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**REPORT TO WCPFC ON PROGRESS OF THE PROJECT SUSTAINABLE MANAGEMENT
OF TUNA FISHERIES AND BIODIVERSITY CONSERVATION IN THE ABNJ**

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Report to WCPFC on Progress of the Project Sustainable Management of Tuna Fisheries and Biodiversity Conservation in the ABNJ

Rome, November 2018



1. Background

1. The Project “Sustainable Management of Tuna Fisheries and Biodiversity Conservation in the Areas Beyond National Jurisdiction” also referred to as the *Common Oceans ABNJ Tuna Project*, is one of the four projects funded by the Global Environment Facility (GEF) under the umbrella of the [Common Oceans ABNJ Program](#), which brings together governments, regional management bodies, civil society, the private sector, academia and industry to work towards ensuring the sustainable use and conservation of ABNJ biodiversity and ecosystem services.
2. The five-year project started in 2014 and is supported by a 30 million USD GEF grant in addition to partners co-financing. It is the largest of the Common Oceans ABNJ projects, with FAO as the implementing agency and working with a wide range of partners, including the five tuna RFMOs, encompassing 90 different countries as members of the various organizations, sub-regional organizations, environmental community and private sector.
3. The main guiding principles of the Project, discussed and agreed with partners at the Inception Workshop, held in March 2014, include:
 - a. Extending the global benefits of the Project to as many members and tuna RFMOs as possible. As this is a global project, we need to ensure that the direct benefits or the lessons learned in one region extend to as many tuna RFMOs as possible
 - b. Promote the cooperation and exchange of experiences between t-RFMOs. There are few opportunities to share the results of experiences in one RFMO with the other RFMOs
 - c. Facilitate the implementation of existing initiatives. The Project has no intention to impose anything on the partners, it is simply to assist in, and accelerate existing initiatives that were decided and agreed by the members of RFMOs.
 - d. Recognition of the need to support developing coastal States in the tuna RFMOs to become more effective members.

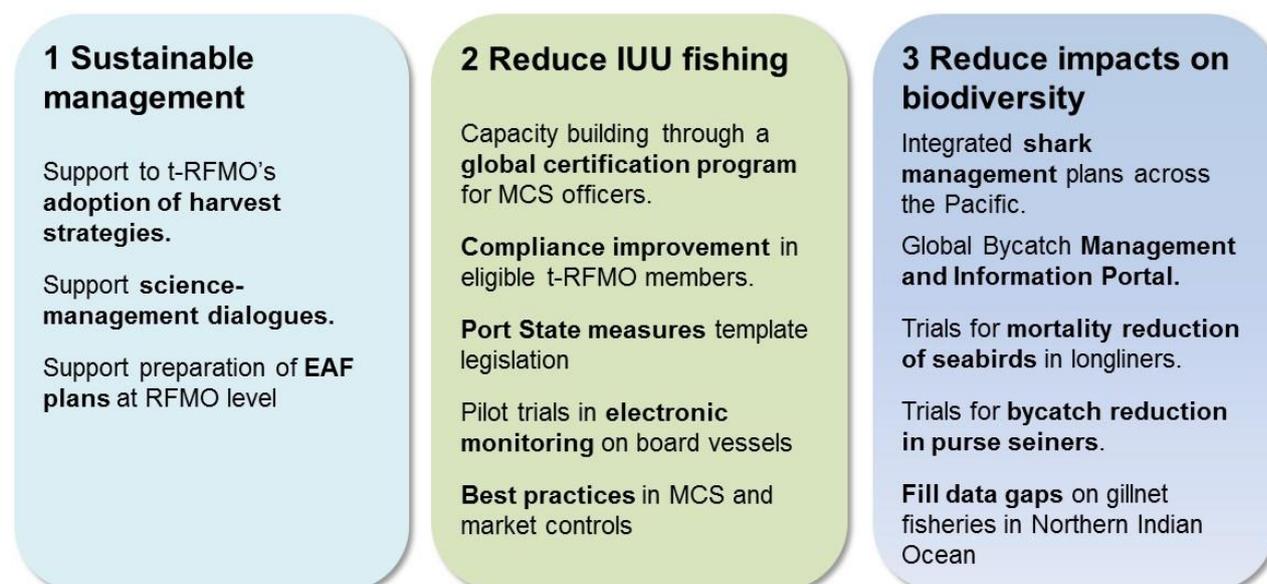


Figure 1. Structure of the Common Oceans ABNJ Tuna Project

4. The Project is structured around a hierarchy of three components, each composed of outcomes that will contribute towards the objective of the component, and each outcome being the result of a number of outputs. The basic structure of the project is shown in Figure 1 above.
5. The emphasis on sharing experiences between t-RFMO processes links the Project to the spirit of the Kobe process, in serving as a forum for cooperation in the scientific and technical communities of the t-RFMOs, therefore learning from the collective experience and improving the effectiveness of the various processes.
6. In 2017, the Project went through its Mid-Term Evaluation. The Report and the annexes are available [here](#)
7. Regular news on the project and the Common Oceans ABNJ Program can be accessed [here](#) and by subscribing to the [programmatic newsletter](#).

2. Summary of main activities with Project support involving WCPFC and its members since WCPFC14

8. Since WCPFC14, the project supported a series of activities involving WCPFC and its members:
 - a. A [capacity building workshop on the role of management strategy evaluation in the development of harvest strategies](#), held in Fiji from 20-21 February 2018, targeting WCPFC members.
 - b. The International MCS Network organized the [second workshop of the Tuna Compliance Network](#), hosted by FFA in Honiara, Solomon Islands from 15-18 February 2018. At the workshop, participants from the five tuna RFMO Secretariats (including WCPFC) exchanged information on each organization's current information systems and discussed opportunities for their enhancement.
 - c. The Project provided support and participated in a [Sub-Regional Technical Workshop on Electronic Monitoring \(EM\), Western Pacific, hosted by Ministry of Fisheries in Suva, Fiji, 22-24 May 2018](#). Additional support was provided by the Pacific Community (SPC), The Nature Conservancy, and WWF, to share experiences on implementation of EM systems on longline vessels. EM coordinators and analysts from Fiji, Federated States of Micronesia, Palau, Marshall Islands, Solomon Islands, Tuvalu and Vanuatu participated in this event, as well as the service providers Satlink and Digital Observer Services (DOS), and FFA. Discussions were also held on various standards that are being developed to support the implementation of EM in the Western Pacific.
 - d. As of end June 2018, 42 longline vessels in Fiji were equipped with electronic monitoring systems and a total of 416 trips have been analysed by the Fiji EMS unit since the beginning of the pilot activities. The study on the business case for EMS in Fiji is almost finalized. [Representatives of the governments of Ghana and Fiji and the Fiji Fishing Industry Association \(FFIA\) met in Accra, Ghana on 05 February 2018](#) to exchange experiences from having conducted trials on the use of EMS as an MCS tool onboard vessels in their respective fleets.

- e. The project continued to support the FFA/University of the South Pacific (USP) *MCS study programme – Certificate IV in Fisheries Enforcement and Compliance*.
- f. The project continued to support FFA's work on an MCS system that integrates information coming from multiple data sources and that is used to create intelligence reports to better target IUU fighting efforts.
- g. Shark assessments supported by the Project:
 - i. the first of four stock status assessments, for Pacific-wide bigeye thresher shark, was presented to WCPFC's Scientific Committee (SC) in August 2017 where the SC [recommended](#) that the WCPFC consider management options;
 - ii. the second [assessment](#) on the southern hemisphere porbeagle shark, undertaken in cooperation with CCSBT, was presented to WCPFC's SC13 in August 2017 and was accepted. The results were also presented to the [IOTC](#) in September 2017;
 - iii. the [third assessment for Pacific-wide silky shark](#) was accepted by SC14 in August 2018 as the best available science and as a basis for maintained the current conservation and management measure; and
 - iv. the [fourth assessment for Indo-Pacific Ocean whale shark](#) was accepted by SC14 in August 2018 which called for concerted efforts to identify and promote best practice safe release methods.
- h. The WCPFC shark post-release mortality tagging study continues as a co-funded activity between the Project and the EU. Tagging was completed in New Zealand and continues in Fiji, New Caledonia and the Republic of the Marshall Islands with a total of 87 shortfin mako and silky sharks tagged as of November 2018. A programme [update was provided to SC14 and tag data analysis workshop is planned for early 2019](#).
- i. The Technical Coordinator Sharks and Bycatch (TCSB) prepared draft [Safe release Guidelines for sharks and rays](#), which were discussed at SC14.
- j. The TCSB, Dr. Shelley Clarke, is supporting the work of WCPFC's first Inter-sessional Working Group-Sharks (chaired by Japan) which is attempting to draft a single, comprehensive shark management measure including resolving ongoing debates about how to regulate shark finning. This initiative was encouraged through the TCSB's preparation of three different papers in 2017 on a comprehensive shark CMM for WCPFC's [SC](#), [TCC](#) and [Commission](#) meetings and assistance with drafting the recommendations adopted by each of the three meetings.
- k. Support to the Bycatch Management Information System <https://www.bmis-bycatch.org/> continued and a [progress update was presented at SC14](#).
- l. A WCPFC/SPC workshop on bycatch problem-solving using BMIS was held in Nouméa on 28-30 May 2018 and attended by eleven WCPFC CCMs and seven IGOs/NGOs. The three-day workshop's content was developed and delivered by Common Oceans ABNJ Tuna Project staff and there were intensive efforts by the BMIS team to get the system ready for the

workshop. BMIS performed well and participant feedback was positive. The [report of the workshop](#) was presented to WCPFC's SC14.

- m. The project is supporting the development of WCPFC seabird bycatch estimates (Project 68). A [short note](#) was presented to SC14 by SPC.
- n. BirdLife South Africa's Port-based vessel visits in Fiji targeting Chinese flagged vessels started in Fiji early 2018 with 99 vessels visited as of end June 2018.
- o. Continued support to the maintenance and identification of possible duplicates of the Consolidated List of Authorized Vessels (CLAV).

3. Preparing for a possible Common Oceans ABNJ phase II

- 9. Following a recommendation from the mid-term evaluation, the Project has been extended without additional funding until December 2019, to complete some on-going activities, extending the impact of the Project intervention. During this remaining period, the possibility of a second phase of the Project (and its encompassing Common Oceans ABNJ Program) will be explored.
- 10. Through contacts with the current partners, it became clear that there is interest to extend the activities of the Project into a second phase, also as a component project of a programmatic approach. Such an interest recognizes that a six-year investment in the Project is often not sufficient to achieve transformational change, and also recognizes the satisfactory performance of the Project during the first phase.
- 11. Recently, GEF issued its most recent [Programming Directions](#) that reiterates that the improvement of management in the ABNJ is among the objectives for the International Waters Focal Area Strategy.
- 12. Therefore, FAO is engaging into a consultation process that starts with a workshop to develop a Theory of Change for a second phase of the Program. The formulation of the Theory of Change for the Program will be followed by a similar exercise for the component Projects. Once the objectives and intermediate outcomes have been identified, FAO will invite interested partners to provide proposals for activities that would contribute to achieving those outcomes.
- 13. Proposals for specific activities will be evaluated according to their potential contribution to the outcomes, and their adherence to the principles and guidelines provided by GEF and FAO. The final proposal will be adopted following consultation with the prospective partners.
- 14. FAO wants to make the process of consultation with prospective partners, in particular with the members of the tuna RFMOs, more inclusive than it was the case for the first phase. So consultations at the RFMO level will be conducted as frequently as necessary with the assistance of the Secretariats, starting in early 2019.

15. By the end of December 2019, and once the Projects of the Common Oceans ABNJ Program are all closed and evaluated, FAO expects to have a proposal (Programme Framework Document) for submission to GEF for their consideration. Given the time normally required for evaluation of a proposal, it is assumed that the implementation of the second phase will not start before the second half of 2020.

4. Progress in activities with global benefits

16. The following sections describe in more detail the activities that the Project has been carrying out in all regions, grouped by each of the components of the Project.

Component 1: Promotion of Sustainable Management of Tuna Fisheries, in Accordance with an Ecosystem Approach

17. This component includes a number of activities that would facilitate the incorporation into the management framework of the tuna RFMOs of principles that have been identified as important elements in sustainable management, such as the precautionary approach, and the ecosystem approach to fisheries management.

Implementation of the precautionary approach, and adoption of management procedures/harvest strategies

18. This is probably the most transformational of all activities under the Project, bringing a new level of cooperation and dialogue between science and management. These activities aim to increase the familiarity of managers, with Management Strategy Evaluation and Management Procedures/Harvest Strategies and fostering better dialogue between managers and scientists. This is following a two-pronged approach with:
- a. Capacity building workshops for officials from t-RFMO member countries to increase the familiarity and confidence with the process of Management Strategy Evaluation. This activity has been coordinated by WWF. Eight workshops have been completed as follows:
 - i. Indian Ocean: Two workshops in Sri Lanka in [2014](#) and [2017](#)
 - ii. Western Pacific Ocean: one workshop in [Indonesia](#) in August 2017 [and one in Fiji in February 2018](#)
 - iii. Eastern Pacific Ocean: one workshop in [Panama in 2015](#) and in San Diego, USA, in August 2018 (in Spanish).
 - iv. Atlantic Ocean: one workshop [in Ghana in 2016](#) and one in [Senegal \(in French\)](#) in January 2018.
 - b. Support to the science-management dialogues and to the scientific processes in the tuna RFMOs that had not yet adopted a harvest strategy (led by FAO). Support was provided for meetings or meeting participants in WCPFC (MOW4, 2015), and [IOTC](#) (various activities since 2014). In the WCPFC context, the Project is in contact with the Pacific Community (SPC) to

collaborate and support, through coordination of the Project activities, the development of the WCPFC plan for development harvest strategies. Any future work will continue to be in close coordination with SPC and WCPFC. The Project also provided support for 24 participants to the WCPFC's *Intersessional Meeting to progress the draft Bridging CMM on Tropical Tuna*, a Commission Special Session that took place on 22-24 August 2017, in Honolulu, Hawaii, USA, with the objective to advance a draft measure to provide interim arrangements until harvest strategies are adopted.

19. The Project is also supporting the collaboration within the scientific community of the t-RFMOs. In this context, the project supported the two meetings of the *Joint Management Strategy Evaluation Technical Working Group*, which was created during the Third Joint Meeting of Tuna RFMOs in 2011. The first meeting, organized by ICCAT with support of the Tuna Project, took place in Madrid from 1-3 November 2016. The second one took place in Seattle, USA from 13-15 June 2018.

Support to implementation of the Ecosystem Approach to Fisheries

20. The Project is promoting and supporting the preparation of long-term plans for operationalizing the Ecosystem Approach to Fisheries (EAF) in each of the t-RFMOs, encouraging consideration of the impacts of fishing activities on the environment. In this context, a [*Joint Meeting of tuna RFMOs on the Implementation of the Ecosystem Approach to Fisheries Management*](#) originating from an initiative of ICCAT was organized and supported by the Project from 12-14 December 2016 in FAO Headquarters in Rome. This meeting brought together scientific experts from the five tuna RFMOs (including the WCPFC Science Manager) to initiate a dialogue on the topic, harmonize some concepts and agree on a strategy to bring the issue of operationalizing the Ecosystem Approach to the attention of the RFMO member States. A second Joint Meeting is being scheduled before the end of the project to further discuss possible operationalization plans based on monitoring scorecards and decision rules. In the context of the EAF, the Project supported 38 participants during the [*Joint t-RFMO FAD Working Group meeting*](#) organized by ICCAT, which took place in Madrid from 19-21 April 2017. Representatives from ICCAT, IOTC and IATTC States, and the organizations' FAD Working Group Chairs, attended the meeting which aimed at promoting discussions on tropical tuna FAD fishing.

Component 2 – Reducing IUU fishing and improving compliance

21. Addressing IUU fishing is supported through a number of strategies. To a large extent, these are based on empowering officials from t-RFMO member countries through capacity building of enforcement and compliance officers by establishing, for the first time in the world, a certification-based training program.

MCS best Practices

22. Draft chapters of Global Best practices for MCS in tuna fisheries addressing seven different thematic areas were developed and reviewed by the members of the Tuna Compliance Network (TCN), which includes the compliance officers of the five tuna RFMO Secretariats. As a starting point, this covered the following thematic areas:

- a. Vessel Monitoring Systems (VMS);
- b. Observer programs for tuna purse seine fleet;
- c. Electronic Monitoring;
- d. Transshipment of fisheries products;
- e. Illegal, Unreported and Unregulated (IUU) vessel listing;
- f. RFMO Authorized vessels lists; and
- g. RFMO Compliance Processes.

23. The focus is on global successful practices in MCS and existing MCS systems. This is being coordinated with other FAO initiatives on reviewing and updating existing publications on MCS, which place emphasis on coastal, flag and port state obligations. After some discussion in 2018, it was decided that the preferred approach would be the development of an overview of MCS in tuna fisheries, introducing the international framework and tuna-RFMOs, compliance and enforcement, core components of MCS, and identify successful regional / inter-regional initiatives. Furthermore, this is to be accompanied by generic and practical MCS implementation sheets on about 15 thematic areas in a joint effort with the ABNJ Deep Seas Project, which could be published online. This would also allow for a more appealing product with practical guidelines and allow for continuous updates depending on developments in RFMOs.

Tuna Compliance Network

24. The Project is partnering with the [International MCS Network](#) to create a 'sub-network' focused on exchange of information on MCS issues associated with tuna fisheries. The International MCS Network organized the [Inception meeting of the Tuna Compliance Network](#) in Vigo and Madrid from 27-31 March 2017. For the first time, officers responsible for compliance from the five t-RFMOs (including WCPFC), and other MCS experts (e.g. from FFA) had an opportunity to meet. Participating officers valued very positively the opportunity to meet in person and learn from each other.

25. The [2nd meeting of the Tuna Compliance Network](#) took place from 15-18 February 2018 at the Headquarters of the Pacific Islands Forum Fisheries Agency (FFA) in Honiara, Solomon Islands. The Workshop placed special emphasis on "Data reporting and management" and gathered all compliance officers and all data managers of the tuna RFMOs, plus other experts from other RFMOs and international organizations. Participants came to useful conclusions and made recommendations to improve data management systems in RFMOs.

MCS Certification course

26. Capacity building activities are planned through a global certification-based course to be conducted in the areas of the various t-RFMOs. A certification course of 6-8 weeks would become the seed for more academic programmes and would offer young officials a career path in areas not covered so far by formal training.

27. The Project supported FFA, a partner of the Project, and the University of the South Pacific to carry out three different rounds of regional *MCS study programme – Certificate IV in Fisheries Enforcement and Compliance training* in 2015, 2016 and 2017. As of Mid 2018, 55 MCS officers

from Pacific countries were awarded with Certificate IV in Fisheries Enforcement and Compliance (FFA training course); other officers are still awaiting final results.

28. During the 2017 Project Steering Committee (PSC), FFA presented a proposal to expand the current course with additional global elements and to adapt it to other regions of the world. The PSC recommended to extend the FFA online course to the other t-RFMOs with the inclusion of regional elements that could be provided through the Tuna Compliance Network.

Port State measures legislative template

29. The FAO Port State Measures Agreement is one of the major international instruments to combat Illegal Unreported and Unregulated (IUU) fishing. The original plan to develop individual legislation for ten countries in the Indian Ocean was replaced by the development of a legislative template framework. The template was launched during the 32nd Session of COFI (11-15 July 2016) during a celebration dedicated to the entry into force of the Port State Measures Agreement. The template is available online [here](#). Translations into [French](#) and [Spanish](#) have been completed in 2017.

Consolidated List of Authorized Vessels

30. This activity was successfully completed in its core functionality, and the latest version of the Consolidated List of Authorized Vessels is now available on the [tuna-org.org website](http://tuna-org.org)¹. The CLAV was developed by the five t-RFMOs starting in 2009 in order to merge their lists of authorized vessels. It is now updated daily through an automatized process that directly links the t-RFMOs authorized vessels databases to the CLAV database.
31. In addition, the Project is providing expertise to analyse the data contained in the CLAV and identify some data inconsistencies, including possible duplicate records. These issues are reported to the t-RFMOs for further investigation and correction by the reporting member States.
32. As of September 2018, the identification and removal of duplicate records in the CLAV data resulted in a reduction of the total number of authorized records to 19,600 dropping from 24,915 in March 2015. Since March 2015, all five t-RFMOs have improved overall performance in terms of completion of the ten basic attributes reported to the CLAV. The IMO number, being the attribute with the lowest level of completion, showed an improvement from 15 % in March 2015 to 62.7 % in November 2018 for listed vessels of length 24 meters and over.

Pilot trials of electronic monitoring systems (EMS) on longline vessels in Fiji and purse seiner vessel in Ghana

33. The pilot programs in Fiji and Ghana provide an opportunity for both countries to test the use of EMS as an MCS tool to better assess compliance of fishing fleets as well as to collect observer data. Both pilots are implemented with the participation of the private sector and should evolve in business models that would allow a sustainable use of the EMS in the long term.

¹ <http://tuna-org.org/GlobalTVR.htm>

34. In Fiji, the official launching of the pilot project for a 3-year period was on 21 January 2016 with a Letter of Agreement between FAO and the Ministry of Fisheries in Fiji. The goal is to deploy EMS equipment on 50 Fiji longline vessels during the project period. 43 EMS sets (minus one sunken vessel) have been deployed on vessels as of mid-2018 and a total of 416 trips have been analysed by the Fiji EMS unit since the beginning of the pilot activities. Training has been provided to land-based observers, which took place in November 2015 and October 2016, in the use of the review hardware and software to analyse the video footage collected by the EMS.
35. Since the inception of the pilot project, various compliance issues have been identified and the Fisheries Department has taken every effort to inform the relevant industry stakeholders with the clear result that there has been a marked reduction in such events occurring.
36. [On the 22nd of September 2017, the Memorandum of Understanding between the Ministry of Fisheries and the Fiji Fishing Industry Association was signed](#), specifying a collaboration agreement, facilitation of pilot project implementation, and the sharing of data in the context of combatting IUU fishing. Complementary activities that are taking place is a review of the legal framework in Fiji, including provisions linked to EMS data and its use as an MCS tool, as well as the integration of EMS data in the regional observer database TUBS. The Business Case Study is under preparation and the launching of the study expected to take place in late 2018, contributing to the use of EMS as a cost-effective tool in MCS.
37. The Project provided support and participated in a [Sub-Regional Technical Workshop on EM, Western Pacific, hosted by Ministry of Fisheries in Suva, Fiji, 22-24 May 2018](#). Additional support was provided by the Pacific Community (SPC), The Nature Conservancy, and WWF, to share experiences on implementation of EMS on longline vessels. EMS coordinators and analysts from Fiji, Federated States of Micronesia, Palau, Marshall Islands, Solomon Islands, Tuvalu and Vanuatu participated in this event, as well as the service providers Satlink and Digital Observer Services (DOS), and FFA. Discussion were also held on various standards that are being developed to support the implementation of EM in the Western Pacific.
38. A similar pilot project is taking place in Ghana, but with a focus on the tuna purse seine fishery, where all 14 active vessels in the Ghana purse seine fleet have been equipped with EMS. Training has been provided to land-based observers and 195 trips have been reviewed by Mid 2018. The [Business Case Study](#) for use of EMS data in Ghana was presented to the staff at the Ghana Fisheries Commission and representatives of the tuna industry. The document received a favorable review and the industry indicated its agreement to share costs after the Project involvement is finished.
39. [Representatives of the governments of Ghana and Fiji and the Fiji Fishing Industry Association \(FFIA\) met in Accra, Ghana on 5 February 2018](#) to exchange experiences from having conducted trials on the use of EMS as a MCS tool onboard vessels in their respective fleets.
40. A small pilot project on two purse seiners has been completed in Seychelles as a collaboration between OPAGAC, the Seychelles Fishing Authority and the University of Alicante, to test the accuracy of catch and bycatch estimates through EMS, where the data was compared to onboard observer as well as oversampling data. OPAGAC summarized lessons learnt [here](#). Following the

completion of the pilot, [OPAGAC is calling for the compulsory introduction of EMS by the Seychelles](#).

Integrated MCS system in FFA

41. Assessing the risk of IUU fishing associated with certain operations and vessels provides an opportunity to use limited enforcement assets in a more efficient and cost-effective way in combatting IUU. To do this, FFA has created an MCS system that integrates information coming from multiple data sources and that is used to create intelligence reports by a dedicated unit. The Project is supporting a Data Analyst working on this system, and will assist in disseminating the lessons learned to other regions.
42. As of June 2018, through the Regional Surveillance Picture, FFA produced over 1140 observer incident reports since project start (400 during the last year) from sub-regional and regional trips accessed online from SPC/FFA Dorado online reports and over 400 Vessel of Interest Reports (200 during the last year) identified through different sources of information.
43. In this context, FFA also trained a total of 85 MCS Officers in the MCS data analysis work during FFA/QUAD operations, Regional MCS Data Analysis training and in-country coaching and mentoring programs.

Design options for the development of tuna catch documentation schemes

44. Catch Documentation Schemes are considered a valuable tool in the MCS toolbox, and to be successful in preventing IUU tuna products from entering into the supply chains, CDS should fulfill a number of requirements. The Project has completed an analysis of the main global tuna supply chains to identify possible weaknesses that would allow entry of IUU products into the markets. Based on this, [Design options for the development of tuna catch documentation schemes](#) were developed and [published](#).

Support to improve compliance

45. The Project has focused on innovative ways of [supporting members of t-RFMOs](#) to improve their compliance performance. For example, the work of the Secretariat of IOTC with its membership in what is termed Compliance Support Missions offers an example of a way to improve, not only the compliance of the member in question, but to empower members with information that enhances their level of participation as well. The lessons learned from these type of initiatives are being shared across t-RFMOs and it could be further extended through mechanisms such as the IMCS network and the Tuna Compliance Network.
46. The Project supported the first steps in the development of the IOTC electronic monitoring and reporting information system (e-Maris) and the development of an online reporting platform for ICCAT CPCs (FORS) which should improve the timeliness of reporting, the quality of the data and the compliance assessment process overall.

Component 3 – Reducing ecosystem impacts of tuna fishing

47. The third component addresses the ecosystem impacts of tuna fisheries. The Project is supporting the collaboration between the WCPFC and IATTC to develop integrated and consistent management for sharks on both sides of the Pacific. The Project is also supporting the development and dissemination of mitigation techniques for bycatch of small tunas and sharks in purse seiners and incidental seabird mortality in longline fleets, including the development of a global portal to access information on the success of various techniques. The Project is also working towards filling data gaps in the gillnet fisheries from the northern part of the Indian Ocean, as the characteristics of these fisheries and their levels of bycatch are largely unknown. A more detailed update on the Common Oceans ABNJ Tuna Project's Shark and Bycatch Components prepared for SC14 can be found [here](#).

Shark Data Improvement, Assessment and Management

48. This work is divided in two different, closely related elements: shark data improvement and shark assessment and management.

49. The objective of the first element (Shark Data Improvement) is to develop a practical and consistent approach to monitoring the status of sharks caught by ABNJ tuna fisheries. It focuses on identifying the data deficiencies which inhibit management and proposes strategies to obtain more data through field studies and better information return from fisheries. Baseline data inventories have been completed by both IATTC and WCPFC (the latter's is global) in 2016.

- a. So far, one shark data improvement initiative each has been adopted by WCPFC ([improvements to Minimum Data Standards and Fields for bycatch](#)) and IATTC ([minimum data standards and reporting requirements for longline observer programmes](#)); [one data improvement activity proposed by the project has been adopted by some IATTC](#) coastal states (adoption of a MS Access database designed by IATTC staff for shark fishery data collection), and one harmonization initiative has been endorsed by [WCPFC](#) and [IOTC](#) subsidiary bodies and is currently being used (BDEP).
- b. Recommendations for improving shark data collection along with the data collection work done so far under the project were critical in the approval of [IATTC Resolution C-16-06](#) on Conservation Measures for Shark Species, with Emphasis on the Silky Shark.
- c. On the basis of an ABNJ Tuna Project proposal the WCPFC adopted [safe release guidelines for encircled whale sharks](#) in December 2015. In 2018, Technical Coordinator Sharks and Bycatch (TCSB), Dr. Shelley Clarke, prepared draft [Safe release Guidelines for sharks and rays](#), which were discussed at SC14.
- d. In December 2016, WCPFC adopted a plan to [produce a new shark CMM for 2018, and designated manta and mobulid rays as key species](#). The TCSB is supporting the work of WCPFC's first Inter-sessional Working Group-Sharks (chaired by Japan), which is attempting to draft a single, comprehensive shark management measure including resolving ongoing debates about how to regulate shark finning.

- e. WCPFC shark post-release mortality tagging studies are continuing as a co-funded activity between the Project and the EU. Tagging studies were initiated in May 2017, in accordance with a [sampling design developed by an expert panel](#) convened in January 2017. Tagging was completed in New Zealand and continues in Fiji, New Caledonia and the Republic of the Marshall Islands with a total of 87 shortfin mako and silky sharks tagged as of November 2018. A programme [update was provided to SC14 and a tag data analysis workshop is planned for early 2019](#).

50. The objective of the second element (Shark Assessment and Management) is to identify risks and priorities for shark conservation through assessment, using new data generated under the first element and improved tools developed under this element as appropriate. It is evaluating the existing management framework and developing measures to strengthen shark management by t-RFMOs.

51. Four shark assessments have been completed as follows:

- a. the first stock status assessments, for Pacific-wide bigeye thresher shark, was presented to WCPFC's Scientific Committee (SC) in August 2017 where the SC [recommended](#) that the WCPFC consider management options;
- b. the second [assessment](#) on the southern hemisphere porbeagle shark. undertaken in cooperation with CCSBT was presented to WCPFC's SC13 in August 2017 and was accepted. The results were also presented to the [IOTC](#) in September 2017;
- c. the third assessment for Pacific-wide silky shark was accepted by SC14 in August 2018 as the best available science and as a basis for maintained the current conservation and management measure; and
- d. the fourth assessment for Indo-Pacific Ocean whale shark was accepted by SC14 in August 2018 which called for concerted efforts to identify and promote best practice safe release methods.

Development of a global Bycatch Management Information System (BMIS) and workshops for joint analysis of mitigation effectiveness

52. This work involves collating, catalysing and disseminating new information that will direct effective management to mitigate impacts on bycatch species including sharks, seabirds, sea turtles and cetaceans. This will help reduce technical uncertainties across a range of stakeholders, allowing t-RFMO discussions to focus on management issues such as cost and feasibility.

- a. In May 2017, [WCPFC launched the new Bycatch Management Information System \(BMIS\) web portal](#) available here <https://www.bmis-bycatch.org/>. The new enhanced BMIS with an engaging, user-friendly interface, allows searching of over 1000 curated references by species group, fishing gear or mitigation technique, and provides pointers to species identification and safe release guides. Support to the Bycatch Management Information System <https://www.bmis-bycatch.org/> continued and a [progress update was presented at SC14](#).

- b. A WCPFC/SPC workshop on bycatch problem-solving using BMIS was held in Nouméa on 28-30 May 2018 and attended by eleven WCPFC CCMs and seven IGOs/NGOs. The three-day workshop's content was developed and delivered by ABNJ Tuna Project staff and there were intensive efforts by the BMIS team to get the system ready for the workshop. BMIS performed well and participant feedback was positive. The [report of the workshop](#) was presented to WCPFC's SC14.
- c. Two workshops for Joint Analysis of Sea Turtle Mitigation Effectiveness took place in Honolulu, Hawaii, US in from Feb 16-19 February 2016 and from 3-8 November 2016. The first workshop with participants from 14 countries from all three oceans compiled a dataset which may be the world's largest compilation to date for longline fisheries and sea turtle interactions involving over 2,300 turtles caught by 31 fleets between 1989-2015. The second workshop revisited and agreed all of the building block models with new data and completed an integrated analysis of mitigation scenarios. The [final report](#) was submitted to the WCPFC Scientific Committee in August 2017.
- d. The final pair of workshops on mitigation is proposed to focus on post-release mortality of sharks. The first of these, an [Expert Workshop on Shark Post-Release Mortality Tagging](#) convened by WCPFC and SPC in New Zealand from 24-27 January 2017, produced a survey design that is now being implemented. As of November 2018, 87 shortfin mako and silky sharks have been tagged with the support of the New Zealand, Fiji, New Caledonia and Republic of the Marshall Islands observer programmes.

Longline sea trials in the Atlantic and Indian Oceans demonstrate the effectiveness of seabird mitigation measures by two different fleets

53. BirdLife International is carrying out various outreach activities to refine and facilitate the understanding of techniques to reduce the incidental mortality of birds during longline operations, as well as collecting information that could lead to assessing the extent of the application of the mitigation techniques in the field.

54. Activities so far include:

- a. [National awareness workshops](#), for government officials, fisheries observers and industry reps started in October 2016. Workshops have been held targeting Namibia, Indonesia, China (in collaboration with ACAP and WCPFC), Seychelles, South Africa, Mozambique, Brazil and Republic of Korea.
- b. Where there is a need to support fleets to become compliant with RFMO resolutions, the Project supports observer training workshops – these are intensive 5-day training for observers including conducting scientific research to enable mitigation trials to be conducted by national observers onboard, during fishing. Observer training workshops have been conducted for Korea, Namibia, South Africa and Indonesia.

- c. At sea trial demonstrations of sliding “lumo leads” on Korean longline vessels (8 trips in total since 2014), and sea trips and data collection onboard the Namibian and South African tuna longline fleets have been conducted.
- d. Port-based outreach targeting high seas fleets from Cape Town with the aim to raise awareness and build capacity amongst crews on matters related to seabird bycatch and the use of mitigation measures started in 2016. Over 75 visits on foreign-flagged pelagic longline vessels have been conducted as of mid-2018. Since October 2017, a second Port-based outreach expert is based in Fiji, providing the same service to the longline fleet operating from Suva. In total, 99 vessels have been visited by mid 2018, of which 19 are operating in areas of concern for seabirds.
- e. [Two regional seabird bycatch pre-assessment workshops were held](#) in South Africa (23-28 February 2017) and Vietnam (2-7 April 2017) to discuss challenges in analyzing seabird bycatch data and take collaborative steps to produce global seabird bycatch estimates. A collaborative data preparation workshop was held in February 2018 in Cusco, Peru, and a global assessment is planned for February 2019.

55. In addition to this, the project is supporting the development of WCPFC seabird bycatch estimates by SPC (Project 68). A [short note](#) was presented to SC14.

Purse seine sea trials in one ocean basin demonstrate the effectiveness of small tuna/shark mitigation measures and results disseminated to other ocean regions

56. This output, implemented by ISSF, includes research cruises in the Western Central Pacific, Atlantic and Indian Ocean, aiming to reduce bycatch in large industrial purse-seiners, followed by skipper workshops, and a final workshop to communicate results to all t-RFMOs.

57. Since mid-2015, in excess of 550 sea days have been expended in support of testing purse seine bycatch mitigation approaches. Since 2015, 47 Skipper’s Workshops with nearly 2,000 participants were conducted under the project involving dialogue on best practices for mitigating bycatch impacts of the global purse seine fleet. The best practices identified and tested are incorporated into a curriculum used in Skippers Training Workshops and these materials are available for [free public access](#). A summary of outcomes to date can be found [here](#).

[Filling bycatch and catch data gaps in the northern Indian Ocean](#) tuna-directed gillnet fisheries

58. This output is led by WWF and is mainly aimed at obtaining estimates of catch by species (include bycatch species) in the gillnet fisheries of the northern Indian Ocean. As of June 2018, through WWF Pakistan, 75 crew observers have been selected, trained and deputed on-board Pakistani tuna gillnet vessels to collect data and digital records using cameras. Coverage stands at 15% based on the number of vessels. Data collected from the crew observers, Annual landings of tuna and tuna like species were calculated from data collected by crew observers and submitted in June 2018 to the Government of Pakistan for onward submission to IOTC.

59. WWF-Pakistan has constituted the Marine Programme Advisory Committee (MPAC) chaired by the Secretary of the Ministry of Climate Change, which will meet on a quarterly basis. The first quarterly meeting was held in January 2018.