

# The history of SPC's involvement in fisheries development in the Pacific

## Part 2: The 21<sup>st</sup> century

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### Preamble

*This is the second part of an article related to the Pacific Community's (SPC) involvement in fisheries development in the Pacific<sup>2</sup>, focusing on the coastal fisheries sector. The first article described the first SPC fisheries-related activities in the early 1950s, which were followed by numerous projects that eventually led to the establishment of the now renowned Coastal and Oceanic Fisheries Programmes.*

More changes to the structure and focus of the Coastal Fisheries Programme evolved in the early 2000s in line with the changing needs of the Pacific Island countries and territories (PICTs). The Capture Section became the Fisheries Development Section in 2000 and then the Nearshore Fisheries Development section in 2005, while it was amalgamating with the Training Section. An Aquaculture section was established in 2002 for the first time, while the Fisheries Information Section remained the same. The biggest changes, though, were with Coastal Fisheries Science and Management, which split into separate science and management activities, respectively, from 2000 to 2009 (this included focusing on community-based management, which integrated women-in-fisheries-related activities, therefore replacing the Women's Fisheries Development Project). In 2009, they came back together as the Coastal Fisheries Science and Management Section as a result of specific funding for projects, while certain changes and structural issues were also factors.

The Marine Resources Division, which includes the Coastal Fisheries Programme, changed its name to the Fisheries, Aquaculture and Marine Ecosystems (FAME) Division in 2009, to better reflect the actual work undertaken by the division. In 2009, at the 6<sup>th</sup> Heads of Fisheries meeting in Noumea, the first Strategic Plan (2010–2013)<sup>3</sup> for the FAME Division was developed with input from the members, PICTs and donors. The second Strategic Plan (2013–2016)<sup>4</sup> evolved from the first, and at the next Heads of Fisheries meeting, a 'living document' was presented for discussion along with annual work plans that had been developed for agreement at this meeting. At the 9<sup>th</sup> Heads of Fisheries meeting in 2015, a review of this

Strategic Plan was undertaken; however, given the corporate changes underway within SPC, such divisions would, in future, have 'Business Plans' under the one SPC Corporate Strategic Plan. It is envisioned that the first FAME Business Plan will go to the 10<sup>th</sup> Heads of Fisheries meeting that is scheduled for March 2017 for endorsement, along with the proposed work plans for the programmes for 2017–2018. All of these documents can be found on the SPC FAME website<sup>5</sup>.

### Nearshore Fisheries Development Section (NFDS)

During the early 2000s, the main focus remained on providing technical assistance with the developing of domestic tuna longline operations in many countries. Assistance was provided in fishing methodology, handling and preservation of the catch to meet export standards, as well as some fishing trials on new boat designs, such as the Samoan 'Super Alia', along with several vessels in Nauru and a vessel in Papua New Guinea (PNG). A series of studies were also undertaken in collaboration with the Forum Fisheries Agency (FFA) to assess the development options and constraints, including training needs and infrastructure requirements, within the tuna fishing industry and support services in 10 countries, with a focus on domestic development of longlining and small-scale fishing around fishing aggregating devices (FADs). In support of domestic tuna longlining development in PICTs, the NFDS produced a manual *Horizontal longline fishing methods and techniques: a manual for fishermen*<sup>6</sup> in 2003.

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<sup>2</sup> The first part of the article is available from: [http://www.spc.int/DigitalLibrary/Doc/FAME/InfoBull/FishNews/150/FishNews150\\_52\\_Chapman.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/InfoBull/FishNews/150/FishNews150_52_Chapman.pdf)

<sup>3</sup> [http://www.spc.int/fame/doc/corporate\\_docs/FAME\\_StrategicPlan.pdf](http://www.spc.int/fame/doc/corporate_docs/FAME_StrategicPlan.pdf)

<sup>4</sup> [http://www.spc.int/DigitalLibrary/Doc/FAME/Corporate/FAME\\_Strategic\\_Plan\\_2013\\_2016.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/Corporate/FAME_Strategic_Plan_2013_2016.pdf)

<sup>5</sup> <http://www.spc.int/fame/>

<sup>6</sup> [http://www.spc.int/DigitalLibrary/Doc/FAME/Manuals/Beverly\\_03\\_HLL.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/Manuals/Beverly_03_HLL.pdf)



To reduce fish aggregating device cost, the feasibility of setting mid- to shallow water FADs from small crafts was assessed – Solomon Islands, 2011 (image: William Sokimi).

FADs and FAD fishing skills continued to be a focal area for assistance, with regular requests for assistance. Research continued on FADs, and a study was undertaken in Niue, and in Rarotonga and Aitutaki in the Cook Islands, to trial different mooring designs for suitability, aiming for a minimum two-year lifespan for moored FADs. Additionally, a data collection system was implemented so a cost benefit analysis could be undertaken on the effectiveness of the FADs and the catch taken from around them, as opposed to other trolling on free schools or around the reef. Good results were obtained and presented in Fisheries Newsletters 112<sup>7</sup> and 113<sup>8</sup> in 2005. In regard to the FAD mooring designs trialled during this project, a publication *Manual on fish aggregating devices: low-cost moorings and programme management*<sup>9</sup>, was produced in 2005.

There were two major small-scale tuna fishery development projects, the 'Development of tuna fisheries in the Pacific ACP<sup>10</sup> countries (DevFish – July 2005 to December 2009)' and the 'Development of tuna fisheries in the Pacific ACP countries Phase II (DevFish 2 – November 2010 to March 2016)'. Both projects were a collaboration, where the Forum Fisheries Agency (FFA) acted as the lead agency looking after the industrial tuna fishery, while SPC's focus was on small-scale operations. They also had the same objectives: to foster the expansion of domestic tuna fishing operations (catching and

processing), encourage the participation of the private sector in tuna fishery development and management planning and policies through stronger fishing associations, and provide technical assistance in support of fishing associations and small-scale fishing operations. These projects were very successful and increased input to the development of tuna fisheries management plans and policies by the private sector at the national and regional levels.

From the late 2000s onward, assistance to domestic tuna longlining activities slowed; however, the assistance on FADs and FAD fishing, including sea safety, continued. The NFDS also started looking at other alternative fishing activities, such as fishing for small pelagic fish, sports-fishing and fishing for the large diamond-back squid. Diamond-back squid fishing trials were undertaken in New Caledonia, Cook Islands, Fiji and French Polynesia, with good catches, although now the issue will be finding suitable markets and developing management arrangements to avoid overfishing before the fishery becomes commercial. Fishing for small pelagic species by using an Indonesian 'bagan' fishing method (use of a lift net at night with light attraction) was undertaken in the Marshall Islands, Kavieng in PNG and Tarawa in Kiribati, with mixed results, but there is a growing regional interest for this fishing method that targets a short-lived, fast-growing resource.

<sup>7</sup> <http://www.spc.int/coastfish/en/publications/bulletins/fisheries-newsletter/255-spc-fisheries-newsletter-112.html>

<sup>8</sup> <http://www.spc.int/coastfish/en/publications/bulletins/fisheries-newsletter/254-spc-fisheries-newsletter-113.html>

<sup>9</sup> [http://www.spc.int/DigitalLibrary/Doc/FAME/Manuals/Chapman\\_05\\_FAD\\_New.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/Manuals/Chapman_05_FAD_New.pdf)

<sup>10</sup> African, Caribbean and Pacific Group of States (ACP). The Pacific ACP countries are : Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Solomon Islands, Samoa, Tonga, Tuvalu and Vanuatu

Good results were obtained for the sports-fishing trials, which have been undertaken in Niue, New Caledonia, Kavieng in PNG, Kiribati, Palau and Aitutaki in the Cook Islands. The Aitutaki work was most pleasing, as some of the main gillnet operators changed their activities to become fishing guides, which provided them with more income compared with their gillnetting operation. In addition to this, it has relieved fishing pressure on the bonefish resource, one of the main species targeted by sports-fishers. Furthermore, NFDS has continued its sea safety campaign, with the development of sea safety 'grab bags' that are waterproof bags containing a set of specific sea safety equipment including inflatable life jackets, a personal locator beacon (PLB) and a VHF radio. There is growing acceptance of these as fishers become more responsible for their own safety when fishing outside the reef.

NFDS also continued with the operation and organisation of training activities, including the long-running practical fishing module of the Nelson course which is now conducted annually at the Vanuatu Maritime College in Santo and combines practical training in sea safety, financial management and small-scale fishing methods. Other workshops were conducted both nationally and regionally,

some specifically for women, such as running a small business or business skills and post-harvest technologies, FAD fishing skills workshops, and small boat operating workshops including sea safety measures. Several regional workshops were also conducted on FAD designs, which bring together researchers and technicians to assess the designs currently used. The most recent workshop was held in 2016.

## Fisheries Information Section

The Fisheries Information Section produces the 'SPC Fisheries Newsletter', which has been instrumental in gathering and sharing fisheries information in the region since its inception in 1970. In 2000 a new format for the Fisheries Newsletter was launched, although the main categories of information remained similar and covers the activities undertaken by SPC fisheries staff, news from around the region, research results and other highlights of importance to the region. Issues 92 (January to March 2000) to 150 (May to August 2016) were produced at a rate of three to four issues per year. The Newsletter remains the face of the FAME Division, showcasing what is happening in the region in fisheries.



Getting the information all the way to the targeted audience can be a challenge. Hugh Govan, from the Locally-Managed Marine Area (LMMA) Network, carries samples of SPC's *Guide and information sheets for fishing communities* to Su'u village, Solomon Islands – 2015 (image: J. van der Ploeg, WorldFish).

The Section has also continued to produce the special interest group bulletins, which entails up to 10 topics and two issues per year, although this has dropped back to 5 topics as some were not as relevant anymore. The section has also produced a series of fish posters<sup>11</sup>, with the first done in 2002 for Tonga. The posters differ from country to country, covering common reef fish, invertebrates and pelagic species. In support of this, over 400 fish paintings were commissioned to ensure a high-quality product for printing. The fish illustrations have been used for many other publications that are produced to facilitate marine species identification, which is an essential tool for fisheries management, such as the *Marine species identification manual for horizontal longline fishermen*<sup>12</sup> in 2006 and the *Fish species identification manual for deep-bottom snapper fishermen*<sup>13</sup> in 2008.

The Fisheries Information Section responds to specific requests from members for assistance with formatting and laying out different publications, such as fishery management plans, policies, information materials, posters and awareness raising materials.

The Section also does the formatting and layout for the FAME series of 'Policy Briefs'<sup>14</sup> on fisheries topics of importance to the region. A new activity undertaken in collaboration with NFDS was the development of educational materials that can be used in schools by teachers to highlight the importance of fisheries and the need for sustainable management of these resources in their lessons.<sup>15</sup> These include fact sheets on different species and different fisheries produced for the Cook Islands and Vanuatu.

An outstanding service that the Fisheries Information Section has provided for the region is the digitisation of materials and the development of the FAME 'Digital Library'.<sup>16</sup> This commenced in 2005 as a collaboration between the Fisheries Information Section, the SPC Library and the Coastal Fisheries Science and Management Section, where all documents were gathered – manuals, reports, etc. that had been produced by, for or in collaboration with SPC's fisheries programmes over the years – for scanning in order to make the materials searchable. It was a long process that has made all of these documents available to the public through the SPC FAME website. At present, FAME's Digital Library contains over 10,000 documents, and is updated regularly with the annual addition of 350–450 documents.

## Aquaculture Section

SPC recruited its first Aquaculture Adviser in 2002, whose first task was the organising of an inaugural SPC aquaculture meeting 'Building capacity for aquaculture in the Pacific', in March 2002. The outcomes of the workshop formed part of the first Aquaculture Action Plan (2002) for implementing the new SPC Regional Aquaculture Programme. The objectives of the workshop were to benchmark the status of aquaculture in the SPC region; advance networking among aquaculturalists in the region and interested parties from outside the region; and select a short-list of aquaculture commodities that would become the primary focus of SPC's work. Prior to this new initiative, SPC's involvement in aquaculture had been limited to a few small collaborations with other partners, but the time became right for SPC to become more engaged, as many PICTs were seeking assistance in this area.

During the first few years of operation, funding was gained to allow the Aquaculture Programme to expand, with two aquaculture officers – one for fresh-water aquaculture and the other for salt-water mariculture. Immediately, PICTs started to request technical assistance, which covered a range of aspects, from how to construct ponds for tilapia to growing seaweed, and how to grow fresh-water prawns or shrimp. A lot of the early work also was focused on the pearl industry, where French Polynesia and Cook Islands were well established, but other PICTs requested assistance to develop this industry for them, although some were not successful.

The Section moved from strength to strength with many activities promoting aquaculture, for example: a study tour of Fiji aquaculture, which included tilapia farms, fresh-water prawn farms, and the pearl industry in Savusavu; a feasibility study on the potential for farming fresh-water shrimp in PNG; a regional training workshop in tilapia and fresh-water shrimp aquaculture; a review of hatcheries, including new designs for specific commodities; a study tour of mud crab culture in the Philippines; the culture of corals for the aquarium trade; and regional meetings on seaweed and pearls. The section also participated in annual meetings of the Network of Aquaculture Centres Asia-Pacific (NACA), to gain experience from activities in Asia, where aquaculture is a major industry, and to provide other with some Pacific experiences.

<sup>11</sup> <http://www.spc.int/coastfish/en/publications/posters/marine-species.html>

<sup>12</sup> <http://www.spc.int/coastfish/publications/341>

<sup>13</sup> <http://www.spc.int/coastfish/publications/339>

<sup>14</sup> <http://www.spc.int/coastfish/en/publications/brochures/policy-briefs.html>

<sup>15</sup> <http://www.spc.int/coastfish/en/publications/brochures/kit-for-teachers.html>

<sup>16</sup> <http://www.spc.int/fame/en/publications/digital-library>



Tamaroa, community farmer, releasing hatchery-produced juvenile sea cucumbers (sandfish) in sea pens for further grow-out – Abaiang, Kiribati, 2016 (image: Beero Tioti).

In 2006, the SPC Second Regional Aquaculture Meeting was convened in order to build on the work of the first meeting in 2002. As a result, the second SPC Aquaculture Action Plan 2007<sup>17</sup> was produced as a guide document for aquaculture development in the region, including SPC, and identified the main commodities with potential for cultivation in the region. There was growing interest in seaweed in countries like Fiji and Kiribati, especially in remote locations, as the processed commodity could be stored in a shed for months before marketing. Spat collection of various species that could be grown-out in aquaculture facilities also became an area of interest.

In 2010, the SPC Aquaculture Adviser compiled aquaculture statistics in the publication *A review of aquaculture in the Pacific Islands, 1998–2007: tracking a decade of progress through official and provisional statistics*<sup>18</sup>, which clearly showed the main centres of activity for aquaculture, with volumes and values of commodities. French Polynesia's pearl industry was by far the most successful by value, while the prawn/shrimp aquaculture industry in New Caledonia was second value, and first in volume. The production of these two territories represented around

80 per cent in volume and 80–90 per cent in value of all PICTs' aquaculture production.

In more recent years, the production levels of French Polynesia and New Caledonia have declined for different reasons, while in other countries like Fiji, aquaculture production has increased, but with lower-value commodities. A major study was commissioned through SPC in 2012 titled 'Opportunities for the development of the Pacific Islands' mariculture sector'.<sup>19</sup> The findings of the report were that most of the mariculture and aquaculture in the Pacific in the past had been based on research rather than economic viability, with a lot of subsidies through the public sector, and recommended that future aquaculture ventures should be based on economically viable operations through private sector development.

The mariculture review was timely, as SPC had several aquaculture projects underway from 2010 to 2015, including the 'Fisheries and food security' project and the 'Increasing agricultural commodity trade' (IACIT) project, which focus on economically viable aquaculture and provide assistance to the private sector. Both projects had

<sup>17</sup> [http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon\\_07\\_SPC\\_Aquaculture\\_Action\\_Plan.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon_07_SPC_Aquaculture_Action_Plan.pdf)

<sup>18</sup> [http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Ponia\\_10\\_AquacultureReview.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Ponia_10_AquacultureReview.pdf)

<sup>19</sup> [http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/HambreyConsulting\\_12\\_MaricultureReport.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/HambreyConsulting_12_MaricultureReport.pdf)

positive results with encouraging advancements in private sector aquaculture in Fiji, PNG, Palau and Vanuatu. The mariculture production of sandfish, a sea cucumber species, has resulted in community-based grow-out of these in cages in Kiribati, and commercial production in ponds in New Caledonia. This is a high-value species, known as beche-de-mer in the processed form, and marketing trials will soon be undertaken. In late 2016, a new aquaculture project commenced, focussing on technical assistance, mainly to the private sector, for economically viable operations and also to provide support for aquatic biosecurity, for imported and exported marine products.

## Coastal Fisheries Science and Management (CFSM) Section

As mentioned above, science and management were undertaken by separate groups in the early 2000s, mainly due to funding streams where management had ongoing funding, while science was on a project to project basis. In 2003, the *Strategic plan for fisheries management and sustainable coastal fisheries in PICTs* was endorsed by the Heads of Fisheries. This document provided the basis for SPC's community-based management activities in PICTs, through training and workshops, and focused on training fisheries officers via hands-on community consultations in order to develop community specific management plans. In 2007 and 2008, this strategic plan was reviewed through a series of consultations with the Heads of Fisheries, and a new guiding document or policy for the region was developed, the *Pacific Islands regional coastal fisheries management policy and strategic actions (2008–2013) – the Apia Policy*<sup>20</sup>. This again had a focus on community-based fisheries management using a holistic or 'ridge-to-reef' approach, which guided the work of the section during many in-country assignments.

Funding for a new coastal fisheries science project came online in late 2001, and the 'Pacific regional oceanic and coastal fisheries development programme – PROCFish/C' commenced in early 2002, covering eight Pacific ACP countries and the three French territories. Two years later the 'Pacific regional coastal fisheries development programme – CoFish' commenced as a complementary project to include the remaining six Pacific ACP countries. Both projects concluded at the end of 2009. These projects surveyed finfish and invertebrate resources, and habitat through underwater visual census methods as well as socio-economic surveys on community and household demographics, and fisher patterns at 63 sites across 17 PICTs. This was a massive undertaking and local fisheries staff members in all PICTs received training

in all survey methods undertaken in their country. In many cases, the data obtained from this work provided the first assessment of the resources in these sites, and a baseline for future surveys and assessments, through the specific country reports and regional assessment.<sup>21</sup>

In 2010, the community-based management and science activities were amalgamated into a single section, and the science moved away from the pure assessment focus of the PROCFish/C and CoFish projects, to be more focused on answering management needs. In 2010, the 'Scientific support for the management of coastal and oceanic fisheries in the Pacific region – SciCOFish' project commenced, and ran until the end of 2015. The coastal component of this project was focused on answering management needs of the 14 Pacific ACP countries and Timor-Leste, and the main focus was on commercial invertebrate species – in particular, sea cucumbers (beche-de-mer). With an integrated science and management approach, project staff members trained their national counterparts in the survey methodologies to assess the resource in question, worked with them to undertake some surveys, and then left them to continue survey work with their new skills. Once adequate data was collected, two staff members were brought to Noumea to enter, clean, analyse and interpret the data, and then turn the results into management advice to be implemented back in their countries.

The approach was very successful with 10 Pacific ACPs using the standard monitoring protocols developed by the project, and a manual *Assessing tropical marine invertebrates – a manual for Pacific Island resource managers*<sup>22</sup> was produced in 2014. On the management side, a series of information sheets, brochures, posters and a *Guide and information sheets for fishing communities*<sup>23</sup> were produced with the Fisheries Information Section, so community-based fisheries management practitioners had the basic information needed to make informed decisions about their coastal resources and what they could do to manage them. This information was developed in collaboration with the Locally-Managed Marine Area (LMMA) Network, an NGO working across the Pacific promoting and assisting countries with community-based fisheries management.

There were two other significant science projects undertaken during this period. The development and management of the aquarium trade with several projects during 2002 to 2015, and a scientific monitoring project where pilot study sites set up in five countries around the region. The aquarium trade work covered sustainable harvesting, surveys to assess harvestable stocks and species, the promotion of best practices to minimise mortality at all stages from capture to marketing, and sustainable management

<sup>20</sup> [http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon\\_2008\\_ApiaPolicy.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon_2008_ApiaPolicy.pdf)

<sup>21</sup> <http://www.spc.int/coastfish/en/projects/procfish.html>

<sup>22</sup> [http://www.spc.int/DigitalLibrary/Doc/FAME/Manuals/Assessing\\_tropical\\_marine\\_invertebrates.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/Manuals/Assessing_tropical_marine_invertebrates.pdf)

<sup>23</sup> <http://www.spc.int/coastfish/en/publications/brochures/kit-for-communities.html>



The PROCFish project activities included hundreds of dives to assess finfish and invertebrate resources at 63 sites across 17 Pacific Island countries and territories – Yap, Federated States of Micronesia, 2009 (image: Kalo Pakoa).

of these wild capture activities. The scientific monitoring project ran from 2010 to 2014, in order to undertake standard surveys for finfish and invertebrate resources, habitats including photo coral quadrats, collecting water temperature data, and, in the second round of surveys, creel surveys to collect data on actual catches including biological data for age and growth, plus genetic work on particular species. The aim was to try to detect changes in the marine environment that could be directly attributed to climate change, as opposed to other factors such as pollution, siltation, over fishing, etc. Two surveys have been completed at each of the five pilot sites, with reports produced for each survey<sup>24</sup>. More surveys need to be undertaken over time to fulfil the overall aim of this project.

The Coastal Fisheries Programme produced two coastal fisheries status reports; one in 2008<sup>25</sup> and the other in 2013<sup>26</sup>. These were based on the best scientific data available at the time. Unfortunately, there is insufficient data on coastal fisheries to allow for a comprehensive assessment. The results in both reports indicate that coastal resources in many PICTs are overfished, and that sound adaptive management is needed to maintain catches within sustainable limits. The sea cucumber resource is a key example, with gross overfishing across the region, which has resulted in moratoria being put in place in many countries in order to allow this resource to recover. Yet some people

still fish sea cucumber illegally, so management measures seem ineffective and need to be strengthened.

In March 2015, SPC hosted a major workshop about community-based management, which brought together around 100 participants from fisheries departments and conservations departments from all PICTs, researchers, donors, regional organisations, NGOs and community practitioners of community-based management. The aim was to develop a way forward for coastal fisheries management, as the 'Apia Policy' had expired, and a new regional strategy was needed. The result of the workshop was the development of *A New Song for coastal fisheries – pathways to change: the Noumea Strategy*<sup>27</sup>, as the guiding strategy for SPC and PICTs. The 'New Song' was endorsed by the Heads of Fisheries and the Ministerial Forum Fisheries Committee meeting in 2015.

In a parallel process, FFA and SPC have produced *A regional roadmap for sustainable Pacific fisheries*<sup>28</sup> in consultation with PICTs in 2015. This was a follow-up to the 'Future of fisheries study' undertaken in 2010. The roadmap better defines what is achievable over the next 10 years, with clear goals for both oceanic and coastal fisheries. Both sectors will provide annual 'report cards' to the Forum Leaders, with coastal fisheries 'report cards' produced in 2015 and 2016.<sup>29</sup>

<sup>24</sup> <http://www.spc.int/coastfish/en/projects/climate-change.html>

<sup>25</sup> [http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon\\_08\\_FisheriesStatusReport.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon_08_FisheriesStatusReport.pdf)

<sup>26</sup> [http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon\\_13\\_Status\\_Report.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon_13_Status_Report.pdf)

<sup>27</sup> [http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon\\_2015\\_New\\_song\\_for\\_coastal\\_fisheries.pdf](http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon_2015_New_song_for_coastal_fisheries.pdf)

<sup>28</sup> <http://www.spc.int/coastfish/en/publications/467>

<sup>29</sup> [http://www.spc.int/coastfish/index.php?option=com\\_content&Itemid=30&id=467](http://www.spc.int/coastfish/index.php?option=com_content&Itemid=30&id=467)

In late 2016, new funding allowed the CFSM Section to expand its areas of expertise into coastal fisheries and aquaculture legislation; monitoring, control, surveillance and enforcement (MCS&E), and policies and management plans. Legislation and MCS&E are new areas that focus on strengthening national and sub-national governance structures, and, where practical, in collaboration with partners, such as FFA and the New Zealand Ministry of Primary Industries. The CFSM Section is also continuing to strengthen scientific support to PICTs, and has just published an *Identification guide to the common coastal food fishes of the Pacific Islands region*<sup>30</sup> in support of more accurate data collection, mainly through fisher interviews, and market and creel surveys.

## Concluding remarks

The development of coastal fisheries over the last 70 years has been one of evolution, taking on new technologies, in boats, outboard motors, fishing methods and equipment, and SPC has provided assistance over the decades. This evolution has been at different rates among PICTs, as each strives to meet its aspirations in support of economic development, food security and small-scale livelihoods. Even though concerns have been expressed in regard to overfishing in some countries or locations since the 1960s, the drive toward further development has continued, including the use of rural fishing centres where fish are caught and transported to the main urban centres for marketing.

When looking at the state of coastal fisheries in PICTs in 2016, it appears that the national focus continues to be on development, and many governments feel there is still scope to further develop coastal fisheries for economic development. Unfortunately, this is not the case, and there is a desperate need for PICT governments to move away from development aspirations in coastal fisheries, and focus more on sustainable management to preserve the remaining reef and lagoon fish, and invertebrate stocks so that they will continue to be productive in the future. Development should only be focused on pelagic species outside the reef or new stocks, such as diamond-back squid or small pelagic species, but only if management arrangements are put in place first to control development within sustainable limits. Aquaculture will continue to expand in some countries, and it will help to fill the growing demand for seafood products, but it cannot

produce the amount needed over the next decade to meet the demands of a growing population.

*A New Song for coastal fisheries – pathways to change: the Noumea Strategy and the Regional roadmap for sustainable Pacific Fisheries* provide a direction for what is needed for PICTs to sustainably manage their coastal resources for future generations. SPC is committed to assisting the implementation of the 'New Song' and 'Regional Roadmap', as they were developed by PICTs for PICTs in 2015. They set a path of change that is needed if coastal resources are to be available to future generations of Pacific Islanders, so that they can enjoy the same level of fish consumption per capita as today and so that long-term food security can be achieved on a country by country basis.

In 2015, SPC commissioned the *Fisheries in the economies of Pacific Island countries and territories*<sup>31</sup> study, which was the third in a series of studies to assess progress in the fishing industry. This report has provided a new baseline of the value of fisheries to PICTs, both for measuring achievements and areas of improvement. It documents change in management of the Pacific tuna fishery, food security concerns for coastal fisheries in the face of growing populations, and the flow-on effects to PICTs' economies. The lack of up-to-date coastal fisheries data was an issue and the final result was a small increase in catch in the coastal fisheries sector, but a large increase in fishing pressure, which is a clear indication of overfishing, which needs to be managed.

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<sup>30</sup> <http://www.spc.int/coastfish/en/publications/465>

<sup>31</sup> <http://www.spc.int/Coastfish/en/component/content/article/462-benefish-study-2016.html>

<sup>32</sup> <http://www.spc.int/fame/en/fame-digital-library>

<sup>33</sup> <http://www.spc.int/en/featured-publications.html>

<sup>34</sup> <http://www.spc.int/coastfish/en/publications/bulletins/fisheries-newsletter.html>