Strategic Action Programme for the Sustainable Management of Living Oceanic Resources by the Small Island Developing States of the Western and Central Pacific

Table of Contents

Declaration of Commitment by the Pacific Small Island Developing States

Recalling our obligation to the Western and Central Pacific Fisheries Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean as entered into force on 19 June 2004,

Further recalling the recognition given by that Convention to the ecological and geographical vulnerability of the Small Island Developing States, territories and possessions in the region, their economic and social dependence on highly migratory fish stocks, and their need for specific assistance, including financial, scientific and technological assistance, to allow them to participate effectively in the conservation, management and sustainable use of the highly migratory fish stocks,

Cognisant of the successful and pioneering work undertaken since then by the Commission to this Convention and its subsidiary bodies in maintaining a sustainable fishery for highly migratory fish stocks, including the Forum Fisheries Agency,

Conscious of the continuing requirement for effective conservation and management measures to apply the precautionary approach for adaptive management and an ecosystem-based approach to fisheries, using the best scientific information available,

Committed to the objective of delivering on the targets set within the United Nations Sustainable Development Goal 14 to conserve and sustainably use the oceans, seas and marine resources,

Welcoming the continued support and resources provided by donors and other funding sources to assist in the development and support of such mechanisms and institutional arrangements,

Noting the findings and recommendations of the 2018 Transboundary Diagnostic Analysis of Oceanic Fisheries Management in the Western and Central Pacific,

Further Noting the Conclusions and Guidance from that Transboundary Diagnostic Analysis along with its proposed Priority Actions, which are further elaborated in the following document,

We, the undersigned Small Island Developing States and Forum Fisheries Agency Member States of the Western and Central Pacific Fisheries Convention Area and our partners, acknowledge and reiterate the commitments and understandings set out above. Furthermore, we recognise the need to fulfil a long-term vision to address a set of goals that will deliver and maintain a healthy, well-managed and valued ecosystem in the Western and Central Pacific supporting the sustainable use of living marine resources which provide food and economic security, resilience and benefits to the Pacific SIDs in the Convention Area. In recognition of which, we do now agree to participate in the implementation of the following **Strategic Action Programme for the Sustainable Management of Living Oceanic Resources by the Small Island Developing States of the Western and Central Pacific** and to cooperate between us and with other relevant agencies and bodies in delivering the Objectives and Outcomes defined in the Strategic Action Programme as they apply to each of our countries and territories.

Signature Page - For Endorsement by Ministers

PARTICIPATING COUNTRIES	SIGNATURE	DATE
COOK ISLANDS		
FEDERATED STATES OF MICRONESIA		
FIJI		
KIRIBATI		
REPUBLIC OF MARSHAL ISLANDS		
NAURU		
NIUE		
PALAU		
PAPUA NEW GUINEA		
SAMOA		
SOLOMON ISLANDS		
TONGA		
TUVALU		
VANUATU		
TOKELAU		

Acronyms and Abbreviations

ABNJ	Area(s) Beyond National Jurisdiction
BMIS	Bycatch Management Information System
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
CDS	Catch Documentation Scheme
CPUE	Catch Per Unit Effort
CMMs	Conservation and Management Measures
CROP	Council of Regional Organisations in the Pacific
Do	Dissolved Oxygen
EAF	Ecosystem Approach to Fisheries
EEZ	Exclusive Economic Zone
FAD	Fish Aggregating Device
FAME	Fisheries, Aquaculture and Marine Ecosystems Division of SPC
FAO	Food and Agricultural Organisation (of the United Nations)
FFA	Forum Fisheries Agency
FIMS	Fisheries Information Management system
FSM	Federated States of Micronesia
GDP	Gross Domestic Product
GEF	Global Environment Facility
GPS	Global Positioning System
HCR	Harvest Control Rules
IATTC	Inter-American Tropical Tuna Commission
ICWM	Integrated Coastal and Watershed Management
IMO	International Maritime Organisation
IOTC	Indian Ocean Tuna Commission
ISSF	International Seafood Sustainability Foundation
IUU	Illegal, Unreported and Unregulated
LME	Large Marine Ecosystem
MARPOL	International Convention for the Prevention of Pollution from Ships
MCS	Monitoring, Control and Surveillance
MoU	Memorandum of Understanding
MP	Management Procedures
MSG	Melanesian Spearhead Group
MTCs	Minimum Terms and Conditions of Access
OFM	Oceanic Fisheries Management
OFMP II	UNDP FAO GEF Pacific Island Oceanic Fisheries Management Project for the 'Implementation of Global and Regional Oceanic Fisheries Conventions and Related Instruments in the Pacific Small Island Developing States
PCCOS	Pacific Community Centre for Ocean Sciences
PICs	Pacific Island Countries
PICTs	Pacific Island Countries and Territories
PIRFO	Pacific Island Regional Fisheries Observer
PITIA	Pacific Islands Tuna Industry Association
PNA	Parties to the Nauru Agreement
RFMOs	Regional Fisheries Management Organisations

ROP	Regional Observer Programme
NGO	Non-Governmental Organisation
QAR	Quality Assurance review
SAP	Strategic Action Programme
SDG	Sustainable Development Goal
SEAPODYM	Spatial Ecosystem and Population Dynamics Model
SIDS	Small Island Developing States
SPC	Secretariat to the Pacific Community
SST	Sea Surface Temperature
TDA	Transboundary Diagnostic Analysis
TKA	Tokelau Arrangement
TUFMAN	Tuna Fisheries Database Management System
TVM	Te Vaka Moana
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNFSA	United Nations Fish Stocks Agreement
UNSG	United Nations Secretary General
VDS	Vessel Day Scheme
VMS	Vessel Monitoring Systems
WCPF	Western and Central Pacific Fisheries
WCPFC	Western and Central Pacific Fisheries Convention/Commission
WTP	Western Tropical Pacific
WWF	World-Wide Fund for Nature

Executive Summary

There is a long history of cooperative management between the Pacific Island States and Territories within the Western and Central Pacific region. This was given a more formal and active grounding with the adoption of the Western and Central Pacific Fisheries Convention (which entered into force on 19 June 2004) and the subsequent establishment of a WCPF Commission.

The Pacific Islands Forum Fisheries Agency (FFA) is an intergovernmental agency established in 1979 to facilitate regional co-operation and co-ordination on fisheries policies between its member states[1] in order to achieve conservation and optimum utilisation of living marine resources, in particular highly migratory fish stocks, for the benefit of the peoples of the region, in particular the developing countries.

Within the WCPFC, FFA assists and facilitates members' discussion to put forward CMMs, resolutions and other initiatives to the Commission, many of which are based on the Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement and the MTCs (Minimum Terms and Conditions of Access) that have largely set the standard for many of the WCPFC requirements. The FFA hosts the WCPFC vessel monitoring system (VMS), and (along with SPC) supports the Pacific Island Regional Fisheries Observer (PIRFO) training program for FFA UST Observers and National and PNA Observer programs which are audited against WCPFC standards in the WCPFC Regional Observer Programme (ROP).

One of the primary sources of support to the Pacific SIDS and FFA Members and to the WCPF Commission Members generally has been the various GEF projects implemented by UNDP and FAO. In 1997, GEF undertook the South Pacific International Waters Strategic Action Programme formulation pilot project. This included the preparation of a Strategic Action Programme (SAP) and the formulation of a project document covering the Oceanic Fisheries Management (OFM) and the Integrated Coastal and Watershed Management (ICWM) components. Following this were three sequential interventions to support the countries and the region in implementing this SAP and in adopting an effective treaty for management and protection of the sustainable oceanic fisheries of the Western Central Pacific, Including the Western Pacific Warm Pool Large Marine Ecosystem.

The current GEF funded Project, implemented by UNDP and FAO, focuses on the Implementation of Global and Regional Oceanic Fisheries Conventions and Related Instruments in the Pacific Small Island Developing States (OFMP II). One of the requirements of this Project (which was endorsed by all of the FFA SIDS members) is for a full Transboundary Diagnostic Analysis (TDA) for oceanic fisheries and a subsequent updated oceanic fisheries management Strategic Action Programme (SAP). The purpose of conducting a TDA is to scale the relative importance of sources and causes (from the 'immediate' to the 'root') of the transboundary problems within a large marine ecosystem or similar body of water, and to identify potential preventive and remedial actions. The TDA then provides the technical and factual basis that is agreed by the 'transboundary' countries and upon which these countries and other stakeholders can undertake negotiation and adoption of a Strategic Action Programme (SAP) that provides the formal basis for a suite of actions to address the transboundary problems and issues. The TDA was completed in 2018 as an activity of OFMP II and endorsed by FFC officials as the Project Steering Committee in May 2018.

The following document is the Strategic Action Programme that has arisen from the findings and conclusions of the Transboundary Diagnostic Analysis. This document reviews the problems and concerns identified in the previously completed TDA along with their root causes and identifies a set of clear priorities for action by the SIDS and their partners within the region that aim to resolve these problems and address these concerns.

[1] Australia, Cook Islands, Fiji, Kiribati, Marshall Islands, Federated States of Micronesia, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu

The SAP first defines a broad vision statement for the region as being:

> A healthy, well-managed and valued ecosystem supporting the sustainable use of living marine resources which provide food and economic security, resilience and benefits to the SIDS in the WCPF Convention Area.

The overall goals of this Strategic Action Programme that would aim to deliver on this vision statement include:

1. Sustainability of living marine resources through an ecosystem-based management approach
2. Food Security for the region through a well-managed and sustainable fishery
3. Economic Security for the region through maintaining and improving the value of living marine resources and the associated long-term assurance of employment and livelihoods within the community
4. Pursuit and realisation of the relevant targets and indicators for the UN Sustainable Development Goal 14 which support 1-3 above

These goals align with the goals of the Regional Road Map for Sustainable Pacific Fisheries which was endorsed by Pacific Leaders in 2015 and which are used as a basis of an annual briefing to the Pacific Island Forum on the status of the Pacific Islands tuna fishery.

The SAP discussed the various Objectives, Strategies and their Outcomes (and provides justifications for these) as summarised below:

OBJECTIVE A: IMPROVEMENTS AND STRENGTHENING OF MANAGEMENT STRATEGIES AND MECHANISMS FOR THE ECOSYSTEM AND ITS LIVING MARINE RESOURCES

STRATEGY A.1: IMPROVEMENTS IN EXISTING MANAGEMENT APPROACHES

- Improvements in Longline Management 'In-Zone' and on the High Seas
- Improvements in Purse Seine Management
- Strengthen coordination between regional & sub-regional management strategies, administrative bodies. NGOs and other potential partners
- Strengthening the implementation of national Tuna Management Plans
- Expand the eco-labelling of fish and seafood products in order to create sustainability through consumer-driven incentives
- Strengthen coordination between various scientific research activities
- Improved compliance with other relevant international treaties and their supportive activities and projects
- Strengthen sovereign rights of Pacific SIDS to effectively control and ensure ongoing access to their tuna resources, particularly through the legal recognition of existing jurisdictional baselines in perpetuity in order to underpin effective management

STRATEGY A.2: NEW MANAGEMENT APPROACHES

- Adoption of an effective and proactive Adaptive Management mechanism based on the Precautionary Approach as set out in the UN Fish Stocks Agreement

- ❖ Shift from single-species management approach to ecosystem-based approach to fisheries management to include multi-species management strategy (target and non-target)
- ❖ Develop new strategies for community subsistence and small-scale commercial fishery as coastal fisheries decline

OBJECTIVE B: STRENGTHENING AND EXPANDING SCIENTIFIC MONITORING TO SUPPORT IMPROVED MANAGEMENT AND UNDERSTANDING OF THE ECOSYSTEM AND ITS LIVING MARINE RESOURCES IN THE WCPFC AREA

STRATEGY B.1: IMPROVEMENTS IN EXISTING MONITORING APPROACHES AND METHODOLOGIES

- ❖ Establish standards for a WCPFC Catch Documentation Scheme (CDS) and develop operational electronic CDS systems at the national level.
- ❖ Strengthen on-board monitoring and reporting of fishing activity through improved observer coverage and wider use of electronic monitoring/reporting technology.
- ❖ Improve capture of information on catch, effort, bycatch, unloading and transhipping of both target and non-target species through better coverage and technology and electronic information systems
- ❖ Strengthen cooperative monitoring, control and surveillance programmes and associated data analysis capacity with the specific aim of reducing and elimination IUU fishing
- ❖ Strengthen and expand data capture, predictive modelling and assessment, and subsequent adaptive management recommendations related to climate-induced changes and the need for community resilience
- ❖ Monitoring and assessment of impacts from waste/lost materials and discharges

STRATEGY B.2: NEW MONITORING AND DATA HANDLING STRATEGIES TO SUPPORT ADAPTIVE MANAGEMENT

- ❖ Adoption of a mechanisms to ensure pertinent data feeds into an adaptive management process(es) and generates usable material for management and policy guidance and realignment
- ❖ Analysis of Ecosystem Goods and Services to support and justify Management Improvements
- ❖ Understanding role/impact of interactions within the ecosystem on overall ecosystem sustainability
- ❖ Connectivity studies to understand relationship between coastal changes/impacts and offshore oceanic effects
- ❖ Improved knowledge on effects of other impacts from absence of management in ABNJ

OBJECTIVE C: CAPACITY BUILDING AND TRAINING FOR IMPROVED MONITORING AND MANAGEMENT OF THE ECOSYSTEM AND ITS LIVING MARINE RESOURCES IN THE WCPFC AREA

STRATEGY C.1: CAPACITY BUILDING AND TRAINING FOR IMPROVED MANAGEMENT AND ADMINISTRATION

- Strengthen capacity to address increased administrative and institutional burden for more effective adaptive management and to strengthen the expertise of fisheries officers to avoid reporting discrepancies
- Support the PICs and particularly the SIDS in replacing foreign fleets with regional, Pacific Islands fishing effort
- Support PICs and particularly the SIDS in creating opportunities for expanding livelihoods and businesses that are adaptive to changes in the fisheries focused on local supply, sales and processing of pelagic fish
- Support for capacity and expertise for data handling and management
- Creating and/or improving tertiary level educational options and courses in the region

STRATEGY C.2: CAPACITY BUILDING AND TRAINING FOR IMPROVED ENFORCEMENT AND COMPLIANCE

- Improved capacity, training and guidelines for inspection, enforcement, compliance and MCS information management and analysis
- Strengthened capacity of SIDS to improve their 'flag-state' roles and overall compliance

The SAP also identified national and regional actions to be taken to deliver these aforementioned Outcomes (Annex 1).

Implementation Arrangements are proposed that define the role of the Forum Fisheries Agency (FFA) providing for regional coordination of the SAP and between the parties to the SAP (i.e. The FFA Member SIDS and other entities that endorse the SAP) within the framework of the WCPF Commission and Convention. These arrangements highlight the need for the further development and adoption of a more proactive adaptive management approach that includes the negotiation and agreement of Harvest Strategies as a means to more effective stock management. The SAP further identifies the need for enhanced coordination and collaboration between fisheries management and related institutions and formally mandated bodies at the national, sub-regional, regional and even global levels

.

The need for further capacity building and training is included as an objective of he SAP and the mechanisms for this are discussed further under that section including some of the important requirements then need to be incorporated into the capacity building and training programme, the value of identifying Centres of Excellence and the potential for developing a Clearing House for Ocean Sciences.

Monitoring and evaluation of progress and delivery of the various outcomes through the proposed activities is an essential element of the SAP as is a related implementation and sustainability plan and road-map. The need for strong partnerships to support this implementation is recongised along with some of the potential sources of funding to deliver sustainability.

Annex 3 of the SAP reviews the various Sustainable Development Goal 14 Targets and Indicators (To conserve and sustainably use the oceans, seas and marine resources for sustainable development) and identifies how deliver of the various SAP Outcomes will also directly support and deliver on this Targets and Indicators as well.

It is intended that endorsement of this SAP and its effective implementation by the Pacific Small Island Developing States and Forum Fisheries Agency Members will be a major step towards the sustainability of both the tuna fisheries in this region as well as the marine ecosystem that supports those fisheries and the associated economies and well-being of the island communities.

1. Introduction

1.1 Purpose of the Strategic Action Programme

A Strategic Action Programme (SAP) is a negotiated policy document that should be endorsed at the highest level of all relevant sectors. It establishes clear priorities for action (for example, policy, legal, institutional reforms, or investments) to resolve the priority problems identified in the previously completed Transboundary Diagnostic Analysis (TDA). It aims to improve and build on the existing 'baseline' of management for the region. Another key element involves the development or strengthening of institutional mechanisms at the regional and national levels for implementing the SAP and monitoring and evaluation procedures to measure effectiveness of the outcomes of the process.

This SAP aims to provide the Small Island Developing States of the Western and Central Pacific, along with their partners, with a clear road-map for taking action to address the shared transboundary threats (and their causes) to the oceanic living resources, most specifically, the fisheries of the Western and Central Pacific Fisheries Convention Area.

1.2 Global and Regional Significance of the Area/System

The Participating Countries that have committed to the Implementation of this SAP (and whose signatures are included above) are the following Small Island Developing States: The Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Republic of Marshal Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu and Tokelau. Other partner countries in the region are also encouraged to endorse this SAP. The SAP focuses on the ocean area consisting of the contiguous Territorial and Archipelagic Waters and EEZs of the 15 PICs and the enclosed pockets of ABNJ within.

The Western and Central Pacific Fisheries Convention and its associated Conservation and Management Measures is the overarching agreement for management of the oceanic fisheries in this part of the Pacific and for the Small Islands Developing States. As such it will provide the primary guiding framework for the SAP.

The text of the Western and Central Pacific Fisheries Convention defines the area of competence of the Commission (the Convention Area) which comprises all waters of the Pacific Ocean bounded to the south and to the east by the following line:

> *From the south coast of Australia due south along the 141° meridian of east longitude to its intersection with the 55° parallel of south latitude; thence due east along the 55° parallel of south latitude to its intersection with the 150° meridian of east longitude; thence due south along the 150° meridian of east longitude to its intersection with the 60° parallel of south latitude; thence due east along the 60° parallel of south latitude to its intersection with the 130° meridian of west longitude; thence due north along the 130° meridian of west longitude to its intersection with the 4° parallel of south latitude; thence due west along the 4° parallel of south latitude to its intersection with the 150° meridian of west longitude; thence due north along the 150° meridian of west longitude.* (see Figure 1 below showing a map of the Convention Area)

The text of the Convention further notes that 'Nothing in the Convention shall constitute recognition of the claims or positions of any of the members of the Commission concerning the legal status and extent of waters and zones claimed by any such members'. The area covered by the Convention covers almost 20 per cent of the Earth's surface (see Fig. 1 below). The functions of the Commission set out in Article 10 of the Convention are exercised *"Without prejudice to the sovereign rights of coastal States"*

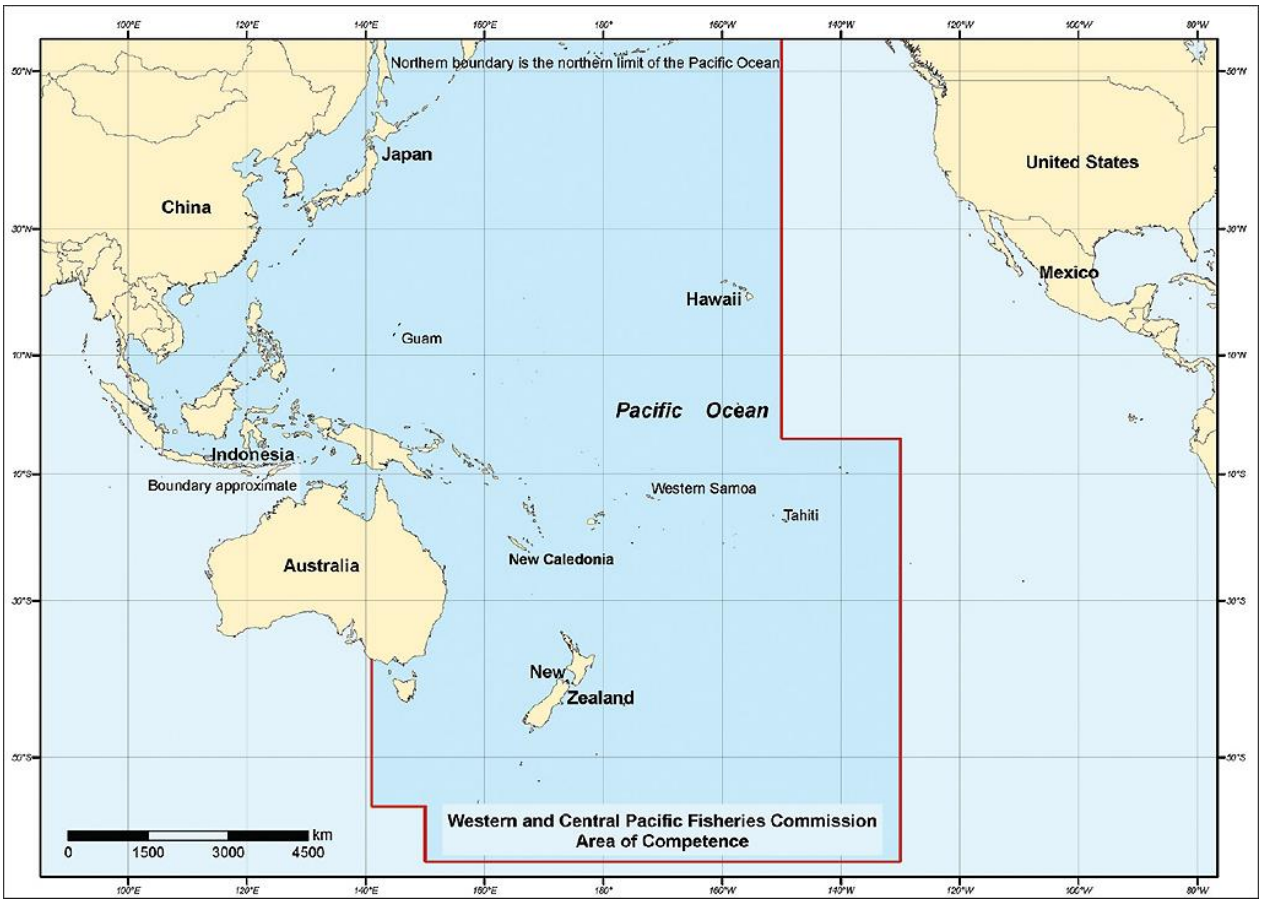

Figure 1. **Map of the area covered by the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPF Convention)**

The **Pacific Islands Forum Fisheries Agency** (FFA) is an intergovernmental agency established in 1979 to facilitate regional co-operation and co-ordination on fisheries policies between its member states in order to achieve conservation and optimum utilisation of living marine resources, in particular highly migratory fish stocks, for the benefit of the peoples of the region, in particular the developing countries. The FFA was established by an international treaty entitled: *South Pacific Forum Fisheries Agency Convention*. It was signed by 14 states, mostly small island states in the Pacific Ocean plus Australia and New Zealand. Tokelau additionally joined the FFA membership in 2002. FFA was established to help countries (especially the SIDS) sustainably manage their fishery resources that fall within their 200-mile Exclusive Economic Zones (EEZs). FFA is an advisory body providing expertise, technical assistance and other support to its members who make sovereign decisions about their tuna resources and participate in regional decision making on tuna management through agencies such as the Western and Central Pacific Fisheries Commission. According to the Convention establishing the FFA, the functions of the Agency include the following:

- Collect, analyse, evaluate and disseminate to Parties relevant statistical and biological information with respect to the living marine resources of the region and in particular the highly migratory species;
- Collect and disseminate to Parties relevant information concerning management procedures, legislation and agreements adopted by other countries both within and beyond the region;
- Collect and disseminate to Parties relevant information on prices, shipping, processing and marketing of fish and fish products;

- ❖ Provide, on request, to any Party technical advice and information, assistance in the development of fisheries policies and negotiations, and assistance in the issue of licences, the collection of fees or in matters pertaining to surveillance and enforcement;
- ❖ Seek to establish working arrangements with relevant regional and international organisations, particularly the South Pacific Commission.

FFA and the WCPF Commission have a Memorandum of Understanding between them which aims to maximise the effectiveness of their scientific, compliance and other activities, and to exchange information relating to their activities and programmes of work on highly migratory fish stocks and associated and dependent species in the Pacific Islands region, subject to arrangements concerning the confidentiality of information held by each organisation on behalf of its members.

Some 55-60% of the world's annual tuna harvest comes from the Western and Central Pacific Ocean region. Skipjack tuna (*Katsuwonus pelamis*) dominate the catch. Although skipjack are distributed in the surface mixed layer throughout the equatorial and subtropical Pacific, catches are highest in the western equatorial Pacific warm pool, a region characterized by low primary productivity rates that has the warmest surface waters of the world's oceans. All of the key tropical tuna stocks in the WCPFC area (skipjack, yellowfin, budget and albacore) are being fished sustainably with none assessed as overfished or subject to overfishing. This indicates that recent western Pacific skipjack catches of 1.5 to 2 million tonnes annually are sustainable along with an additional 800 thousand tonnes of other tropical tuna (yellowfin, bigeye and albacore) .

The Western Tropical Pacific Warm Pool (WTPWP) provides approximately 90% of the catch of tunas and other pelagic species within the WCPFC Convention Area. It covers a wide area of the Pacific Ocean (see Fig.2 below) extending beyond the Convention Area, lying to the west of the strong divergent equatorial upwelling in the central equatorial Pacific known as the "cold tongue" and between the sub-tropical gyres in the North and South Pacific.

The health of the International Waters of the WTP Warm Pool is critical to the communities and economies of the Pacific Islands. Almost all of the land area of the Pacific SIDS is coastal in character and almost all of the people of the region live and work in ways that are dependent on healthy International Waters. A major strength in looking at the WTP Warm Pool as an integral part of the Convention area and its management approach is the well-developed political framework of integrated multi-sectoral regional cooperation across this region that derives largely from the high level of shared dependence on this Warm Pool area.

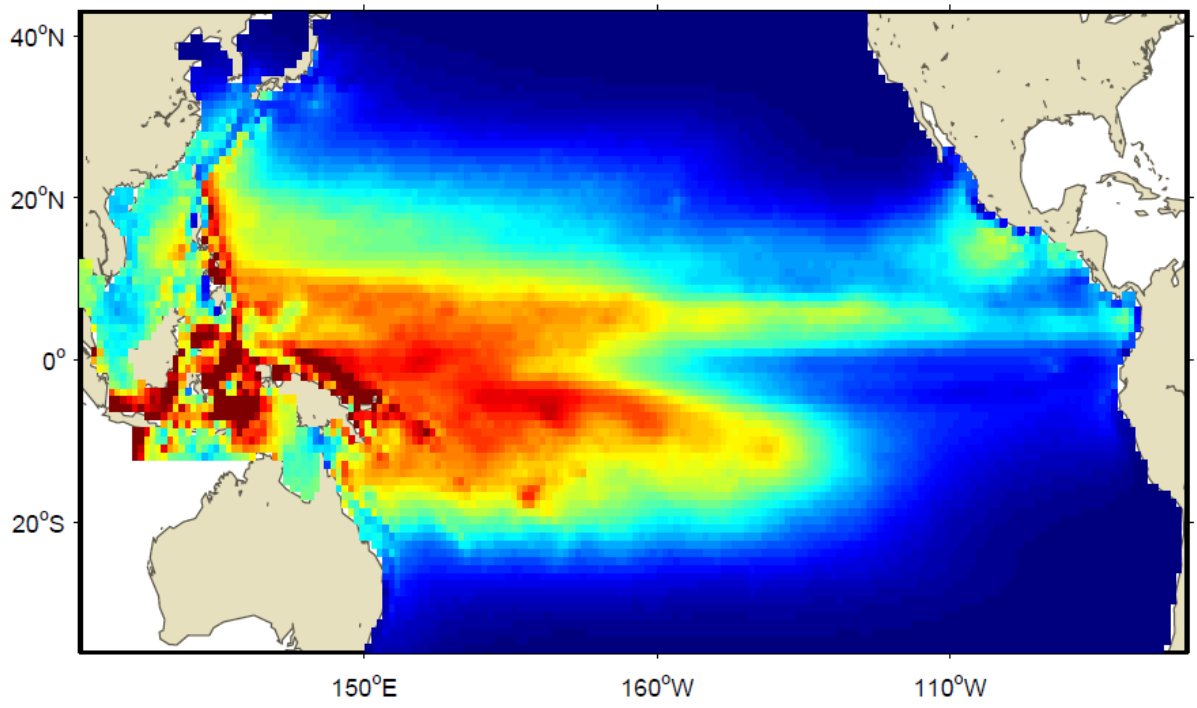

Figure 2: **Long-Term Average Sea Surface Temperature Differences between La Nina and El Nino Conditions in the Western Tropical Pacific showing the General Location of the WTP Warm Pool** (From the Transboundary Diagnostic Analysis)

1.3 The Current Convention and its Administration/Management

The Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPF Convention) entered into force on 19 June 2004. This further established the Western and Central Pacific Fisheries Commission (WCPFC). The WCPF Convention draws on many of the provisions of the UN Fish Stocks Agreement (UNFSA) while, at the same time, reflecting the special political, socio-economic, geographical and environmental characteristics of the WCPO region.

The WCPF Convention seeks to address problems in the management of regional fisheries resulting from unregulated fishing, over-capitalization, excessive fleet capacity, vessel re-flagging to escape controls, insufficiently selective gear, unreliable databases and insufficient multilateral cooperation in respect to conservation and management of highly migratory fish stocks.

The Convention also provides a framework for the participation of fishing entities in the Commission, which legally binds fishing entities to the provisions of the Convention, recognises the special requirements of developing States, and acknowledges the need for cooperation with other Regional Fisheries Management Organizations (RFMOs) whose respective areas of competence overlap with the WCPFC.

The Commission supports three subsidiary bodies; the Scientific Committee, the Technical and Compliance Committee and the Northern Committee, that each meet once annually. The meetings of the subsidiary bodies are followed by a full annual session of the Commission, usually held each December. The work of the Commission is assisted by a Finance and Administration Committee.

Since its establishment, the Commission has agreed to a number of binding Conservation and Management Measures (CMMs) as well as non-binding resolutions, the latter on non-target species, SIDS'

aspirations and the use of the best available science. Annex 4 provides a list of current Conservation and Management Measures and Resolutions of the WCPFC as of February 2018 which would be supported by the SAP. Full details of these CMMs can be found at https://www.wcpfc.int/conservation-and-management-measures. In addition, The WCPFC has concluded a number of Memoranda of Understanding (MoU) with related fisheries organizations having mandates or responsibilities in other geographical areas, including the Inter-American Tropical Tuna Commission (IATTC), the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), the Indian Ocean Tuna Commission (IOTC) and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).

The joint tuna regional fisheries management organization process, also known as the Kobe process, the five tuna regional fisheries management organizations. I aims to engage countries in playing an instrumental role in assisting tuna regional fisheries management organizations move

The Kobe Process brings together and seeks to harmonize the activities of the five tuna RFMOs: the International Commission for the Conservation of Atlantic Tunas (ICCAT), the Indian Ocean Tuna Commission (IOTC), the Inter-American Tropical Tuna Commission (IATTC), the Western and Central Pacific Fisheries Commission (WCPFC) and the Commission for the Conservation of Southern Bluefin Tuna (CCSBT). The Kobe Process seeks to improve coordination across the whole range of RFMO policy, including scientific research, market issues, monitoring and surveillance, the impact of by-catches, and support for developing countries. The overall objectives is to move towards a more consistent, sustainable and science-based management approach that will ensure the sustainability of tuna fisheries for future generations.

These various MoUs and Agreements help foster a close relationship between the WCPFC and these organizations and ensure that the lines of communication are open to discuss matters of common interest.

2. Background to the Strategic Action Programme

A Strategic Action Programme for the International Waters of the Pacific Islands was originally adopted in 1997 by 13 countries[2]. It represented a pioneering effort by a group of small island developing states (SIDS) to integrate their national and regional sustainable development priorities with shared global environmental concerns for protecting International Waters. Although a detailed Transboundary Diagnostic Analysis was not undertaken prior to the formulation and adoption of that SAP, the SIDS nevertheless recognised three priority transboundary concerns for their international waters as being 1. Degradation of their quality, 2. Degradation of their associated critical habitats, and 3. Unsustainable use of their living and non-living resources.

The SIDS proposed to address these through two complementary, linked initiatives; Integrated Coastal and Watershed Management and Oceanic Fisheries; which would set out a path for the transition by the SIDS from sectoral to integrated management of their international waters.

The Oceanic Fisheries initiative recognised that the main root causes for the priority concerns were related to management deficiencies both in the context of governance itself as well as understanding/awareness of the issues.

In 2004, the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPF Convention), entered into force as a direct consequence of the Oceanic Fisheries initiative component of the SAP.

Since then it has become more or less agreed by SIDS and now by the other parties to the Western and Central Pacific Fisheries Convention that the major transboundary issues are those related to oceanic fisheries management. Following the adoption of the 1997 SAP, several GEF (Global Environment Facility) projects have provided progressive support toward building and strengthening sustainable oceanic fisheries management through the WCPF Convention, its Commission and its member states and countries. In particular, the Oceanic Fisheries Management Project I and II.

With the WCPF Convention and Commission in place, the single greatest management deficiency for oceanic fisheries had been addressed. In order to bring all these processes up-to-date after some 20 years of various related initiatives, the SIDS participating in the Ocean Fisheries Management projects noted the need:

A. to develop and adopt a formal TDA focusing on Oceanic Fisheries Management with migratory tuna stocks as the primary transboundary concern, and

B. to then follow this with recommendations for an updated Strategic Action Programme that can provide formal agreement by the signatory countries to the SAP on the current priority actions necessary to address these transboundary concerns, particularly in the context of the Pacific SIDS.

2.1 Transboundary Diagnostic Analysis Approach and Relationship to the Strategic Action Programme

The purpose of conducting a TDA is to scale the relative importance of sources and causes (from the 'immediate' to the 'root') of the transboundary problems within a large marine ecosystem or similar body

[2] Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu

of 'managed' water, and to identify potential preventive and remedial actions. In particular, a TDA aims to:

- Identify or confirm, and prioritise the transboundary problems and issues;
- Gather and interpret information on the environmental impacts and socio-economic consequences of each problem
- Analyse the immediate, underlying, and root causes for each problem, with a specific focus on which practices or activities are driving and/or maintaining these root causes
- Define potential solutions and actions that can be taken to remove or alter these drivers and thus mitigate the root causes

The TDA then provides the technical and factual basis that is agreed by the 'transboundary' countries and upon which these countries and other stakeholders can undertake negotiation and adoption of a Strategic Action Programme (SAP) that provides the formal pathway for the adoption of a road-map of actions to address the transboundary problems and issues.

The on-going UNDP FAO GEF Pacific Island Oceanic Fisheries Management Project for the 'Implementation of Global and Regional Oceanic Fisheries Conventions and Related Instruments in the Pacific Small Island Developing States (OFMP II) identifies the need to develop and adopt a TDA focusing on Oceanic Fisheries Management with migratory tuna stocks as the primary transboundary concern, and to follow this with recommendations for a Strategic Action Programme that can provide formal agreement (by the Pacific SIDS) on the priority actions necessary to address these transboundary concerns. This TDA was completed in 2018 as an activity of OFMP II and endorsed by FFC officials in May 2018.

2.2 Conclusions and Guidance from the Transboundary Diagnostic Analysis

The TDA sketches out the current baseline in the region in the context of oceanic fisheries management, ecosystem welfare and livelihoods as follows:

- The adoption of the Western and Central Pacific Fisheries Convention, its Commission and the various organs and technical bodies supporting the Commission has provided an enormous step forward in maintaining a sustainable fishery in the region.
- All target stocks are currently being fished sustainably. However, the existing management frameworks are still considered to be somewhat *ad hoc* in certain areas, requiring almost annual renegotiations and vulnerable to failure to reach agreement, and there are continuing weaknesses in control of fishing in the high seas. This situation could easily deteriorate into a lack of economic sustainability while threatening food security and livelihoods. A process to develop harvest strategies for important stocks has commenced, however, there have been substantial delays due to challenges in building consensus between all parties on longer term management targets and decision rules.
- There are measures in place that support monitoring and reporting in relevant areas such as catch size and species, bycatch, etc. but these are far from effective across the region (both in-zone and high seas) and for the different fishing efforts (longline and purse seine primarily)
- The Purse Seine Fisheries management is in relatively good shape with more rigorous controls having been introduced at the sub-regional level including the successful vessel-day schemes. But sustainability within this fishery and in the context of its impacts on other components of the ecosystem (e.g. bycatch and non-target species) could be improved through improvements in fish aggregating devices (FAD) management.

- Longline management is now a major issue and a priority. This is much harder to achieve than in the purse seine fishery as the latter are highly dependent on access to EEZs while longline fishing can exist within the high seas areas. Furthermore, there is very limited observer presence on the longline fleets or on the carrier vessels into which they tranship. This consequently means that there is inadequate information and reporting to support effective stock assessment and subsequent management decisions. Improvements in monitoring are essential to improving the management of this fishery through enabling better accounting of catch and effort to support harvest strategy process. Modern technology may well be a central part of the solution by way of E-Monitoring and E-Reporting.
- The region is growing continually more concerned about the effects of climate change on the distribution and resilience of tuna stocks. This could have a number of socioeconomic impacts on the PCITs. Furthermore, associated sea level rise threatens the jurisdictional boundaries for the PCITs which in turn would disrupt fisheries and ecosystem management arrangements and mechanisms, potentially creating more high seas areas while reducing the area of exclusive economic control for individual SIDS.
- Although the fisheries management strategies have improved significantly under the Convention and the Commission, they still tends to focus on single-species assessment and management. Not only are the various target species assessed and considered independently but non-target bycatch species are not integrated into the management assessment and decision-making process. There is a clear need for a more enhanced ecosystem approach to the fisheries and ecosystem-based management that not only considers all of the relevant biological components of the ecosystem but also coordinates more closely with other scientific inputs in terms of oceanographic and socioeconomic data.
- Such an integrated and coordinated management approach also needs to have an effective and timely adaptive management strategy that can act rapidly but accurately on data and information collected, weigh the evidence and identify trends in the data that require immediate management action and even policy realignment. WCPFC has recently begun to implement a “Harvest Strategy Approach” to management, which in effect implements an agreed and scientifically tested rule-based procedure whereby pre-programmed management responses to new scientific data and assessments are agreed in advance and implemented to achieve management objectives. If successful, this approach will provide the sort of adaptive management strategy called for by the TDA. WCPFC has recently begun to implement a “Harvest Strategy Approach” to management, which in effect implements an agreed and scientifically tested rule-based procedure whereby pre-programmed management responses to new scientific data and assessments are agreed in advance and implemented to achieve management objectives. If successful, this approach will provide the sort of adaptive management strategy called for by the TDA.
- Although the fishery itself may be primarily oceanic in terms of the economic value, the linkage and connectivity back to inshore and coastal activities and impacts is also an important component to be considered within an adaptive ecosystem-based management approach. Land-based and coastal activities may have negative impacts on reef organisms and nearshore prey species that form part of the food-chain as tuna forage. Furthermore, the loss of food security at the coastal level as a result of coastal habitat degradation now means that the offshore fisheries component will become increasingly more important to the island communities.
- Despite the various international treaties and conventions relating to waste discharges at sea, the impact from waste materials continues to grow (discarded fishing gear, lost FADs, etc.) and micro-plastics are now presenting a new threat to the ecosystem and associated fishery.

The TDA has identified the main areas of impact and associated threats that are impacting negatively on this baseline scenario and these inevitably must focus on oceanic fisheries as the major transboundary

issue. A number of environmental impacts and associated socioeconomic impacts have been identified through a Causal Chain Analysis. These can be summarised as:

- Risk of overfishing developing (associated with weaknesses in existing management arrangements, some shortfalls in scientific understanding, need for strengthening of compliance and addressing of data gaps) which could lead to a possible collapse in fisheries revenues and associated livelihoods
- Bycatch of many important non-target species (especially vulnerable species such as sharks and turtles) either unknown or too high which could result in the potential loss of food sources from by-catch as well as a loss of ecosystem services to Pacific SIDS
- Tuna stock ranges altering, expanding and probably moving eastwards as a result of climate change. This could lead to A. Increased access to stocks in eastern area of WCPFC (e.g. Kiribati) alongside B. Decrease in Access to stocks in western area of WCPFC (e.g. Papua New Guinea)
- General decrease in both primary and secondary productivity and tuna forage in the WTP Warm Pool with a subsequent potential fall in income due to lower yields and CPUE and general decline in market supply of tuna stocks
- Potential for overall disruption and deterioration of the greater marine ecosystem and its services including damage to unique habitats, communities and species within the overall ecosystem (e.g. through overfishing, bycatch and removal of links in the food-chain) which could lead to the loss of ecosystem services and unique biodiversity to Pacific SIDS which could further lead to threats to food security and livelihoods as well as national and regional economies
- Detrimental impacts from coastal degradation and pollution on coastal species that A. form part of the oceanic food chain (and particularly reef-associated species, larvae and juveniles that form young tuna forage which could lead to a fall in nearshore tuna availability and revenues from oceanic fisheries more broadly), and B. that provide subsistence or form part of small-scale artisanal fishery resulting in the loss of coastal food security

The main Root Causes of these impacts as defined through the Causal Chain Analysis are presented in the TDA, along with a list of actions that could be adopted in order to address them (as follows):

PRIORITY ACTIONS TO ADDRESS THE CAUSES OF THREATS AND IMPACTS ON THE TRANSBOUNDARY OCEANIC FISHERIES IN THE WESTERN PACIFIC WARM POOL LME

1. **WEAKNESSES IN MANAGEMENT AND COMPLIANCE, BOTH 'IN-ZONE' AND ON THE HIGH SEAS**

Actions Required:

a. Stronger emphasis on the precautionary approach and stronger long-term management strategies and objectives (including the adoption of harvest strategies based on reference points and harvest control rules as detailed in Annex II of the UN Fish Stocks Agreement)

b. Reform longline management including enhancing zone-based management arrangements in Pacific SIDS waters and improving the effectiveness of monitoring systems and control of longline fishing in the high seas

c. Strengthen purse seine management with a focus on improved FAD management and improved control of purse seine effort in the high seas

d. Support the move toward adoption and/or improvement in ecolabelling, consumer awareness and consequent market influences on better management, including through identifying and adopting improvements to catch documentation and traceability

e. Improvements and expansion in information on catch, effort, bycatch, unloading and transhipping etc. through better coverage and technology (particularly on the high seas with longline activity). Ideally aiming for trip-by-trip and vessel-specific data on species and sizes, fishing gear, etc.

f. Improvements (and standardisation) in guidelines for national fisheries officers and staff along with expanded training and capacity building with an emphasis on preventing under-reporting and discrepancies between vessel log-sheets and landing reports.

g. Strengthen the capacity of SIDS to address and improve their compliance as flag states. This is of increasing importance and need as the SIDS fleets grow and replace the 'distant-water' fleets.

h. Coordination between regional and sub-regional management strategies, agreements and administrative bodies to address any 'conflicts of interest' between smaller coastal states and larger fishing states

i. Strengthening of capacity in SIDS to effectively address increases in administrative and institutional burden

j. Better integration of E-Monitoring and E-Reporting into national monitoring, administrative processes and port state practices. Ensure that e-monitoring is aligned with other forms of monitoring including the use of observers and daily log-sheet reporting from fishers to provide the reliable data to support decision making.

k. Strengthening of Observer Programmes (at both national and regional levels), including in areas such as observer health and safety, improved coverage of the longline fishery and transhipment, especially in the high seas, shifting of some reporting responsibilities to vessel operators to enable observers to undertake higher priority activities

2. IMPACTS FROM CLIMATE CHANGE AND ASSOCIATED CONCERNS DUE TO EXCESSIVE CARBON EMISSIONS AND LACK OF ADOPTED GLOBAL MITIGATION PROCEDURES

Actions Required:

a. Continuing and expanding data capture and modelling related to climate change and especially i) predictions for the size and extent of the Warm Pool, ii) predicted temperature and pH changes, iii) the consequent change in distribution and access to tuna target species

b. Improved responsiveness to climate-induced changes in stock distribution through zone-based adaptive management arrangements and procedures.

c. Pursuing legal recognition of the defined baselines established under UNCLOS to remain in perpetuity

d. More focus on collection of productivity data (both primary and secondary) and specific tuna forage availability

e. Inclusion of studies to ascertain the interconnectivity between coastal changes and impacts related to climate change and offshore effects and impacts on the oceanic fisheries (e.g. larval tuna/top predator forage and larval tuna)

f. Improved and continuous assessments of the likely socioeconomic effects from these impacts from climate change

g. Regular input from the above modelling and predictions into adaptive management guidelines and policy briefs for CCM (WCPFC Members)

3. INADEQUATE APPLICATION OF ECOSYSTEM-BASED MANAGEMENT

Actions Required:

a. Collection and use of pertinent data in the modelling process to deal with multi-species management (target and non-target) on an interactive basis rather than focusing on single-species management decisions (such as catch limits)

b. Scientific assessment on the role and impact of bycatch within the ecosystem including the interactive function with the target species

c. Studies on the effects of the removal of apex predators from isolated and unique ecosystems like seamounts on which information is currently very limited or unknown

d. Improvements in data capture, analysis and management application at the regional and ecosystem level through more effective 'translation' of results and 'trends' into management processes and policy guidance, including optimisation of ecosystem values

4. EFFECTS OF COASTAL IMPACTS ON THE OFFSHORE OCEANIC ECOSYSTEM

Actions Required:

a. Assessment of the effects of land-based impacts on habitats and species with interconnectivity into the oceanic ecosystem, particularly large predators (tuna and others) and their prey

b. Provide support to island communities and subsistence/artisanal fishermen related to growing dependence on offshore fisheries as coastal fisheries decline

5. DISCHARGES AND WASTE DISPOSAL AT SEA AND FROM LAND-BASED SOURCES

Actions Required:

a. Assessment of the impacts from waste material and discharges on the oceanic ecosystem and recommendations for mitigation

b. Strategy for preventing the loss of FADs and other fishing gear and mitigating/reducing the impacts where such losses may occur.

c. Improvements in compliance with international, legally-binding agreements to prevent pollution in the oceans that can impact on the WPWP LME and its fisheries

These actions as proposed above now provide the framework and justification for a Strategic Action Programme for Implementation of an Ecosystem-Based Management Approach for Living Marine Resources and Associated Livelihoods in the WCPF Convention Area. Such a SAP would focus on existing constraints and gaps but also on emerging issues that may or are already impacting on the long-term sustainability of the oceanic fisheries in the Convention Area as well as presenting threats to the overall well-being and health of the marine ecosystems within that area which are equally of critical important to the socioeconomic future and food security of these SIDS.

The priority actions required, as identified through the TDA and above, can be captured within an overall vision and under a set of goals and objectives as defined in the following section. In essence, all of these concerns and priority actions can be captured under a concise set of objectives that aim to:

A. improve and update management processes,

B. strengthen and expand monitoring to support these management processes, and

C. the relevant capacity building and training to support these monitoring and management improvements and enhancements.

3. The Strategic Action Programme

3.1 The Long-Term Vision Statement

A healthy, well-managed and valued ecosystem supporting the sustainable use of living marine resources which provide food and economic security, resilience and benefits to the SIDS in the WCPF Convention Area.

3.2 Goals

The overall goals of this Strategic Action Programme that would aim to deliver on this vision statement include:

1. Sustainability of living marine resources through an ecosystem-based management approach
2. Food Security for the region through a well-managed and sustainable fishery
3. Economic Security for the region through maintaining and improving the value of living marine resources and the associated long-term assurance of employment and livelihoods within the community
4. Pursuit and realisation of the relevant targets and indicators for the UN Sustainable Development Goal 14 which support 1-3 above

These goals align with the goals of the Regional Road Map for Sustainable Pacific Fisheries which was endorsed by Pacific Leaders in 2015 and which are used as a basis of an annual briefing to the Pacific Island Forum on the status of the Pacific Islands tuna fishery.

3.3 Objectives

In order to deliver the priority actions required as defined in the TDA while realising the vision stated above and the necessary goals to achieve that vision, the primary objectives for the WCPFC Area need to be the following:

A. Improvement and Strengthening of Management Strategies and Mechanisms for the Ecosystem and its Living Marine Resources in the WCPFC Area

B. Strengthening and Expanding Scientific Monitoring to Support Improved Management of the Ecosystem and its Living Marine Resources in the WCPFC Area

C. Capacity Building and Training for Improved Monitoring and Management of the Ecosystem and its Living Marine Resources and to support greater employment opportunities for local participation in fishing business in the WCPFC Area

These can now be elaborated into the following Strategies and Outcomes to achieve these objectives.

N.B. Annex 1 further provides specific Targets at the regional and national level that would deliver these Outcomes.

3.4 Priority Strategies and Outcomes to Achieve Objectives

OBJECTIVE A

IMPROVEMENTS AND STRENGTHENING OF MANAGEMENT STRATEGIES AND MECHANISMS FOR THE ECOSYSTEM AND ITS LIVING MARINE RESOURCES

STRATEGY A.1: IMPROVEMENTS IN EXISTING MANAGEMENT APPROACHES	
PROPOSED OUTCOME	**JUSTIFICATION**
Improvements in Longline Management both 'In-Zone' and on the High Seas	The longline fishery is currently ineffectively managed throughout most of the WCPFC area. There are only partial controls over catch and effort, and inadequate monitoring and reporting due to insufficient or unreported data from vessel operators, observers and monitoring, uncontrolled and marginally untracked transhipment, inadequate port measures and the continued use of flag-based rather than zone-based management.
Improvements in Purse Seine Management	The Purse Seine Fishery is generally managed more effectively (being highly dependent on 'in-zone' access. However, there are only partial limits on high seas purse seine effort and there is a need for , more control over FADs to optimise returns from target stocks and reduce bycatch and other ecological impacts. ,
Strengthen coordination between regional & sub regional management strategies, administrative bodies and other potential partners	With the growing focus on sub-regional management agreements such as the PNA, it will be important to ensure effective and regular collaboration and comparison of management measures and how effective they are. A stronger focus on partnerships and collaboration with industry would NGOs also improve the intersectoral management approach.
Strengthening the implementation of national Tuna Management Plans	The first experience of some PICTs in formally establishing fisheries policies and articulating management goals has been during the process of formulating Tuna Management Plans. Yet some PICTs are still having difficulties in either adoption or implementation of these TMPs and require assistance to identify and address the barriers that are causing this constraint
Expand the *eco-labelling* of fish and seafood products in order to create sustainability through consumer-driven incentives	Eco-labelling of fish and seafood products from certified fisheries, along with robust systems for tracing fish products to ensure they originate from certified fisheries are an increasingly powerful set of instruments for promoting sustainable fisheries and increasing economic benefits from fisheries. PNA is pursuing this initiative and it could well be expanded throughout the Convention countries as an important consumer-based sustainable management strategy
Strengthen coordination between various scientific research activities	The Pacific Community has identified a need for a clearing house for scientific information and to help coordinate research activities. Such a clearing house or Ocean Sciences Centre would also provide a strong foundation for an adaptive management process which would proactively review knowledge and information coming in with a view to advising and guiding management alignment and policy considerations

Improved compliance with other relevant international treaties and their supportive activities and projects	It is unclear at present how much compliance there is with certain international treaties or how a lack of compliance might be affecting fisheries management. One example would be the MARPOL Convention on the Prevention of Pollution for Ships and its various Annexes. Concern was raised during the TDA consultative process that there is actually very little compliance by shipping in the region with MARPOL and that discharges and pollution from shipping is significant.
Strengthen sovereign rights of Pacific SIDS to effectively control and ensure ongoing access to their tuna resources, particularly through the legal recognition of existing jurisdictional baselines in perpetuity in order to underpin effective management	Any changes in the jurisdictional boundaries of the PICTs as a result of sea level rise could be disastrous for ongoing management practices and associated livelihoods and economies. The International Law Association has reviewed this concern and made recommendations to the UNSG. The PICTs and their representative bodies might be wise to pursue the progress of such recommendations to ensure their adoption within UNCLOS. Also, Zone-based, rather than flag-based, management has been established as a central principle recognising the rights of Pacific SIDS over the management of tuna in their waters. As WCPFC conservation and management measures move towards limits and allocations on the high seas, there is a need to ensure that the zone-based rights of Pacific SIDS are recognised and respected and that they are given equitable access to high seas fisheries.
N.B. See Annex A for proposed Regional and National Targets to achieve these Outcomes	

STRATEGY A.2: NEW MANAGEMENT APPROACHES	
PROPOSED OUTCOME	**JUSTIFICATION**
Adoption of an effective and proactive Adaptive Management mechanism based on the Precautionary Approach as set out in the UN Fish Stocks Agreement	The TDA identified the ad hoc nature of management decision-making at the WCPFC as a primary area of concern for improving regional fisheries management. Commission Members have agreed to address this concern through the adoption and implementation of harvest strategies based on reference points and harvest control rules as detailed in Annex II of the UN Fish Stocks Agreement). Under this approach, Commission members would adopt pre-agreed rules for adjustment to fishing to maintain stocks around target reference points and well above limit reference points. The harvest strategy programme has been given priority within the Commission's work programme but is still in its earliest stages.
Shift from single-species management approach to ecosystem-based approach to fisheries management to include multi-species management strategy (target and non-target)	Fisheries management in the WCPFC area still tends to focus on a single-species approach rather than multi-species management and does not take into account the interactions between target species, non-target species, the overall ecosystem (and its drivers at the physical, chemical and biological level). In short, it has not, as yet, fully embraced an Ecosystem Approach to Fisheries.
Develop new strategies for community subsistence and small-scale commercial fishery as coastal fisheries decline	With the on-going degradation and loss of coastal habitat coupled to rising population levels and overfishing at the coastal level, it would now be appropriate to look at alternative sources of food security. These could include expanding the development and use of nearshore fish aggregating devices (FADs) to assist small-scale fishers in catching tuna as well as promoting the distribution of small tuna and bycatch offloaded by industrial fleets at regional ports. Non-target catches

	could also be a consideration, noting the constraint of retention on-board the fishing vessels.

OBJECTIVE B

STRENGTHENING AND EXPANDING SCIENTIFIC MONITORING TO SUPPORT IMPROVED MANAGEMENT AND UNDERSTANDING OF THE ECOSYSTEM AND ITS LIVING MARINE RESOURCES IN THE WCPFC AREA

STRATEGY B.1: IMPROVEMENTS IN EXISTING MONITORING APPROACHES AND METHODOLOGIES	
PROPOSED OUTCOME	**JUSTIFICATION**
Establish standards for a WCPFC Catch Documentation Scheme (CDS) and develop operational electronic CDS systems at the national level.	WCPFC has been debating the development of CDS standards for the past five years and FFA members have been considering the options for CDS systems development for a considerable time. There is an FFA wide consensus that there is a requirement for a functioning CDS, built upon improved Pacific MCS Programmes, delivering increased traceability of Pacific caught tuna, ensuring IUU product is not entering the system and maintaining and enhancing market access. A functional electronically based CDS system will require a Regional framework including the developing governance and management arrangements, national CDS strategies and implementation tools and associated national regulatory and policy framework and the rollout of national level capacity building support programmes.
Strengthen on-board monitoring and reporting of fishing activity through improved observer coverage and wider use of electronic monitoring/reporting technology.	One of the primary constraints to effective management based on stock assessment is incomplete or absent monitoring data. This has, in particular, placed constraints on the longline fisheries management. With improvements in technology it is now possible to have on-board sealed electronic monitoring systems and more accurate and user-friendly electronic monitoring systems. The use of such systems needs more support and widespread distribution, both on fishing vessels and transhipment carriers. As an overarching requirement, it would be appropriate to ensure that all PICTs have adopted the PIRFO standards.
Improve capture of information on catch, effort, bycatch, unloading and transhipping of both target and non-target species through better coverage and technology including electronic information management systems	Again, improved data from the longline fishery on both target and non-target and bycatch species is essential for any effective ecosystem-based fisheries management implementation. The E-monitoring and E-Reporting technologies and practices would greatly assist here as would Improved capture of data at the port level. The WCPC region has a very valuable and useful Bycatch Management Information System but it would be worth reviewing this to identify gaps and constraints. More information from FADs and from tagging could also be beneficial to an improved management approach. Importantly, electronic data needs to be effectively integrated into established national and regional information management systems.
Strengthen cooperative monitoring, control and surveillance programmes and associated data analysis capacity with the specific aim of reducing and eliminating IUU fishing	During TDA consultations it was stated or frequently implied that IUU fishing is the greatest problem facing the management of the offshore fishery in the region. Under-reporting is a primary concern here, especially in the longline fishery. This also makes it very difficult to accurately estimate the level of IUU fishing. However,

	these assessments also noted the requirement for better catch monitoring arrangements in the longline sector in order to capture more accurate estimates of IUU activity and to strengthen confidence in catch reporting and compliance with catch-based CMMs. With an increased availability of electronic data, there needs to be a corresponding increased focus on data analysis and follow-up management considerations. An overall assessment of flag-state compliance would also be a valuable exercise as part of this intended Outcome.
Strengthen and expand data capture, predictive modelling and assessment, and subsequent adaptive management recommendations related to climate-induced changes and the need for community resilience	The outputs from the SEAPODYM and Ecopath/Ecosim modelling process are enormously valuable for supporting an overall ecosystem-based adaptive management approach. Yet these outputs can only be as accurate and reliable as the information being inputted. There are several areas where data input is missing or could be improved. These include stronger data on productivity and tuna forage. More comprehensive and broader input of data to support the prediction and assessment of the potential effects of climate change on stock distribution, and the use of such information within a proactive adaptive management process.
Monitoring and assessment of impacts from waste/lost materials and discharges	Various scientific-based assessments confirm the widespread impact of waste materials from the fishing industry. This includes lost fishing gear (including FADS) which continue to ghost-fish and/or entangle, as well as the growing threat from plastics such as bait wrappers and domestic on-board waste. The issue of lost FADs is a constant concern and some mechanism for better tracking and retrieval would improve this situation

STRATEGY B.2: NEW MONITORING AND DATA HANDLING STRATEGIES TO SUPPORT ADAPTIVE MANAGEMENT	
PROPOSED OUTCOME	**JUSTIFICATION**
Adoption of a mechanisms to ensure pertinent data feeds into an adaptive management process(es) and generates usable material for management and policy guidance and realignment	Any management process can only be as good as the data and information upon which it is based. The ocean science clearing house as noted under Objective A. and the various modelling processes such as SEAPODYM and Ecopath/Ecosim as discussed under Objective B are just two examples of very valuable existing or planned/future data sources which can support an effective and proactive management process. However, a more formal mechanism would provide assurances that the data are being properly peer-reviewed with a focus on teasing out priority management guidance and realignment as circumstances alter within the ecosystem and the fishery
Analysis of Ecosystem Goods and Services to support and justify Management Improvements	Effective long-term policy support from governments and, indeed, other stakeholders can be leveraged and justified through a detailed assessment of the value of the renewable goods and services within the ecosystem and within the WCPFC region. With 'dollar' values identified and logically presented, support and 'ownership' for the long-term maintenance and sustainability of these goods and services becomes assured
Understanding role/impact of interactions within the ecosystem on overall ecosystem sustainability	In order to make management decisions related to the Large Marine Ecosystem (i.e. the WPWP LME) that supports much of the tuna fisheries within the WCPFC area, it is essential to monitor the well-

	being of that ecosystem (you cannot manage what you cannot measure). There is a need for more appropriate or improved indicators of LME health and an enhanced ability to regularly monitor such indicators. This will help to Increase understanding of how, for example, tuna, tuna-like populations and by-catch species respond to environmental variation and anthropogenic changes (fishing pressure) and how they interact. The Harvest Strategy approach being promoted as part of the precautionary approach and the adaptive management process will have performance indicators that may also tie in with and support some of the ecosystem-related objectives of the SAP
Connectivity studies to understand relationship between coastal changes/impacts and offshore oceanic effects	There is a need for an improved understanding of how coastal ecosystem health can impact on the offshore fisheries as well as understanding the role of such 'connectivity' on ecosystem sustainability, SIDS socioeconomics and food security resilience
Improved knowledge on effects of other impacts from absence of management in ABNJ	Exploration and exploitation of both biological and non-biological resources in the deep seas is expanding rapidly and in the absence of any effective regulatory or monitoring processes. The growing search for minerals important to expanding technology is now opening up the deep seabed in terms of mining. Furthermore, the South Pacific area has the greatest abundance of seamounts, many of them relatively shallow and therefore more easily accessible. Yet, there is still very limited understanding of effect of fishing around/within unique ecosystems such as seamounts ((e.g. removal of apex predators, physical impacts, etc).

OBJECTIVE C

CAPACITY BUILDING AND TRAINING FOR IMPROVED MONITORING AND MANAGEMENT OF THE ECOSYSTEM AND ITS LIVING MARINE RESOURCES IN THE WCPFC AREA

STRATEGY C.1: CAPACITY BUILDING AND TRAINING FOR IMPROVED MANAGEMENT AND ADMINISTRATION	
PROPOSED OUTCOME	**JUSTIFICATION**
Strengthen capacity to address increased administrative and institutional burden for more effective adaptive management and to strengthen the expertise of fisheries officers to avoid reporting discrepancies	The constantly expanding requirements for monitoring and compliance and overall management decision-making is placing an increasing burden on small island states and territories with both limited human resources and limited skills and training in these specific fields. Furthermore, training even in specifics can never be a 'once-off' exercise as there will always be staff turnovers as well as improvements in knowledge and understanding. Also, with the adoption of more modern adaptive management practices, in-country training is required in the use and reaction/feedback processes that support such strategies. The TDA also identified the urgent need for better training on legislative processes related to fisheries management as well as compliance/enforcement tactics.

Support the PICs and particularly the SIDS in replacing foreign fleets with regional, Pacific Islands fishing effort	The catches of the fast-growing PIC fleets now exceed 600,000 tonnes and they are collectively the largest and fastest growing fleets overall in Pacific Island waters. However, this development in fleet and catch size has nearly all been achieved by the PNA Members in the purse seine fishery and there is a need to continue to promote domestic fleet development, especially in the longline fishery, including through the development of business planning and technical level assistance
Support PICs and particularly the SIDS in creating opportunities for expanding livelihoods and businesses that are adaptive to changes in the fisheries focused on local supply, sales and processing of pelagic fish	In many PICs there is limited local processing and sale opportunity for fish. There is a need to enhance the local supply of quality pelagic fish to cater to domestic consumption needs and emerging tourist business. In many countries in the Pacific it is now increasingly difficult to maintain a regular supply of fresh tuna in restaurants because the local processing and supply networks do not exist. Furthermore, Some PICTs have game fisheries that attract tourists and local residents. There is further potential within the Pacific SIDS for the development of high-quality game fishing both for tourists and local resident that would increase the value of pelagic species, including those not primarily targeted by commercial tuna fisheries. This would align well with enhancing community participation and access to pelagic fish species as both rely on good catch rates and availability of fish within a reasonable distance from the shore.
Support for capacity and expertise for data handling and management	With the intended development of a scientific data clearing house focusing on ocean sciences, there will be a need for well-trained data handlers and analysis experts.
Creating and/or improving tertiary level educational options and courses in the region	Although training and capacity building of existing personnel within the fisheries sector is an obvious requirement, there is also a need to ensure that the educational system and academia in general is delivering the appropriate training at the University/College level that will allow a create a fresh cadre of young professionals that can move into fisheries management

STRATEGY C.2: CAPACITY BUILDING AND TRAINING FOR IMPROVED ENFORCEMENT AND COMPLIANCE	
PROPOSED OUTCOME	**JUSTIFICATION**
Improved capacity, training and guidelines for inspection, enforcement, compliance and MCS information management and analysis	As above, the inevitable regular turnover of staff, often through promotion, along with the expanding technology and improvements in enforcement and compliance strategies and mechanisms demands an on-going training programme for fisheries inspection and enforcement officers. E-monitoring and E-Reporting are all part of the compliance process as well as associated strengthening of analytical capacity.
Strengthened capacity of SIDS to improve their 'flag-state' roles and overall compliance	With the growing importance of the SIDs fleets, there is a need to improve the effectiveness of SIDS management of their flag vessels, including through greater priority being given in regional and sub-regional programmes to supporting SIDS as flag states as well as coastal states.

See Annex 1: Strategies and Outcomes to Address the Main Objectives of the SAP for further details on the national and regional Actions required to achieve these Outcomes

3.5 Global Transboundary Benefits arising from the Strategic Action Programme

The Transboundary Diagnostic Analysis for the WCPFC Area will now be followed up by the development and implementation of this regionally agreed Strategic Action Programs. In doing so, the SAP will deliver benefits and advantages not just at the regional level but also at the international global level through enhancing its sustainable fisheries. Effective implementation of the SAP will help to catalyse and demonstrate sustainable fisheries management within a fishery that has a worldwide market and upon which global food security is dependent. It will further demonstrate blue economy opportunities Including the maintenance of a sustainable healthy marine ecosystem and it will assist in addressing the global concern regarding marine plastics and lost fishing gear. Finally, it will explore mechanisms for improving management within those areas beyond national jurisdiction that fall within the WCPC Area. The SAP will directly address all of the SDG 14 Targets and deliver the required Indicators also.

The implementation of the SAP will promote sustainable fishing practices at both the national and regional level within the WCPFC Area alongside integrating those fisheries within an overall ecosystem-based management and governance strategy. This approach will help to ensure that the growing anthropogenic pressures within this region are mitigated within the large marine ecosystem and the convention area, both of this have interactive transboundary linkages to other regions and ecosystems.

Finally, the implementation of the SAP will serve to strengthen and encourage collaboration among major regional stakeholders such as the Regional Seas Programme(s) and Convention(s), other overlapping and neighbouring Regional Fisheries Management Organizations (RFMOs) and the private sector in order to protect the ecosystem and its living marine resources from further degradation and impact.

4 Implementation Arrangements

In order for the SAP to be implemented efficiently and the various activities to be delivered in a timely manner as well as to monitor the overall implementation of the SAP, there will need to be some administrative and management processes put in place or modified and expanded from existing arrangements in the region.

4.1 Institutional Arrangements

The Forum Fisheries Agency FFA has a formal role within the decision-making mechanism of WCPFC as is clearly stated in Article 20.2 of the Convention. This has resulted in FFA providing an apparatus for its member countries to establish and present joint approaches to issues that are being debated or tabled at the WCPF Commission meetings. Over the past two decades, this strategy has been further promoted and sustained by the series of Ocean Fisheries Management projects that have progressively evolved through the support of the Global Environment Facility and two of its Implementing Agencies (UNDP and FAO). This role of the FFA in providing a primary link between the interest of the Pacific SIDS (including their sub-regional groupings) and WCPF Commission needs to be sustained and may need to diversify and evolve further.

Working within the framework of the WCPF Commission and Convention, FFA will provide for regional coordination of the SAP and between the parties to the SAP (i.e. The FFA Member SIDS and other entities that endorse the SAP). It will also be the body that can receive and administer any funding in support to the SIDS in implementing this SAP and will provide the formal channel for interacting with and informing the WCPF Commission on SAP-related aims, objectives and activities.

Article VIII of the FFA Convention provides the Agency with the necessary legal status such as contractual capacity, procurement of services and equipment, etc.

Wherever possible and appropriate, FFA will make use of existing scientific groups and technical bodies within its own agency and within the WCPF Commission to address relevant areas of concern and associated activities.

National Level Institutional Mechanisms for SAP Implementation

There are already existing national bodies that provide the entry point and focus for both the WCPF Convention and for FFA. For the purposes of implementing the SAP through actions at the national level, these same bodies would provide be most appropriate roles as the National Focal Institutions through which FFA would access national involvement and assistance as well as providing them with support and funding

4.2 Adaptive Management and the Precautionary Approach

The **United Nations Agreement on the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks** requires the application of the Precautionary Approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment. It further provides annexed guidelines for the application of precautionary reference points in conservation and management of straddling fish stocks and highly migratory fish stocks and specifically states that:

> *'Management strategies shall seek to maintain or restore populations of harvested stocks, and where necessary associated or dependent species, at levels consistent with previously agreed precautionary*

reference points. Such reference points shall be used to trigger pre-agreed conservation and management action. Management strategies shall include measures which can be implemented when precautionary reference points are approached'.

Harvest strategies, also known as Management Procedures (MP) are pre-agreed frameworks that specify the pre-determined management actions in a fishery for defined species (at the stock or management unit level) necessary to achieve agreed biological, ecological, economic and/or social management objectives. The assist in setting quotas and have a set of basic elements namely, a monitoring program; indicators of the fishery's status and health (with associated reference points); a method to assess the value of the chosen indicators; and Harvest Control Rules (HCR) that trigger automatic management actions depending on whether key indicators are close to or surpass the reference points.

Management actions are pre-defined through an agreed 'harvest control rule' (HCR). Candidate HCRs, tailored to the fish stock and fishery concerned, are tested prior to implementation through computer simulation (see framework shown in Figure 3). Based upon the results of those analyses, managers choose that strategy which best avoids defined limit reference points that indicate low stock sizes that may lead to biological concerns and, instead, aim to maintain the stock at target levels that achieve the desired trade-offs between the different management objectives, as well as being robust to the main uncertainties.

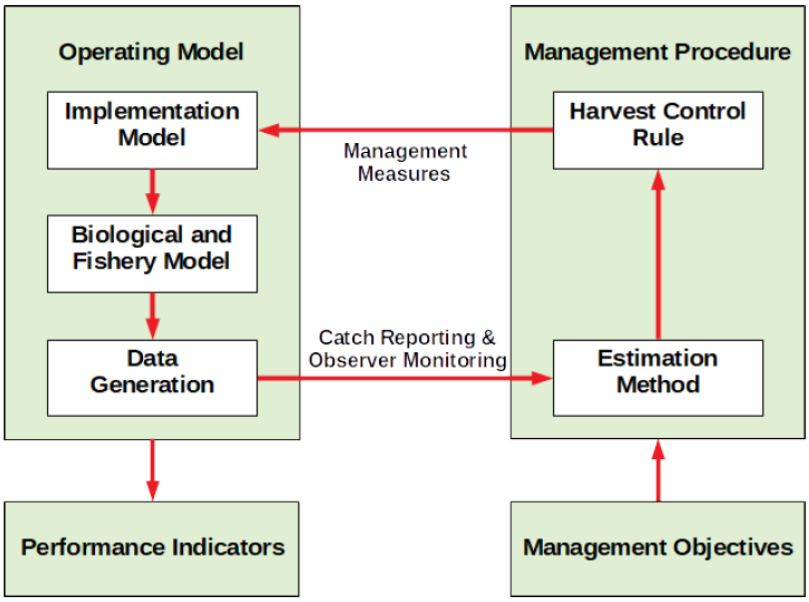

Figure 3. Framework for testing candidate harvest strategies, defined by agreed management objectives

The harvest strategy programme has been given priority within the Commission's work programme, and a work plan agreed. Given the iterative nature of the harvest strategy development process (agreement of the 'best' HCR will take a number of years of iterative work by managers and scientists), this work plan will continue for a number of years. Once fully implemented, the harvest strategy approach will move away from the ad hoc nature of management decision-making at the WCPFC for these key tuna stocks and fisheries.

The Western and Central Pacific Fisheries Commission members have adopted the **Conservation and Management Measure on Establishing a Harvest Strategy for Key Fisheries and Stocks in The Western and Central Pacific Ocean** (Conservation and Management Measure 2014-06). Harvest strategies, also

known as Management Procedures (MP) are pre-agreed frameworks that capture the precautionary approach as defined in the aforementioned Fish Stocks Agreement. They specify the pre-determined management actions in a fishery for defined species (at the stock or management unit level) necessary to achieve agreed biological, ecological, economic and/or social management objectives. The assist in setting quotas and have a set of basic elements namely, a monitoring program; indicators of the fishery's status and health (with associated reference points); a method to assess the value of the chosen indicators; and harvest control rules (HCR) that trigger automatic management actions depending on whether key indicators are close to or surpass the reference points.

The WCPF Commission, through CMM 2014-06, has agreed to develop and implement a harvest strategy approach for each of the key fisheries or stocks under the purview of the Commission using the following process:

> '*Harvest strategies are considered to represent a best-practice approach to fisheries management decision-making. Harvest strategies are proactive, adaptive and provide a framework for taking the best available information about a stock or fishery and applying an evidence and risk-based approach to setting harvest levels. They provide a more certain operating environment where management decisions relating to the fishery or stocks are more consistent, predictable and transparent. Harvest strategies developed in accordance with this CMM shall set out the management actions necessary to achieve defined and agreed biological, ecological, economic and/or social objectives in the fisheries. Each harvest strategy shall contain a tailored process for conducting assessments of the biological, economic and social conditions of the fisheries and pre-defined rules that manage the fishery or stock in order to attain the objectives'*.

The countries endorsing this SAP therefore have, as one of their priority objectives, the adoption of this 'Harvest Strategy' mechanism as an adaptive management measure that embraces the precautionary approach and allows for rapid and proactive feedback mechanisms to adjust management practices so as to reflect the immediate needs for maintaining a sustainable fishery.

4.4 Coordination and Interaction

The implementation of the Strategic Action Programme will realistically require effective coordination and collaboration at the national, sub-regional, regional and even global levels.

National Level: Within countries and territories there will be a need for interaction and collaboration between ministries and departments to ensure that there is a coordinated approach to implementing the SAP and achieving the national targets (e.g. the adoption and implementation of national tuna management plans). This collaboration would also need to reach out and embrace the private sector if many of the targets are to be realised (e.g. implement eco-labelling of fish and seafood products at the national level and promoting adoption at the international consumer level).

Sub-Regional Level: There will need to be close coordination with existing or new sub-regional management agreements, such as the Parties to the Nauru Convention, in order to ensure as much complementarity as possible between them and the aims of the SAP and the requirements of the FFA Member States. This coordination process should also recognise that the FFA and the overall Convention and its organs may well be able to learn lessons and adopt best practise from the sub-regional bodies and agreements.

Regional Level: The WCPF Convention provides the operational framework based on which the SAP will implement its activities. These activities will be implemented, administered and steered by and through

the Forum Fisheries Agency on behalf of those Members of the FFA that have endorsed the SAP. There are opportunities which can be recognised (and, where appropriate, made more formal) for stronger coordination between FFA, the Convention/Commission and other regional treaties and agreements and their supportive programmes. There is also the consideration of overlapping or adjacent jurisdictions or interests such as the South Pacific Regional Fisheries Management Organisation, the United States Multilateral Treaty, the Commission for the Conservation of Southern Bluefin Tuna, the Commission for the Conservation of Antarctic Marine Livening Resources, Inter-American Tropical Tuna Commission, etc**.** In this context, the Council of Regional Organisations in the Pacific (CROP) may also have a useful role to play.

Global Level: At the global level, coordination with global initiatives and conventions/treaties will be a logical requirement. Global-level United Nations agencies such as FAO and UNEP as well as IMO and others will be interested to engage in some aspects of SAP implementation. Global private sector bodies would also be a target for coordination including those representing the shipping industry, as would global NGOs such as the Marine Stewardship Council.

5 Capacity Building and Training Needs and Mechanisms

To deliver on the Objectives and Outcomes of the SAP there will inevitably be a need for enhanced capacity and for further training, particularly at the national level, in order to ensure that there is (for example) effective compliance and enforcement, regular and reliable monitoring and consequent data capture. Even at the regional level there will probably be a need for additional or improved skills related to such aspects as modelling, forecasting and prediction, especially at the ecosystem level and particularly in relation to widespread impacts from climate change. The Strategic Action Programme recongises the need for capacity building and training as one of its priority objectives (Objective C – above)

5.1 Capacity Building and Training Priorities

In order to undertake cost-effective capacity building and training exercises, it will be necessary to assess and prioritise the training needs through the region. Once these priorities have been agreed, a realistic training and capacity-building programme can be identified and adopted. Such a programme will need to consider the needs of the countries balanced against the needs of the region and also consider how the training exercises and strengthening of capacity can most effectively be delivered. In some cases, it may be most effective to support selected individuals in improving their expertise within a specific area (i.e. through residential training at recognised training/educational institutions). Other situations may require short-term, workshop style training which can be done at the regional level (bringing appropriate country representatives into one location for training) or at the national level (sending experts/trainers into countries to deliver training and capacity building very specifically to a country's needs). Some important requirements then need to be incorporated into the capacity building and training programme include.

- Establishing partnerships with institutions that are skilled in providing the necessary training
- Identifying supportive funding for the training through specialist institutions, NGOs and global funding agencies
- Ensuring that post-training long-term mentoring is agreed and available so that the trainees can refer back to the experts for guidance
- Establishing criteria for selection of the appropriate individuals so as to ensure that they have sufficient background knowledge to benefit from the training and that they will return to the appropriate positions within their governments/countries/regional agencies where they can best use the knowledge learned in implementing SAP objectives and targets
- Identify the need for strengthening or improving tertiary level courses that teach fisheries management and related subjects, and improve access to those courses where necessary for the next generation of fisheries managers

5.2 Centres of Excellence

It would be valuable to identify Centres of Excellence within or outside of the region that can support specific Objectives, Outcomes and Targets as defined in this Strategic Action Programme. Partnerships should be stablished with such Centres through formal agreement. These Centres may also be able to provide some of the training and capacity building requirements as mentioned above as well as the necessary scientific, technical and management/policy level support to SAP implementation. The region may also wish to establish new Centres of Excellence to address newly-emerging issues or concerns that are not being effectively address

5.3 A Clearing House for Ocean Sciences

If Adaptive Management is to be effective it needs to be supported by reliable scientific data and analysis. Ideally, it also needs to combine a number of scientific and technical skill-sets and disciplines at the analysis stage. One Centre of Excellence (as mentioned above) would be a Clearing House for ocean science data and information. The creation of such a Clearing House (the Pacific Community Centre for Ocean Sciences) has already been officially endorsed by the Pacific Community Conference and is in the process of being operationalised. It would be of enormous value to the implementation of the SAP and to the overall adaptive management process if this PCCOS could be made the foundation institution for providing scientific data and information into the broader proposed peer-review process (as defined above) so as to proactively drive management decisions as well as prioritising research needs.

6 Monitoring and Evaluation

Implementation of a Strategic Action Programme cannot be effectively undertaken without a strategy for monitoring and evaluating the effectiveness and achievement of such an implementation process. The Strategic Action Programme needs a parallel monitoring and evaluation process that looks at the agreed design and implementation of the programme and defines Indicators and data collection processes that can confirm whether Targets have been met and that the Outcomes have been achieved. One of the simplest approaches to achieving this is through a Results Framework. This considers each Objective and its intended Outcomes and identifies specific targets and corroborating indicators that can confirm the achievement of those Outcomes. **Annex 1 (Strategies and Outcomes to Address the Main Objectives of the SAP)** provides the priority strategies at both national and regional level. During the Inception phase of the SAP Implementation, experts in the region will meet to confirm the strategies outlined, set targets, identify the indicators and corresponding data collection methods, and identify how monitoring and evaluation will occur throughout the programme. This will then form part of the Implementation and Sustainability Plan (See below).

The Institutional bodies responsible for SAP Implementation at the national and regional level will meet at least once every 12 months. During these meetings, monitoring and evaluation information will be reviewed to assess the progress for each Outcome and its Strategies and to address any constraints, challenges and gaps. This information will also be used to review the programme design itself and planning, to understand whether the Outcomes and Strategies themselves remain relevant and appropriate for achieving the Programme Objectives, including any further improvements or refinement that needs to be made during implementation. These meetings will also consider the ongoing alignment with the SDG 14 targets and indicators and the progress in meeting these along with any constraints. The meetings will also consider any risks that have arisen or are likely to arise that may jeopardise the delivery of the outcomes and overall objectives. Such risks may be of a political, economic or social nature and may include events outside of the region and/or beyond the control of the Convention/Commission.

6.1 Implementation and Sustainability Plan and Road-Map

An overall Implementation Plan will be developed and adopted alongside a supporting Sustainability Plan as an 'inception' activity for the start of the implementation process. These two planning processes will constitute the road-map for the SAP implementation and delivery of Outcomes and Targets.

The Implementation Plan will identify:

- How the targets are being prioritised and sequenced
- What the timeline is for delivering the individual targets
- The indicators that will confirm that the targets have been achieved

The Sustainability Plan will identify:

- Which parties are addressing which targets?
- How the delivery on specific Outcomes/Targets will be funded?
- Which targets will need repeated attention and over what period (e.g. capacity building and training)

7 Partnerships and Support

7.1 Partnership Arrangements

There are already a number of partners and their institutional arrangements which are formally or informally associated with the WCPF Convention. Annex 2 lists these existing partnership agreements and collaboration within the Convention and/or between its members. Further to this, there are a number of other complementary initiatives in the region being overseen by the United Nations Food and Agricultural Organisation (FAO), the World-Wide Fund for Nature (WWF), Pew Charitable Trust, The Pacific Islands Tuna Industry Association (PITIA), the International Seafood Sustainability Foundation (ISSF). Greenpeace, etc. Their various and detailed roles in relation to the WCPF Convention and its formal partners are described further in the Transboundary Diagnostic Analysis.

Partnership arrangements are important to the SAP Implementation process and will be encouraged, established and maintained through various means ranging from the more formal MoUs and legal agreements through to more informal Aides Memoire and similar notes on cooperation. Partnerships will be needed to reflect a number of collaborative needs for delivery on the Outcomes, including:

- The adoption of Catch Documentation Scheme standards and systems
- Data capture and analysis (especially using the most up-to-date techniques in, for example, modelling, remote sensing and GPS, DNA analysis, etc.)
- Monitoring, Control and Surveillance of activities both within EEZ and on the high seas
- Eco-Labelling of fish and seafood products (including chain-of-custody)
- Negotiation and agreement on regulations with the shipping industry and management on the high seas
- Effective awareness campaigns and outreach
- Training and capacity building

As such, further Partnerships will be needed with such bodies and sectors as:

- Private Sector
- Academic Institutions
- Scientific Institutions
- NGOs

Such Partnerships will be established with individual bodies or groups both within the region and beyond as necessary.

7.2 Potential Sources of Funding Support

Implementation of the Strategic Action Programme will require funding support and financial resources both from the PICTS themselves but also from other sources such as international donor agencies. Such agencies would include various United Nations support agencies (e.g. UNDP, UNEP, FAO) as well as other funding agencies the Global Environment Facility, the Green Climate Fund, European Bank for Reconstruction and Development, Asian Development Bank, etc. Further funding may be available from the countries of the region that are considered to be well-developed and financially stable.

The funding support and actual funding commitments will be established and confirmed at the inception phase of SAP Implementation and this information will complement and support the Implementation and Sustainability Plan.

There are a number of existing initiatives in place in support of aspects of some of the priorities identified in the SAP primarily through donor funded projects and activities undertaken by FFA and SPC. These will be enhanced by the support systems identified to implement the activities identified in the SAP.

8 Annexes

Annex 1: Strategies, Outcomes and Actions Required to Address the Main Objectives of the SAP

Annex 2: Existing Partnership Agreements and Collaboration within the Convention and between its Members

Annex 3: Linkages between SAP and Sustainable Development Goal 14

Annex 4: WCPFC – Commission Management Measures (CMMs)

Annex 1: Strategies, Outcomes and Actions to Address the Main Objectives of the SAP n

STRATEGIES AND INTENDED OUTCOMES	ACTION REQUIRED AT THE REGIONAL LEVEL	ACTION REQUIRED AT THE NATIONAL LEVEL
OBJECTIVE A: IMPROVEMENT AND STRENGTHENING OF MANAGEMENT STRATEGIES AND MECHANISMS FOR THE ECOSYSTEM AND ITS LIVING MARINE RESOURCES IN THE WCPFC AREA		
Strategy A.1: Improvements in Existing Management Approaches		
Outcome: Improvements in Longline Management 'In-Zone' and on the High Seas	• Stronger management measures for the uncontrolled and unmanaged longlining in the southern and northern high seas areas • Stricter regulation and enforcement over transhipment on high seas including more rigorous 'policing' of the exemption clause • Mandatory offloading in ports • A feasibility study for the development of a Regional Longline Strategy that identifies and promotes the concept of collaborative zone-based (rather than flag-based) management • Implementation of a Vessel-Day Scheme for the tropical longline fishery • Strengthen and enhance actions taken to control IUU fishing in the longline fishery (esp. in relation to under-reporting) • Adopt and enforce a ban on wire traces/shark lines as well as shark-finning on the high seas fisheries • Identify and adopt strategies to reduce loss of fishing gear	• Adoption of trip-by-trip and vessel specific data capture (as used in the purse seine fishery) throughout the countries and ports of the region • Port-to-port monitoring and shared access to monitoring and compliance information • Improvements in Port Transhipment facilities providing better control and monitoring of transhipment • Move toward the elimination of high seas transhipment in order to strengthen control over mis-reporting and excessive by-catch (and to support a ban on shark-finning) • Introducing a Quality Assurance Review (QAR) system to assist CCMs where there is a pattern of serious non-compliance with CMMs and possibly systemic issues.
Outcome: Improvements in Purse Seine Management	• Comprehensive limits for purse seine effort in the high seas • Improved FAD management including improvements such as FAD registration/ tracking, and stronger controls on FAD deployment and use • Identify and adopt strategies to reduce loss of fishing gear (esp. FADs) • Use of biodegradable materials and the adoption of designs that reduce entanglement	• Port-to-port monitoring and shared access to monitoring and compliance information • Improvements in Port Transhipment facilities providing better control and monitoring of transhipment • Introducing a Quality Assurance Review (QAR) system to assist CCMs where there is a pattern of serious

STRATEGIES AND INTENDED OUTCOMES	ACTION REQUIRED AT THE REGIONAL LEVEL	ACTION REQUIRED AT THE NATIONAL LEVEL
	• Strengthen and enhance actions taken to control IUU fishing in the Purse Seine fishery	non-compliance with CMMs and possibly systemic issues.
Outcome: Strengthen coordination between regional & sub-regional management strategies, administrative bodies. NGOs and other potential partners	• Continued (and improved as necessary) coordination between WCPFC, FFA, SPC, PNA, TKA, TVM, etc. with an emphasis on collaboration and resolution of overlapping activities and jurisdictions • Capture of best lessons and practices from successful sub-regional fisheries management arrangements in the WCPFC area into the overall regional arrangement • Strengthened collaboration between WCPFC, Regional Seas Programmes, USP (training), South Pacific Regional Fisheries Management Organisation, Pacific Islands Regional Ocean Policy for Integrated Strategic Action • Encourage and promote the representation of industrial sector interests through stronger engagement with PITIA	• National level assessment and recommendations related to 'conflicts of interest' with larger fishing nations that are creating socioeconomic impacts/ burdens
Outcome: Strengthening the implementation of national Tuna Management Plans	• Region-wide review of all national Tuna Management Plans to identify best practices and constraints/gaps • Align linkages within tuna management plans to a regionally agreed management strategies such as the VDS, catch management and harvest strategy approach.	• Assistance to those countries with 'weak' tuna management to update and deliver on their TMPs
Outcome: Expand the eco-labelling of fish and seafood products in order to create sustainability through consumer-driven incentives	• Expand and strengthen the process for the adoption of eco-labelling of fish and seafood products from certified fisheries noting best practices already established at the sub-regional level • adopt more robust systems for tracing fish products to ensure they originate from certified fisheries	• Implement eco-labelling of fish and seafood products at the national level and promoting adoption at the international consumer level • Implement reliable 'chain-of-custody' mechanisms to guarantee origination from certified fisheries and approved fishing methods
Outcome: Strengthen coordination between various scientific research activities	• Provide support for a body/centre such as PCCOS (Pacific Community Centre for Ocean Science) for coordinating scientific research activities within the WCPFC area	• Implement national mechanisms for reporting information to PCCOS

STRATEGIES AND INTENDED OUTCOMES	ACTION REQUIRED AT THE REGIONAL LEVEL	ACTION REQUIRED AT THE NATIONAL LEVEL
	• Ensure access to important data necessary for management decisions and policy guidance which can feed into the Adaptive Management process	
Outcome: Improved compliance with other relevant international treaties and their supportive activities and projects	• Assess, monitor and improve compliance by PICTs and foreign licensed vessels with **Regional Seas Programme(s), MARPOL, FAO Code of Conduct, UN Straddling Fish Stocks Agreement, the FAO GEF Sustainable Management of Tuna Fisheries and Biodiversity Conservation in the Areas Beyond National Jurisdiction (ABNJ) Project**, etc	• Assess national flag-state compliance with the **Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas** and support for delivering on such flag-state responsibilities
Outcome: Strengthen sovereign rights of Pacific SIDS to effectively control and ensure ongoing access to their tuna resources, particularly through the legal recognition of existing jurisdictional baselines in perpetuity in order to underpin effective management	• Strengthening and support for efforts to fix island and archipelagic baselines and maritime boundaries as originally established under UNCLOS (e.g. through the regional strategy on *Securing the Maritime Jurisdictions of Pacific SIDS against Climate Change*) to ensure that the impact of climate change and sea level rise does not result in reduced jurisdiction and consequent impacts on food security, revenue and livelihoods • Ensure that SIDS have an equal opportunity for negotiating access to high seas fisheries while maintaining their zone-based rights	• Assistance as required to individual PICTs to secure formal and permanent agreement on maritime boundaries • FFA to ensure the equitable involvement of SIDS in overall access negotiations
Strategy A.2. New Management Approaches		
Outcome: Adoption of an effective and proactive Adaptive Management mechanism based on the Precautionary Approach as set out in the UN Fish Stocks Agreement	• Adoption of harvest strategies linked to robust harvest control rules to guide how fishing patterns will be adjusted in responses to changes in stock status • Specific focus on the use and reaction to Trigger reference points to prompt additional management response in order to help ensure that the fishery remains close to the target or avoids breaching the limit • Improved approaches for management of data-poor stocks such as the "weight-of-evidence" approach	• An assessment of whether the necessary national management institutions and mechanisms are in place that can adapt rapidly when the implementation of agreed harvest strategies result changes being required in fishing patterns relating to the target stocks and to a sustainable fishery overall • Adoption of the Adaptive Management and the Precautionary approach at the national level with consequent updating of management guidelines and policy briefings

STRATEGIES AND INTENDED OUTCOMES	ACTION REQUIRED AT THE REGIONAL LEVEL	ACTION REQUIRED AT THE NATIONAL LEVEL
	• An assessment of whether the necessary regional management strategies are in place that can adapt rapidly to identified changes in (and threats to) the target stocks and to a sustainable fishery overall • Ensure that the necessary data to underpin the performance indicators in relation to economic (cost, value), social and ecosystem) are collected at the relevant level in order to support the Harvest Strategy process • Identifying the extent to which declines in fisheries productivity are likely to affect the regional and national plans and policies that Pacific island countries and territories have put in place to maximise the sustainable benefits for economic development, food security, and livelihoods (N.B. fisheries management policies need to take into account both climate-driven and fisheries impacts on the stock)	
Outcome: Shift from single-species management approach to ecosystem-based approach to fisheries management to include multi-species management strategy (target and non-target)	• Review of existing EAF (Ecosystem Approach to Fisheries) management strategies and negotiation, design and implementation of a multi-species EBM approach within the WCPFC mandate • Consider multi-species targets in developing harvest strategies noting the importance of maintaining key commercial stocks at economically viable levels, while other 'secondary' species can be sustainably managed at lower levels. • Feasibility assessment of setting up conservation/replenishment zones (if possible in areas where the target species are not schooling) • A review of existing Access and Catch-based Agreements to ascertain if they are still 'fit-for-purpose' and are effectively managing the stock in a sustainable and 'ecosystem-focused' manner	• National review of potential marine management/replenishment zones to advise a regional feasibility assessment

STRATEGIES AND INTENDED OUTCOMES	ACTION REQUIRED AT THE REGIONAL LEVEL	ACTION REQUIRED AT THE NATIONAL LEVEL
Outcome: Develop new strategies for community subsistence and small-scale commercial fishery as coastal fisheries decline	• Review domestic access conditions with a view to encouraging and promoting the distribution of small tuna and bycatch offloaded by industrial fleets at regional ports • Support for expanding the development and use of nearshore fish aggregating devices (FADs) to assist small-scale fishers in catching tuna • improving access to canned tuna for inland populations • An assessment of whether strategies for retention of edible, non-target catches by the Western and Central Pacific purse seine fishery could aid food security	• Feasibility of adoption of national nearshore FAD deployment and fishery
OBJECTIVE B: STRENGTHENING AND EXPANDING SCIENTIFIC MONITORING TO SUPPORT IMPROVED MANAGEMENT AND UNDERSTANDING OF THE ECOSYSTEM AND ITS LIVING MARINE RESOURCES IN THE WCPFC AREA		
Strategy B.1. Improvements in Existing Monitoring Approaches and Methodologies		
Outcome: Establish standards for a WCPFC Catch Documentation Scheme (CDS) and develop operational electronic CDS systems at the national level.	• CDS standards agreed and adopted by WCPFC • Framework for the adoption of the CDS standards and auditing of CDS programmes against the WCPFC standards	• Adoption of electronic CDS systems • Resources in place for the effective operation and management of national CDS systems
Outcome: Strengthen on-board monitoring and reporting of fishing activity through improved observer coverage and wider use of electronic monitoring/reporting technology.	• Strengthen the role and distribution of E-monitoring and E-Reporting as a legal licencing requirement • Enhance coverage of E-Monitoring/E-Reporting on all fishing and transhipping vessels within the WCPFC area, especially on the high seas • Identify and implement the transfer of selected reporting requirements to be under the responsibility of vessel operators (to free up Observers for high priority activities) • Develop regional and sub-regional e-monitoring programmes Ensure that observers and e-monitoring are used in a complimentary manner that meets the data needs, strengthens	• Recognition and adoption of PIRFO standards by all countries through the WCPFC area • Integration of E-Monitoring and E-Reporting into national administrative processes and port state practices • Support National fishery agencies, and existing sub-regional observer programs to take responsibility for analysis of video and sensor data • Strengthened national and sub-regional observer programmes to ease the training and logistical

STRATEGIES AND INTENDED OUTCOMES	ACTION REQUIRED AT THE REGIONAL LEVEL	ACTION REQUIRED AT THE NATIONAL LEVEL
	coverage, improves reliability of data and helps address safety concerns for observes.	burden at country level and to ensure quality assurance via an audit process • Develop and implement cost recovery mechanisms for observers and e-monitoring to ensure that effective monitoring can be sustained over the longer term.
Outcome: Improve capture of information on catch, effort, bycatch, unloading and transhipping of both target and non-target species through better coverage and technology and electronic information systems	• Monitor the effective use and implementation of E-Monitoring and E-reporting on all licensed vessels • Undertake a detailed review of the Bycatch Management Information System (BMIS) with a view to identifying and adopting improvements in data capture and in response to information arising that can be used to modify fisheries management practices • Capture and analysis of length and weight data for target and non-target species with a view to improving the accuracy of the estimates of non-target species bycatch • Strengthen the availability of and increase access to reliable CPUE analyses and of tagging-based length-increment data and explore the feasibility of defining a core fleet as pole-and-line data become more sparse • General improvement in in accessibility to longline log-sheet data as well as the improvements in the capture of age-length data and analysis for smaller fish • Expand the biological studies on spawning potential components (e.g. egg production-at-age) so as to reduce uncertainty in the values used in stock assessments • Expand the work on maturity-at-length to allow easier back-transformation to maturity-at-age • Capture and analysis of species abundance/size from acoustic data from drifting FADs	• Improved capture of data at the port level when unloading and transhipping (Ideally eliminating transhipping on the high sea) Integration of E-Monitoring and E-Reporting into national information systems and associated administrative processes and port state practices.

STRATEGIES AND INTENDED OUTCOMES	ACTION REQUIRED AT THE REGIONAL LEVEL	ACTION REQUIRED AT THE NATIONAL LEVEL
	• Capture and inclusion of 'fate' information for species/species groups that are commonly released/discarded as part of the management strategy	
Outcome: Strengthen cooperative monitoring, control and surveillance programmes and associated data analysis capacity with the specific aim of reducing and elimination IUU fishing	• Strengthen and enhance monitoring to control IUU fishing in the longline fishery (esp. in relation to under-reporting) • Develop a regional catch documentation scheme to deter IUU-caught products from being traded and marketed • Review all M, C & S measures to identify best practices, gaps and constraints • Assess and implement further requirements to strengthen accuracy of catch reports and other port state measures across the region	• Flag-state assessments to ascertain compliance in each country • Improvements in port state related data analytical capacity • Improvements in port state measures that aim to prevent IUU landings, transhipping, etc. • Implement catch documentation requirements for national fleets
Outcome: Strengthen and expand data capture, predictive modelling and assessment, and subsequent adaptive management recommendations related to climate-induced changes and the need for community resilience	• Identify improved data capture requirements to better populate the SEAPODYM and Ecopath/Ecosim modelling processes • Adopt a 'Peer-Review' process to analyse the outputs from the SEAPODYM and Ecopath/Ecosim modelling processes and recommend any management or policy actions • Develop and implement a specific monitoring programme for alterations in tuna stock distribution across the WCPFC area related to physical and chemical shifts induced by climate change • Support for capture of more data on productivity and tuna forage availability • Specifically undertake an assessment of the potential impacts of changes in spatial distribution and abundance of tuna stocks on domestic fleets and PICTs' economies	• National level assistance (equipment and training) for a region-wide data collection programme for basic climate change data (SST, pH, DO_2, sea level, etc.) • enhancing members understanding of climate change impacts and mitigation strategies • Recommendations on the mitigation of impacts from climate change on fisheries and associated socioeconomic effects are configured and integrated for individual PICTS and their national circumstances • Transfer of Adaptive Management Guidelines and Policy Briefs to national level
Outcome:	• Monitoring strategy adopted for 'lost' FADs (tracking)	• Requirement for licenced vessels to report lost FADs to licencing/access agency authority

STRATEGIES AND INTENDED OUTCOMES	ACTION REQUIRED AT THE REGIONAL LEVEL	ACTION REQUIRED AT THE NATIONAL LEVEL
Monitoring and assessment of impacts from waste/lost materials and discharges	• Assessment of impacts from fishing vessel-generated wastes and recommendations for mitigation	
Strategy B.II. New Monitoring and Data Handling Strategies to support Adaptive Management		
Outcome: Adoption of a mechanisms to ensure pertinent data feeds into an adaptive management process(es) and generates usable material for management and policy guidance and realignment	• Regular Peer Review of data arising from SEAPODYM and Ecopath/Ecosim modelling processes in order to guide and advise adaptive management and policy strategies • Ensure effective use of the Pacific Community Centre for Ocean Science (PCCOS) and provide support to the web portal and other PCCOS Initiatives	• Adaptive management and policy strategies and guidelines acted on at the national level with feedback to regional management
Outcome: Analysis of Ecosystem Goods and Services to support and justify Management Improvements	Undertake a region-wide detailed Ecosystem Goods and Services assessment and Cost-Benefit Analysis for more effective Ecosystem-Based Management of the fisheries	• Strengthen the capture and reliability of fisheries-related employment information available for each country and territory • Improvements to processes used for estimating GDP and its fisheries component (as recommended by Gillet 2016 – see TDA) • Develop and implement national awareness programs on the management of marine living resources and responsible fisheries for a broad range of stakeholders • Briefing documents available for each PICT on the value of ecosystem goods and services as a renewable resource for food security and socioeconomic sustainability
Outcome: Understanding role/impact of interactions within the ecosystem	• Promote and support the design and testing of better / more appropriate ecosystem health indicators, especially through strengthening the Bycatch Management Information System (BMIS)	• Collection of relevant ecosystem indicator data to populate the BMIS

STRATEGIES AND INTENDED OUTCOMES	ACTION REQUIRED AT THE REGIONAL LEVEL	ACTION REQUIRED AT THE NATIONAL LEVEL
on overall ecosystem sustainability	• Assessment of the historical, present and future states of marine ecosystem and the effects of human exploitation and climate variation have on the state of ecosystems • Increased understanding of how tuna, tuna-like populations and by-catch species respond to environment variation and anthropogenic changes (fishing pressure) and how they interact • Strengthening data capture relevant to multi-species management (target and non-target) • Expand fisheries monitoring programmes to include prey species	Updates from PICTs on identified national effects and impacts from climate change relevant to fisheries and ecosystem management
Outcome: Connectivity studies to understand relationship between coastal changes/impacts and offshore oceanic effects	• Identify and implement study into the role of connectivity on ecosystem sustainability and linkages to PICTs socioeconomic and food security resilience as well as long-term livelihoods • Expand studies on the linkage between coastal organisms and tuna forage and how therefore how coastal ecosystem health can impact on the offshore fisheries	• National level data collection of connectivity indicators including data on coastal organisms associated with tune lifecycles
Outcome: Improved knowledge on effects of other impacts from absence of management in ABNJ	• Adoption of monitoring mechanisms and regulation/management strategies for exploration and exploitation of non-biological resources within the WPWP LME Improve understanding of effect of fishing around/within unique ecosystems such as seamounts ((e.g. removal of apex predators, physical impacts, etc)	
OBJECTIVE C: CAPACITY BUILDING AND TRAINING FOR IMPROVED MONITORING AND MANAGEMENT OF THE ECOSYSTEM AND ITSLIVING MARINE RESOURCES IN THE WCPFC AREA		
Strategy C.I. Capacity Building and Training for Improved Management and Administration		
Outcome: Strengthen capacity to address increased administrative and institutional burden for more effective adaptive management and to strengthen the expertise	• Develop, adopt and implement an on-going 'rolling' training programme in the region to account for staff turnover and the provision of new management approaches • Regional/Sub-regional training workshops to improve port sampling • Regional/Sub-regional training workshops in data processing	• Where required, re-structuring of administrations to better reflect operational systems and enhanced information management • In- country training on more effective scientific analysis and translation into management and policy strategies and briefing documents

STRATEGIES AND INTENDED OUTCOMES	ACTION REQUIRED AT THE REGIONAL LEVEL	ACTION REQUIRED AT THE NATIONAL LEVEL
of fisheries officers to avoid reporting discrepancies	• Continued scientific training in stock assessment and other scientific areas • Training to demonstrate how regional stocks and ecosystem processes should be translated into information and advice at national level, for national decision-making • General regional training on key fisheries management principles in regard to reference points and harvest controls and general management principles	• Development of more effective in country inter-government processes and interactions – Fisheries, Maritime Policy, Customs, Ports Authorities, etc. • In-country training on legislative processes supporting more effective fisheries management and compliance
Outcome: Support the PICs and particularly the SIDS in replacing foreign fleets with regional, Pacific Islands fishing effort	• Strengthen programmes providing technical and business level assistance to PICs in promoting domestic fleet development and establishing local fishing ventures	• Strengthen incentives and improve investment for domestic fleet development and increasing benefits from domestic fleets
Support PICs and particularly the SIDS in creating opportunities for expanding livelihoods and businesses that are adaptive to changes in the fisheries focused on local supply, sales and processing of pelagic fish	• Develop mechanisms to include recreational game fisheries for pelagic species within the national implementations of the Harvest Strategy Approach for tuna stocks • Regional assessment and production of guidelines on localising supplying and processing of fish within the SIDS	• Review and guidelines of national potentials for livelihood opportunities that strengthen the role of the SIDS in local supply, sales and processing of pelagic fish
Outcome: Support for capacity and expertise for data handling and management	• Support for staffing and training within the Pacific Community Centre for Ocean Science • Further support in data analysis and modelling	• Identification and strengthening of any national level expertise and Centres of Excellence
Creating and/or improving tertiary level educational options and courses in the region	• Assessment of fisheries management courses within academic institutions throughout the region and recommendations for improvement as well as proposals for expanding into other institutions	• support for strengthening national level institutions to take on 'centres-of-excellence' roles

STRATEGIES AND INTENDED OUTCOMES	ACTION REQUIRED AT THE REGIONAL LEVEL	ACTION REQUIRED AT THE NATIONAL LEVEL
	• Development of partnerships with international-recognised institutions providing tertiary level fisheries management courses (including supervision of post-graduate students and mentoring)	
Strategy C.II. Capacity Building and Training for Improved Enforcement and Compliance		
Outcome: Improved capacity, training and guidelines for inspection, enforcement, compliance and MCS information management and analysis	• On-going training for inspection, enforcement and compliance • Additional training in the areas of the new comprehensive data quality control system within Tufman 2 and FIMS, how to use the comprehensive web-reporting tools and the new E-Reporting systems • Training in E-reporting and E-Monitoring procedures	• Provision of appropriate forms and sampling equipment • National level training on effective sampling and reporting • Standardisation of guidelines and methodologies related to monitoring, compliance and enforcement for national fisheries officers • The facilitation of e-monitoring demonstration trials and development of a broad, associated communication strategy • Delivery of training in information systems management and associated data analysis and follow up of data anomalies
Strengthened capacity of SIDS to improve their 'flag-state' roles and overall compliance	• Strengthen regional and sub-regional programmes providing support to SIDS as flag states • Develop and implement specific regional/sub-regional training in international fisheries law and regulations	• Strengthen national capacities for administration and control of flag vessels • Flag-state compliance training at national levels, to include all relevant sectors

Annex 2: Existing Partnership Agreements and Collaboration within the Convention and between its Members

The **Secretariat of the Pacific Community** (formally known as the South Pacific Commission) is based in Noumea, New Caledonia and is a non-political, technical assistance and research body which performs a consultative and advisory role to the Convention and its Commission. All 22 island countries and territories, with varying political status from colony to sovereign republic, are full members, along with the four remaining founder members: Australia, France, New Zealand and the United States of America. Within the SPC, The Oceanic Fisheries Programme (OFP) forms part of the Fisheries, Aquaculture and Marine Ecosystems (FAME) Division of SPC. OFP at SPC is the Pacific Community's regional centre for tuna fisheries research, fishery monitoring, stock assessment and data management. SPC is also the data services and scientific services provider to the WCPF Convention In 2016, SPC signed a Memorandum of Understanding with the Secretariat of the WCPFC Commission whereby SPC agreed to provide input and services to the Commission in i) the provision of scientific services (including data management and stock assessment) to the Commission, II) the provision of assistance to Commission members (e.g. in monitoring fishing activities, data reporting, scientific advice, implementation of management measures), and III) general administration and management of the financial arrangements for such services.

The **Pacific Islands Forum Fisheries Agency (FFA)** based in Honiara, in the Solomon Islands, is an intergovernmental agency established in 1979 to facilitate regional co-operation and co-ordination on fisheries policies between its member states in order to achieve conservation and optimum utilisation of living marine resources, in particular highly migratory fish stocks, for the benefit of the peoples of the region, in particular the developing countries. FFA assists its member governments and administrations in applying a coordinated and mutually beneficial approach to the conservation, management and development of regional tuna stocks. FFA has assisted its members in developing or negotiating a number of regional or sub-regional instruments for this purpose. These include - The Nauru Agreement (PNA); The Tokelau Arrangement (TKA); The Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC); The Niue Treaty; The Multilateral Treaty on Fisheries Between Certain Governments of the Pacific Island States and the Government of the United States of America (The US Treaty); The Harmonized Minimum Terms and Conditions for Access by Foreign Fishing vessels (MTCs). FFA has signed a Memorandum of Understanding with the WCPFC Commission for the Conservation and Management of Highly Migratory Fish Stocks in The Western and Central Pacific Ocean. This recognises the need to maximise the effectiveness of scientific, compliance and other activities and the two parties agree to exchange information relating to their activities and programmes of work on highly migratory fish stocks and associated and dependent species in the Pacific Islands region, subject to arrangements concerning the confidentiality of information held by each organisation on behalf of its members. The parties further agree to meet regularly in order to exchange information on activities of mutual interest, and to explore ways of minimising duplication of their work.

The **Nauru Agreement** (Concerning Cooperation in the Management of Fisheries of Common Interest) is a well-established sub-regional agreement between the states of Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands and Tuvalu. The eight signatories, known as the PNA (Parties to the Nauru Agreement), collectively account for around 80% of the WCPO purse seine catch from their waters and control the world's largest sustainable tuna purse seine fishery. The PNA is governed by Annual Meetings of Officials and Ministers of the Parties and occasional Summit meetings of PNA Leaders and its Office is based in Majuro, Marshall Islands. , the PNA has concluded

a number of binding management arrangements, including the 3 Implementing Arrangements to the Nauru Agreement (Including terms of access and vessel registry, use of electronic monitoring equipment, FAD closures, a ban on fishing vessels from operating in high seas pockets adjacent to the EEZs as a term of their licences, etc.), the FSM Arrangement designed to promote domestic fleets and the Palau Arrangement which implements the PNA Vessel Day Schemes. In this context, the PNA is making a valuable contribution to conservation and management of WCPO tuna resources in that it is helping to ensure that the major target stocks are now all fished sustainably (i.e. no overfishing and none are overfished). The OFP of SPC provides the PNA with data products, scientific analyses and advice to assist them with the assessment and development of fisheries management measures.

The **Tokelau Arrangement (TKA) for the Management of the South Pacific Albacore Fishery** is a newly-emerged management arrangement which includes Tokelau, Vanuatu, Australia, Cook Islands, New Zealand, Niue, Samoa, Tonga, Tuvalu, Fiji, Solomon Islands. The Tokelau Arrangement limits the catch of southern albacore tuna in their EEZ waters. One of the main functions of the arrangement is to establish a management scheme to implement cooperative measures that regulate catch or effort, apply the Harvest Strategy Approach, and restore profitability and sustainability to the fishery, while the formal objective cited in the agreement is to promote optimal utilisation, conservation and management of stocks that fall within the scope of this Arrangement. The Tokelau Arrangement also provides for "Associate Participation" by other FFA members and non-FFA South Pacific Territories – whose waters host fisheries for south Pacific albacore tuna, and who declare zone limits on the catch of albacore in ways that are compatible with the limits adopted by Participants to the Arrangement.

The **Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region** (Niue Treaty) is a multilateral treaty of members of the Pacific Islands Forum Fisheries Agency (FFA). All 17 member countries of FFA have ratified the Treaty. The objective of the Niue Treaty is to enhance regional coordination and cooperation in fisheries surveillance and law enforcement and increase the ability of Pacific Island countries to effectively enforce their fisheries laws.

Te Vaka Moana (TVM) consists of the fisheries administrations of the Cook Islands, New Zealand, Niue, Samoa, Tokelau and Tonga. The TVM's overarching goal is 'to secure, protect and enhance associated long-term economic benefits able to be derived from fisheries and protect the important contribution fisheries make to the food security of the communities'. Its main goals are to a) strengthen cooperative relationships between the participants, b) assist with ongoing fisheries related capacity development and enhancing sub-regional capability through enabling the sharing of resources, c) promote the sharing of information between the Participants with regard to fisheries policy, fisheries management, fisheries development, etc., c). support and strengthen fisheries development initiatives, including via links between the fishing industry sectors. It is managed through a Governing Committee, Technical Networks and a Programme Coordinator.

The **Melanesian Spearhead Group** (MSG) was founded in 2007 and its membership consists of the four Melanesian states of Fiji, Papua New Guinea, Solomon Islands and Vanuatu, as well as the Kanak and Socialist National Liberation Front of New Caledonia. In 2015, Indonesia

was also recognized as an associate member. The Objective of the MSG focuses on the promotion and strengthening of trade, economic and technical cooperation and the alignment of policies and shared goals of economic growth, sustainable development, good governance and security.

The **Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America** (commonly referred to as the US Tuna Treaty) entered into force in 1988. This multilateral Treaty has paved the way for US vessels to fish in the Pacific since the 1980s as well as delivering critical economic assistance from the US Government. It had been under renegotiation since 2009 and a series of annually negotiated 12-month deals kept the arrangement working on an interim basis. The Treaty sets the operational terms and conditions for the U.S. tuna purse seine fleet to fish in waters under the jurisdiction of the Pacific Island Parties, which cover a wide swath of the Western and Central Pacific Ocean containing the largest and most valuable tuna fisheries in the world. The United States has for decades sought to be a valued partner in developing regional fisheries in this area. The Treaty has supported U.S. contributions to sound sustainable fishery management and efforts to combat illegal, unreported, and unregulated fishing. It has been a cornerstone for cooperation between the Pacific Islands and the United States and has helped establish best practices for fisheries management in the region.

Annex 3: Strategies Linkages between the SAP Objectives and outcomes and Sustainable Development Goal 14 and its Targets/Indicators (To conserve and sustainably use the oceans, seas and marine resources for sustainable development)

SDG 14 Target	Related SDG 14 Indicator	Outcomes identified by the Strategic Action Programme which will support the delivery of SDG 14 Targets and Indicators
1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	Index of coastal eutrophication and floating plastic debris density	• Monitoring and assessment of impacts from waste/lost materials and discharges • Improvements in Longline Management 'In-Zone' and on the High Seas
2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans	Proportion of national exclusive economic zones managed using ecosystem-based approaches	• Adoption of an effective and proactive Adaptive Management mechanism based on the Precautionary Approach as set out in the UN Fish Stocks Agreement • Adoption of a mechanisms to ensure pertinent data feeds into an adaptive management process(es) and generates usable material for management and policy guidance and realignment • Shift from single-species management approach to ecosystem-based approach to fisheries management to include multi-species management strategy (target and non-target) • Understanding role/impact of interactions within the ecosystem on overall ecosystem sustainability • Improved knowledge on effects of other impacts from absence of management in ABNJ
3: Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels	Average marine acidity (pH) measured at agreed suite of representative sampling stations	• Strengthen and expand data capture, predictive modelling and assessment, and subsequent adaptive management recommendations related to climate-induced changes and the need for community resilience • Connectivity studies to understand relationship between coastal changes/impacts and offshore oceanic effects
4: By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics	Proportion of fish stocks within biologically sustainable levels	• Strengthen cooperative monitoring, control and surveillance programmes with the specific aim of reducing and elimination IUU fishing • Improvements in Longline Management both 'In-Zone' and on the High Seas • Improvements in Purse Seine Management • Strengthen on-board monitoring and reporting of fishing activity through improved observer coverage and wider use of electronic monitoring/reporting technology • Improve capture of information on catch, effort, bycatch, unloading and transhipping through better coverage and technology

SDG 14 Target	Related SDG 14 Indicator	Outcomes identified by the Strategic Action Programme which will support the delivery of SDG 14 Targets and Indicators
		• Adoption of a mechanisms to ensure pertinent data feeds into an adaptive management process(es) and generates usable material for management and policy guidance and realignment • Support for capacity and expertise for data handling and management • Improved capacity, training and guidelines for inspection, enforcement and compliance • Strengthened capacity of SIDS to improve their 'flag-state' roles and overall compliance
5: By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information	Coverage of protected areas in relation to marine areas	• Shift from single-species management approach to ecosystem-based approach to fisheries management to include multi-species management strategy (target and non-target). N.B this includes national targets on setting up conservation/replenishment zones (if possible in areas where the target species are not schooling)
6: By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation	Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing	• Improvements in Longline Management both 'In-Zone' and on the High Seas • Improvements in Purse Seine Management • Strengthening the implementation of national Tuna Management Plans • Expand the *eco-labelling* of fish and seafood products in order to create sustainability through consumer-driven incentives • Strengthened capacity of SIDS to improve their 'flag-state' roles and overall compliance
7: By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism	Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries	• Legal recognition of existing jurisdictional baselines in perpetuity in order to underpin effective management • Analysis of Ecosystem Goods and Services to support and justify Management Improvements • Strengthening the implementation of national Tuna Management Plans • Expand the *eco-labelling* of fish and seafood products in order to create sustainability through consumer-driven incentives • Develop new strategies for community subsistence and small-scale commercial fishery as coastal fisheries decline • Strengthen capacity to address increased administrative and institutional burden for more effective adaptive management and to strengthen

SDG 14 Target	Related SDG 14 Indicator	Outcomes identified by the Strategic Action Programme which will support the delivery of SDG 14 Targets and Indicators
		the expertise of fisheries officers to avoid reporting discrepancies • Support the PICs in replacing foreign fleets with regional, Pacific Islands fishing effort
A: Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular SID States and least developed countries	Proportion of total research budget allocated to research in the field of marine technology	• Strengthen coordination between regional & sub regional management strategies, administrative bodies and other potential partners • Strengthen coordination between various scientific research activities • Improved compliance with other relevant international treaties and their supportive activities and projects
B: Provide access for small-scale artisanal fishers to marine resources and markets	Progress by countries in the degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries	• Develop new strategies for community subsistence and small-scale commercial fishery as coastal fisheries decline
C: Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want	Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources	• Improved compliance with other relevant international treaties and their supportive activities and projects

Annex 4: List of Current Conservation and Management Measures and Resolutions of the WCPFC as of February 2018 which would be supported by the SAP.

Reference	Title
2004-03	Specifications for the Marking and Identification of Fishing Vessels
Res. 2004-04	Resolution on Conservation and Management Measures
2005-03	Conservation and Management Measure for North Pacific Albacore
Res. 2005-03	Resolution on Non-Target Fish Species
2006-04	Conservation and Management Measure for Striped Marlin in the Southwest Pacific
2006-07	Conservation and Management Measure for the Regional Observer Programme
2006-08	Western and Central Pacific Fisheries Commission Boarding and Inspection Procedures
2007-01	Conservation and Management Measure for the Regional Observer Programme
2008-03	Conservation and Management of Sea Turtles
2008-04	Conservation and Management Measure To Prohibit The Use Of Large Scale Driftnets On The High Seas In The Convention Area
Res. 2008-01	Resolution on Aspirations of SIDS and Territories
2009-02	Conservation and Management Measure on the Application of High Seas FAD Closures and Catch Retention
2009-03	Conservation and Management Measure for Swordfish ***(Replaced CMM 2008-05 and CMM 2006-03)***
2009-05	Conservation and Management Measure Prohibiting Fishing on Data Buoys AND Information Package on Data Buoys as at 18 May 2010
2009-06	Conservation and Management Measure on the Regulation of Transshipment
2009-09	Conservation and Management Measure for Vessels without nationality
2009-10	Conservation and Management Measure to Monitor Landings of Purse Seine Vessels at Ports so as to ensure reliable catch data by species
2009-11	Cooperating Non-Members
2010-01	Conservation and Management Measure for North Pacific Striped Marlin
2010-06	Conservation and Management Measure to Establish a List of Vessels Presumed to have carried out Illegal, Unreported and Unregulated Fishing activities in the WCPO ***(Replaced CMM 2007-03)***
2010-07	Conservation and Management Measure for Sharks ***(Replaced CMM 2009-04, which replaced CMM 2008-06 and CMM 2006-05)***

Reference	Title
2011-03	Conservation and Management Measure to address impact of purse seine fishing activity on cetaceans
2011-04	Conservation and Management Measure for Oceanic Whitetip Sharks
2012-03	Conservation and Management Measure for implementation of the ROP by vessels fishing north of 20N
2012-04	Conservation and Management Measure on the protection of whale sharks from purse seine operations
Res. 2012-01	Resolution on the best available science
2013-04	Conservation and Management Measure for WCPFC Implementation of a Unique Vessel Identifier (UVI)
2013-05	Conservation and Management Measure on daily catch and effort reporting
2013-06	Conservation and Management Measure on the criteria for the consideration of conservation and management proposals
2013-07	Conservation and Management Measure on the special requirements of Small Island Developing States and Territories
2013-08	Conservation and Management Measure for Silky Sharks
2014-02	Conservation and Management Measure Commission VMS ***(Replaced CMM 2011-02 (2012-2014), which replaced CMM 2007-02 (2008 – 2011))***
2014-03	Standards, specifications and procedures for the Western and Central Pacific Fisheries Commission Record of Fishing Vessels ***(Replaced CMM 2013-03 (June 2014 – June 2015))***
2014-05	Conservation and Management Measures for Sharks ***(This CMM does not replace or prejudice any other existing shark CMM)***
2014-06	Conservation and Management Measures to develop and implement a harvest strategy approach for key fisheries and stocks in the WCPO
2015-02	Conservation and Management Measure for South Pacific Albacore ***Replaced CMM 2010-05 (2015-2011), CMM 2005-02 (2006 - 2010)***
2015-06	Conservation and Management Measure on target reference point for skipjack tuna

Reference	Title
2016-02	Conservation and Management Measure for the Eastern High Seas Pocket Special Management Area ***Replaced CMM 2010-02 (2011-2016)***
2016-05	Conservation and Management Measure for Charter Notification Scheme ***(Replaced CMM 2015-05 (2016), CMM 2012-05 (2013- 2015), CMM 2011-05 (2012), which replaced CMM 09-08 (exp 31 Dec 2011))***
Res. 2017-01	Resolution on Provisional Application of CMM 2017-01
2017-01	Conservation and Management Measure for bigeye, yellowfin and skipjack tuna in the Western and Central Pacific Ocean ***(Replaced CMM 2016-01 (2017), CMM 2015-01 (2016), CMM 2014-01 (2015), CMM 2013-01 (2014),*** **CMM 2012-01 (2013),** ***replaced CMM 2008-01/CMM 2011-01 (2009-2012), which replaced and CMM 2005-01, and CMM 2006-01.)***
2017-02	Conservation and Management Measure on Minimum standards for Port State Measures
2017-03	Conservation and Management Measure for the protection of WCPFC Regional Observer Programme Observers (***(Replaced CMM 2016-03 (2017))***
2017-04	Conservation and Management Measure on Marine Pollution (effective 1 Jan 2019)
2017-05	WCPFC Record of Fishing Vessels and Authorization to Fish ***(Replaced CMM 2013-10, CMM 2004-01, and CMM 2009-01)***
2017-06	Conservation and Management Measure for Mitigating Impacts of Fishing on Seabirds ***(replaced CMM 2015-03 (effective 1 Jan 2017), and CMM 2012-07, which replaced CMM 2007-04 on 1 July 2014)***
2017-07	Conservation and Management Measure on Compliance Monitoring Scheme ***(Replaced CMM 2015-07 (2016), CMM 2014-07 (2015), CMM 2013-02 (2014),*****CMM 2010-03 (2011), CMM 11-06 (2012), CMM 12-02 (2013))**
2017-08	Conservation and Management Measure to establish a multi-annual rebuilding plan for Pacific bluefin tuna **(*Replaced CMM 2016-04 (2017), CMM 2015-04 (2016), CMM 2014-04 (2015), CMM 2013-09 (2014), which replaced* CMM 2012-06 (2013), *which replaced CMM 2010-04, which replaced CMM 2009-07)***