018 was the first year that this Certificate IV has been offered.

**Country:** *Regional (ALL PICTs)*

### Key Results Area 6.2: Enhance capacity development in science, technology, data management, analysis and advice

*Information Management (IM) sections within FAME responsible for this Results Area*

#### 2017 RESULTS

- 75 new observers were trained (73 males, 2 females). In total, the PIRFO program has now trained 898 of observers from PICTs.
- 44 new debriefers were trained (39 males, 5 females); 8 new trainee trainers were trained; and, 21 new debriefer assessors were trained.

**Country:** *Regional (ALL PICTs)*

#### 2018 RESULTS

##### Regional Observer Programme

- 33 (32 males and 1 female) debriefer trainings were conducted. The debriefer trainings including biological sampling debriefer and sub-regional Part C debriefing.
- 17 participants (all male) participated in the Shark Tagging training.
- 143 participants (135 males and 8 female) completed training as part of the Pacific Islands Regional Fisheries Observer (PIRFO) programme.

##### Data Management and Use

- 81 participants (44 males, 37 females) participated in various Oceanic Fisheries Data Management training (including the use of SPC-developed data management platform *TUFMAN2*, and data entry applications *Tails* and *OnBoard*).
- 6 participants (4 males and 2 females) participated in the Coastal Fisheries Data Management training.

##### Coastal Fisheries Science and Management (CSFM)

- 41 participants (24 males and 17 females) participated in the development of Coastal Fisheries Policies and Management Plans, coastal fisheries and aquaculture legislation and community-based management plans

### Capacity Building in Aquaculture

- 142 participants (95 males and 47 females) participated in various aquaculture capacity building trainings and mentoring sessions - including Aquatic Biosecurity trainings, mentoring and demonstrations in hatchery constructions and operations (Giant Clam, Tilapia, Sandfish and Oyster) and techniques in Beche-de-mer processing.

### Monitoring, Control and Surveillance (MCS)

- 16 participants (10 males and 6 females) from four countries (Fiji, Kiribati, Solomon Islands and Tonga) participated in CFA MCS 1<sup>st</sup> cohort training
- 12 participants (9 males and 36 females) from Kiribati participated in the MCS skills and competencies Stage 1 & 2

**Countries:** *Fiji, Kiribati, Solomon Islands and Tonga*

- The independent final evaluation of the Pacific Fisheries Training Programme (PFTP) in 2018 found that the extent to which learning from PFTP funded training has been applied by participants after 1-2 years later was high, among the highest from any programme the lead evaluator has reviewed.

**Countries:** *Regional (ALL PICTs)*

- In 2018, about 96% of participants in FAME training indicated they gained new knowledge from training (Cert IV in Fisheries and Aquaculture Compliance, Marine Finfish Parasite, Freshwater Parasite, Fisheries Policy and Management Plans and Sub-Regional Electronic Monitoring).

**Countries:** *Regional (ALL PICTs)*