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Ex-post and ex-ante evaluation study of the Fisheries Partnership Agreement between the European Union and the Republic of Seychelles and of its Implementing Protocol

Final Report

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Ex-post and ex-ante evaluation study of the Fisheries Partnership Agreement between the European Union and the Republic of Seychelles and of its Implementing Protocol

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SUMMARY

Context information

- The subject of this evaluation is Fisheries Partnership Agreement (FPA) between the EU and the Seychelles and its implementing Protocol. The Agreement was concluded for a period of 6 years from 2 November 2007 and was automatically renewed in 2013 until 1 November 2019. The Protocol provides fishing possibilities for EU vessels fishing in the Seychelles' Exclusive Economic Zone for tuna and tuna-like species. The current Protocol entered into application on 18 January 2014 and will expire on 17 January 2020. The EU's FPA with Seychelles is one of two currently active tuna agreements in the Indian Ocean (the other is with Mauritius).
- 2. The Protocol sets out the fishing opportunities and financial contributions provided for in the Fisheries Partnership Agreement. It grants fishing opportunities for 40 tuna purse seiners and 6 surface long liners, with a reference tonnage of 50,000 t/year. The annual EU public financial contribution to Seychelles in the first and second year amounted to EUR 5 350 000 per year, of which EUR 2 600 000 was dedicated to the support and implementation of Seychelles' sectoral fisheries policy. In the 3rd to 6th years, the annual contribution is EUR 5 000 000 per year, of which EUR 2 500 000 is to be dedicated to the support for implementation of the fisheries maritime policies.
- 3. The EU-Seychelles FPA is mirrored by a fishing agreement between the Seychelles and the EU for access of a maximum of 8 purse seiners and 2 supply vessels flagged to Seychelles to the waters of Mayotte under EU jurisdiction (an EU outermost region since 2014). The so-called Seychelles-Mayotte agreement will expire on 5 June 2020.

Seychelles fishery sector

- 4. The Seychelles Exclusive Economic Zone (EEZ) covers 1.3 million km². Seychelles has rich fishing grounds which include the migratory routes of important large pelagic species, including skipjack (*Katsuwonus pelamis*), yellowfin tuna (*Thunnus albacares*) and bigeye tuna (*Thunnus obesus*).
- **5.** Current Indian Ocean Tuna Commission stock assessments for skipjack and bigeye tunas indicate that they are exploited sustainably. For yellowfin tuna, the evidence suggests that the stock is below Maximum Sustainable Yield reference level and is subject to excessive fishing effort in the region. Several IOTC measures have aimed to reduce fishing pressure on this stock.
- 6. Fishing activity in Seychelles waters is divided into three sectors; artisanal, semi-industrial and industrial fishing. The industrial purse seine fleet authorised to access the Seychelles EEZ typically includes up to 45-50 vessels, of which 27 are EU flagged (France, Spain and Italy), 12 from the Seychelles and up to 5 from Mauritius (operating under a Seychelles Mauritius fisheries agreement) and one or two from other nations. There was highly variable total of 130-150 industrial longline vessels drawing licences up to 2015. Most are reported to be still operating. About 80 of these vessels are owned and operated by Chinese and Taiwanese operators, and function under a non-published Agreement. Forty larger longline vessels were registered to the Seychelles flag.
- 7. Victoria port on the island of Mahé is a major hub for the regional fishery sector, receiving and transhipping catches, not just from the EEZ but other fishing zones as well and for EU and other foreign fleets. It hosts an important cannery processing about 80 000 MT per year of raw material (about one third of the West Indian Ocean purse seine tuna catch). Fishery products comprise 92% of the domestic visible exports (mostly canned tuna, but also tuna by-products. EU imports from Seychelles were valued at EUR 262 million (c.i.f.) in 2017.
- 8. The Ministry of Fisheries and Agriculture has an overall mandate for policy and legislation in the area of fisheries and agriculture. The Seychelles Fishing Authority is responsible for implementation, including issue of fishing authorisations, data collection and analysis, and monitoring control and surveillance. The Seychelles Fishing Authority has consistently generated about EUR 10 million/year for the Seychelles Government. This represents about 2% of the State revenues.
- 9. The Fisheries Policy of Seychelles "For the Sustainable and Responsible Development of the Fishing Industry" was adopted in 2005 and is still in force. In 2019 the World Bank launched

an intervention to support the "Preparation of Seychelles' Fisheries Sector Policy, Strategy and Development Plan" through the SWIOFish3 project.

10. A central pillar for the sustainability of the blue growth policy is the implementation of the Seychelles Marine Spatial Planning process. This includes the designation of two extended Marine Protected Areas covering at this stage 15% of the EEZ (with a further 15% foreseen in the future). The proposed regulatory restrictions will impact on EU tuna operators (who were consulted extensively on the SMSP process).

Protocol implementation

- 11. An average of 27 EU tuna purse seiners have drawn fishing authorisations (69% out of the 40 foreseen in the Protocol). This represents almost all EU tuna purse seiners active in the Indian Ocean, demonstrating the strategic interest of an access to the Seychelles EEZ for this EU fleet segment.
- 12. For surface longliners, the utilisation rate has been relatively low throughout the Protocol periods with only 1 French surface longliner utilising the fishing opportunities in 2016 and 2017. Here the overall utilisation rate was 7%. This is because larger vessels in this segment target species in sub-tropical waters to the South, and the Seychelles zone is out of range of most of the smaller vessels based in the EU's Outermost Region of La Réunion.
- 13. Annual EU purse seine catches under the Protocol averaged close to 48 000 tonnes between 2014 and 2018. The only EU surface longliner having drawn a fishing authorisation did not exploit the fishing area, and therefore did not declare any catches. The turnover of EU purse seiners under the current Protocol was approximately EUR 70 million per year on average over the 2014-2018 period, varying between EUR 39.2 million in 2015 and EUR 83.0 million in 2017.
- 14. Between 2014 and 2018, the average catch by purse seiner was 1 725 tonnes per vessel, resulting in an average value of access fee paid of slightly more than EUR 110 000 per vessel. EU shipowners paid on average EUR 3.2 million annually to the Seychelles in exchange for access, of which 39% was a fixed annual amount, and 61% variable, depending on catches. Access fees paid by EU shipowners varied between about EUR 2 million in 2015 and EUR 4 million in 2016. The EU also provided compensation for access to the Government of Seychelles, with an average annual payment of EUR 2.8 million. On average over the 2014-2018 period, Seychelles received about EUR 6 million per year in exchange for access, not including sectoral support payments. The cost of access is broadly shared equally between the EU budget (47%) and the EU fishery operators (53%).
- 15. In addition, the Seychelles benefited from an annual financial contribution of EUR 2.54 million in respect of a programme to support the implementation of fisheries policy. Overall the direct annual financial benefit of the Protocol to the Government income of the Seychelles has averaged EUR 8.5 million.
- 16. With regard to technical implementation of the Protocol, there have been no major difficulties reported in the issue of the fishing licences and the payment of the advance fees. Data recording forms (catch logbooks) are in line with IOTC requirements and as defined in the Protocol Annex and catch reporting systems were implemented throughout the period. Validation by the Commission of catch data provided in the first instance by the Seychelles has experienced some delays in resolving differences (with a variation of -7 to +12%) in annual catches declared. This has complicated the calculation of additional licence fees and additional compensation when the reference tonnage is exceeded. Until now the Electronic Reporting System for receiving daily catch reports from EU vessels is not yet fully implemented by the Seychelles authorities but further developments are ongoing.
- 17. EU tuna vessels operating under the Agreement during the period 2014-2017 landed an estimated 22% of their regional tuna catch into the IOT cannery (at the international market price). French vessels landed a significantly higher percentage of the catch to the Seychelles than Spanish ones (37% cf. 17%). Following the introduction by the IOTC of the full landing obligation from 2018, all bycatch is also landed to the Seychelles. Two new processing and exporting establishments purchase an estimated additional 5% of the catches which was previously discarded. The balance (about 73%) was transhipped to bulk carriers for delivery to external markets, including the Mauritius processing sector. The Protocol requirement that EU tuna seiners endeavour to supply the tuna cannery, and/or the local processing industry in the Seychelles has been met.

- 18. Seychelles seamen were employed only on approximately 51% of fishing trips made by EU vessels and operators have paid compensation for non-recruitment. However, these payments are reported to have included numerous occasions when no qualified mariners were available, which is not in line with the Protocol. The recruitment monitoring system (including the communication channels) applied by the Seychelles authorities does not identify such cases and should therefore be reviewed.
- 19. The amount of the programmed sectoral support granted throughout the 6 years of the Protocol was EUR 17 632 015 (which included an amount of EUR 2 420 342 from previous years, in the process of being spent). The Seychelles Fishing Authority was nominated as the Executing Authority for all components. Overall, at the end of 2017, after four of the six years, 53% of the programmed finance had been expended. Payments of sectoral support finance were twice delayed by the EU due to disbursement rates of previous tranches below 75%. A report by the EU Court of Auditors (which reviewed the 2011-2014 Protocol to the EU Seychelles FPA) elicited a response by the Joint Committee, which acted to improve management through the adoption of new Guidelines for the Sectoral Support and the appointment of additional technical assistance for implementation. Over the last years, the implementation of the sectoral support programme has significantly improved.
- 20. As a result, the implementation of the sectoral support has succeeded in improving small scale fishery infrastructure, managing the Ile du Port tuna quay project, strengthening the observer programme, re-starting a national aquaculture development programme, capacity building of staff, and upgrading the VMS system, and the Fisheries Monitoring Centre. On the other hand, targets have not been fully met in relation to Monitoring Control and Surveillance (port state, aerial and marine surveillance). Outstanding issues from the 2011-2014 programme also remain to be resolved (an under-performing credit fund and under-utilised investments in fish processing facilities).
- 21. There remains room for improvement in programme management in several of the areas indicated by the report by the EU Court of Auditors. These include extending the multi-annual programming periods, strengthening linkages to fisheries policy and specific national budget measures, ensuring well-defined output indicators for monitoring and more detailed and regular reporting.

Ex-post evaluation of the Protocol

- 22. The 2014-2020 Protocol under the Fisheries Partnership Agreement between the EU and the Republic of Seychelles has broadly met the evaluation criteria for EU interventions for effectiveness. It has met the objective of protecting the interests of the EU long distance fleet by providing stable access to an important fishing zone in the Western Indian Ocean. In relation to tuna seiners the Protocol complements the other access arrangements established in the region, allowing EU vessels to optimise exploitation of the migratory stocks within the regional rules set by IOTC. The Protocol is also evaluated as effective. The Protocol addresses most of the identified needs of different stakeholders and the Sectoral Support Programme has delivered some notable benefits in infrastructure, capacity building and fisheries management and conservation. The main elements of concern regarding effectiveness have been the low utilisation of surface longline fishing opportunities provided in the Protocol and initial difficulties of the parties to implement the sectoral support programme according to the foreseen timetable.
- 23. The Protocol is evaluated as efficient with an EU financial contribution proportional to the fishing opportunities exploited. The reference tonnage has on average been 96% consumed, with additional payments for excess catches above this amount generated in two years of the five years Protocol so far.
- 24. The Protocol is estimated to have generated a Gross Value-Added slightly in excess of EUR 30 million/annum over the five years, varying between EUR 11.3 million in 2015 and EUR 44.5 million in 2017. Concerning cost-benefit ratios the Protocol has generated globally EUR 18.90 value added for every EUR 1 paid by the EU in return for fisheries access. On average over the first five years of the Protocol, 43% of the total value-added is estimated to accrue to EU, 24% to Seychelles and 32% to other entities, which include mostly coastal States of the Western Indian Ocean.
- 25. The Protocol is found to be highly relevant to the needs of the key stakeholders concerned. For EU ship-owners, the Protocol provides predictable access to a productive fishing area in which targeted species are abundant. For Seychelles, the Protocol delivers national economic

benefits from tuna resources present in the EEZ that the national fleet cannot at present fully exploit. It has helped the Seychelles to meet its IOTC obligations, especially in relation to the implementation of the observer programme. It also ensures important supplies to the Seychelles processing sector and helps to maintain Victoria as the main tuna industry hub of the Western Indian Ocean, a key objective of the Seychelles fisheries policy. The Agreement and its Protocol are considered to have been acceptable to the EU and the Member States, the Government of the Seychelles, and the EU and Seychellois fishery sector operators.

- 26. The Protocol is coherent with other EU interventions in the Western Indian Ocean, in particular those of the EDF aimed at strengthening fisheries governance and maritime security. The added value of the EU intervention is evident, as this provides more stable access to migratory fisheries resources, than could be achieved by private annual arrangements, and supports the implementation of the Seychelles fisheries policy.
- 27. The Protocol is consistent with the conservation and management measures adopted under the multilateral framework of IOTC to which the EU and Seychelles are parties and supports participation in the work of this RFMO and compliance with its measures through its sectoral support component. It also provides greater transparency in the management framework, coherent with the IOTC resolution.

Ex-ante evaluation of renewal scenarios

- 28. The findings of the study indicate that the renewal of the Protocol clearly appears to be in the interests of both parties and as the most beneficial outcome. The evaluation concludes that it could be in the mutual interests of both parties to consider updating the framework for their cooperation by the adoption of a new Sustainable Fisheries Partnership Agreement. This would ensure better precision in the alignment with the principles set out in the CFP Regulation.
- 29. Within the EEZ of the Seychelles, the spatial limits of different fishing practices under a new Protocol should take into account final decisions of the Government of Seychelles regarding the implementation of the Seychelles Marine Spatial Plan. This currently proposes to extend and apply new restrictions which will impact purse seine and surface longline fishing in two zones (Zone 1 Aldabra Group and Zone 2 Amirantes to Fortune Bank). The Gazetted coordinates are currently under review and are expected to be re-published in spring 2019.
- 30. As regards fishing opportunities for purse seine vessels, demand has not exceeded 30 vessels during the course of the Protocol (compared to the 40 provided). The application of IOTC catch limits since 2017 render any increase in demand to be unlikely. For surface longline vessels, the present number of 6 vessels also appears to exceed immediate demand. However, for both segments these opportunities may, if the Parties wish, be retained at their present level without impacting on the financial dimensions or sustainability of a future Protocol. This approach will also provide for any possible future increase in interest by stakeholders, in particular by those based in the Outermost Region of La Réunion.
- 31. The reference tonnage used to establish the level of compensation paid from the EU budget reflects historical catch levels in the area and can therefore be of a similar order to the current Protocol. The reference tonnage and financial negotiations should take into account the MPAs proposals expressed in the Seychelles Marine Spatial Plan. This is expected to impact on some 4 000 to 5 000 tonnes of catch by the EU vessels fishing under the Agreement, although the fishing effort associated with this catch will of course be re-directed to other zones, within or outside the Seychelles EEZ.
- 32. The level of catch used in the current Protocol to establish the amount of the flat-rate advance fee paid by EU tuna seiners (currently 700 tonnes/annum) may be slightly adjusted to provide greater predictability of budget income from EU shipowners access payments to the Seychelles and reduce the administrative burden in calculating the variable component of the fees.
- 33. A future Protocol should ensure clarity in relation to invoking a non-discrimination clause and improved joint monitoring by concerned scientific institutes of catches by EU vessels in the Seychelles EEZ. New procedures should be defined to avoid unnecessary payment of compensation when Seychellois crew are not available.
- 34. Future sectoral support should seek to continue strengthening the Seychelles' capacity to fulfil its obligations under the Agreement and to the IOTC, especially in respect of collection, processing, analysis and communication of catch and other scientific data and fisheries

monitoring control and surveillance. There should be a specific emphasis on improved Port State controls in line with Seychelles international obligations due to the strategic importance of Victoria for Indian Ocean tuna landings and transhipments. The balance of the sectoral support could also seek to undertake agreed measures contributing to the implementation of the proposed Seychelles Fisheries Policy 2019.

- 35. Programming should at a minimum be closely coordinated during identification and formulation with interventions supported by the Blue Grants and the Blue Investment Funds, SWIOFish3 and the Fisheries Transparency Initiative. However, considering the commonality of policy objectives, the parties are recommended to proceed beyond simple coordination, and consider blending elements of the sectoral support programme in common projects.
- 36. The parties should endeavour to ensure that further improvements are made to programming, identification, formulation and management of the future sectoral support programme, in line with the recommendations of the EU Court of Auditors. To this end, the parties may therefore also wish to consider allocating a defined component of the sectoral support to programme management, to establish a programme implementation unit to ensure improved effectiveness and coherence in selection of measures and choice of implementation modality, increased management capacity for implementation and effective result-orientated monitoring against objectively verifiable indicators of achievement.
- 37. It is also recommended that a future Protocol should incorporate more prescriptive measures regarding the visibility of sectoral support actions (especially intangible measures) and define a budget to ensure communication regarding the results of the programme.
- 38. Renewal of the protocol is therefore the option preferred by both parties, but with some modifications. Both parties recognize the need to **start negotiations as soon as possible** in order to avoid any risk of cessation of activity of EU vessels at the expiry of the current Protocol.

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RÉSUMÉ

Informations de contexte

- 1. Le sujet de cette évaluation et l'Accord de Partenariat dans le domaine de la Pêche (APP) entre l'UE et les Seychelles, et son protocole de mise en œuvre L'Accord a été conclu le 2 novembre 2007 pour une période de 6 années, et a été automatiquement renouvelé en 2013 jusqu'au 1^{er} novembre 2019. Le Protocole donne des possibilités de pêche à des navires UE dans la zone économique exclusive des Seychelles pour cibler les thonidés et espèces associées. Le Protocole en cours est entré en application le 18 janvier 2014 et viendra à expiration le 17 janvier 2020. L'APP UE-Seychelles est l'un des deux accords thoniers actifs dans l'océan indien (le second est celui avec Maurice).
- 2. Le Protocole fixe les possibilités de pêche et les contributions financières considérées par l'APP. Il donne des possibilités de pêche pour 40 thoniers senneurs et 6 palangriers de surface, avec un tonnage de référence de 50 000 tonnes par an. La contribution financière de l'UE aux Seychelles est de 5 350 000 EUR les deux premières années, dont 2 600 000 EUR dédié au soutien à la mise en œuvre de la politique sectorielle des Seychelles. Pour les années suivantes, la contribution annuelle est de 5 000 000 EUR, dont 2 500 000 EUR pour le soutien à la mise en œuvre de la politique sectorielle.
- 3. L'APP UE-Seychelles opère de façon conjointe avec un accord de pêche entre les Seychelles et l'UE pour l'accès d'un maximum de 8 thoniers senneurs et de 2 navires d'appui pavillonnés aux Seychelles dans les eaux de Mayotte sous compétence de l'UE (Mayotte est une région ultrapériphérique de l'UE depuis 2014). L'accord "Seychelles-Mayotte" expirera le 5 juin 2020.

Le secteur des pêches aux Seychelles

- 4. La Zone Economique Exclusive (ZEE) des Seychelles couvre une surface de 1.3 million km². Les Seychelles ont des zones de pêche riches qui comprennent les routes migratoires d'espèces importantes de grands pélagiques, dont le listao (*Katsuwonus pelamis*), l'albacore (*Thunnus albacares*) et le patudo (*Thunnus obesus*).
- 5. Les informations de la Commission des Thons de l'Océan Indien (CTOI) sur l'état des stocks indiquent que le listao et le patudo sont exploités durablement. Pour l'albacore, les informations suggèrent que le stock est au-dessous du niveau de la Prise Maximale Equilibrée, et qu'il est sujet à un effort de pêche excessif dans l'ensemble de la région. Plusieurs mesures de la CTOI ont pour objectif de réduire la pression de pêche sur ce stock.
- 6. Les activités de pêche aux Seychelles sont divisées en trois secteurs : artisanal, semiindustriel et industriel. La flotte de pêche industrielle de thoniers senneurs autorisés à pêcher dans la ZEE des Seychelles inclut environ 45-50 navires, dont 27 sont pavillonnés dans l'UE (Espagne, France et Italie), 12 seychellois et environ 5 de Maurice (opérant sous un accord Seychelles-Maurice), plus un ou deux d'autres nations. Un nombre très variable entre 130 et 150 palangriers industriels ont pris des licences jusqu'en 2015, avec la plupart signalés comme étant toujours actifs. Environ 80 de ces navires sont contrôlés par des opérateurs de Chine et de Taiwan, et opèrent dans le cadre d'un accord non-publié. Quarante palangriers sont pavillonnés aux Seychelles.
- 7. Le port de Victoria sur l'ile de Mahé est un hub régional majeur pour le secteur des pêches, avec des débarquements et des transbordements de thonidés pêchés dans la ZEE et à l'extérieur, et par des navires UE et non-UE. Le port abrite une conserverie de capacité importante pouvant traiter 80 000 tonnes par an de matière première (environ un-tiers des captures à la senne dans l'océan indien). Les produits de la pêche représentent 92% des exportations des Seychelles (principalement du thon en conserve, mais aussi des sous-produits à base de thons. Les importations dans l'UE des Seychelles ont représenté 262 millions EUR (c.i.f.) en 2017.
- 8. Le Ministère de la Pêche et de l'Agriculture a la responsabilité de la définition de la politique et de la législation pour ces deux secteurs. La Seychelles Fishing Authority (SFA) est responsable de sa mise en œuvre, comprenant la délivrance des autorisations de pêche, la collecte et l'analyse de données, et le suivi, contrôle et surveillance. La SFA génère un revenu d'environ 10 million EUR par an pour le Gouvernement des Seychelles. Ceci représente environ 2% des revenus de l'Etat.

- 9. La politique sectorielle des Seychelles pour un « développement durable et responsable de l'industrie de la pêche » a été adoptée en 2005 et est toujours applicable. En 2019, a Banque mondiale a lancé une intervention pour appuyer la « Préparation de la politique sectorielle pêche des Seychelles, plan stratégique et de développement » sous le projet SWIOFish3.
- 10. Un élément central de la durabilité de la politique en matière de croissance bleue est la mise en œuvre d'un processus d'aménagement et de planification spatiale. Ceci comprend la désignation de deux Aires Marines Protégées qui couvriront à ce stade 15% de la ZEE (avec un nouvel accroissement de 15% prévu dans le futur). Les restrictions spatiales considérées auront un impact sur les opérateurs thoniers de l'UE (qui ont été consultés lors du processus).

Mise en œuvre du Protocole

- 11. En moyenne, 27 thoniers senneurs de l'UE ont pris une autorisation de pêche (69% des 40 prévus par le Protocole). Ce nombre représente pratiquement l'intégralité des thoniers senneurs actifs dans l'océan indien, démontrant l'importance stratégique d'un accès à la ZEE des Seychelles pour ce segment de la flotte UE.
- 12. Concernant les palangriers de surface, le taux d'utilisation a été relativement bas pendant le Protocole avec uniquement 1 palangrier de surface français ayant utilisé les possibilités de pêche en 2016 et 2017. Le taux d'utilisation moyen est de 7%. Ceci s'explique par le fait que les plus grands navires de ce segment pêchent dans les eaux subtropicales au Sud, et que la zone des Seychelles est hors de portée des palangriers plus petits basés dans la région ultrapériphérique de La Réunion.
- 13. Les captures annuelles des thoniers senneurs de l'UE sous le Protocole ont représenté 48 000 tonnes entre 2014 et 2018. Le seul palangrier ayant pris une autorisation de pêche n'a pas exploité la zone, et n'a donc pas déclaré de captures. Le chiffre d'affaires des thoniers senneurs de l'UE a été d'environ 70 million EUR par an en moyenne sur la période 2014-2018, variant entre 39,2 millions EUR en 2015 et 83,0 millions EUR en 2017.
- 14. Entre 2014 et 2018, la capture moyenne par thonier senneur a été de 1 725 tonnes, résultant en des frais d'accès annuels payés de 110 000 EUR par navire en moyenne. Les armateurs de l'UE ont payé en moyenne 3,2 million EUR par an aux Seychelles en échange de l'accès, dont 39% de paiements forfaitaires et 61% de paiements variables fonction des captures obtenues. Les paiements de armateurs ont varié entre 2 millions EUR en 2015 et 4 millions EUR en 2016. L'UE a également payé une compensation pour l'accès aux Seychelles équivalente à 2,8 millions EUR par an en moyenne. En moyenne sur la période 2014-2018, les Seychelles ont reçu environ 6 millions EUR par an en échange de l'accès, paiements de l'appui sectoriel non compris. Le coût de l'accès est globalement partagé entre le budget UE (47%) et les armateurs de l'UE (53%).
- 15. En outre, les Seychelles ont bénéficié d'une contribution annuelle de 2,54 millions EUR pour le soutien à la mise en œuvre de la politique sectorielle. Au total, les paiements directs de l'UE au budget des Seychelles se sont montés à 8,5 millions EUR par an en moyenne.
- 16. Concernant la mise en œuvre des clauses techniques du Protocole, il n'y a pas eu de difficultés majeures pour la délivrance des autorisations de pèche et le paiement des redevances forfaitaires. Les formulaires de déclaration des captures (journaux de bord) sont alignés sur les exigences de la CTOI et comme définis par le Protocole, et un système de rapportage a été mis en œuvre pendant la période. La validation par la Commission européenne des données de captures établies en premier lieu par les Seychelles a subi quelques retards due au besoin de résoudre quelques différences (écarts de -7% à +12%) entre les deux sources. Ceci a compliqué le calcul des frais variables d'accès et de la compensation additionnelle due en cas de dépassement du tonnage de référence. Jusqu'à présent, le système électronique de déclaration (ERS) pour recevoir les données de captures des navires UE sur une base quotidienne n'est pas fonctionnel, mais les développements sont en cours.
- 17. Les thoniers de l'UE opérant sous le Protocole en cours ont livré environ 22% de leurs captures régionales à la conserverie IOT (au prix du marché international). Les thoniers français ont débarqué un pourcentage plus important que leurs homologues espagnols (37% et 17% respectivement). Suite à la décision de la CTOI d'une obligation de débarquement en 2018, toutes les captures accessoires sont également débarquées aux Seychelles. Deux nouvelles entreprises ont acheté environ 5% des captures qui étaient rejetées auparavant. Le solde (environ 73%) a été transbordé sur des navires de transport pour livraison sur d'autres marches, dont le secteur de la transformation de Maurice. L'exigence du Protocole

selon laquelle les thoniers UE doivent s'efforcer à approvisionner la conserverie et/ou l'industrie locale a été respectée.

- 18. Des marins seychellois ont été employés sur environ 51% des marées des navires UE, et les armements ont payé les compensations prévues en cas de non-embarquement. Cependant, des paiements ont été faits alors qu'aucun marin qualifié n'était disponible, ce qui n'est pas conforme au Protocole. Le dispositif de suivi de l'emploi à bord (y compris les circuits de communication) appliqué par les Seychelles ne prévoit pas de tels cas, et devrait par conséquent être revu.
- 19. Le montant de l'appui sectoriel prévu pour les six années était de 17 632 015 EUR (dont 2 420 342 EUR de reliquat du programme 2011-2014 en train d'être dépensé). La Seychelles Fishing Authority a été désignée comme l'autorité exécutante de toutes les composantes. Au total, fin 2017 après 4 des six années, 53% des montants ont été décaissés. Les paiements de l'appui sectoriel ont été ajournés deux fois par la Commission en raison de taux d'exécution de tranches inférieurs à 75%. Un rapport de la Cour des comptes européenne (qui a analysé le Protocole 2011-2014 de l'accord UE-Seychelles) a suscité une réponse de la Commission mixte qui a agi pour améliorer la gestion au travers de l'adoption de nouvelles lignes directrices pour l'appui sectoriel, et l'emploi d'un assistant technique supplémentaire pour sa mise en œuvre. Lors de ces dernières années, la mise en œuvre du programme de l'appui sectoriel s'est considérablement améliorée.
- 20. La mise en œuvre de l'appui sectoriel a réussi à améliorer les infrastructures pour la pêche artisanale, à appuyer la gestion du projet de quai de l'Ile du Port, à renforcer le programme observateurs, et à moderniser le système VMS et le centre de surveillance des pêches. En revanche, les objectifs n'ont pas été pleinement atteints en ce qui concerne le suivi, contrôle et surveillance (contrôles au port, surveillance maritime et aérienne). Quelques questions de l'appui sectoriel 2011-2014 restent en suspens (un fond de crédit non-performant et des investissements sous-utilisés dans un centre de transformation des produits de la pêche).
- 21. Des améliorations restent à apporter dans la gestion des programmes sous plusieurs des composantes indiquées dans le rapport de la Cour des comptes européenne. Ceci inclut l'extension des périodes pluriannuelles de programmation, le renforcement des liens avec la politique sectorielle et les mesures budgétaires nationales spécifiques, la définition d'indicateurs de résultats robustes pour le suivi, et un rapportage plus détaillé et plus régulier.

Evaluation ex-post du Protocole

- 22. Le Protocole 2014-2020 sous l'accord de partenariat dans le domaine de la pêche entre l'UE et les Seychelles a globalement rempli les critères d'évaluation en ce qui concerne l'efficacité. Le Protocole a soutenu les intérêts de la flotte lointaine de l'UE en apportant un cadre stable d'accès à une zone de pêche importante dans l'océan indien occidental. Pour les thoniers senneurs, le Protocole complète les accords d'accès disponibles dans la région, permettant aux navires UE d'optimiser les stratégies d'exploitation des stocks migratoires en accord avec les règles régionales fixées par la CTOI. Le Protocole adresse également les besoins identifiés des différentes parties prenantes, et le programme de l'appui sectoriel a permis des réalisations notables concernant les infrastructures, le renforcement des capacités et la gestion et la conservation des pêcheries. Les principaux éléments moins performants ont été la faible utilisation par les palangriers de surface des autorisations de pêche négociées, et les difficultés initiales rencontrées par les deux parties pour mettre en œuvre le programme d'appui sectoriel suivant la programmation prévue.
- 23. Le Protocole est évalué comme étant efficient avec une contribution financière de l'UE proportionnée aux possibilités de pêche exploitées. Le tonnage de référence a été utilisé à 96%, avec des paiements pour des captures au-delà de ce niveau deux années sur les cinq années du Protocole écoulée à ce stade.
- 24. Le Protocole est estimé avoir généré une valeur ajoutée de plus de 30 millions EUR par an sur les cinq années, variant entre 11,3 millions EUR en 2015 et 44,5 millions EUR en 2017. Le rapport coût bénéfice du Protocole est globalement de 18,90 EUR de valeur ajoutée générée pour chaque 1 EUR payé par l'UE en échange de l'accès. En moyenne, sur les cinq premières années du Protocole, 43% de la valeur-ajoutée est captée par l'UE, 24% par les Seychelles et 32% pour d'autres entités, principalement d'autres Etats côtiers de l'océan indien occidental.

- 25. Le Protocole est estimé pertinent pour répondre aux besoins des principales parties prenantes concernées. Pour les armements de l'UE, le Protocole apporte un accès multi-annuel a une zone de pêche productive dans laquelle les espèces ciblées sont abondantes. Pour les Seychelles, e Protocole apporte des bénéfices économiques issus de la ressource présente dans ses eaux et que la flotte nationale ne peut pleinement exploiter. Le Protocole a aidé les Seychelles à remplir ses obligations vis à vis de la CTOI, en particulier pour les programmes d'observation embarqués. Il favorise également l'approvisionnement de l'industrie seychelloise de transformation, et permet le maintien de Victoria comme principale hub thonier de l'océan indien occidental, l'un des objectifs de la politique sectorielle nationale. L'accord et son Protocole sont considérés comme acceptables par l'UE et ses Etats membres, le Gouvernement des Seychelles, et les opérateurs UE et seychellois du secteur de la pêche.
- 26. Le Protocole est cohérent avec les autres interventions de l'UE dans l'océan indien occidental, en particulier les programmes FED visant à renforcer la gouvernance du secteur de la pêche et la sécurité maritime. La valeur ajoutée de l'intervention de l'UE est évidente dans la mesure où elle sécurise des conditions d'accès qui ne pourraient être obtenues par des accords privés, et elle soutient la mise en œuvre de la politique sectorielle des Seychelles.
- 27. Le Protocole est cohérent avec les règles de gestion et de conservation adoptées sous le cadre multilatéral de la CTOI à laquelle l'UE et les Seychelles sont parties contractantes, et il soutient la participation aux travaux de cette ORGP et le respect de ses mesures au travers du programme d'appui sectoriel. Le Protocole améliore la transparence du cadre de gestion, en cohérence avec les résolutions de la CTOI.

Evaluation ex-ante de scénarios de renouvellement

- 28. Les conclusions de l'étude indiquent que le renouvellement du Protocole apparaît clairement être de l'intérêt des deux parties. L'évaluation conclut qu'il serait dans l'intérêt mutuel des deux parties d'envisager une mise à jour du cadre de coopération par l'adoption d'un accord de partenariat dans le domaine de la pêche durable qui permettra un meilleur alignement avec les principes énoncés par le Règlement de la Politique Commune de la Pêche.
- 29. Dans la ZEE des Seychelles, les limitations spatiales imposées sur différentes activités de pêche devraient tenir compte de la décision finale du Gouvernement des Seychelles concernant la mise en œuvre de la planification spatiale maritime. Celle-ci propose à ce stade d'étendre et d'appliquer de nouvelles restrictions qui impacteront les opérations des thoniers senneurs et des palangriers dans deux zones (Zone 1 Aldabra Group et Zone 2 Amirantes à Fortune Bank). Les coordonnées officielles sont actuellement revues et devraient être republiées par le Gouvernement des Seychelles au printemps 2019.
- 30. Concernant les possibilités de pêche pour les thoniers senneurs, la demande n'a pas dépassé 30 navires durant le Protocole (par comparaison avec les 40 possibles). L'application de limites de captures par la CTOI depuis 2017 rend une augmentation de la demande improbable. Pour les palangriers de surface, le nombre de 6 sous le Protocole en cours apparaît dépasser la demande immédiate. Toutefois, pour les deux segments, ces possibilités pourraient être reconduites sans impact sur la dimension financière ou durable d'un future Protocole. Cette approche pourra permettre une augmentation des besoins de certaines parties prenantes, notamment celles basées dans la région ultrapériphérique de La Réunion.
- 31. Le tonnage de référence utilise pour fixer l'assiette de la compensation financière payée par le budget de l'UE reflète les captures historiques dans la zone et pourra donc être d'un ordre de grandeur comparable sous un futur Protocole. Le tonnage de référence et les négociations financières devront prendre en compte les propositions d'AMPs exprimées par le processus de planification spatiale des Seychelles. Ces AMPs sont estimées concerner 4 000 à 5 000 tonnes de captures des navires UE sous le Protocole, mais l'effort de pêche concerné sera probablement redirigé vers d'autres zones, à l'intérieur ou à l'extérieur de la ZEE des Seychelles.
- 32. Le niveau de captures fixé sous le Protocole en cours pour établir le montant forfaitaire de la redevance d'accès payée par les thoniers senneurs de l'UE (700 tonnes par an) pourrait être légèrement ajusté pour améliorer la prédictibilité des recettes budgétaires perçues par le Gouvernement des Seychelles, et pour réduire la charge administrative découlant du calcul de la partie variable des redevances d'accès.
- 33. Un futur Protocole devra clarifier les clauses en relation avec la non-discrimination, et améliorer le suivi conjoint des captures des navires de l'UE dans la ZEE des Seychelles par les instituts scientifiques concernés. De nouvelles procédures devraient être définies pour

éviter des paiements indus en compensation du non-embarquement de marins seychellois quand ceux-ci ne sont pas disponibles.

- 34. Un futur Protocole devrait continuer à chercher à aider les Seychelles à renforcer ses capacités de satisfaire ses obligations sous l'accord et vis-à-vis de la CTOI, en particulier en ce qui concerne la collecte, le traitement, l'analyse et la communication des données de capture et autres données scientifiques, ainsi que le suivi, contrôle et surveillance des pêches. Un accent particulier pourrait être porté sur l'amélioration des contrôles au port suivant les obligations internationales imposées aux Seychelles du fait de l'importance stratégique de Victoria pour les débarquements et transbordements de thonidés dans l'océan indien. Le reste de l'appui sectoriel pourrait également contribuer à la mise en œuvre de la politique sectorielle des Seychelles de 2019.
- 35. La programmation devrait être à minima coordonnée durant ses phases d'identification et de programmation avec les interventions soutenues par la Subvention Bleue et le Fonds d'Investissement Bleu, SWIOFish3 et l'Initiative de Transparence dans la Pêche. Cependant, considérant la convergence des objectifs, il est recommandé que les parties aillent au-delà de la simple coordination, et considèrent un abondement des fonds avec ceux de l'appui sectoriel dans des projets communs.
- 36. Les parties devraient s'efforcer à s'assurer que de nouvelles améliorations sont apportées dans la programmation, l'identification, la formulation et la gestion d'un futur programme d'appui sectoriel, suivant les recommandations de la Cour des comptes européenne. A cette fin, les parties pourraient choisir d'allouer une partie définie des fonds de l'appui sectoriel à la gestion du programme, d'établir une unité de gestion de manière à assurer une efficacité et une cohérence améliorées dans la sélection des mesures et dans le choix de modalités de mises en œuvre, ainsi que pour le renforcement des capacités de gestion pour la mise en œuvre d'un suivi efficace axé sur les performances par rapport à des indicateurs objectivement vérifiables de résultats
- 37. Il est également recommandé qu'un futur Protocole puisse intégrer des mesures plus prescriptives sur la visibilité des actions de l'appui sectoriel (en particulier les mesures immatérielles), et qu'un budget soit disponible pour assurer la communication sur les résultats du programme.
- 38. Le renouvellement du Protocole est par conséquent l'option préférée par les deux parties, avec quelques ajustements. Les deux parties reconnaissent le besoin de commencer les négociations aussi vite que possible afin d'éviter un risque d'arrêt des activités de pêche des navires de l'UE à l'expiration du Protocole en cours.

RESUMEN

Información Contextual

- 1. El sujeto de la presente evaluación es **el Acuerdo de Asociación Pesquera** (FPA por sus siglas en inglés) **entre la UE y Seychelles** y la implementación de su Protocolo. El acuerdo fue concluido para un periodo de 6 años desde el 2 de Noviembre de 2007 y en 2013 fue renovado automáticamente hasta el 1 de Noviembre de 2019. El Protocolo proporciona posibilidades de pesca para los buques de la UE que trabajan en la Zona Económica Exclusiva de Seychelles para la pesca de atún y especies similares. El Protocolo actual entró en vigor el 18 de Enero de 2014 y vencerá el 17 de Enero de 2020. El acuerdo de la UE con Seychelles es uno de los dos acuerdos atuneros actualmente activos en el Océano Índico (el otro es con las islas Mauricio).
- 2. El Protocolo establece las oportunidades pesqueras y las contribuciones financieras previstas en el Acuerdo de Asociación Pesquera. Otorga oportunidades de pesca para 40 atuneros cerqueros congeladores y para 6 palangreros de superficie, con una referencia de tonelaje de 50,000t/año. La contribución financiera pública anual de la UE a Seychelles en el primer y segundo año ascendió a 5 350 000 euros por año, de los cuales 2 600 000 euros se destinaron al apoyo e implementación de la política pesquera sectorial de Seychelles. Del tercer al sexto año, la contribución anual es de 5 000 000 euros, de los cuales 2 500 000 euros se destinarán al apoyo para la implementación de las políticas pesqueras marítimas.
- 3. El FPA UE-Seychelles se refleja en un acuerdo pesquero entre Seychelles y la UE para el acceso de un máximo de 8 cerqueros congeladores y 2 buques de suministro con bandera de Seychelles a las aguas de Mayotte bajo la jurisdicción de la UE (una región remota de la UE desde 2014). El llamado acuerdo Seychelles-Mayotte vencerá el 5 de Junio de 2020.

Sector pesquero de Seychelles

- 4. La Zona Económica Exclusiva (ZEE) de Seychelles cubre 1.3 millones de km². Seychelles cuenta con ricos caladeros los cuales incluyen las rutas migratorias de importantes especies pelágicas, como el atún listado (*Katsuwonus pelamis*), atún de aleta amarilla (*Thunnus albacares*) y el atún patudo (*Thunnus obesus*).
- 5. Las evaluaciones actuales de stock de la Comisión de Atún del Océano Índico para atún listado y atún patudo indican que estas especies son explotadas de manera sostenible. En el caso del atún de aleta amarilla, la evidencia sugiere que el stock está por debajo del nivel de referencia del Máximo Rendimiento Sostenible y está sujeto a un esfuerzo pesquero excesivo en la región. Varias medidas de la IOTC han tenido como objetivo reducir la presión pesquera sobre este stock.
- 6. La actividad pesquera en las aguas de Seychelles se divide en tres sectores; pesca artesanal, pesca semi-industrial y pesca industrial. La flota industrial de cerqueros congeladores autorizada para accede a la ZEE de Seychelles generalmente incluye hasta 45-50 embarcaciones, de las cuales 27 poseen bandera de la UE (Francia, España e Italia), 12 bandera de Seychelles y aproximadamente 5 bandera de Mauricio (operando bajo el acuerdo pesquero de Seychelles-Mauricio) y uno o dos de otras naciones. Hubo un total altamente variable de entre 130 y 150 palangreros industriales que obtuvieron licencias hasta 2015. Se ha declarado que la mayoría siguen operando. Alrededor de 80 de estos buques ahora pertenecen a y son operados por operadores Chinos y Taiwaneses, y funcionan bajo un acuerdo no publicado. Se registraron 40 palangreros con la bandera de Seychelles.
- 7. El puerto de Victoria en la isla de Mahé, es un centro importante para el sector pesquero regional, el cual recibe y transporta capturas, no únicamente de la ZEE, sino también de otras zonas de pesca para la UE y otras flotas extranjeras. Alberga una importante fábrica de conservas que procesa aproximadamente 80 000 MT de materia prima por año (sobre un tercio de la captura de atuneros cerqueros congeladores del Océano Indico Occidental). Los productos pesqueros representan el 92% de las exportaciones domésticas visibles (en su mayoría atún enlatado así como productos derivados del atún). Las importaciones de la UE desde Seychelles se evaluaron en 262 millones de euros (c.i.f.) en 2017.
- 8. El Ministerio de Pesca y Agricultura tiene un mandato general para las políticas y la legislación en el área de pesca y agricultura. La Autoridad Pesquera de Seychelles es responsable de la implementación, incluida la emisión de autorizaciones de pesca, de la recopilación y el análisis de datos, y del monitoreo y el control de vigilancia. La Autoridad Pesquera de Seychelles ha

generado sistemáticamente alrededor de 10 millones de euros al año para el gobierno de Seychelles. Esto representa aproximadamente un 2% de los ingresos del Estado.

- 9. La Política Pesquera de Seychelles "Para el Desarrollo Sostenible y Responsable de la Industria Pesquera" fue adoptada en 2005 y todavía está en vigor. En 2019 el Banco Mundial lanzó una intervención para apoyar la "Preparación de Seychelles" a través del proyecto SWIOFish3.
- 10. Un pilar central para la sostenibilidad de la política de crecimiento azul, es la implementación del proceso de Planificación Espacial marina de las Seychelles. Esto incluye la designación de dos Áreas Marinas Protegidas extendidas cubriendo en este momento un 15% de la ZEE (con un 15% adicional previsto en el futuro). Las restricciones reglamentarias propuestas tendrán un impacto en los operadores de atún de la UE (a quienes se consultó extensamente durante el proceso SMSP).

Implementación del Protocolo

- 11. Una media de 27 atuneros cerqueros congeladores de la UE han obtenido autorizaciones de pesca (69% de los 40 previstos en el Protocolo). Esto representa a casi todos los atuneros cerqueros congeladores de la UE activos en el Océano Índico, lo que demuestra el interés estratégico de poseer acceso a la ZEE de Seychelles por parte de este segmento de la flota de la UE.
- 12. Para los palangreros de superficie, la tasa de utilización ha sido relativamente baja a lo largo de los períodos del Protocolo, con solo 1 palangrero de superficie francés el cual ha utilizado las posibilidades de pesca del 2016 y 2017. En este caso, la tasa de utilización general fue del 7%. Esto es debido a que las embarcaciones más grandes de este segmento tienen como objetivo a especies de aguas subtropicales del Sur, y la zona de Seychelles está fuera del rango de la mayoría de las embarcaciones más pequeñas con sede en la región exterior de la UE de La Reunión.
- 13. Las capturas anuales de atuneros cerqueros congeladores de la UE bajo el Protocolo alcanzaron un promedio de cerca de 48 000 toneladas entre 2014 y 2018. El único palangrero de superficie de la UE que obtuvo una autorización de pesca no explotó la zona pesquera y, por lo tanto, no declaró ninguna captura. El volumen de negocios de los cerqueros congeladores de la UE según el Protocolo actual, fue de aproximadamente un promedio de 70 millones de euros por año durante el período 2014-2018, variando entre 39.2 millones de euros en 2015 y 83.0 millones de euros en 2017.
- 14. Entre 2014 y 2018, la captura promedio de cerqueros congeladores fue de 1 725 toneladas por embarcación, lo que resultó en un valor promedio de poco más de 110 000 euros por embarcación para pagar la tarifa de acceso. Los armadores de la UE pagaron en promedio 3.2 millones de euros anuales a las Seychelles a cambio del acceso, de los cuales el 39% era una cantidad fija anual, y el 61% una cantidad variable, según las capturas. Las tarifas de acceso pagadas por los armadores de la UE variaron entre aproximadamente 2 millones de euros en 2015 y 4 millones de euros en 2016. La UE también proporcionó compensación para el acceso al Gobierno de Seychelles, con un pago anual promedio de 2.8 millones de euros. En promedio, durante el período 2014-2018, Seychelles recibió aproximadamente 6 millones de euros al año a cambio de acceso, sin incluir los pagos de apoyo sectorial. El costo del acceso se comparte en términos generales entre el presupuesto de la UE (47%) y los operadores pesqueros de la UE (53%).
- 15. Además, las Seychelles se beneficiaron de una contribución financiera anual de 2.54 millones de euros con respecto a un programa de apoyo a la implementación de las políticas pesqueras. En general, el beneficio financiera anual directo del Protocolo a los ingresos del Gobierno de las Seychelles ha alcanzado un promedio de 8.5 millones de euros.
- 16. Con respecto a la implementación técnica del Protocolo, no se han reportado mayores dificultades en cuanto al tema de las licencias de pesca y el pago de las tarifas anticipadas. Los formularios de registro de datos (registros de captura) están en línea con los requisitos de la IOTC y, tal como se define en el Anexo del Protocolo, los sistemas de comunicación de capturas se implementaron durante todo el período. La validación por parte de la Comisión de los datos de captura proporcionados en primera instancia por las Seychelles, ha experimentado ciertos retrasos en la resolución de diferencias (con una variación de -7 a + 12%) en las capturas anuales declaradas. Esto ha complicado el cálculo de las tarifas de licencias adicionales y la compensación adicional cuando se excede el tonelaje de referencia. Hasta ahora, las autoridades de Seychelles aún no han implementado completamente el Sistema de Notificación Electrónico para recibir informes diarios de capturas de los buques de la UE, pero se está desarrollando.

- 17. Los buques atuneros de la UE que operaron bajo el Acuerdo durante el período 2014-2017 desembarcaron aproximadamente 22% de su captura regional de atún en la fábrica de conservas IOT (precio de mercado internacional). Los buques franceses desembarcaron a Seychelles un porcentaje de capturas significativamente mayor que los buques Españoles (37 % vs. 17%). Tras la introducción total de la obligación de desembarcar por parte de la IOTC en el 2018, toda captura incidental también debe ser desembarcada en Seychelles. Dos nuevos establecimientos de procesamiento y exportación compran un 5% adicional de las capturas que anteriormente se descartaban. El balance (aproximadamente el 73%) se transbordó a graneleros para su entrega a mercados externos, incluido el sector de procesamiento de Mauricio. Se ha cumplido el requisito del Protocolo en el cual los atuneros cerqueros de la UE intenten suministrar la fábrica de conservas de atún y/o la industria de procesamiento local de las Seychelles.
- 18. Los marineros de Seychelles estaban empleados solo en aproximadamente el 51% de los viajes de pesca realizados por buques de la UE y los operadores han pagado una compensación por no reclutamiento. Sin embargo, se informa de que estos pagos han incluido numerosas ocasiones en las que no había disponibilidad de marineros calificados, lo que no está en línea con el Protocolo. El sistema de monitoreo de reclutamiento (incluidos los canales de comunicación) aplicado por las autoridades de Seychelles, no identifica tales casos y por lo tanto deberían revisarse.
- 19. La cantidad del apoyo sectorial programado otorgado a lo largo de los 6 años del Protocolo fue de 17 632 015 euros (que incluía un monto de 2 420 342 euros de años anteriores, los cuales están en el proceso de ser utilizados). La Autoridad de Pesca de las Seychelles fue nominada como la Autoridad Ejecutora para todos los componentes. En general, a final de 2017, después de cuatro de los seis años, el 535 de las finanzas programadas se habían gastado. Los pagos de la financiación de apoyo sectorial se retrasaron dos veces en la UE debido a las tasas de desembolso de tramos anteriores inferiores al 75%. Un informe del Tribunal de Auditores de la UE (que revisó el Protocolo 2011-2014 del FPA de UE Seychelles) obtuvo una respuesta del Comité Conjunto que actuó para mejorar la gestión mediante la adopción de nuevas Directrices para el apoyo sectorial y el nombramiento de Asistencia técnica para la implementación. En los últimos años, la implementación del programa de apoyo sectorial ha mejorado significativamente.
- 20. Como resultado, la implementación del apoyo sectorial ha logrado mejorar la infraestructura de la pesca de pequeña escala, administrar el proyecto del muelle de atún de Ile du Port, fortalecer el programa de observadores, reiniciar un programa nacional de desarrollo de la acuicultura, desarrollar la capacidad del personal y mejorar el Sistema VMS y el Centro de Monitoreo de Pesca. Por otro lado, los objetivos no se han cumplido en su totalidad en relación al monitoreo y control de vigilancia (estado del puesto, vigilancia aérea y marítima). Las cuestiones pendientes del programa 2011-2014 también quedan por resolver (un fondo de crédito con bajo rendimiento e inversiones infrautilizadas en instalaciones de procesamiento de pescado).
- 21. Queda lugar para mejorar la gestión del programa en varias de las áreas indicadas bajo el informe del Tribunal de Auditores. Estas incluyen extender los períodos de programación plurianuales, fortalecer los vínculos con las políticas pesqueras y con las medidas específicas del presupuesto nacional, garantizar indicadores de resultados bien definidos para el monitoreo y la presentación de informes más detallados y periódicos.

Evaluación ex-post del Protocolo

22. El Protocolo 2014-2020, bajo el Acuerdo de Asociación Pesquera entre la UE y la República de Seychelles, ha cumplido ampliamente los criterios de evaluación de las intervenciones de la UE para su eficacia. Ha cumplido el objetivo de proteger los intereses de la flota de larga distancia de la UE proporcionando acceso estable a una importante zona de pesca en el Océano Índico Occidental. En relación con los atuneros cerqueros, el Protocolo complementa los otros acuerdos de acceso establecidos en la región, permitiendo a los buques de la UE optimizar la explotación de stocks migratorios dentro de las normas regionales establecidas por la IOTC. El Protocolo también es evaluado como efectivo. El Protocolo aborda la mayoría de las necesidades identificadas de los diferentes interesados y el Programa de apoyo Sectorial ha brindado algunos beneficios notables en infraestructura, creación de capacidad y manejo y conservación de la pesca. Los principales elementos de preocupación con respecto a la efectividad han sido la baja utilización de las oportunidades pesqueras de palangre de superficie provistas en el Protocolo y las dificultades iniciales de las partes para implementar el programa de apoyo sectorial de acuerdo con el calendario previsto.

- 23. El Protocolo es evaluado como eficiente con una contribución financiera de la EU proporcional a las oportunidades pesqueras explotadas. Se ha consumido en promedio un 96% del tonelaje de referencia, con pagos adicionales por exceso de capturas superiores a esta cantidad generada en dos de los cinco años del Protocolo hasta el momento.
- 24. Se estima que el Protocolo ha generado un Valor Agregado Bruto ligeramente superior a 30 millones de euros al año durante los cinco años, variando entre 11,3 millones de euros en 2015 y 44,5 millones de euros en 2017. En lo que respecta a las relaciones de costo-beneficio, el Protocolo ha generado globalmente un valor agregado de 18,90 euros por cada 1 euro pagado por la UE a cambio del acceso a la pesca. En promedio, durante los primeros cinco años del Protocolo, se estima que el 43% del valor agregado total corresponde a la UE, el 24% a Seychelles y el 32% a otras entidades, que incluyen principalmente los Estados costeros del Océano Índico Occidental.
- 25. Se considera que el Protocolo es altamente relevante para las necesidades de las partes interesadas involucradas. Para los armadores de la UE, el Protocolo proporciona un acceso predecible a un área de pesca productiva en la que abundan las especies seleccionadas. Para Seychelles, el Protocolo ofrece beneficios económicos nacionales de los recursos de atún presentes en la ZEE que la flota nacional no puede explotar en la actualidad. Ha ayudado a las Seychelles a cumplir con sus obligaciones de la IOTC, especialmente en relación con la implementación del programa de observadores. También garantiza importantes suministros al sector de procesamiento de Seychelles y ayuda a mantener a Victoria como el principal centro de la industria atunera del Océano Índico Occidental, un objetivo clave de la política pesquera de Seychelles. Se considera que el Acuerdo y su Protocolo han sido aceptables para la UE y los Estados miembros, el Gobierno de las Seychelles y los operadores del sector pesquero de la UE y las Seychelles.
- 26. El Protocolo es coherente con otras intervenciones de la UE en el Océano Índico Occidental, en particular las del FED destinadas a fortalecer la gobernanza de la pesca y la seguridad marítima. El valor agregado de la intervención de la UE es evidente, ya que proporciona un acceso más estable a los recursos pesqueros migratorios, que podría lograrse mediante acuerdos privados anuales, y apoya la implementación de la política pesquera de Seychelles.
- 27. El Protocolo es consistente con las medidas de conservación y manejo adoptadas bajo el marco multilateral de la IOTC en el que son parte la UE y Seychelles y apoya la participación en el trabajo de esta OROP y el cumplimiento de sus medidas a través de su componente de apoyo sectorial. También proporciona una mayor transparencia en el marco de gestión, coherente con la resolución IOTC.

Evaluación ex-ante de supuestos de renovación

- 28. Los hallazgos del estudio indican que la renovación del Protocolo parece estar claramente en interés de ambas partes y como el resultado más beneficioso. La evaluación concluye que podría ser de interés mutuo para ambas partes considerar la actualización del marco para su cooperación mediante la adopción de un nuevo Acuerdo de Asociación para la Pesca Sostenible. Esto garantizaría una mejor precisión en la alineación con los principios establecidos en el Reglamento de la PPC.
- 29. Dentro de la ZEE de las Seychelles, los límites espaciales de las diferentes prácticas pesqueras en virtud de un nuevo Protocolo deben tener en cuenta las decisiones finales del Gobierno de las Seychelles con respecto a la implementación del Plan Espacial Marino. Actualmente, se propone extender y aplicar nuevas restricciones que afectarán la pesca de cerco y la pesca con palangre de superficie en dos zonas (Zona 1, Grupo Aldabra y Zona 2 Amirantes a Fortune Bank). Las coordenadas de Gazetted están actualmente bajo revisión y se espera que se vuelvan a publicar en la primavera de 2019.
- 30. En lo que respecta a las posibilidades de pesca para los buques cerqueros congeladores, la demanda no ha superado los 30 buques durante el curso del Protocolo (en comparación con los 40 previstos). La aplicación de los límites de captura IOTC desde 2017 hace que cualquier aumento en la demanda sea improbable. Para los buques palangreros de superficie, el número actual de 6 buques también parece superar la demanda inmediata. Sin embargo, para ambos segmentos, estas oportunidades pueden, si las Partes lo desean, mantenerse en su nivel actual sin afectar las dimensiones financieras o la sostenibilidad de un futuro Protocolo. Este enfoque también proporcionará cualquier posible aumento futuro en el interés de las partes interesadas, en particular por aquellos ubicados en la Región periférica de La Reunión.

- 31. El tonelaje de referencia utilizado para establecer el nivel de compensación pagado con el presupuesto de la UE refleja los niveles de captura históricos en el área y, por lo tanto, puede ser de orden similar al Protocolo actual. El tonelaje de referencia y las negociaciones financieras deben tener en cuenta las propuestas de AMP expresadas en el Plan Espacial Marino de Seychelles. Se espera que esto repercuta en unas 4 000 a 5 000 toneladas de captura por parte de los buques de la UE que pescan en virtud del Acuerdo, aunque el esfuerzo de pesca asociado con esta captura será, por supuesto, redirigido a otras zonas, dentro o fuera de la ZEE de Seychelles.
- 32. El nivel de captura utilizado en el Protocolo actual para establecer el monto de la tarifa plana pagada por los atuneros cerqueros de la UE (actualmente 700 toneladas/año) puede ajustarse ligeramente para proporcionar una mayor previsibilidad del ingreso presupuestario de los pagos de acceso de los armadores de la UE a las Seychelles y reducir así la carga administrativa en el cálculo del componente variable de las tarifas.
- 33. Un futuro Protocolo debería asegurar claridad en relación con la invocación de una cláusula de no discriminación y un mejor monitoreo conjunto por parte de los institutos científicos interesados en las capturas realizadas por los buques de la UE en la ZEE de Seychelles. Se deben definir nuevos procedimientos para evitar el pago innecesario de compensación cuando la tripulación de Seychelles no esté disponible.
- 34. El futuro apoyo sectorial debería tratar de continuar fortaleciendo la capacidad de Seychelles para cumplir con sus obligaciones en virtud del acuerdo con la IOTC, especialmente en lo que respecta a la recolección, procesamiento, análisis y comunicación de la captura y otros datos científicos y al control y vigilancia del monitoreo de la pesca. Debería haber un énfasis específico en mejorar los controles del Estado del Puerto en línea con las obligaciones internacionales de Seychelles debido a la importancia estratégica de Victoria para los desembarques y transbordos de atún en el Océano Índico. El resto del apoyo sectorial también podría buscar emprender medidas acordadas que contribuyan a la implementación de la Política Pesquera de Seychelles propuesta en 2019.
- 35. Como mínimo la programación debería estar estrechamente coordinada durante la identificación y formulación con intervenciones apoyadas por Blue Grants y Blue Investments Funds, SWIOFish3 y la Fisheries Transparency Initiative. Sin embargo, teniendo en cuenta los objetivos comunes de las políticas, se recomienda a las partes que vayan más allá de la simple coordinación y consideren la combinación de elementos de finanzas del programa de apoyo sectorial en proyectos comunes.
- 36. Las partes deben esforzarse por garantizar que se realicen nuevas mejoras en la programación, identificación, formulación y gestión del futuro programa de apoyo sectorial, de conformidad con las recomendaciones del Tribunal de Cuentas de la UE. Con este fin, las partes también pueden considerar la posibilidad de asignar un componente definido del apoyo sectorial a la gestión del programa, establecer una unidad de implementación del programa para garantizar una mayor eficacia y coherencia en la selección de medidas y la elección de la modalidad de implementación, mayor capacidad de gestión para implementación y monitoreo efectivo orientado a resultados contra indicadores de logros objetivamente verificables.
- 37. También es recomendable que el futuro Protocolo incorpore más medidas prescriptivas con respecto a la visibilidad de las acciones de apoyo sectorial (especialmente medidas intangibles) y defina un presupuesto para asegurar la comunicación con respecto a los resultados del programa.
- 38. La renovación del Protocolo es, por lo tanto, la opción preferida por ambas partes, pero con algunas modificaciones. Ambas partes reconocen la necesidad de **iniciar las negociaciones lo antes posible** para evitar cualquier riesgo de cese de la actividad de los buques de la UE en el vencimiento del Protocolo actual.

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Year	EUR	US\$	SCR	
2012	1	1.285864	17.68138	
2013	1	1.319103	15.96445	
2014	1	1.336155	16.95682	
2015	1	1.111598	14.88797	
2016	1	1.105669	14.70174	
2017	1	1.120146	15.31179	
2018	1	1.183964	16.49779	

Exchange rates used in this report

INTRODUCTION

In 2006 the EU and Seychelles concluded a bilateral Fisheries Partnership Agreement (FPA). This Agreement provided fishing possibilities exclusively for highly migratory species for EU vessels fishing in Seychelles waters. It was adopted by Council Regulation (EC) No 1562/2006 of 5 October 2006 (OJ L290 of 20 October 2006). The FPA was concluded for a period of 6 years; it applied as of 2 November 2007 and was automatically renewed on 2 November 2013 until 1 November 2019.

The FPA with Seychelles is one of the 2 active tuna agreements in the Indian Ocean (the other is with Mauritius). The Agreement applies to the territories where the EU Treaties apply, to the territory of Seychelles and to the waters under Seychelles' jurisdiction. The EU has two other tuna agreement with coastal States of the Indian Ocean (Madagascar and Mozambique) but they are inactive in the absence of implementing Protocols.

Through its implementing Protocol, the Agreement allows EU vessels to fish for tuna and tuna-like species. The previous 3 years Protocol (2011-2014) to the FPA expired on 17 January 2014. The current Protocol entered into application on 18 January 2014 and is running for 6 years until 17 January 2020.

The Protocol sets out the fishing opportunities and financial contributions provided for in the Fisheries Partnership Agreement. It grants to the EU fishing opportunities for up to 46 vessels to fish for tuna and other highly migratory species in 2 fishing categories: 40 tuna seiners and 6 surface long liners, with a reference tonnage of 50,000 tonnes/year.

The annual EU public financial contribution to Seychelles in the first and second year amounted to EUR 5 350 000 per year, of which EUR 2 600 000 was dedicated to the support and implementation of Seychelles' sectoral fisheries policy. In the 3rd to 6th years, the annual contribution is EUR 5 000 000 per year, of which EUR 2 500 000 is to be dedicated to the support for implementation of the fisheries policy.

The Agreement is classified by the EU as a "tuna agreement"¹ covering catches of highly migratory species as defined under Annex 1 of the UNCLOS and with the exception of species which are protected or prohibited by IOTC. The main characteristics of the latest Protocol are provided in Table 1.

The EU Member States interested in fisheries activities in the EEZ of Seychelles are France (FR), Spain (ES), Italy (IT) and Portugal (PT). The allocation of the fishing opportunities among these Member States is set by Council Regulation (EU) 11/2014 of 16 December 2013 and shown in Table 2.

¹<u>https://ec.europa.eu/fisheries/cfp/international/agreements_en</u>

Duration of the FPA	Six years renewable			
Date of entry into force of FPA	2 November 2013 (Renewed)			
Date of entry/ into force of Protocol	18 January 2014			
Duration of the Protocol	Six years: 18 January 2014 to 17 January 2020			
Maximum number of EU vessels authorised	 40 Tuna seiners 6 Surface longliners			
Species authorised	Highly migratory species listed in Annex 1 to the United Nations Convention on the Law of the Sea (UNCLOS), within the limits set in Appendix 2 of the Protocol [technical conservation measures] and with the exception of species which are protected or prohibited by IOTC			
Annual counterpart finance by the EU	 First two years of application: EUR 5 350 000 per year, of which EUR 2 600 000 was dedicated to the support and implementation of Seychelles' sectoral fisheries policy and maritime policy. Last four years of application: EUR 5 000 000 per year, of which EUR 2 500 000 is dedicated to the support for implementation of the fisheries maritime policies of Seychelles. Financial compensation for access corresponds to a reference tonnage of 50,000 tonnes/year. Incremental consideration for catches above the reference tonnage of EUR 55 per tonne for the first two years, and EUR 50 per tonne in the last four years. 			
Vessel operator contributions	 First year of application: EUR 55 per tonne caught (purse seiners and longliners) Second year of application: EUR 60 per tonne caught (purse seiners and longliners) Third year of application: EUR 65 per tonne caught (purse seiners and longliners) Fourth and fifth years of application: EUR 70 per tonne caught (purse seiners and longliners) Sixth year of application: EUR 75 per tonne caught (purse seiners and longliners) Sixth year of application: EUR 75 per tonne caught (purse seiners and longliners) 			

Table 1: Summary of the main technical and financial features of the FPA Protocol between the EU and Seychelles

Source: Protocol between the EU and the Republic of Seychelles

Furthermore, after the change in status of Mayotte into an Outermost Region of the EU in 2014, an Agreement between the EU and Seychelles on access for fishing vessels flying the flag of the Seychelles to waters and marine biological resources of Mayotte, under the jurisdiction of the EU, was signed² (called the Mayotte-Seychelles fisheries agreement in this document). This agreement covers the period 6 June 2014- 5 June 2020 and allows 8 Seychelles vessels to fish in the waters of Mayotte. The financial contribution by ship-owners' fees is provided directly to France to support Mayotte adaptation to the Common Fisheries Policy, without financial implications for the EU.

² Agreement between the European Union and the Republic of the Seychelles on access for fishing vessels flying the flag of the Seychelles to waters and marine biological resources of Mayotte, under the jurisdiction of the European Union. OJ L 167, 6.6.2014, p. 4–29 – approved by Council Decision of 14.04.2014

Fishing possibilities in the Seychelles EEZ						
	SPAIN	FRANCE	ITALY	PORTUGAL	TOTAL	
Tuna seiners	22	16	2	-	40 vessels	
Surface longliners	2	2	-	2	6 vessels	

Table 2: Allocation of EU fishing opportunities in the Seychelles EEZ

Source: Council Regulation (EU) 11/2014 of 16 December 2013.

The present report provides an independent ex-post evaluation study of the current sixyear Protocol to the FPA between the EU and the Republic of Seychelles as well as an exante evaluation of a possible future SFPA and Protocol. It also provides a review of the operation of the Mayotte–Seychelles Fisheries Agreement in respect of the access agreement for Seychellois vessels to fish in the waters of Mayotte.

The report presents analysis based on information collected from various sources, including the European Commission DG MARE, concerned EU Member states (France, Portugal, Spain, Italy) and the professional associations of EU vessel operators concerned with the availability and utilisation of fishing possibilities. It also includes the findings of a mission to Seychelles that took place in February 2019, during which discussions were held with Seychellois and other stakeholders involved in the Seychelles Fishery and marine sector, including public authorities, private sector and NGOs.

METHODOLOGY AND SCOPE OF THE EVALUATION

The scope of this study is an independent **ex-post evaluation** of the current four-year Protocol to the SFPA between the EU and Seychelles and an **ex-ante evaluation** of alternative scenarios (renewal, no renewal) for the current Protocol.

The evaluation was conducted in January and February 2018 under the guidance of a Steering Group established by DG MARE of the European Commission and within the general framework of the Terms of Reference (ToR) shared with the concerned authorities of Seychelles. The methodology used in the evaluation included:

- An analysis of the documentation and data related to the implementation of the Protocol available at the time of the evaluation. The data and information cover the period from January 2014 (since the Protocol came into force on 18 January 2014) to end of 2018. It should be noted that the Agreement will expire on 1 November 2019 and the Protocol will expire on 17 January 2020. The ex-post evaluation therefore does not address the full period of the Protocol. The key sources of data for the indicators used in the evaluation of the Protocol over the period 2014-2018 are the catches by EU vessels, the fishing licenses issued to EU vessels and the Minutes of the Joint Committees.
- Consultations with Seychelles stakeholders: a mission to Seychelles took place in February 2019. The mission was organised with the support of the Seychelles Fishing Authority and the EU Delegation in Mauritius. During the mission, meetings were held with several stakeholders in the country and information was shared and made available to the evaluation. The list of people met in Seychelles is provided in Annex 8.
- Consultations with EU stakeholders: EU services involved in relations with Seychelles were identified and consulted including: DG MARE Units, European Union External Action Service (EEAS), DEVCO and the EU Delegation in Mauritius. The following EU stakeholders were also consulted through questionnaires: representatives of the concerned Member-States (FR, PT, IT and ES) and respective professional associations of EU vessel operators concerned with the availability and utilisation of fishing possibilities as well as NGOs. The list of entities consulted is provided in Annex 7.
- The preparation of the report took into account the guidelines recommended by the EU, including the "Toolbox" on Sector Budget Support and "Toolbox" on evaluation, in particular on how to assess the impacts of EU interventions in third countries, and the methodological elements specific to the external dimension of the CFP, such as those concerning the methods of assessment of the socio-economic benefits of fisheries agreements.

The period evaluated for the **ex-post evaluation** was from the date of its application (18 January 2014) to 31 December 2018. For the assessment of the impact of the SFPA sectoral support in Seychelles, the period evaluated also covered the previous Protocol of 1 September 2011 to end of 2014.

The **ex-ante evaluation** for a possible new Agreement and Protocol with Seychelles has been undertaken simultaneously, in view of the expiry of the current Agreement on November 2019 and the Protocol on 17 January 2020 and in order to allow the parties to prepare for a possible negotiation and implementation of a new Protocol.

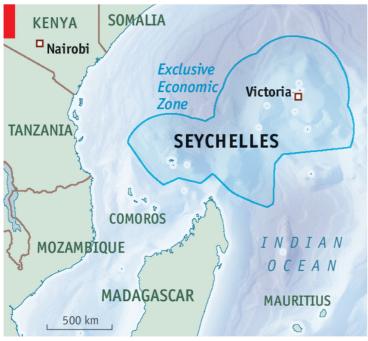
The review of the Agreement regarding Mayotte was undertaken simultaneously taking into account *inter alia* the level of vessel activities and catches generated by Seychelles vessels operating in EU waters in the Mayotte zone. This is reported in Annex 6.

1 SEYCHELLES – GENERAL CONTEXT

1.1 Geography

The Seychelles is an archipelago of over 110 mostly granitic islands occupying the southwestern part of the Indian Ocean (IO) between latitudes 4° and 10° S. The total land area of the country is 452.5 km². The extensive EEZ and the marine resources provide economic opportunities in respect to fisheries, tourism and offshore oil exploration.

Seychelles has a population of 95,843 (2017) with a growth rate of around 1 % per annum (National Statistics Bureau, 2011).



Economist.com

Figure 1: Geographical locations of the Seychelles

Source: The Economist, 2017

1.2 Political situation

The Seychelles system of Government is a democratic presidential republic, whereby the President of Seychelles is both head of state and head of government. Executive power is exercised by the government. Legislative power is vested in both the government and the National Assembly.

According to the World Bank the Seychelles performs well in terms of political stability in comparison to other African countries and its record on political and human rights and civil liberties is above the African average. Across most indicators it has remained stable or improved over the last decade (see Figure 2). However, scope for improvements include the better regulation and strengthened controls on corruption.

Ex-post and Ex-ante evaluation study of the Sustainable Fisheries Partnership Agreement between the European Union and the Republic of Seychelles

Indicator	<u>+</u> Country	Year	Percentile Rank (0 to 100)
Political Stability and	Seychelles	2007	
Absence of Violence/Terrorism		2012	
violence/ renonsm		2017	
Government Effectiveness	Seychelles	2007	
		2012	
		2017	
Regulatory Quality	Seychelles	2007	-
		2012 -	
		2017	
Rule of Law	Seychelles	2007	
		2012	
		2017	
Control of Corruption	Seychelles	2007	
		2012	
		2017	
		0 10 20 30	0 40 50 60 70 80 90 10

Figure 2: Seychelles Governance Indicators

Source: World Bank3

1.3 Macro-Economic Situation

1.3.1 Gross domestic product

According to the World Bank Group⁴, GDP of the Seychelles was US\$1.5 billion in 2017, corresponding to a GDP/capita of US\$15,504. It is thus classed by the World Bank as a high-income country. Growth in GDP was 5.9% in 2016 and 4.2% in 2017, driven mostly by tourism and fisheries. These sectors also contributed considerably to foreign exchange earnings, employment, and growth in auxiliary sectors.

The Seychelles Bureau of Statistics, Quarterly National Accounts (Q1 2017 indicate that fishing accounts for just 0.6% of GDP, and agriculture 1.1%. The GDP contribution of food manufacturing (mainly tuna canning by a single factory), was a further 2.1% suggesting a total fisheries related contribution of 2.7%. In 2010 a study by the National Bureau of Statistics (NBS) estimated overall economic contribution of fisheries and fisheries related activities to the national Gross Domestic Product (GDP) to be in the range of from 6 to 9 percent between 2004 and 2009⁵. However, a more recent study supported by the Japanese Overseas Fishery Cooperation Foundation⁶, estimated that the production value added by fishing in 2018 was 2 261 million SCR (EUR 137 million) accounting for 12 % of a re-calculated Gross Value Added (GVA) estimate of 18,471 million SCR (EUR 1 120 million). Fish processing (i.e. canned tuna production) accounted for a further 2 662 million SCR (EUR 161 million). Therefore, the overall estimated economic contribution of fisheries and fisheries and fisheries was 4 923 million SCR (EUR 298.4 million) accounting for 27

- ⁵ Hass, J.L. (2016): Final Report Improving economic information about fishing related industries in the Seychelles.
- ⁶ Kevin Bistoque et al, "Development of the Fishery Satellite Account in the Seychelles", IIOTC-2018-WPDCS14-
- 29_Rev2, Overseas Fishery Cooperation Foundation (OFCF)

³ <u>http://info.worldbank.org/governance/wgi/#reports</u>

⁴ <u>https://data.worldbank.org/country/seychelles</u>

% of the GVA, a substantial increase from the previous 2010 estimate of 7 %, and 10 times the current formal published estimate of 2.7%. The results of this study also indicated that 96 % of fishery-related economic benefits were originated from the utilization of IOTC resources, and only 4% from the artisanal fishery.

Growth has been strong in the tourist sector, which employs about 30% of the labour force and provides more than 70% of hard currency earnings, followed by tuna fishing. Tourist arrivals rose by 15.4% in 2017 to a record high of 349,861 (more than three times the resident population). In recent years the government has encouraged foreign investment in order to upgrade hotels and other services.

With a formal unemployment rate of 4.5%, the Seychelles is considered to be at full employment. Rising labour demand from construction and tourism has been met by a surge in expatriate workers, approximately doubling since 2014, to 16,792 in 2016. Foreign workers account for about a quarter of the total workforce.

The IMF expects the current pace of real GDP growth to moderate to 3.5% in the mediumterm, as construction linked to capacity development for new tourism slows down⁷. A moratorium on new construction permits for large hotels was recently extended to 2020. Inflation remains low, 1% in 2016, due to lower than anticipated prices of oil and other imports, as well as tight monetary policy.

1.3.2 External trade and the role of fishery products

The Seychelles' total exports of goods, including re-exports totalled EUR 417 million in 2016. Canned (and frozen) tuna accounts for 92% of the tangible domestic exports (see Table 3). Other export commodities are cinnamon bark, copra and petroleum products (re-exports). With the view of reducing the country's dependence on tourism, the Government has promoted the development of farming, local fishing, value-added food processing, and small-scale manufacturing. The EU market accounts for 90% of the exports (France, Italy and UK being the main markets for canned tuna). Sri Lanka is a minor regional market. Services, principally tourism, also account for a significant value of non-visible foreign exchange earnings, netting some EUR 398 million in 2017 (according to UNCTADStat Country profiles).

Imports have continued to rise, reaching EUR 942 million in 2016, mostly energy and consumer goods. The trade deficit has widened in recent years at EUR478 million. Gross official reserves remained broadly unchanged at \$544.7 million in December 2017 (equivalent to only 4.2 months of imports, a rather limited reserve compared to some other countries in the region).

A 2001 Trade Strategy aimed at doubling Seychelles' GDP by 2017 with a focus on the expansion of tourism and fisheries, and the development of financial services industry. According to ITC, the Seychelles economic challenges remain the relatively undiversified and small economy, distant from global markets which render the country vulnerable to external shocks. It is also susceptible to risks of environmental degradation due to limited land space for development.

⁷ IMF Staff Review Mission to Seychelles, October 2, 2018,

https://www.imf.org/en/News/Articles/2018/10/02/pr18374-imf-staff-completes-review-mission-to-seychelles

EXTERNAL TRADE	2012	2013	2014	2015	2016				
	Euro (Million)								
Total Value of Trade									
Total Exports (f.o.b. value)	384.08	436.68	405.63	370.70	417.04				
Domestic exports	210.60	282.20	253.61	220.61	255.48				
Re-exports	173.48	154.48	152.01	150.10	161.57				
Total Imports (c.i.f. value)	790.28	817.53	858.29	886.36	942.34				
Balance of visible trade	-406.21	-380.85	-452.67	-515.66	-478.34				
Domestic Exports (f.o.b) by commodity:									
Canned Tuna	192.93	264.90	238.91	203.67	236.13				
Fish (fresh/frozen)	0.75	0.95	0.90	2.08	4.73				
Cinnamon bark	0.13	0.12	0.11	0.13	0.00				
Other processed fish	0.00	1.60	0.70	0.82	0.28				
Fish Meal (Animal Feed)	4.68	6.38	5.74	6.47	6.96				
Medicaments & Medical Appliances	1.98	1.10	1.74	2.66	2.44				
Other	10.13	7.15	5.51	4.68	4.95				

Table 3: Structure of Seychelles International trade

Source: Seychelles In Figures 2017 Edition, National Bureau of Statistics

On 26 April 2015, Seychelles became the 161st WTO member, following 20 years of accession negotiations. As part of its accession process, Seychelles undertook several specific obligations, including addressing the WTO concerns over the "Agriculture and Fisheries Incentives Act 2005" (AFIA 2005), which provided for various subsidies and incentives for the agricultural and fisheries sectors. Government of Seychelles repealed the Act in 2014.

1.3.3 Budgetary situation

In 2008, having depleted its foreign exchange reserves, Seychelles defaulted on interest payments due on a US\$230 million Eurobond, and requested assistance from the IMF. The country enacted important structural reforms, including liberalization of the exchange rate, reform of the public sector, and the sale of state assets. In December 2013, the IMF declared that Seychelles had successfully transitioned to a market-based economy with full employment and a fiscal surplus (although state-owned enterprises still play a prominent role in some parts of the economy).

Since that time, the Government of Seychelles has maintained a fiscally prudent budget, supported by current account surpluses. The IMF reports that Central Bank of Seychelles has maintained tight monetary conditions to prevent the economy from overheating. Primary budget surpluses helped to reduce indebtedness and the debt-to-GDP ratio has approximately halved to 69% in 2017 (World Bank, Country Overview⁸)

The Seychelles Government Budget for the Fiscal Year 2018 set a target of a primary surplus of 2.5% of GDP. This surplus is consistent with the authorities' medium-term objective of reducing the debt-to-GDP ratio to 50% by 2021. This will require continued expenditure control as well as new, permanent measures to raise revenues. Value Added Tax was introduced in 2012. The government has finalised its shift from a flat-rate tax to a progressive income tax in mid-2018. Inflation is expected to remain moderate at about 3.5%.

⁸ <u>https://www.worldbank.org/en/country/seychelles/overview#1</u>

The 2018 budget foresees expenditure of SCR 7 951 million (EUR 523 million), an increase of 0.4 percent compared to 2017. The Government announced EUR 12.4 million for Agriculture and Fisheries infrastructure development during 2018⁹.

1.3.4 Investment flows and business environment

Growth in Foreign Direct Investment (FDI) has been positive, notably in the hospitality sector (where tourism sector saw 20% annual growth in revenues in 2017). FDI has risen from EUR 77 million in 2005, to about EUR170 million in 2015 (UNCTAD Country Profiles¹⁰). However, Seychelles remains vulnerable to economic downturns in countries that supply tourists, natural disasters, and changes in local climatic conditions and ocean temperature.

One of the main challenges facing the government is implementing strategies that will increase Seychelles' long-term resilience to climate change without weakening economic growth. Therefore, the government has sought to reduce the dependence on tourism by promoting alternative investments in offshore financial services, information and communication sectors, the blue economy and renewable energy.

The business environment is considered relatively open. The World Bank's Doing Business Report "Ease of Doing Business" report for 2018¹¹ ranks Seychelles as 95 of 190.

1.4 Development policy

1.4.1 National Development Plan and its Implementation

Brisk economic growth in recent years has raised Seychelles to developed country status, (officially recognised by the UN since 1 January 2017). Its Human Development Index is ranked 63 out of 188 countries.

The 2017 the Seychelles Sustainable Development Strategy (SSDS) 2012-2020 incorporates national priorities for sustainable development and lays out a roadmap for the implementation of those priorities. The Strategy highlights economic diversification and the need to foster climate change adaptation efforts and investments in renewable energy.

A World Bank Group Country Partnership Framework was adopted in mid-2018 in collaboration with government and other development stakeholders, which links to a draft National Development Strategy (2018-22) proposed by the Ministry of Finance, Trade Investment and Economic Planning. The draft strategy defines two mutually reinforcing focus areas, namely shared prosperity and inclusion and public-sector performance. The aim will be "retooling the core economy of fisheries and tourism for sustainability and inclusion" by strengthening management and resilience of natural endowments (incorporating the Blue Economy program). Since 2014, the World Bank has delivered a loan of \$7 million under a Catastrophe Deferred Drawdown Option to help manage disaster risks, and in collaboration with the International Monetary Fund (IMF), has provided a series of Development Policy Loans amounting to \$25 million.

1.4.2 Development of the fishery sector

The Seychelles Fishing Authority (SFA) is mandated as the executive arm of the Seychelles government for implementation of fisheries policy, including development of the fisheries sector and for managing fish stocks. According to the Seychelles Fishing Authority Strategic Plan 2018 – 2020 (May 2018) most of the major fisheries are fully exploited and the focus of policy should be on sustainable management of fisheries resources, increasing added-value and increasing fish production through aquaculture. Two important policy documents

⁹ Seychelles Government Budget for the Fiscal Year 2018, Theme: "Working towards shared prosperity for the People", Delivered by: Dr. Louis Larose, Minister of Finance, Trade and Economic Planning, Seychelles National Assembly, Tuesday 31st October, 2017

¹⁰ <u>http://unctadstat.unctad.org/CountryProfile/GeneralProfile/en-GB/690/index.html</u>

¹¹ www.doingbusiness.org/rankings

on fisheries were approved by Government in 2018: the Seychelles National Aquaculture Policy and the Management of By-Catch Policy. Under preparation is the new Fisheries Sector Development Plan and the Aquaculture Sector Development Plan. The Government claims that "at no other point since the industrial tuna fishery started has Seychelles taken such a step to strengthen its fisheries sector as it is doing today".

However, the fisheries and aquaculture sectors continue to face some serious structural constraints. These sectors struggle to be competitive internationally due to remoteness, causing high capital investment and elevated operating costs. Another major constraint is the lack of an experienced and reliable labour force. Although Government invested in a Maritime Training Centre in the late 1990s, the fishing industry has not been able to generate attractive employment for graduates. The labour supply constraint affects not only the artisanal fishery but also the industrial fishery, which struggles to recruit qualified national fishermen. Skilled workers for the IOT Cannery are also recruited from overseas. The December 2004 Tsunami had a significant impact on fisheries infrastructure and capacity, highlighting the sector's vulnerability to natural events.

Policy has continued to support strengthening fishery sector SMEs as means of creating employment by levering the availability of the EEZ natural resources. Thus, through the investment support from the Government of Japan and other sources, Government opened in 2010 the Providence Fishing Port an artisanal fishing port 3km south of Victoria. It possesses a 110-metre long quay, able to receive vessels drawing 2.5m. Associated industrial units are available for business operators providing processing and vessel service operations, financed under the EU FPA sectoral support. The port capacity is currently being extended with a grant from Japan valued at US\$11.52 million.

In 2016 the Government of Seychelles engaged in a sovereign debt swap which converts a portion of the external debt owed to international lenders to debt held by a local entity (a generic tool set up by the Paris Club of Donors in the 1990s). The US Nature Conservancy provided US\$15.6 million capital loan and US\$5 million in grants to buy back US\$22 million at a 5.4% discount¹². The Government created the Seychelles' Conservation and Climate Adaptation Trust (SeyCCAT) to hold the debt, which the Government of Seychelles will continue to service. However, through the creation of endowment funds the interest will be used to finance investment in climate change adaptation and conservation projects, which include the implementation of new Marine Protected Areas (see section 4).

At the end of 2018 the Government additionally issued a 10-year "blue bond" to finance fisheries investment projects, claiming to be the world's first country to utilise capital markets to fund the sustainable use of marine resources¹³. The bond was reported to have raised US\$15 million from three institutional investors (Calvert Impact Capital, Nuveen, and Prudential). The Government intends to use the bond for low-interest loans and grants to local fisher communities for research on sustainable fisheries projects via a Blue Grants Fund and a Blue Investment Fund, managed respectively by the Seychelles' Conservation and Climate Adaptation Trust (SeyCCAT) and the Development Bank of Seychelles (DBS) respectively.

1.4.3 Development of the blue economy sector

The government is placing strong emphasis on developing a "blue economy," which goes beyond the traditional focus on marine-based tourism and fishing. A Department of Blue Economy was created and placed within the portfolio of the Vice President's Office in 2016. Its mandate is to provide strategic direction and co-ordination of the Blue Economy implementation, as part of the continued sustainable development of Seychelles. On 31st January 2018 Government adopted the Seychelles Blue Economy Strategic Framework and Roadmap (the Blue Economy Roadmap). This promoted ocean based sustainable development, consistent with the Sustainable Development Agenda 2030, the Convention

¹² Minutes of EU-Seychelles Joint Committee Meeting, June 2016.

¹³ See: <u>http://www.ipsnews.net/2018/10/seychelles-issues-worlds-first-blue-bond-fund-fisheries-projects/</u>

on Biological Diversity and the Paris Agreement on Climate Change. Four strategic priorities are defined (see box).

STRATEGIC PRIORITIES UNDER THE SEYCHELLES BLUE ECONOMY ROADMAP

Strategic Priority 1: Creating sustainable wealth

• Diversification of existing ocean-based sectors (fisheries, tourism, ports) focusing on value adding, value chains, quality not quantity; sustainability credentials and good practice;

• Exploring new and emerging sectors (mariculture, renewable energy, biotechnology, digital connectivity, trade) focusing on establishing the policy setting, feasibility and pilot projects.

Strategic priority 2: Sharing prosperity

• Ensuring food security and wellbeing focusing on improving local production systems and markets), reducing dependency on imports and promoting healthy lifestyles;

• Ensuring access to high quality education and professional training, new jobs and employment opportunities;

• Improving the business environment, encouraging local and international investment, innovation, small and medium enterprises (SME's) and a culture of entrepreneurship.

Strategic Priority 3: Securing healthy and productive oceans

• Ensuring ecosystem service accounting is built into economic measures such as GDP;

• Protecting marine & coastal assets, e.g. through marine protected areas (MPAs) and addressing ocean risks (e.g. marine pollution, climate and ocean acidification);

• Implementing blue economy/ocean climate resilience through mitigation (i.e. blue carbon, renewable energy) and adaptation strategies consistent with obligations under the United Nations Framework Convention on Climate Change (UNFCCC).

Strategic Priority 4: strengthening the enabling environment

This includes cross cutting actions without which the economic, social and environmental benefits of the blue economy would not be realised such as:

• Finalisation of the Marine Spatial Plan of Seychelles' EEZ by 2020, which will help set the rules to apply for ocean-based development across maritime sectors;

• Developing research & development and innovation capability to inform responsible management of marine and coastal resources and to transform knowledge into development opportunities and productive activities (e.g.biotechnology);

• As a high-income country, financing the blue economy through diversification of funding opportunities, taking advantage of international private sector investors' appetite for investment in sustainability; and ensuring greater efficiency of revenue raising mechanisms;

• Incorporating blue economy/ocean risks in national marine security strategies and regional cooperation to address the impacts of illegal activities, resource degradation and improved capacity for monitoring,

control and surveillance (MCS);

• Strengthening national partnerships between government, industry, civil society and regional partnerships to address issues of common interest;

• International advocacy and partnerships to attract technical and financial resources and keep island issues at the forefront of the global development and climate change agendas

Source: Seychelles' Blue Economy: Strategic Policy Framework and Roadmap Charting the Future (2018-2030)

In line with the strategy a marine aquaculture development plan is in the process of being prepared (described in Section 3) and extended Marine Protected Areas have been announced (described in Section 4).

The potential for off-shore petroleum reserves within the EEZ has been explored. However, to date all exploratory test wells (a total of 9 since the 1970s) have failed to find commercial reserves of hydrocarbons. Several oil and gas exploration companies remain active. In 2019 a new survey is exploring potential offshore oil reserves in the area under the joint jurisdiction of the Seychelles and Mauritius (following the continental shelf extension of the EEZ, see Section 2.1).

1.5 External Relations

1.5.1 Formal Relations with the European Union

Other than the Fisheries Partnership Agreement between the parties, the Seychelles and the EU have an important partnership spanning trade, development cooperation, governance & justice and the environment. Periodic Political Dialogue meetings between the parties take place (the latest was in November 2018). Key instruments which relate to the fishery sector are the Economic Partnership Agreement, the 2014-2020 Seychelles National Indicative Programme and the 2014 – 2020 Regional Indicative Programme for Eastern Africa, Southern Africa and the Indian Ocean. The EU and Seychelles are also comembers of several regional fora, including importantly, the Indian Ocean Tuna Commission, the Regional Fisheries Management Organisation responsible for management of Indian Ocean tuna resources (as described in Section 4.3.2.).

Economic Partnership Agreement

Seychelles is a Member of Common Market for Eastern and Southern Africa (COMESA). Six countries in the ESA region (Comoros, Madagascar, Mauritius, the Seychelles, Zambia and Zimbabwe) concluded an interim Economic Partnership Agreement with the EU at the end of 2007. Seychelles (along with Madagascar, Mauritius and Zimbabwe) subsequently signed the full Agreement, which was ratified by the EU in 2013. The interim EPA aims at promoting sustainable trade between the EU and the partner countries in line with WTO rules. It removes EU duties and quotas for imports from the region, gradually opens the region to EU exports, establishes new rules of origin, sets the framework for development cooperation and provides a mechanism for settling trade disputes. Whilst trade is liberalised on 98% of tariff lines on goods imported by the Seychelles from the EU, the Seychelles has elected to retain a degree of protection on meat, fishery products, beverages, tobacco, leather articles, glass and ceramics products and vehicles¹⁴.

The "**Programme in support of Seychelles implementation of the current EPA (SEPA)**" is financed by the 2014 – 2020 Regional Indicative Programme for Eastern and Southern Africa and the Indian Ocean, which allocates a sum of the EUR10m to support trade integration. The overall objective is to enhance trade through a competitive integration of the Seychelles into the regional and international trading system. The project, launched in 2018, foresees a wide range of trade capacity building measures, several of which will impact on the fishery and (particularly) aquaculture sectors. Some relevant activities are shown in the box below. Under this programme, the 11th EDF has initiated the preparation of an Aquaculture Development Strategy announced by the Ministry of Finance, Trade and Economic Planning (with an allocation of EUR 475 000).

¹⁴ State of Play of the Economic Partnership Agreement between the EU and the ESA EPA Group, <u>http://trade.ec.europa.eu/doclib/docs/2012/march/tradoc_149213.pdf</u>

TA on the effectiveness of existing blue economy development, inclusive of capacity building on blue-economy related governance

- Capacity Building for National TBT Committee and National SPS committee to implement measures according to WTO agreements and international best practices
- Capacity Building for Trade Division Staff to undertake Rules of Origin (RoO) reforms
- Identify high value products with export potential
- Put in place systems, training and capacity building actions for improved and more efficient treatment of by-products, including but not limited to, the cinnamon sector, fish waste and bee-keeping
- Technical assistance and capacity building for effectiveness of the existing regulatory framework /incentive schemes for the private sector in order to develop a baseline of uptake in value chains activities where there is export potential
- Develop the Seychelles brand for fish and fisheries products (aquaculture and fisheries) through studies and surveys, in accordance with good practices as stipulated by the FAO
- Capacity building for Government and private sector on aquaculture development, with the view of promoting environmentally sustainable and climate resilient aquaculture development
- Funding for infrastructural requirements for aquaculture and aquaculture research and innovation

National Indicative Programme

On the 1 December 2014, the EU and the Seychelles signed the 2014-2020 National Indicative Programme. This allocated EUR 2.2 million to respond to institutional capacity constraints in providing on demand-basis, funding for technical assistance, studies and training activities to support the Government in the implementation of the Seychelles Sustainable Development Strategy. The sectoral focus is closely aligned to the implementation of the Seychelles Sustainable Development Strategy although the NIP recognises that other agencies address issues such as macroeconomic stability and public sector reform (World Bank and IMF) and human resource development planning (African Development Bank). However, Seychelles was delisted by the OECD as an eligible country for Official Development Assistance, since it has exceeded the threshold as a High Income Country for three consecutive years. The main support from the EDF therefore comes via the Regional Indicative Programme.

Regional Indicative Programme

Seychelles also benefits from the 2014 – 2020 Regional Indicative Programme for Eastern Africa, Southern Africa and the Indian Ocean, which identifies strategic priorities of: 1 - Peace, security and regional stability; 2 – Regional Economic integration; and 3 - Regional natural resource management. The overall A - envelope allocates EUR 1 332 million for development in line with these priorities. Relevant focal areas under the RIP have been the port infrastructure (Port Victoria extension project), management of natural resources (SMARTFISH and E€OFISH projects) and maritime security (MASE, CRIMARIO and a new intervention on Port Security). These are described below.

An important EU initiative during the period of the current protocol is the "Port Victoria extension and rehabilitation project", which was approved in 2018. The EU is supporting the project with a grant of EUR 5 million under the RIP channelled through the Africa Investment Facility and has engineered an innovative complementary financing mechanism

(blending) to complement the grant with loans from the Agence Française de Développement (AFD) EUR 16.5 million) and the European Investment Bank (EIB) (EUR 12.5 million).

The beneficiary is the Seychelles Ports Authority and the project will significantly strengthen the capacity of the Victoria Port in Mahé by building a new 600m quay and related infrastructure, increasing capacity for discharge/ transhipment related services. The construction project is expected to start in mid-2019. The EU grant will include the cost (EUR 2 million) of engineering design and technical assistance to the Seychelles Ports Authority.

The **SMARTFISH Programme** aimed at increasing social, economic and environmental development and deeper regional integration in the ESA-IO region through improved capacities for the sustainable exploitation of fisheries resources. The Programme was financed by the European Union under the 10th EDF, with a total financial contribution of EUR 21 million. The Programme was implemented by the Indian Ocean Commission (IOC) in collaboration with several Regional Economic Communities (REC) including the Common Market for East and Southern Africa (COMESA), as well as RFMOs including the Indian Ocean Tuna Commission (IOTC) and the Southwest Indian Ocean Fisheries Commission (SWIOFC). An important activity of the SMARTFISH project was in relation to supporting MCS functions of the SFA, with joint regional monitoring and control missions conducted on board patrol vessels, with fisheries inspectors from coastal States (e.g. France, Madagascar, Mauritius, Seychelles and Comoros) including finance from the World Bank SWIOFISH project.

As a follow up to the EDF 10 regional SMARTFISH Programme, the parties have launched the "Contribution of Sustainable Fisheries to the Blue Economy of the Eastern Africa, Southern Africa and the Indian Ocean region – E€OFISH programme" funded under the 2014-2020 RIP. The programme (valued at EUR 29.4 million of which the EDF contributes EUR 28 million) was approved and launched in 2018, and implementation is expected to commence in 2019. The E€OFISH Programme's overall objective is to enhance equitable economic growth by promoting sustainable fisheries in the EA-SA-IO region. The programme will support the implementation of measures contributing to the achievement of the objectives of the Regional Fisheries Management Organisations, i.e. the implementation of fisheries management plans (Result 1) and the enforcement of RFMO legislation and improvement of compliance records (Result 2). This is expected to involve support to joint regional Monitoring, Control and Surveillance Action Plans, notably to deter illegal, unreported and unregulated (IUU) fishing, and implementation of conservation measures based on scientific evidence. The programme will also provide support to smallscale fisheries communities (Result 3) to allow them to actively participate in the management and development of the fisheries. The six-year program will be implemented by the Indian Ocean Commission in close collaboration with COMESA and other RECs. A project implementation unit will assist the EU Delegation in Mauritius with the implementation of the E€OFISH programme.

The MASE Programme "**Maritime Security in the Eastern and Southern Africa and Indian Ocean region**" was funded under 10th European Development Fund with an EU contribution of EUR 37.5 million during the years 2012 to 2018. The project sought to strengthen the capacity in the ESA-IO region for the implementation of the Regional Strategy and Action Plan against Piracy and for Maritime Security. In components working with COMESA, the project aimed to break the financial networks of pirates and their sponsors and to decrease structural and sustainable economic impact of piracy, an issue which has impacted on the Seychelles and fishing vessels operating in the region.

The EU project **"EU Critical Maritime Route Wider Indian Ocean – CRIMARIO"** is also funded under the EDF (EUR5.5 million) via the Regional Indicative programme. It commenced in January 2015 and will run until end of 2019. The project objective is to enhance the maritime security and safety in the wider Indian Ocean region by supporting the coastal countries in the establishment of improved maritime situational awareness. The partner's countries are Comoros, Kenya, Madagascar, Mauritius and Seychelles. The

activities include training, setting up a maritime information sharing platform to allow partners to exchange information and mutual operations to strengthen maritime governance at national and regional level.

1.5.2 Cooperation with EU Member States in the fishery sector

As noted above the Agence Française de Developpement (with the EDB) is contributing loan finance to the Government of Seychelles for the Port Victoria extension and rehabilitation project.

1.5.3 Relations with other partners in the fishery and marine sector

Projects in the fishery sector are coordinated by the Seychelles Fishing Authority. In the marine environmental field, they are coordinated by the Seychelles Conservation & Climate Adaptation Trust, an independent public-private trust fund. The Vice President's Office provides and overall coordination in the area of the blue economy development programmes.

Other than the EU, the main development partners in the fishery and marine sectors are the World Bank and Government of Japan (via the Japan International Cooperation Agency – JICA, and the Overseas Fishery Cooperation Foundation).

In September 2017 the **World Bank** approved a package of over \$20 million for the Republic of the Seychelles to improve the conservation of its marine resources and expand seafood value chains. The finance provides part of the third phase of the South West Indian Ocean Fisheries Governance and Shared Growth Project (SWIOFish3). The project will specifically address gaps in financing, capacity and institutional frameworks to ensure a sustainable management of the identified "sustainable-use" marine areas (Component 1) and of the Mahé Plateau fisheries (Component 2). This will lay the ground for the sustainable development of the fisheries value chains and the improvement of the enabling business climate (Component 3)¹⁵. The SWIOFish3 project is financed through a \$5 million loan from the International Bank for Reconstruction and Development (IBRD) and a \$5.3 million grant from the GEF, as well as the proceeds of the first Blue Bond. The Government of Seychelles issue of the Blue Bond has generated an additional US\$15 million for disbursement via the SWIOFish3 project, therefore using capital markets to finance Seychelles' blue economy objectives.

The finance has already supported the marine spatial planning exercise aimed at expanding protected areas (Section 4) and a fisheries management plan for the Mahé Plateau. In early 2019, SWIOFish3 launched an intervention under the Programme to support the "Preparation of Seychelles' Fisheries Sector Policy, Strategy and Development Plan". The new Fisheries Policy is expected to be adopted during 2019.

JICA is currently supporting an extension to the Providence Fishing Port (which serves small scale fishery operators) just outside Victoria, Mahé, with an investment valued at EUR9 million for extending the quay and improving shore facilities such as ice plant, power supply and landing shed.

The Government of Japan, via the **Overseas Fishery Cooperation Foundation (OFCF)** is also supporting a regional project launched in 2017 implemented via the IOTC to improve economic and socioeconomic analysis of the fishery sector based on Indian Ocean resources. The Seychelles is one of the pilot countries in which the technical feasibility and usefulness of the satellite account approach to economic impacts in this sector is being evaluated. Within the Seychelles the project is being coordinated by the National Bureau of Statistics and the Seychelles Fishing Authority. Activities were commenced in March

¹⁵ SWIOFISH 3 Process Framework Document, Ministry of Finance, Trade and Economic Planning, Report, No. SFG3361, March 2017.

2018 and have generated new and highly relevant information regarding the fisheries sector dependency of the Seychelles.

The Government of Seychelles is participating in the Fisheries Improvement Project for tuna fisheries in the Indian Ocean and has signed an MoU with the World Wide Fund for Nature (WWF) with the eventual objective of obtaining MSC certification for the fishery. The fishing and processing sectors have pledged support for the project. Seychelles is also participating in the Fisheries Transparency Initiative (FiTI)¹⁶, a process aimed at enhancing responsible and sustainable fisheries through transparency and has committed to implementing the FiTI standard. Seychelles will also host the FiTI's International Secretariat from April 2019.

¹⁶ <u>http://fisheriestransparency.org/</u>

2 MARINE ENVIRONMENT AND RESOURCES OF SEYCHELLES (STATUS AND POTENTIAL)

2.1 Seychelles EEZ and maritime limits

Seychelles ratified the 1982 United Nations Convention on the Law of the Sea on September 16, 1991. The Seychelles EEZ is defined in the Maritime Zones Act, 1999 (Act No. 2 Of 1999) as Amended by Maritime Zones (Amendment) Acts 2009 and 2012. The 1999 Act established a 12-nautical mile territorial sea, 24-nautical mile contiguous zone and a 200-nm exclusive economic zone (EEZ).

The Seychelles Exclusive Economic Zone (EEZ) is 1.3 million km² and bordered by those of Mauritius, Madagascar, the Glorioso Islands (France), Mayotte (France), the Comoros and Mafia Island (Tanzania). An agreement for the delimitation of the maritime borders of Seychelles, the Union of Comoros and Tanzania on the Indian Ocean triple-point was signed in February 2012 in Victoria, Seychelles, as part of the implementation of the AU border programme paving the way for the marking of the border.

In 2009, Seychelles applied to the UN Commission on the Limits of the Continental Shelf for a continental shelf extension to the EEZ for the Northern Plateau Region (22,143 km²). At the Fortieth session of the Commission in April 2016, it was reported that work was continuing. Mauritius and the Seychelles signed a Treaty in 2012 regarding the area adjacent to their EEZs in the Mascarene Plateau Region (Figure 3). They prepared a joint submission to the Commission on the Limits of the Continental Shelf under the 1982 United Nations Convention on the Law of the Sea. The two island nations successfully secured rights to additional seabed covering over 400 000 km² in the Indian Ocean. The Treaty also established the Joint Seychelles and Mauritius Commission, with the aim of coordinating and managing the exploration, conservation and development of the living and non-living resources of the seabed in the zone. The rights conferred by UNCLOS under the continental shelf extension exclude fishery resources. Oil exploration is continuing in the zone, and Seychelles and Mauritius will share any revenues generated on a 50/50 basis.

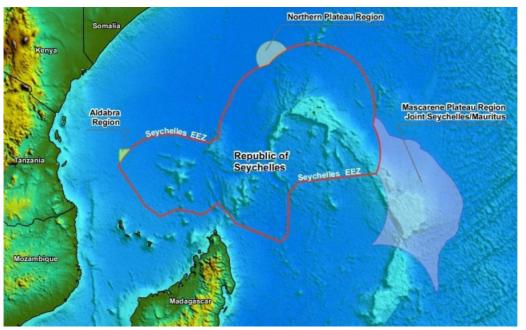


Figure 3: Joint Seychelles-Mauritius continental shelf extension in the Mascarene Plateau Region

Source: "Search for oil to begin in Seychelles-Mauritius managed area" The Seychelles News Agency 03 October 2018

2.2 Marine environment

The Seychelles EEZ includes a wide diversity of fish and other vertebrate and invertebrate species, many of which are commercially exploited by national, regional and international fisheries operators, at all levels of activity, from subsistence to industrial.

Inshore coral reefs provide habitats for many marine mammals, reef fishes, invertebrates and microorganisms. In the near shore, demersal fish resources include snappers (Lutjanus spp.), green jobfish (*Aprion virescens*), groupers (Epinephelus spp.), capitaines (Lethrinidis) and the semi-demersal trevally (Carangpides) The main fishing grounds for these species are the Mahé and Amirantes plateaux. Spiny Lobsters are found in the coastal areas (*Panulirus penicillatus* and *Panulirus longipes*). Sea cucumbers are also abundant (*Holothuria spp and Thelenota spp.*)

The pelagic species are dominated by tunas, in particular skipjack (*Katsuwonus pelamis*) and yellowfin (*Thunnus albacores*) with a smaller abundance of bigeye (*Thunnus obesus*), marlin (*Makaira indica, M. mazara*,), swordfish (*Xiphias gladius*), bonito (*Euthynnus affinis*), wahoo (*Acanthocybium solandri*), dorado (*Coryphaena hippurus*), sailfish (*Istiophorus platypterus*), and shark species.

2.3 Status of exploited resources and main conservation and management measures

2.3.1 Status of tuna resources

Management of large pelagic species such as tuna and billfish in the Indian Ocean is conducted by the IOTC. The IOTC Scientific Committee performs stock assessments and it is responsible for collecting data on the stock status. Using data from the Scientific Committee, the Working Parties analyse in more detail technical issues relating to the management goals of the Commission. Each of the stocks has a Working Party dedicated to it in analysing the status of the stock and offering management recommendations to the Scientific Committee.

This section provides an overview of the status of the main pelagic stocks targeted by the EU tuna fleet. Further details of each species are given in Annex 3. Overall, two of the main tuna species targeted by the EU purse seine commercial fleets in the Western Indian Ocean, including in the Seychelles fishing zone (i.e. skipjack or bigeye) are not currently overfished nor have overfishing (Table 4Table 4). However, the yellowfin stock is assessed as overfished with overfishing occurring.

Table 4: Summary of status of main tuna species caught by the EU purse seine fleet in
the Indian Ocean.

Species	Biomass indicator Overfished (SByear /SBMSY <1)	Fishing effort indicator Overfishing (Fyear/ FMSY>1)	Assessment year
Skipjack (Kastuwonus pelamis)	No	No	2017
Yellowfin (Thunnus albacares)	Yes	Yes	2018
Bigeye (Thunnus obesus)	No	No	2016

Source: IOTC Report of the 21th Session of the IOTC Scientific Committee (2018). Doc IOTC-2018-SC21-R[E]

• For **skipjack**, the estimate of stock status indicates that the stock is at the target biomass reference point and that the current and historical fishing mortality rates are estimated to be below the target. Over the history of the fishery, biomass has been well above, and the fishing mortality has been well below the established limit reference points. However, IOTC Scientific Committee notes that total catches in

2017 were 12% larger than the resulting catch limit from the skipjack Harvest Control Rule for the period 2018-2020. Skipjack catches have increased for most gears from 2016 to 2017 (+10% for purse seine, +16% for gillnet and +17% for baitboats). As a precautionary measure, the Scientific Committee recommends that catches do not exceed the agreed limit of 470 029 tonnes. However, 524 282 tonnes were caught in 2017.

- For **yellowfin**, the revised 2018 assessment gave overall similar results to the 2015/2016 assessments but is somewhat more pessimistic than the stock assessment undertaken in 2016 (but similar to the one done in 2015) due to the steeper declining trend of the composite longline CPUE series and some observed large catches in the most recent years. The decline in stock status to below MSY reference level is not well understood due to various uncertainties. As a precautionary measure, the Scientific Committee recommends that catches are reduced to restore the stock within MSY objective.
- For bigeye, the 2016 assessment based on 2015 situation concluded that the stock is within sustainability limits. Current catch levels (≈ 90 050 tonne in 2017) remain lower than the estimated MSY values from the stock assessment conducted in 2016. Declines in longline effort since 2007, particularly from the Japanese, Taiwanese and Korea longline sashimi fleets have lowered the pressure on the Indian Ocean bigeye tuna stock, indicating that current fishing mortality would not reduce the population to an overfished state in the near future.

The latest stock assessment (2016) for albacore (\approx 60 tonnes per year, 0.1% of EU catches in Seychelles fishing zone) concluded on sustainable conditions. No stock assessment is available for Frigate tuna (*Auxis thazard*) which represents \approx 10 tonnes catches per year on average.

2.3.2 Effects of purse seine fishing on the marine environment

A recent scientific study¹⁷ based on observer data collected on EU and Seychelles purse seiners showed that the average of the annual total bycatch of tuna purse seiners estimated over 2008-2017 period was 9 188 tonnes, equivalent to a bycatch rate of \approx 20 tonnes / 1 000 tonnes landed (2%) during the 2015-2017 period. More than 90% of the weight of this bycatch occurred in FAD sets. Regarding species groups, discards of target tunas represented the major part of the bycatch during the first years of the series (64% and 46% of the total bycatch in 2008 and 2009 respectively). While in the last years, the group of other bony fishes (*Coryphaena hippurus, Elagatis bipinnulata, Canthidermis maculata* and *Acanthocybium solandri*) represented the majority of the bycatch (around 50%), followed by sharks (around 15%) with *Carcharhinus falciformis* as main species, billfishes (*Makaira indica* and *Makaira nigricans*), rays (*Mobula* spp). Turtle catches include *Lepidochelys olivacea, Caretta caretta and Eretmochelys imbricate*, but most of them were released alive.

2.3.3 Main conservation and management measures

IOTC has adopted resolutions concerning a number of conservation and management measures aiming at improving monitoring and control of tuna fleets active in the Indian Ocean and protecting target and bycatch species. IOTC resolutions are binding for all parties and apply to flagged vessels wherever they operate in IOTC area of competence. In view of the poor status of the yellowfin stock in the Indian Ocean, the following main measures have been adopted through Resolution 18/01¹⁸:

¹⁷ Ruiz, J. et al. (2018) – Bycatch of the European, and Associated flag, purse seine tuna fishery in the Indian Ocean for the period 2008-2017. Doc IOTC-2018-WPEB14-15

¹⁸ Resolution 18/01 On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock in the IOTC Area of Competence

- **Catch limits on yellowfin**: for IOTC parties whose purse seine catches of yellowfin were above 5 000 tonnes in 2014 (*e.g.* Seychelles and the EU), purse seine catches are to be reduced by 15% from 2014 levels. On the basis of actual 2014 catches, EU catch limit for yellowfin is set at 77 698 tonnes, and Seychelles catch limit set at 19 944 tonnes¹⁹.
- Limits on the number of supply vessels: the number of supply vessels shall be gradually reduced by 31st December 2022 with 1 supply vessel in support of no less than 2 purse seiners, all of the same flag State, by end 2019, 2 supply vessels in support of no less than 5 purse seiners, all of the same flag State, by end of 2022, and prohibition to register new or additional supply vessel after end of 2017.
- **Complementary measures** include *i*) the limitation of instrumented buoys used to monitor FADs to 350 active instrumented buoys at any one time, and a maximum of 700 instrumented buoys for each purse seiner (resolution 18/08²⁰) and *ii*) a ban on discards of tuna and main non-targeted species caught by purse seine vessels unless unfit for human consumption (resolution 17/04²¹).

Catch limits were expected to be complied with starting in 2017. However, according to catch statistics published by IOTC²², EU purse seine yellowfin catches in 2017 were 86 893 tonnes and the Seychelles purse seine yellowfin catches in 2017 were 41 694 tonnes.) The EU vessels thus reduced catches by an estimated 5% and exceeded the agreed limit by 11%, while Seychelles vessels increased their catches by 7% and exceeded the agreed limit by 109%.

¹⁹ IOTC Circular 2017-057 dated 16 May 2017

²⁰ Resolution 17/08. Procedures on a Fish Aggregating Devices (FADs) Management Plan, Including a Limitation on the Number of FADs, More Detailed Specifications of Catch Reporting from FAD sets, and the Development of Improved FAD Design to Reduce the Incidence of Entanglement of Non-Target Species.

²¹ Resolution 17/04 on a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna and non-targeted species caught by purse seine vessels in the IOTC area of competence

²² <u>http://www.iotc.org/node/4108</u> (accessed 12.02.2019)

3 NATIONAL FISHERY AND AQUACULTURE SECTOR

3.1 General context

Fisheries activity in Seychelles waters is divided into three sectors, artisanal, semiindustrial and industrial. Artisanal fishing targets shallow water species relatively close to shore and on sea mounts; the semi-industrial fishery targets swordfish and other large pelagic species in the EEZ from small and medium sized surface longliners (national operators). The industrial sector, by far the most economically important given the foreign exchange inflows it generates, concerns large scale purse seiners and longliners targeting large offshore pelagic fish (tunas, swordfish and shark). This sector is mostly operated by foreign flagged vessels under various agreement and licence arrangements (including EU vessels). A number of foreign purse seine and longline operators have also registered their vessels in the Seychelles. Victoria port is a major hub for the regional fishery sector, receiving and distributing catches not just from the EEZ but other fishing zones as well. It hosts an important cannery (Indian Ocean Tuna Limited) as well as providing important transhipment services. An active national processing sector also serves local, regional and international markets. Earlier parastatal investments in aquaculture failed, but a new policy and approach is now in place.

3.2 Small scale fisheries

The traditional small-scale artisanal fishery of the Seychelles targets inshore species such as trevally, red snapper, jobfish, emperors, bonito, groupers, rabbit fish, mackerel, octopus, sea cucumber, spiny lobster, sharks and crabs.

In 2016, on average 488 boats were operating, out of which 359 boats were outboard driven open boats, 95 were whalers (7–9 m) and 17 were schooners. Handline and encircling gillnets are the main gears used, with static gears and diving also practiced.

The artisanal catch is stable at 3 000 to 4 000 tonnes per year. Eighty four percent of the catch is landed on Mahe and 16% was landed on Praslin and La Digue (SFA Fisheries Statistical Report, 2016). There are only a few regulations for the artisanal fishery with respect to catch controls for certain species (turtles and sharks), gears (no bottom trawling, spear-fishing or shark fishing with nets), closed seasons and area restrictions. There are no limits on catch levels.

The catch is almost entirely used for the national market, where the tourism sector contributes strong demand. Some of the higher value species enter the international market via processing facilities either in fresh, frozen or smoked form. Sea cucumbers from this sector are consigned to Asian export markets.

The 2018 Budget introduced a new tax regime for Artisanal and Semi-Industrial Fishermen. Government decided to establish a special regime under which they will pay a flat tax as part of their annual license and registration fee, which were increased accordingly.

3.3 Semi industrial fishing

The vessels in this segment are locally owned and use pelagic longlines to target tunas and swordfish, with average trip duration of 10 days per trip, storing their catch on ice. Over the period 2005 to 2015, the number of vessels active in the semi-industrial longline fishery ranged between 4 to 11 vessels per year. However, in the period 2014-2016, 10 new vessels joined the fishery bring the total to 21 active vessels. Although catches during the period 2015 averaged 200-300 tonnes/year, this increased considerably in 2016, with 445 tonnes reported in just the first 6 months. In 2015, yellowfin tuna accounted for 50% of the total catch followed by swordfish and bigeye tuna accounting for respectively 24% and 17%, although the proportions vary from year to year. Smaller quantities of marlin and shark are also taken.

3.4 National industrial fishing

3.4.1 Purse seine segment

Seychelles registered purse seiner vessels with Spanish beneficial ownership exploit tunas within the region. The evolution of activities in recent years is shown in Table 5Table 5. During the first semester of 2016, thirteen Seychelles flagged vessels, eleven with beneficial Spanish owners and two French (La Réunion) were operating (out of a total 49 purse seiners licensed to fish in the Seychelles EEZ). Twelve purse seine vessels were flagged in 2019. Trade sources report that an additional vessel will be added to the Seychelles flag in 2019. The Seychelles flagged purse seine catches operate in a wide area of the Indian Ocean, following a patter similar to the EU flagged vessels. In 2014 and 2015, more than 80% of the Seychelles purse seine fleet catches were caught on the high seas, and only 13% of its catches were caught inside of the Seychelles EEZ (the balance being the EEZ of East African coastal states). This includes catches in EU waters surrounding Mayotte (an Outermost Region of the EU since 2011) where the opportunities are provided according to the terms of the EU-Seychelles Fisheries Access Agreement (which permits Seychelles vessels to access the waters and marine biological resources of Mayotte)²³ and is considered in more detail in Annex 6 of this report). Seven Seychellois flagged purse seine supply vessels were also operating during this period.

Access regime	Flag	No. of Purse seine vessels active in the Seychelles zone					
		2011	2012	2013	2014	2015	2016
National	Seychelles	8	8	7	10	13	13
EU	Spain	13	15	14	15	17	14
	France	8	10	8	13	12	12
	Italy	0	0	0	0	1	1
EU Total		21	25	22	28	30	27
Others	Mauritius	1	2	1	2	2	2
	Mayotte ¹	5	5	5	n/a	n/a	n/a
	Korea		1	3	4	5	5
Total		35	41	38	44	50	47

Source: SFA Fisheries Statistical Report 2016

Note that Mayotte vessels entered the French fleet in 2014

Catches by the Seychelles purse seine fleet were 60 255 tonnes in 2014, 88 740 tonnes in 2015 and 39 735 tonnes in 2016 (to June). The SFA Annual Report 2016 indicates that the Seychelles flagged purse seiners achieved their 2015 catch of 88 740 tonnes through a fishing effort of 3 264 fishing days thus giving a mean catch rate of 27.19 tonnes/fishing day. In 2015, 44% of the catch was yellowfin tuna, and 48% skipjack tuna.

3.4.2 Longline segment

The Seychelles industrial surface longline segment is distinguished from the semi-industrial by use of larger vessels (usually from 50 to 60m LoA) and freezing of the catch onboard, meaning that trip length can be several months. Because of this they operate both inside and outside the EEZ. The number of industrial surface longliners registered in the Seychelles has increased in recent years, rising from 23 in 2011 to 41 active vessels

²³ Agreement between the European Union and the Republic of the Seychelles on access for fishing vessels flying the flag of the Seychelles to waters and marine biological resources of Mayotte, under the jurisdiction of the European Union

(drawing licences and declaring catches) in 2015 (see Table 6Table 6). A reported total of 59 longline vessels is registered to the Seychelles in 2019. Some do not operate within the EEZ at all and until now have not been required to draw a licence for this activity, although in early 2019 this policy is reported by SFA to be subject to change.

All of these vessels are owned and operated by Chinese operators, and function under Agreement between the Government of Seychelles and the Chinese business operator Top Fortune. The main target is the bigeye tuna for the sashimi market. These vessels reported an estimated catch of 12 255 MT from all areas of the Western Indian Ocean for the year 2015 (based on an 88% logbook return rate). During the years 2015 and 2014, bigeye tuna accounted for 47% and 51% of the total catch of this segment respectively. Yellowfin tuna represents 19% of the total catch in both 2015 and 2014. Swordfish and marlins accounted for 12% and 10% of the total catch in 2015.

 Table 6: Surface longline vessels actively fishing in the Seychelles Zone 2011-2015

Flag		No. of Longline vessels active in the Seychelles zone								
		2011 2012 2013 2014 2015								
Seychelles		23	32	33	35	41				
Taiwan		30	96	90	71	25				
China			12	13	18					
Japan			2	3	2					
Oman		1	2	1						
Philippines		1	8	6	1					
Tanzania			1	1	1					
Thailand					1	1				
	Total	55	153	147	129	67				

Source: SFA Annual Statistics Report 2016

3.5 Recreational fishing

The Fisheries Act 2014 distinguishes between sport fishing and recreational fishing. The former involves the hiring, chartering or leasing of a vessel (maximum length 40m) but does not involve the trading, offering or sale of the catch. Recreational fishing is a small but important activity, conducted by domestic fishers and utilizes mostly handline fishing techniques.

3.6 Foreign fishing fleets operating in the Seychelles zone

The foreign industrial fishing units currently operating in the Seychelles EEZ through the allocation of fishing licenses, are purse seiners from EU countries (Spain, France and Italy), purse seiners flying the flags of Mauritius and Korea, longliners from Taiwan, China and Japan and occasionally in recent years small numbers of longline vessels from Oman, Philippines, Tanzania and Thailand.

3.6.1 EU Fleets

The only Seychelles fishery currently exploited by EU operators is the European tuna purse seine fishery (Spanish, French, Italian). The activity is conducted under the Fisheries Partnership Agreement with the EU. The industrial fishery of European (Spanish and Portuguese) surface longliners, which also operates in the Western Indian Ocean, also has fishing opportunities under the Agreement. However, it has not operated in the Seychelles EEZ since 2010. It operates out of South Africa and prefers to focus its efforts to the South of the Seychelles zone. One La Réunion based medium-scale longliner took a fishing authorisation to access the Seychelles fishing zone, but never used it.

The EU purse seine fleet fishing in the IO is comprised of vessels registered under Spanish and French flags. One Italian flagged vessel joined the fleet as from 2015²⁴. All EU purse seine vessels operating in the region draw licences to fish in the Seychelles EEZ. Twenty-eight vessels drew licences in 2014, 30 in 2015 and 27 in 2016 (see Table 5).

In 2016 the EU purse seine fleet operating in the Indian Ocean region caught around 200 000 tonnes of tunas, which accounts for about half of the global EU catches of these species (including bonitos and billfishes)²⁵. This represents about 4.5% of all catches of marine fish by EU Member States. Together, Spain and France accounted for almost all of the EU tuna catch in 2016. The Western Indian Ocean is the most important tuna catching region for the EU tuna fleet, with the other major catch area being the Eastern Central Atlantic (accounting for 122 000 tonnes live weight). The EU purse seiners caught an average of 47 957 tonnes of tunas in the Seychelles zone during 2014 to 2018, which accounts for about 15-20% of their regional catches. This catch also represents about 65% of the tunas caught in the Seychelles zone by all vessels (the balance being mostly from Seychelles flagged vessels) (Seychelles Fishing Authority Annual Report 2016). More details regarding the EU catches under the agreement are provided in section 5.2.

The EU fleet in the region is supported by supply vessels which supply fuel and other inputs and set and gather Fish Aggregating Devices. In 2015 there were 10 supply vessels under Spanish flag which were licensed to operate inside the Seychelles EEZ. The EU vessels are also served by around 7 supply vessels operating under Seychelles flag.

Yellowfin tuna is the main species caught by the EU purse seine fleet in the region. In the Seychelles EEZ it accounts for 48% of the EU catches, with Skipjack tuna accounting for 44% (although the Spanish vessels have a higher focus on Skipjack). In addition to skipjack and yellowfin, purse seine vessels also catch some bigeye and albacore tunas.

EU purse seine vessels deploy fishing strategies using Fish-aggregating devices (FAD) use of which has increased steadily since the late 1980s. In 2005, only 60 % of all tuna caught by EU vessels were reported to be associated with FADs, but this increased to 80 % by 2011²⁶. A number of concerns are expressed over the use of FADs, which attract a wide range of marine species and potentially result in increased by-catch and discards from this fleet. As a result, the IOTC imposed an interim measure in 2015 to limit the number of Fish Aggregating Device (FADs) to 550 FADs per vessel and trials are proceeding with biodegradable FADs²⁷. The number of FADs was subsequently reduced to 350 active FADS through IOTC Resolution 18/08²⁸. It is proposed that whilst purse seine fishing will be permitted in Zone 2 of the proposed Seychelles Marine Protected Area scheme, the use of FADS will be prohibited (whilst no purse seine fishing will be permitted in Zone 1). See section 4.4 for more information.

3.6.2 Non-EU tuna fleets

Other than EU vessels, fleets from several countries and segments operate in the Seychelles EEZ. All foreign vessels are required to obtain a license from the SFA, and

²⁵ Eurostat: <u>https://ec.europa.eu/eurostat/web/products-eurostat-news/-/EDN-20180502-</u> <u>1?inheritRedirect=true</u>

²⁴ Between 2010 and 2014, the Italian purse seiner was operating under the French flag to benefit from antipiracy security measures implemented by France to protect its vessels (embarkment of armed security officers).

²⁶ NFDS, MRAG, COFREPECHE and POSEIDON, 2013. Ex post evaluation of the current Protocol to the Fisheries Partnership Agreement between the European Union and the Republic of Seychelles and ex ante evaluation including an analysis of the impacts of the future Protocol on sustainability (Framework contract MARE/2011/01 – Lot 3, specific contract 4). Brussels, 157 p.

²⁷ See <u>https://www.azti.es/biofads-biodegradable-fish-aggregating-devices-to-minimise-the-impacts-of-tropical-tuna-fisheries-in-marine-ecosystems/</u>

²⁸ Resolution 18/01 on an Interim Plan For Rebuilding The Indian Ocean Yellowfin Tuna Stock In The IOTC Area Of Competence

applications must be submitted via a registered fishing agent, as stipulated by the Seychelles Fisheries Act. It is reported that there are approximately seven agents currently operating that service the industrial fishing fleet.

Seven **non-EU foreign purse seiners** drew licences and declared catches in 2015 and 2016 (six in 2014). These comprised two vessels registered in Mauritius (operating under the Seychelles-Mauritius Fisheries Agreement) and five from Korea (drawing private licences). Iranian purse seine vessels have not drawn a licence since 2006, and Thai purse seine vessels last operated in the Seychelles EEZ in 2010 (SFA Annual Reports). Since the entry of Mayotte as an EU Outermost Region in 2014, purse seiners from this territory have their opportunities and conditions of access framed by the EU-Seychelles FPA.

The Seychelles zone sees a lot of activity from **Asian operated surface longline fleets** targeting large pelagic species. Up to 90 vessels flagged to Taiwan were active in the period 2013 – 2015. These vessels operate under an agreement between the Government of Seychelles and the Taiwan Deep-sea Tuna Longline Boat Owners and Exporters Association (TTA). The Agreement provides access for a maximum of 120 vessels. In 2014, two vessels under the Japanese flag also operated under this Agreement²⁹. Details of the Agreement were requested by the consultants but not supplied by the Seychelles Authorities.

Up to 2014, Chinese flagged vessels were also active in the zone, with 18 vessels reported in that year. These vessels operate under the "Top Fortune Agreement" which represents a consortium of longline operators, based in Hong Kong. All of the larger Seychelles-flagged surface longliners are Chinese owned-vessels and access their fishing licences is also derived from this agreement. Details of the Agreement were requested but not supplied by the Seychelles Authorities.

A few industrial longline vessels flagged to other countries (Indonesia, Philippines, Tanzania and Thailand) have also operated occasionally under private licences obtained directly from the SFA.

3.6.3 Access conditions and comparative analysis

The EU conditions of access are defined in the Protocol to the FPA in section 5. They are summarised, along with the access conditions of other vessel operators, in the next table.

²⁹ Breuil, Christophe. Grima, Damien. 2014. Baseline Report Seychelles. SmartFish Programme of the Indian Ocean Commission, Fisheries Management FAO component, Ebene, Seychelles. 35 pp.

Vessel type	Name/type of Agreement	Cost of annual licence USD	Cost of annual licence EUR ⁽¹⁾	Other costs/obligations
Purse seine	EU FPA 2014/2019 ⁽²⁾	USD 54 516 + variable fee	EUR 46 083 + variable fee	Average annual compensation EUR 2,583,333 (to include SLL segment) 2 SYC seamen/vessel
	Private Foreign flag	USD 120 000	EUR 101 695	
	Private SYC flag	USD 90 000	EUR 76 271	
	SYC-MUS Agreement (2017)	USD 110 000	EUR 93 220	None
Surface longline	EU FPA 2014/2019 (2) >250GRT <250 GRT	USD 9 346 USD 7 009	EUR 7 900 EUR 5 925 + variable fee	Compensation as per above
	Taiwan Deep Sea and Tuna Longline Boat Owners and Exporters (SYC Flag)	USD 24 000	EUR 20 339	N/a
	Top Fortune Agreement	N/a	N/a	N/a
	Private SYC flag	USD 24 000	EUR 20 339	
	Private Foreign flag	USD 33 500	EUR 28 390	
	SYC-MUS Agreement (2017)	USD 30 000	EUR 25 424	None
Supply vessels	Private SYC flag	USD 5 000	EUR 4 237	
	Foreign flag (including EU)	USD 5 000	EUR 4 237	

Table 7: Comparison of fisheries access conditions for national and foreign fishing vessels operating in the Seychelles EEZ

1.EURINFO Exchange rate 2018 (EUR1=US\$1.183)

2.Based on average licence fee/tonne over 6 years assuming no catches in excess of deposit

Purse seine sector

Comparison of fisheries access conditions for national and foreign fishing vessels operating in the Seychelles EEZ Seychelles flagged purse seine operators pay an annual flat licence fee, reported to be US\$ 90 000/year. As noted above other foreign purse seiners (mostly Korean) also operate under private licences issued by the Seychelles Fishing Authority. The reported fees are US\$ 120 000/year. The Republics of Mauritius and the Seychelles have had a bilateral fisheries cooperation agreement in place since the 1990s, which has included reciprocal access to their respective fishing zones waters. The Agreement has been utilised annually by up to 5 Mauritian purse seine vessels since 2014. The Agreement was re-negotiated in February 2017 (in the form of two access agreements). The new arrangements provide for mutual access to the respective zones for up to 15 purse seiners, 20 longliners and 7 supply vessels. The duration is two years, automatically renewable unless denounced. Access fees are US\$110 000 for purse seiners, US\$17 500 (6 months) and US\$30 000for (1 year) for longliners and US\$5 000 for supply vessels.

Surface Longline sector

Fees charged by the SFA for private access licences for foreign longliners are USD 33 500 per year, as reported by the Seychelles Fishing Authority in 2019. The Agreement between the Seychelles and the Taiwan Deep Sea and Tuna Longline Boat Owners and Exporters (with Seychelles flagged vessels) provides for an annual licence fee of USD 24 000 per year. There is no information available on the non-financial access conditions under the Top Fortune Agreement.

3.7 Port and fisheries infrastructure

The Seychelles is an important regional hub for the commercial fish trade, dominated by the tuna sector, with regular transhipments from industrial fishing vessels to reefer vessels, as well as landings by purse seine vessels to supply the Indian Ocean Tuna canning factory established in Victoria, Mahé in the 1980s, and now owned and operated by the Thai Union Group.

3.7.1 Fishing harbours and transhipment facilities

Victoria has a commercial port that accommodates all types of vessel from tourist ships, military vessels to industrial fishing vessels and is managed by the Seychelles Ports Authority. Tuna vessels either discharge to shore-side cold stores at Victoria Quay, or tranship directly to refrigerated bulk transport vessels whilst in the harbour. Since July 2018 a new dedicated tuna quay at Île du Port under private management has become operational.

In 2015, according to SFA reports, Spanish purse seine vessels made 178 visits, French vessels 149 visits and Italian 11 visits (bearing in mind that the fleets operating in the EEZ in this year comprised 16, 12, and 1 vessel respectively). EU purse seine vessels more or less make monthly port calls. No EU longliners visited the Seychelles, but there were 66 visits by Spanish longline supply vessels, suggesting that 6 or 7 vessels were operating and using the Seychelles as a supply base for the longline fleet, even if it does not fish in the zone. In 2015, some 89 reefer vessel visits to Port Victoria were recorded, of which four were Spanish and 9 Curacao flagged vessels.

Demand for discharge facilities at the quayside has long been in excess of capacity, resulting in congestion, delays and higher costs. As shown in Table 8, port visits by fishing vessels almost doubled between 2012 and 2015. In addition, shore-side cold storage and container areas (for discharged tunas), and dry storage (for salt and other supplies required for tuna vessels) has been insufficient. In 2012 the government allocated approximately 30 hectares of reclaimed land for the fisheries sector, to build a 425-metre fishing quay and house businesses and services related to the fisheries sector. The infrastructure for the Ile du Port facility was financed by a public private partnership between the Government of Seychelles and Luxembourg-based Jaccar Holdings. The Sectoral Support under the FPA has financed the project management contract which oversaw the project on behalf of the Government of Seychelles. The facility is operated by the joint venture company **Île du Port Handling Services** (IPHS). The quay can accommodate up to 5 purse seiners simultaneously, with discharge directly to containers or transfer to the nearby IOT cannery. This shortens vessel turnaround time and helps the Seychelles to retain its strategic role as the EU fleet's main landing and transhipping port for tuna in the Indian Ocean. The quay can also serve reefer transport vessels. In addition,

port services include vessel supply and maintenance tasks, such as mending nets or other vessel repairs, and supply of fuel and salt. EU vessels make extensive use of these facilities.

Île du Port operators have advanced plans for construction of a 12 600 tonne Central Common Cold Store due to be finished in 2020, with all space already contracted out to IOT cannery (5 000 tonnes) and other tuna business operators. However, the facilities remain insufficient to accommodate the needs of the tuna sector. Export paperwork delays (taking up to 6 weeks) linked to delays in issue of EU IUU catch certificates, mean that storage areas for some 300 containers awaiting shipping is completely full. Additional cold storage for raw material is required (IOT plans an investment in an additional 12 000 tonnes cold storage).

Year	Industrial longline	Purse seine	Supply vessels	Reefer vessel	Total
2012	72	272	41	18	403
2013	88	357	54	44	543
2014	74	440	80	92	686
2015	43	526	96	89	754

Table 8: Victoria Port visits by fishing	vessels 2012 to 2015
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The use of Victoria Port and Île du Port by fishing vessels generates a considerable revenue for the national exchequer, estimated to be EUR 106.5 million in 2015 (82% of this is on fuel).

As described in section 1.5, in 2018 the Seychelles Ports Authority has secured the finance for a US\$41 million extension and rehabilitation of the Victoria Quay, financed by the EU, Agence Française de Développement and the European Investment Bank (EIB). The development of the new quay, and associated facilities is expected to allow the Victoria Port to further improve the effectiveness and efficiency of services offered to the tuna sector by speeding up discharge and re-provisioning of vessels, and reducing vessel turnround time. The European Union has also provided a grant of EUR5 million under the EDF financed Regional Indicative Programme, which will include the cost (EUR 2 million) of engineering design and technical assistance to the Seychelles Ports Authority.

3.7.2 Processing sector

Indian Ocean Tuna Ltd. (IOT) dominates the Seychelles tuna processing sector. It cans skipjack, yellowfin and bigeye tuna. A majority share (60%) in IOT was purchased by Thai Union following the collapse of its previous owners (Lehmann Brothers) in 2010. IOT is reported to buy about 25% of all tuna landed or trans-shipped in the Seychelles by EU and Seychelles flagged vessels. It has a typical raw material input of 300 tonnes/day and produces 1.3 million cans of tuna per day and provides around 2 000 jobs. Its current annual supply is c.80 000 tonnes. This is obtained from EU vessels (operating on the high seas, and the EEZ of coastal states under both private and FPA arrangements), Seychelles vessels (under EU beneficial ownership) and occasionally raw materials imported from other regionals (SW Pacific and E Atlantic).

The cannery is one of the largest tuna canneries in the world with seven cold stores to store 25 days' supply of fish. The factory has a fishmeal production factory, and a subsidiary company of IOT, Ocean Products Seychelles extracts oil using proprietary technology from the tuna heads for fish oil for use in the pharmaceutical industry. A recent important investment (US\$9.8 million) is the installation of a new waste processing facility³⁰. The European Union is by far the most important market for the cannery. In 2018 the IOT cannery suffered a shortage of yellowfin tuna raw material, attributed to the declining abundance of this species and the introduction of IOTC catch limits. IOT seeks to

Source: Seychelles Fishing Authority, Fisheries Statistical Report, 2016

³⁰ Secyhelles News Agency 13 April 2018

increase annual production to 100 000 tonnes of raw material, with a focus on increased inputs of yellowfin tuna (and some imported albacore). It strongly supports the WWF fisheries improvement project with a view to obtaining MSC certification.

Two Seychellois companies, Oceana Fisheries. and Sea Harvest buy fresh fish from artisanal and semi-industrial fishermen for processing for the local and international markets. The supply of fresh fish is seasonal, and this provides challenges for supplying export markets and even for supplying the year-round tourist industry.

The construction of nine small scale units for lease to the fishery sector at the Providence Fishing Port was financed by the 2011-2014 FPA Sectoral Support Programme under the EU-Seychelles FPA and was opened in 2014. Only three of these are occupied, two of them by a company, Ocean Basket which purchases frozen by-catch from the purse seiners for export to non-EU markets. Another, Fresh Seafood Seychelles is established as a fish processing facility (and is approved for export to the EU).

Similar units have been established with support from the FPA to serve small scale fisheries in Bel Ombre (Mahé) and La Digue Island. The construction and refurbishment of ice plants has addressed a shortage ice to the small-scale fishery; there are now a reported 8 ice plants in operation serving this sector.

Providence Fishing Port facilities will be extended, financed by a US\$10 million grant from JICA, with work expected to commence in 2019. A small fresh fish processing unit and retail store at Anse Royale (Mahé) also opened in 2018. A Belgian owned company, International Sales and Promotion Company (ISPC), which is based in Victoria, also produces value added products based on products from the small-scale fishery, for local and export markets.

A SWIOFISH3 Value chain study (under development) is reported to have estimated that the capacity of non-canning fish processing in the Seychelles is about 60 000 tonnes/year, whereas only 30-40 000 tonnes of raw material is available. The excess capacity in processing creates a pressure for increased exploitation of the coastal and EEZ resources.

3.8 Aquaculture

In 1989, the Island Development Company (IDC) and the Seychelles Marketing Board (SMB) established a shrimp farm and processing factory in Coetivy. Production reached over 800 tonnes in 2003, but it was uneconomic (depending on imported feed, foreign labour and with excessively high costs) and ceased operation in 2009.

A new initiative to develop aquaculture was launched by the establishment of a High-Level Aquaculture Committee under the Vice Presidency. A Marine Aquaculture Master Plan Study was commissioned by the Government of Seychelles³¹ and was subsequently developed by Advance Africa under a contract financed by the Government of Seychelles. Subsequent implementation of the plan was supported extensively by the Sectoral Policy Support of the FPA. Strong political support for the development of a new Aquaculture Policy led to its adoption by Cabinet in January 2018. An Aquaculture Sector Plan and Aquaculture Regulation are now drafted and in the internal consultation phase.

The main prospects being considered are for cage aquaculture, focusing initially on native demersal fish species (snappers and groupers).

SFA has strengthened its capacities, and the Aquaculture Unit now has 10 staff. The FPA has also supported the development of the SFA broodstock, acclimation and quarantine facility at Providence on Mahé, expected to be operational mid-2019, with further developments planned.

³¹ See: <u>http://advanceafrica.co.za/project/sey-mmp/</u>

3.9 International trade in fishery products

3.9.1 Trade patterns

Fishery products comprise the largest part of exports from the Seychelles, comprising 92% of the domestic exports (i.e. excluding re-exports of products such as fuel). The main product exported is canned tuna, but whole frozen tuna and frozen tuna loins (for canning elsewhere) are also important products, as well tuna by products (fishmeal for animal feeds, and fish oils for both animal and human uses). Smaller quantities of fresh and frozen large pelagic fish (tunas and swordfish) from domestic longliners, and sea cucumbers and some demersal fish (both from the artisanal sector) are also exported.

The evolution of exports of fishery products from the Seychelles is shown in Table 9. It suggests a slight decline in value of exports, which peaked at EUR 278 million in 2015. Overall, canned tuna and by-products (fishmeal and fish oils) account for 98-99% of the value of exports of fishery products. The only other significant export of fishery product is sea cucumber (exported to Asian markets via Hong Kong buyers). Exports of fresh and frozen fish, which take raw materials from the small and semi-industrial fisheries, are valued at around EUR1 million annually.

The EU is by far the Seychelles' largest market and accounts for sales equivalent to 95% of exports. The UK receives about 30% of the IOT output (mostly skipjack tuna) and the Seychelles and UK signed a bilateral Economic Partnership Agreement (EPA) in January 2019, which provides for continued duty-free access of Seychelles fishery products to this market. The Agreement is expected to be ratified by the parties after the UK leaves the EU.

Eurostat data on imports of fishery products to the EU from the Seychelles (Table 10Table 10) suggests that as well as canned tuna, there are also important but variable quantities of frozen tunas exported to the EU (valued EUR 39 million in 2017, mostly yellowfin tuna for further processing). Hong Kong accounts for 1% of exports (sea cucumber) and Japan and Sri Lanka account for about 1% each (fishmeal).

It should also be noted that Seychelles is an importer of fishery products from the EU, since it receives the discharge of EU flagged vessels for further processing. These EU exports were valued at EUR 75 million in 2017.

			E	xported Product	Value (EUR)			
Years	Fresh/ Frozen Fish	Shark Fins	Sea Cucumber	Canned Tuna	Fish Meal	Fish Oil	Others	Total
2012	983 407	141 448	2 858 317	193 694 876	4 683 005	2 448 225	382 380	205 191 659
2013	1 296 819	34 138	1 690 631	267 236 036	6 483 843	2 029 258	33 136	278 803 862
2014	869 267	22 351	2 427 342	239 162 402	5 738 223	2 341 005	-	250 560 591
2015	1 223 135	12 493	2 299 911	204 483 513	6 469 923	2 729 788	2 955	217 221 718

Table 9: Seychelles exports of fishery products to all markets, 2012 to 2015

Source: SFA Annual Statistical Report, 2016

Table 10: EU imports of fishery products from Seychelles, 2014 to 2017

HS Code	Description	2014		2015		2016		2017	
		Quantity (tonnes)	Value (Euros)	Quantity (tonnes)	Value (Euros)	Quantity (tonnes)	Value (Euros)	Quantity (tonnes)	Value (Euros)
0302	Fish, fresh or chilled (excl. fish fillets and other fish meat of heading 0304)	12.50	124 327	61.70	665 690	151.90	1 507 990	94.30	961 280
0303	Frozen fish (excl. fish fillets and other fish meat of heading 0304)	13 054.60	20 652 439	14 125.30	23 944 470	17 014.20	29 811 716	17 854.90	38 728 505
0304	Fish fillets and other fish meat, whether or not minced, fresh, chilled or frozen	112.30	635 707	213.20	1 334 293	215.80	1 935 812	211.70	1 852 542
1604	Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs	45 709.60	241 033 955	44 747.50	211 395 475	55 666.80	229 387 972	51 805.10	228 439 894
TOTAL		58 889.00	262 446 428	59 148.00	237 340 658	73 048.70	262 643 490	69 966.60	269 988 212

Source: Eurostat International Trade Database (COMEXT)

3.9.2 Tariff quotas for non-originating products

Under the terms of the Interim EPA between the EU and the Eastern and Southern Africa States, the Seychelles continues to benefit from tariff free entry for its exports to the EU market. The tuna sector is a major beneficiary of this facility.

Also, under the terms of Protocol 1 to the Interim EPA, the Seychelles benefits from an automatically granted derogation from the rules of origin, shared with Madagascar and Mauritius. The quota permits the use of non-originating tuna for a range of preserved tuna products (Order no 09.1618) and tuna loins destined for canning (Order no. 09.1619). The annual tariff quota was introduced in 2012 and was extended in 2017 for a further five-year period³². The quotas are utilised, with an agreement between the countries for quotas of 3,000 tonnes each for Seychelles and Mauritius, and 2,000 tonnes for Madagascar (although these can be varied by agreement if any party reaches their limit). The annual consumption rates for 2016 to 2018 ranged from 75 to 70% for canned tuna and 1 to 24% for tuna loins (DG TAXUD, Tariff quota consultation).

Following the adoption of IOTC Resolution 18/01 (Interim Plan for Rebuilding the Indian Ocean Yellowfin) the Government of Seychelles, expecting restrictions in supplies of yellowfin Tuna from the Indian Ocean, has indicated an interest in an increase in the levels of tariff quotas available under the derogation (from 8,000 to 12,000 tonnes per annum). However, until now the derogation has not been fully utilised by the beneficiary parties and no formal application has been made. The Seychelles Government is nevertheless interested to ensure continued supplies to the national processing sector.

The Ministry of Foreign Affairs has negotiated two Agreements on Administrative Cooperation (ACA) to fulfil the requirements for cumulation with ACP and OCT countries, which will provide for cumulation of tariff preferences, under the terms of the Interim Economic Partnership Agreement (IEPA – see Section 1.5). An agreement with Ghana (2014) is negotiated but has not yet been ratified. An agreement with Curação is currently under negotiation. The Agreements pave the way to the use of tuna originating in one or other country (including landed in Seychelles from a vessel carrying that flag) to be exported by the Seychelles to the EU under its EPA tariff preferences. Since Seychelles and Ghana have peak fishing seasons at different times of the year, the deal will allow transfers of originating tuna for processing and export to the European Union. The Seychelles has indicated to the EU that it is considering seeking more flexibility in the tolerances applied to such cumulation in tuna products exported to the EU.

3.10 Utilisation of catches

An estimated 90% of tuna caught by the West IO purse seine fleet (all flags) (about 250 000 tonnes in recent years) passes through the Seychelles (Fisheries Transparency Initiative, 2016). Most of the product (about 73% of discharges) is transhipped in port for processing elsewhere with regional canneries in Mauritius and Madagascar accounting for 80% of the transhipments. The remainder of the catch (22%) is used for local processing by the IOT cannery in Victoria and for bycatch processing (5%), prior to export (mostly to the EU, as described above). The approximate flows of tuna from the fleet to the markets are shown in Figure 4 below.

³² DECISION No 1/2017 OF THE ESA-EU CUSTOMS COOPERATION COMMITTEE of 2 October 2017 on a derogation from the rules of origin laid down in Protocol 1 to the Interim Agreement establishing a framework for an Economic Partnership Agreement between the Eastern and Southern Africa States, of the one part, and the European Community and its Member States, of the other part, to take account of the special situation of the Eastern and Southern Africa States with regard to preserved tuna and tuna loins (OJ, 20.10.2017)

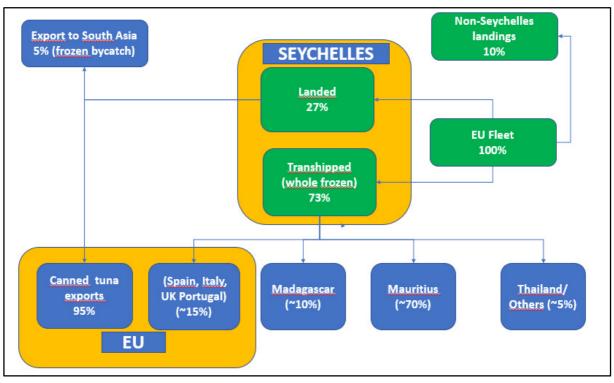


Figure 4: Flows of tuna from the Indian Ocean Fishery via Seychelles

Source: Consultants' estimates from trade sources

The linkages to shore based activity from the surface longline segment is much weaker and limited to the medium-scale locally operated semi-industrial longliners. Asian operated Industrial longliners, whether flagged to the Seychelles or not, prefer to land or tranship in other locations, such as Mauritius.

Tuna purse seiners inevitably produce a bycatch of non-target species, which includes small tunas, dorado, bonito, kingfish, trevally, barracuda, sailfish, marlin and shark. Due to lack of alternatives, this is generally brine frozen, and thus of lower quality and destined for use as bait or otherwise sold on the Seychelles market at a low price. On some vessels this is regarded as an informal crew benefit. Two processors have made arrangements with purse seine vessels to purchase by-catch for export. The application of comprehensive landing obligations (target and non-target species, including non-tunas) from 1st January 2018 has resulted in a significant increase in landed bycatch.

4 SEYCHELLES FISHERY SECTOR GOVERNANCE

4.1 Principal Institutions related to Fishery Sector

4.1.1 Ministry of Fisheries and Agriculture

The Ministry of Fisheries and Agriculture has the overall mandate for policy and legislation in the area of fisheries and agriculture. Implementation is undertaken by two executive Agencies for which it has responsibility, the Seychelles Fishing Authority and the Seychelles Agricultural Agency. The Ministry received the mandate for fisheries from the Ministry of Investment, Natural Resources and Industry in 2015.

4.1.2 Seychelles Fishing Authority

The Seychelles Fishing Authority (SFA) is a parastatal organization which functions as the executive arm of Government for fisheries and related matters. The Authority was created in August 1984 by the Seychelles Fishing Authority (Establishment) Act, in response to a need for a flexible and dynamic response to demands for strengthened sectoral management. Under the Act, the SFA (a body corporate) performs the following functions:

- a) to promote, organize and develop fishing, fishing industries and fishing resources in Seychelles;
- b) to assist in the formulation of the national policy with respect to fishing, fishing industries and fishing resources and in the implementation of that policy;
- c) to conduct negotiations, or engage in meetings, seminars or discussions, with regard to fishing or fisheries or the establishment or operation of fishing industries, whether at a national or international level, on behalf of the Republic or otherwise;
- d) to identity the manpower training requirements of Seychelles with regard to fishing and fishing industries;

The SFA is governed by a Board of five Directors appointed by the President on the recommendations of the Minister for periods of two years and includes a Chair and Deputy Chair. SFA is headquartered in Victoria and operates an outstation in Praslin.

The organization employs more than 140 staff in a number of operational sections: fisheries management; research; aquaculture; monitoring control and surveillance (includes licensing); post-harvest; projects and planning; fishing ports operations and infrastructure. The organisation is being restructured, with a proposal to group departments under three Directorates, whose precise composition is still under discussion.

The SFA generates a net positive income for the Government of Seychelles and obtains its funding from Government through the annual budget. From financial year 2019 it has obtained budgetary independence from the Ministry of Finance, a status which will provide greater autonomy in the recruitment and allocation of resources. More information is provided in section 4.6.

The SFA performs several important roles in relation to the execution of fisheries policy. It supports the Ministry in policy development and planning by providing data and analysis and professional support. It promotes and undertakes fisheries research, through its scientific branch (which operates a small laboratory) and in this respect organises fisheries data collection including observer missions onboard licenced fishing vessels. It provides science-based management advice to the Ministry, to support effective conservation and management decisions. It also participates, along with the Ministry, in regional and international fora, representing the fisheries interests of the Seychelles. Crucially the SFA has an important regulatory role in monitoring, surveillance and control of fisheries activities to ensure compliance with legal measures, and in this respect, it is responsible for licensing fishing vessels and the operation of the Fisheries Monitoring Centre which monitors vessel activities throughout the EEZ, in collaboration with the Coast Guard mobile

assets (vessels and aircraft). The FMC has recently undergone office extensions to accommodate its expanded role. In all of these areas, the current and future activities of the SFA are set out in the SFA Strategic Plan for the years 2018 – 2020 (see section 4.2). The SFA also performs an important development role, in relation to ensuring better and sustainable utilisation of the Seychelles' natural resources (for example in post-harvest issues and development of aquaculture). In this respect it guides investment in fisheries infrastructure and collaborates with development partners. SFA also collaborates in development of improved training facilities with educational institutions. It produces and publishes statistics regarding the sector.

4.1.3 Ministry of Environment, Energy and Climate Change

The Environment Department of the Ministry of Environment, Energy and Climate Change contains a Biodiversity and Conservation Management Division, with a strong interest in protecting the marine environment of the Seychelles archipelago. Key policy instruments which guide the work of the Ministry in this respect are the Seychelles Sustainable Development Strategy (SSDS), the National Biodiversity and Action Plan (NBSAP), Protected Area policy, and the National Wetland Policy. A key policy which potentially impacts directly on foreign fishing activities in the Seychelles zone is the Seychelles Marine Spatial Planning Initiative (https://seymsp.com/) described in Section 4.4.2.

4.1.4 Seychelles Conservation and Adaptation Trust

The Seychelles Conservation and Adaptation Trust (SeyCCAT) was established under its own Act in November 2015, with the support of NatureVest, the conservation impact investing unit of The Nature Conservancy (TNC). In collaboration with the Ministry of Finance and TNC, SeyCCAT managed the debt conversion for marine conservation and climate adaptation described in Section 1.4. Its main task is to manage the resulting blended capital portfolio from the debt conversion to generate proceeds for investment in in marine conservation and climate adaptation. SeyCCAT is governed by the Board of Directors, supported by a finance committee and grants committee, with the day-to-day leadership provided by the CEO and Executive team. The activities of SeyCCAT and its interventions via the Blue Growth Funds are described in section 4.2.

4.1.5 Seychelles Coast Guard

The **Seychelles Coast Guard** (SCG) is operated under the naval wing of the Seychelles People's Defence Force, created in 1992, it has a mandate for search and rescue, counterpiracy, enforcing maritime security and environmental protection throughout the EEZ. Functions include fisheries monitoring control and surveillance. It collaborates closely with the Regional Centre for Operation Coordination (RCOC) and EU NAVFOR. The SCG assets include four patrol ships and five fast response boats. In 2018 the Government of Indian donated a Dornier maritime surveillance aircraft to the Seychelles Coastguard, bringing the total to two aircraft.

4.1.6 Seychelles Ports Authority

The Seychelles Ports Authority (SPA), previously known as the Port and Marine Services Division was set up in 2004 and is regulated by the Seychelles Ports Authority Act 2004 and the Harbour Act. The SPA's vision is "to continuously transform and sustain Port Victoria as a viable Maritime Hub.

The SPA was subject to a performance audit by the Office of the Auditor General in 2018³³ which found that *inter alia* there was an extreme and unjustified delay in the refurbishment of Victoria Port.

³³ Performance Audit Report - Seychelles Port Authority

https://www.oag.sc/press-releases/17-performance-audit-report-seychelles-port-authority

4.1.7 Seychelles Bureau of Standards

Sanitary conditions for the export of fishery products are the responsibility of the Seychelles Bureau of Standards, established as a government regulatory agency under the Seychelles Bureau of Standards Act of 1987. It is governed by a Board of Directors appointed by the Minister. Within the SBS, a Fish Inspection and Quality Control Unit is established, which undertakes sanitary inspections, controls and certification of fishery products exported from Seychelles to the EU and other markets.

4.1.8 Civil society

In terms of civil society, the **Seychelles Fishing Boat Owners Association (FBOA)** is a registered non-governmental organisation working with Seychelles' traditional and semiindustrial fisheries sectors. It was created in 2003 to defend and promote the traditional fishing sector in Seychelles, and currently represents about 70 artisanal, longline and hook and line boat owners and their crews. It facilitates and encourages engagement in the management of the fishery and provides a forum for sectoral representation to Government, interacting with the SFA on issues of sectoral development. The association has sought to establish a quality labelling scheme with the support of the Sectoral Support programme of the FPA, but the FBOA lacked management skills for implementation and the scheme is dormant. The FBOA blames excess fishing by industrial purse seine vessels for the scarcity of yellowfin tuna in the small-scale catches but is broadly supportive of the EU-Seychelles **FPA**. An **Artisanal Shark Fishers Association** (ASFA) and **Association of the Seychelles Sea Cucumber Industry** represents interests in their respective sectors.

A number of environmental NGOs are active in the Seychelles. **Nature Seychelles** was established in 1998 as an association with the objective to improve the conservation of biodiversity through scientific, management, educational and training programmes. It manages the Cousin Island Special Reserve. The **Marine Conservation Society of Seychelles** promotes the conservation of the marine environment and implements monitoring programmes on turtles and whale sharks and works on coral restoration. It also runs an international volunteer programme. **Green Islands Foundation** (an environmental NGO established in Seychelles since 2006) and works on fisheries management planning. The **International Union for the Conservation of Nature (IUCN)** also operates a small office on Mahé.

4.2 Sectoral Fisheries Policy and Implementation

4.2.1 Strategic framework for the fishery sector

The Fisheries Policy of Seychelles "For the Sustainable and Responsible Development of the Fishing Industry" was adopted in 2005 and is still in force. It sets out the overall objective for the fisheries sector as "the promotion of sustainable and responsible fisheries development and optimisation of the benefits from this sector for the present and future generations".

Amongst its specific objectives, the policy aims to;

- promote conservation and management of marine resources;
- generate the maximum amount of employment; maximise revenue from fisheries and other related activities; promote an integrated economy;
- enhance food supply and food security;
- promote safety at sea; and
- maintain Port Victoria as the major tuna landing/transhipment port in the Western Indian Ocean.

The Ministry of Agriculture and Fisheries has taken clear responsibility for development and adoption of the new fisheries policy and strengthened its Fisheries Department under the

Permanent Secretary for Fisheries. The role of the Seychelles Fishing Authority was subsequently re-confirmed as an executive agency, with budgetary independence, in accordance with the Seychelles Fishing Authority Act.

The Ministry launched a review of the fishery and aquaculture policy framework in 2018 with the adoption of the Seychelles National Aquaculture Policy. In early 2019, an intervention was launched entitled "Preparation of the Seychelles' fisheries sector policy and strategy", financed under the World Bank SWIOFish3 to update the previous fisheries policy of 2005. The project will involve drafting an updated policy framework, and stakeholder consultations, leading to adoption expected later in 2019.

The Seychelles Fishing Authority has already formulated its own Strategic Plan for the years 2018 – 2020 setting out its new role within the framework of the wider fisheries and aquaculture policy. The plan sets out the organization's long-term vision, mission, core principles and values as well as the strategies it will be employing and priority actions that will be implemented. Four strategic goals are defined:

- **Goal 1: Effective governance arrangements:** Project SFA as the legal authority among various stakeholders through acceptance of responsibility for its decision and actions and reinforcing mechanisms for accountability and good governance.
- **Goal 2: Institutional strengthening of SFA:** Improve institutional infrastructure, build core competencies and strengthen the internal procedures of SFA to build and inspire human capacity for better service delivery.
- **Goal 3: Ensure the sustainability of fisheries resources:** Manage fisheries resources through ecosystem-based approaches and ensure that policies, legislations and infrastructure development are aligned towards achieving sustainability, taking into account climate change and global developments.
- **Goal 4: Optimize the economic and social benefits of fisheries**: Ensure that the fisheries sector continues to play a key role in the sustainable development of the country and the socio-economic well-being of the Seychellois nation.

For each Goal the plan sets out strategies and some priority actions. Specific budgets are proposed for each priority action for implementation were set and are presented in Section 4.6. The SFA is also preparing a new Fisheries Sector Development Plan and the Aquaculture Sector Development Plan.

The new policy and strategic approach are expected to significantly improve the future programming and budgetary control applied by SFA in fulfilment of its mandate concerning the management and development of fisheries and aquaculture.

4.2.2 Fishery Resource Management Plans

Migratory resources

Seychelles Fisheries Resources under Annex 1 of UNCLOS (tunas and highly migratory species) are managed by the framework of the RFMO, the IOTC (see section 4.3).

Shark resources

A specific plan for shark management (the Seychelles National Plan of Action For The Conservation And Management Of Sharks) was adopted by the Seychelles Fishing Authority (then under the Ministry of Environment and Natural Resources) in April 2007. The NPOA set out a four-year action plan with the aim of:

1. To establish the necessary capacity, systems and databases to enable the informed adaptive management of Seychelles' shark stocks

2. To implement an active and progressive precautionary approach to the management of targeted and non-targeted fishing effort that takes into account the transitional needs of stakeholders.

The plan was reviewed in 2015, with a view to preparing an updated version of the NPOA for the period 2016-2019 through a process of stakeholder consultation. A new Shark Identification Guide was prepared in August 2015 and a cartoon book co-sponsored by SMARTFISH (IOC) project highlighting the importance of shark in the marine ecosystem. A database was created to capture data for species identification based on morphological characteristics of landed headed and gutted sharks. However, there were no significant achievements reported in terms of management of the fishing effort³⁴. The review made recommendations for the design and implementation of the NPOA 2016-2019. However, until now the plan has not been finalised.

Small scale fisheries

The small-scale fisheries are open access with licences limited to Seychelles nationals. Artisanal fishing is restricted in protected areas and there are specific measures in place for lobster and sea cucumber fisheries.

The lobster fishery is regulated through a closed season that is announced on an annual basis (depending on stock status derived from periodic surveys, along with restrictions on the number of licences issued. The sea cucumber (bêche-de-mer) fishery is also managed through a restricted licence regime (capped at 25), closed seasons, and voluntary restriction on harvesting in inshore areas.

4.2.3 Strategic framework for blue growth

The Seychelles Conservation and Adaptation Trust (SeyCCAT) delivers project finance through its Blue Growth Funds. There are three pillars to the funding:

- The Blue Grants Fund is the main revolving fund of SeyCCAT, based on competitive "request for proposals"
- The Blue Endowment Fund is compounding year on year and will mature in 2036 with an expected value of US\$ 6-7M for investments in conservation and climate adaptation projects.
- The Blue Challenge Fund (which is still seeking capitalisation and will address conservation and climate adaptation challenge(s).

The Blue Grants fund publishes periodic calls for proposals. The goal is to competitively grant at least US\$ 750,000 per annum to support the stewardship of Seychelles' ocean resources, island life and blue economy. Until now six projects have been launched under the Blue Grants Fund:

- 1. Improving the socio-economic knowledge of the Seychelles Artisanal Fishery
- 2. Piloting voluntary fisheries zone closure on Praslin Island for the benefit of the marine environment and fisher folks
- 3. Science based restoration of commercially important spiny lobster habitats to help develop a sustainable fishery
- 4. Development and Operationalisation of National Fish Identification Website and Database

³⁴ The Seychelles NPOA for Sharks 2007-2010 Review, 11th Working Party on Ecosystems and Bycatch, (WPEB11), Olhão, Portugal 7th – 11th September 2015, IOTC–2015–WPEB11–11

- 5. Assessment and Mitigation of Impact of the Artisanal Fishery on Species of Local Concern
- 6. Spatial ecology and response to catch-and-release of recreationally targeted fish species on St. François and Alphonse Atolls: Implications for conservation and management.

4.3 International Integration

- 4.3.1 Seychelles accession to main international instruments promoting fisheries governance
- The 1982 United Nations Convention on the Law of the Sea (UNCLOS) sets the framework within which states must manage their fisheries. It includes rules relating to the EEZ, the high seas and to highly migratory species. Seychelles ratified the UNCLOS in 1991.
- The UN Fish Stocks Agreement provides for the establishment of regional or subregional management organisations (Part III). Seychelles accessed the agreement in 1998.
- Agreement on Port State Measures (PSMA) that specifically target IUU fishing by preventing vessels engaged in illegal operations to use ports and landing their catches. The PSMA entered into force in 2016, with accession of Seychelles in 2013. IOTC largely adopted the PSMA provisions as early as 2010 in its Resolution 16/11³⁵, which applies to Contracting Parties in respect of vessels that seek entry to their ports.

4.3.2 Membership of international organisations

- **Indian Ocean Tuna Commission**: the IOTC is an intergovernmental organization with a mandate for scientific advice and setting conservation and management measures on tuna and tuna-like species in the Indian Ocean. These measures are legally binding on the Contracting Parties, which includes both the Seychelles and the EU. Both the Seychelles and EU has a strong record of active participation in IOTC meetings, including scientific meetings. Although these two parties do not always fully agree on the details of the measures being proposed, there is a strong mutual interest in and a demonstrated commitment to the aims and objectives of the IOTC. The Seychelles hosts the IOTC headquarters.
- South-West Indian Ocean Fisheries Commission: The SWIOFC was established under Article VI of the FAO Constitution in 2004 and has a current membership of 12 countries including the Seychelles. The EU participates as an observer only. It provides guidance to its members with the objective to promote the sustainable utilization of the non-tuna living marine resources within the countries' EEZs by addressing common problems of fisheries management and development. SWIOFC is an advisory body.
- **The South Indian Ocean Fisheries Agreement** (SIOFA) is in force with 9 contracting parties including Seychelles and the EU. This Agreement covers fishery resources including fish, molluscs, crustaceans and other sedentary species within the areas beyond national jurisdictions (high-seas) but excluding highly migratory species and sedentary species subject to the fishery jurisdiction of coastal states.
- **Indian Ocean Commission**: The COI-IOC (French-English) was established in 1982 is an inter-governmental organisation comprising of Comoros, France (Reunion Island), Madagascar, Mauritius and Seychelles, with a mandate that reaches beyond fisheries. For fisheries, it aims to promote regional co-operation on the conservation, management, and responsible, sustainable exploitation of

³⁵ Resolution 16/11 on Port State Measures to Prevent, Deter and Eliminate IUU fishing.

fisheries resources. The IOC was involved in the implementation of the EU SmartFish programme and the Regional Plan for Fisheries Surveillance (IOC-PRSP) and is now supporting implementation of the E \in OFISH Project (2018-2004, EUR 28 million)

• **Southern African Development Community**: The SADC is a Regional Economic Community (REC), established under the SADC treaty, to galvanise economic integration in Southern Africa. Its main objective is to strengthen socio-economic development and co-operation within and between its member states. The SADC Protocol on Fisheries came into force in 2002 and it guides development of the sector in the region. The SADC is currently working towards a Regional Monitoring, Control and Surveillance (MCS) Coordination Centre in Maputo.

4.4 Regulatory framework

4.4.1 Fisheries

The fisheries legislation of the Seychelles was substantially modernised and revised in the publication Fisheries Act 2014, which repealed the previous Act of 1986 and came into force on 13^{th} January 2015. One of the main changes introduced was to transfer the licencing function from the Seychelles Licencing Authority to the Seychelles Fishing Authority.

The Act provides for fisheries management measures and plans for all fisheries, empowers the Minister to enter into fisheries agreements, whilst respecting obligations to comply with international obligations for fisheries management. It prohibits fishing by foreign vessels without a licence and establishes that IUU vessels cannot be licenced. It places obligations on foreign fishing vessels to provide 24 hours' notice to the authorities of entry and exit from Seychelles waters, and for unlicensed fishing vessels to stow fishing gear. National flagged vessels, including those used for sports fishing (but not recreational fishing, as defined) are also required to be licenced. It prohibits the use of nationally flagged vessels for fishing outside Seychelles zone unless they are specifically authorised. All fishing licences issued may be subject to relevant conditions. Certain activities are prohibited such as spear fishing and use of poisons, capture of turtles and marine mammals. Specific authorisations are required for the use of fish aggregating devices. Additional provisions relate to cancellation or revocation of licences. An appeals board is established to adjudicate on disputes, and its procedures are defined. Enforcement measures are defined, including the nomination and powers of authorised fisheries officers, such a boarding, search, entry, pursuit outside territorial waters and seizure. Penalties are set for offences, based on the size of the vessel which include fines and imprisonment.

The Act contains powers to pass regulations. In fact, the Fisheries Regulation adopted on 31st March 1987 (as amended) are substantially in force. These regulations set out the detailed procedures for implementation of the Act.

4.4.2 Marine Spatial Plan

The Fisheries Regulation of 31st March 1987 establishes eight zones where fishing by foreign vessels is not permitted and cover marine national parks, and breeding sites located around various islands and banks. In addition, the regulation declares four shell reserves in which the taking of defined species of molluscs is prohibited.

In 2010, the Seychelles' President pledged to declare over 50% of Seychelles' terrestrial surface area and 30% of the marine area under biodiversity conservation. This would exceed the 10% target for the National Marine Territory set by the Convention on Biodiversity (of which Seychelles is a signatory). The Seychelles' Protected Areas Policy was adopted by the Ministry of Environment & Energy in October 2013. It sets out six Marine National Parks, two Marine Protected Areas, four RAMSAR sites and three shell reserves, as well as the procedures and institutional framework for the establishment of terrestrial and marine reserved areas. Some areas have been established in line with the

policy, but they are all relatively small. They are specified as areas excluded from the access arrangements under the EU Seychelles FPA (and they are defined in the Protocol to the Agreement).

In February 2016 the Government of Seychelles negotiated a Debt-for-Climate-Change-Adaptation swap, which commits the Seychelles to deliver a Marine Spatial Planning (MSP) process that will result in approximately 200,000 square kilometres of improved marine resource management in the form of Marine Protected Areas. The Marine Spatial Plan is linked to the newly formed Seychelles Conservation and Adaptation Trust (SeyCCAT) which became operational late 2016. The trust helps to mobilise the additional funds required to implement the MSP, and this will include US\$3M of the World Bank supported Sovereign Blue Bond (through the SWIOFish 3 project). These funds will for example, support the development of the fisheries management plans in the respective zones). Combining Debt-Swap and Blue Bond proceeds, SeyCCAT has commenced the disbursement of \$0.75M per annum, starting from 2018.

The first milestone was the identification of the areas of the Seychelles Exclusive Economic Zone for protection and management. These were proposed in the Phase 1 Seychelles Marine Spatial Plan. The MSP Initiative is divided into two phases. Phase 1 was from 2014-2017 and involves the development of planning tools to initiate the process (e.g., spatial data catalogue and zoning framework) and the development of the stakeholder consultation and decision-making processes. An executive committee (includes Ministerial level, IOC and IOTC representatives) provides the overall management decision making for the MSP process. A Steering Committee and seven technical working groups (one of which is fisheries) allow for detailed discussions of zoning proposals and impacts.

The SMSP process hosted numerous consultative workshops and meetings and 60 additional one-to-one consultations from 2014 to 2018. Fisheries sectors representatives were involved in the process since 2015 and have included purse seine fishing vessel owner representatives as well as longline fishing vessel representatives from Taiwan³⁶. The consultation with fisheries and other stakeholders has resulted in changes to the proposed boundaries of the zones to better accommodate user needs.

The process led to the adoption of the zone proposals, which were Gazetted on 21 Feb 2018 (see Figure 5: Gazetted Seychelles Marine Protected Areas, February 2018Figure 5). This defined approximately 210 000 square kilometres (15% of the EEZ) for new offshore zones for marine biodiversity protection and sustainable uses in deep water, outside the Territorial Sea. Zone 1 is the Aldabra Group (74 500 km² High Biodiversity Protection Zone) and Zone 2 is area from the Amirantes to Fortune Bank (136 000 km² Medium Biodiversity Protection and Sustainable Use Zone)³⁷. The MSP zones have been designed intentionally on a large scale and to avoid smaller non-contiguous areas. The Gazetted coordinates are currently under review and are expected to be re-published in spring 2019.

The Marine Spatial Plan also sets out the proposals for the management considerations regarding the permissibility of various activities.

³⁶ Seychelles Marine Spatial Plan, Phase 1 Stakeholder Consultations, 5 March 2018. <u>https://seymsp.com/stakeholders/</u>

³⁷ Smith, J.L., H.E. Sims, and R. Tingey. 2018. Draft Phase 1 Seychelles Marine Spatial Plan: MSP Marine Areas. Unpublished report to Government of Seychelles.

Ex-post and Ex-ante evaluation study of the Sustainable Fisheries Partnership Agreement between the European Union and the Republic of Seychelles

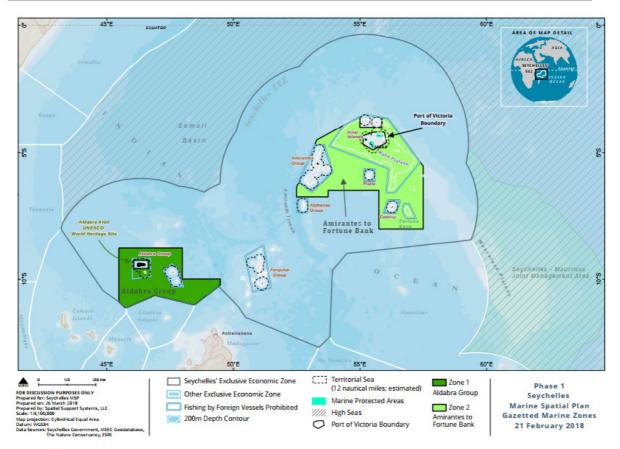


Figure 5: Gazetted Seychelles Marine Protected Areas, February 2018

Source: Smith et al 2017, ibid

Within Zone 1 (Aldabra Group) it is proposed that industrial purse seine fishing will not be permitted. Only purse seine supply vessels may operate, but only to retrieve or pick up FADs. Neither setting nor deployment of FADs, nor other operations are to be permitted.

Within Zone 2 (Amirantes – Fortune Bank) it is proposed that industrial purse seine fishing will be permitted, but only fishing on free schools. The use of floating objects or FADs will not be allowed. Details and proposed restrictions, as shown in Table 11.

Fisheries Activity	Aldabra Group Zone 1	Amirantes – Fortune Bank Zone 2
Artisanal Fishing (Phase 2: table for each gear type)	Х	C 1,5
Big game fishing	Х	С
Demersal Trawl Fishing	Х	Х
Fly Fishing, blue water	Х	С
Fly Fishing, lagoon	Х	С
Industrial Purse Seine (free school)	Х	С
Industrial Purse Seine (floating objects, FADs)	Х	Х
Industrial Purse Seine Supply Vessel	С	С
Industrial Pelagic Longline	Х	С
Aquaculture Development Zone (ADZ)	х	С
Aquaculture Inshore Zone	Х	С
Aquaculture Land-Based Zone	х	С
Aquaculture Offshore Zone	Х	С
Recreational Fishing	Х	С
Semi-industrial Longline	Х	С
Spear Fishing	Х	Х
Sport Fishing	Х	С
Subsistence Fishing	С	С

Table 11: Proposed prohibited and permitted fisheries and aquaculture activities in
Seychelles Marine Protected Areas.

Allowable activities apply to the Phase 1 designated areas:

C = conditional;

X = restricted or prohibited.

4.4.3 Sanitary controls and certification of fishery products

The Seychelles established its Competent Authority for the export certification of fishery products in 1996, with the adoption of the Export of Fishery Product Act. The Act was amended in 2010, and new regulations, the Export of Fishery Products (Sanitary) Regulations 2010, were extended the sanitary requirements applicable to freezer and factory vessels. The Export of Fishery Products (By-Products) Regulation 2010 were also adopted (which cover fish oil for human consumption). The legislation has been reviewed by audit missions undertaken by DG SANTÉ and found to be in line with EU requirements.

4.4.4 Maritime and Ports

The Merchant Shipping Act of 1995, as amended in 2014, governs the registration of vessels under the Seychelles flag, as well as the conditions for safety at sea and employment of crew onboard. The law is being reviewed in respect of safety at sea, provisions, following and audit in 2016 by a delegation from the International Maritime Organisation (IMO).

4.5 Key functions in the fishery sector

4.5.1 Fishing authorisations

Fishing authorisations are received, considered and issued by the Seychelles Fishing Authority, via the Fisheries Control Unit. The scale of fees for industrial fishing vessels of different types and under different regimes is shown in Table 7 page 26.

Fishing authorisations must be kept on board. According to the Fisheries Act, foreign vessels submitting applications must be represented by a formally nominated agent resident in the Seychelles, and the application must be accompanied by proof of payment of the licence fee. Except for force majeure, an issued licence is not transferable.

The evolution of fishing licences issued is shown in Table 12. Every year, the SFA issues 600-700 licences, the majority being for small scale vessels, the number of which appear to be increasing.

Segment	No. Of licences issued		
	2014	2015	2016
Purse seine	44	49	49
Supply vessel	16	18	17
Industrial Surface longliner	148	158	n/a
Semi-industrial longliner*	19	11	21
Artisanal*	428	445	490
TOTAL	655	681	577

*operating vessels only

Source: SFA Annual Statistical Reports, 2014-2016

4.5.2 Fisheries research and statistics

The Research Department of the SFA has 40 staff. There are 11 engaged in sampling, 5 on purse seine data capture and 5 on surface longline data, one working on semi-industrial fishing data and 3 on the artisanal fisheries. There are 13 staff located at landing sites for the small-scale fisheries. There are three statisticians working on database management, data validation and analysis and reporting.

The department receives statistical reports transmitted directly from the foreign industrial vessels every three days that they are operating in the Seychelles EEZ, and compiles these for management purposes, including compliance with the conditions of relevant fisheries agreements and calculation of any fees due (for example under Section 2 of the Annex to the Protocol of EU -Seychelles FPA, thus performing an important function in the implementation of this Agreement). It is also responsible for stock assessment in relation to the small-scale fisheries and measurement of fishing effort and catches from artisanal and semi-industrial fishing units. The Research department also proposes and elaborates management measures for these fisheries.

In relation to migratory resources the Research Department represents Seychelles at the level of the IOTC Scientific Committee. The unit is also responsible for the preparation of the periodical statistical bulletins and reports published by the SFA. The most recent publication is the SFA Fisheries Statistical Report 2016, presenting data for 2015 and part of 2016.

In 2016 Seychelles introduced new IOTC compliant logbooks for the Seychelles purse seine, supply and longline fleets fishing for tuna and tuna-like species. For the purse seine and supply vessels the new logbook is designed to improve data collection particularly in regard to interaction with FADs (type of set, type of FADs). For the longline fleet, the new

logbook improves reporting of sharks catches in disaggregated form, as well as interactions with bycatch species particularly seabirds and marine turtles.

The department has actively participated in the development of a Regional Observer Scheme³⁸ under IOTC Resolution 11/04 with a view to strengthening the range and quality of scientific data for fisheries management. It launched the scientific observer programme in 2012, covering the tuna purse seine fleet. The first phase of implementation (2012-2014) focused on capacity building (appointment of observers and coordinators, and acquisition of equipment). The at sea deployment of observers commenced at the end of 2014. Technical assistance and financial support from both the EDF SMARTFISH project and the Sectoral Support programme under the FPA have provided significant resources and effective technical assistance and training to help to build observer capacity for data collection, compilation and validation with the result that there is now a significant observer presence on Seychelles and EU purse seine vessels operating in the Seychelles zone. Work is ongoing in relation to the deployment of observers on surface longline vessels.

Although significant progress has been made in data collection (with observers and new reporting requirements) data management has remained a challenge. Delays in logbook returns are reported to a problem associated with the industrial longline segment, due to the length of time they spend at sea, and transhipment outside the Seychelles. The department has also reviewed it sampling protocol (size frequency data collection) for longline vessels to ensure a greater coverage. Implementation of the new protocol was due to be initiated in early 2017. Seychelles is seeking to introduce new database and data processing software which integrates logbook and observer data and produces reports in the IOTC specified format.

It is also reported to be working with IFREMER (France) to review the Catch Assessment Survey used for the collection of data for the domestic fishery. Here there will be a greater emphasis will be placed on monitoring of sport fishing activities which target tuna and tuna-like species as well as bycatch of such species taken by the demersal fishery.

4.5.3 Monitoring, control and surveillance (MCS)

The SFA coordinates fisheries Monitoring Control and surveillance (MCS) through a specific section comprising the Monitoring and Control Unit and the Enforcement Unit. The MCU hosts the Fisheries Monitoring Centre (FMC) which issues fishing authorisations and monitors compliance of all fishing vessel's with lawful conditions applied. This includes the operations of satellite Vessel Monitoring System (VMS), the validation of statistical documents for ICCAT, IOTC, EU and Non-EU, including for the catch certificates. It is also responsible for issuance of fishing licences. Staffing comprises 9 inspectors, 3 licence officers 5 fisheries monitors (in the FMC) and one head of Division. The MCS unit has a small inshore patrol vessel (range within 20nm of shore) and several vehicles. For other MCS means (patrol vessels and aircraft) the MCS unit collaborates with the Coastguard and the Police. There is no MoU in place with these agencies and collaboration is on an ad hoc basis, which is reported by SFA to functions well.

Regarding controls undertaken prior to 2015, SFA relied on a contract with private sector vessel operator for at sea inspection and control operations. This was required to allow for the enhanced security required (armed guards) to counter the piracy threat. The contract was not renewed in 2015 due to the reduction in the threat, and the function was taken over by the Coast Guard, which acquired increased capacity with the introduction of a new patrol vessel (and later in 2018, an additional aircraft).

All Seychelles flagged industrial vessels (71 vessels at present) and foreign fishing vessels operating within the EEZ are required to operate satellite VMS systems. Other Seychelles

³⁸ the scheme is regional in that its content and procedures are determined regionally by IOTC. The scheme is implemented by IOTC contracting parties. More details are provided in Seychelles Compliance Report for the year 2016, IOTC 2017 CoC 14 IR22

vessels (semi-industrial <24m) are also installing VMS (non-mandatory, but with a fuel tax rebate incentive) with 33 vessels out the current fleet of 38 operating this system. In future it is expected to be mandatory for this segment. The VMS system (installed by French contractor CLS) will be upgraded in 2019 with a back-up system, incorporation of AIS and satellite data and installation of the Electronic Recording System (ERS) for automatic recording of catch data for the Seychelles flagged vessels. After many years of effort, the ERS system for the recording of catch reports from EU vessels continues to experience technical problems. Vessels are submitting data which is received with missing data fields, and the system cannot yet therefore be relied upon.

The Enforcement Unit carries out all inspectorate duties with regards to inspection of vessels, gears and fishing operations on land, sea and air. For the sea and airborne surveillance operations, the Enforcement Unit collaborates with the Coast Guard of the Seychelles Defence Force. Strengthening of MCS capacity and financing of activities has been an important focal area for the fishery sector support programme under the EU Seychelles FPA.

Entry and exit reports, and fish onboard reports and port entry reports are received by the FMC. The EU vessels transmit ERS catch data directly on a daily basis to their flag state, made obligatory since 2012 by the Regulation (EC) No 1224/2009. However, these submissions represent captains' estimates only. Since all of the EU vessels operating under the Agreement land or tranship almost all of their catch in the Seychelles, the timely collection of valid and reliable data on discharge, in terms of total weight, and breakdown by size grades and species is of critical concern to all parties, to enable accurate and timely estimates of catch composition. The primary responsibility for this activity is the port state. Port State Controls are conducted through the supervision and statistical validation by SFA inspectors at the point of discharge or transhipment. The level of port activity imposes a large burden on the staff. SFA states that the focus of the work is on the national flagged vessels, applying a risk-based approach. Mis-reporting of YFT, catch zones, and illegal shark finning by surface longliners are considered to be the highest risks. All <10kg tunas are required to be sorted on discharge (landing or transhipping).

According to the reports to the Joint Committee, in 2014, the SFA MCS Unit undertook a total of 336 port inspections of fishing vessels (210 of which were EU vessels, 75 Seychelles and 35 Korean). There were none undertaken in 2017, and less than 10 in 2018 due to lack of staff resources. No data is therefore available on port state controls for the years 2015 and 2016. In addition to the port checks, according to the reports to the Joint Committee, in 2014, the SFA MCS Unit undertook 29 land patrols (on Mahé and Praslin) and 6 coastal patrols. In addition, 16 Seychelles flagged longliners underwent inspections for Certificate of Authorisation to fish outside of Seychelles waters, carried out in foreign ports (e.g. Singapore, Port Louis in Mauritius, Colombo in Sri Lanka). In 2014, 30 days of regional marine patrols were conducted by the Coast Guard with 32 hours of aerial surveillance (there were no aerial or marine patrols reported in the following two years. In 2017, 27 hours of air patrol were conducted. No long-range sea patrols were undertaken that year.

Seychelles has participated in the regional patrols of the Indian Ocean Commission (IOC) Fisheries Surveillance Plan supported by the SMARTFISH and SWIOFISH projects. Amongst other infractions, these operations detected in 2017 a Seychellois flagged longliner operated by a Taiwanese owner with unreported fishing of 729 kg of shark fins. The Seychelles authorities fined the operator EUR50,000. A Chinese longline vessel also refused boarding in the Seychelles EEZ and was reported to the flag state for sanction.

4.5.4 Controls on IUU fishing

The Seychelles, with its rich fishery and vast EEZ, suffers regularly from illegal fishing by foreign fishing vessels, typically fishing without a valid licence. In 2014 two Iranian vessels were apprehended by the Coast Guard and each was fined US\$45,000 for the offence. (SFA Annual Report 2014). In 2016 the Seychelles Government led a regional investigation

into the activities and identity of a Thai flagged vessel, which was identified as fishing in the Indian Ocean without authorisation.

The Seychelles has implemented the catch certification system required under Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing. In 2017 856 IUU catch certificates were issued by the SFA to accompany consignments of fishery products exported to the EU.

4.5.5 Maritime Security

The emergence of the Somali piracy threat since the 1990s presented serious and costly impacts for the Seychelles. The risks to fishing vessels resulted in a decrease in demand for fishing licences, as many foreign operators chose to relocate their fishing effort. Those that did remain incurred higher operating costs, for example in onboard security measure and armed protection. The threat of piracy also limited the ability of the Seychelles authorities to monitor its fishery resources, undertake scientific research and implement their observer programme. The Seychelles established a high-level Committee on Piracy and actively collaborated with international agencies to ensure improved maritime security.

The threat to shipping in this vital sea area resulted in the establishment of the European Naval Force Somalia - Operation Atalanta – (EU-NAVFOR – ATALANTA) an EU operation established in 2008 that involves 23 EU member states plus other countries. NAVFOR operates under the operational control of the European Union's Political and Security Committee. The composition of EU NAVFOR assets varies according to the rotation of units and monsoon seasons in the Indian Ocean. It typically comprises approximately 600 personnel, up to 3 Surface Combat Vessels and 1-2 Maritime Patrol and Reconnaissance Aircraft. NAVFOR also coordinates with fisheries authorities in relation to observations of unauthorised fishing vessels.

The EU NAVFOR Operation is widely regarded as a success. At the height of Somali piracy in January 2011, 736 hostages and 32 ships were being held by pirates. By October 2016 that number had dropped to zero on both counts. The Competent Authorities of the Seychelles, along with Mauritius and Kenya, have been active in prosecuting pirates captured by the NAVFOR operation. In the meanwhile, French and Spanish purse seine vessels continue to carry security personnel when operating in the region.

At the same time, the mandate of maritime security has been broadened to include trafficking of people, arms and drugs, and international efforts have focused on establishing a more effective regional framework to monitor these threats and ensure a rapid and coordinated response. The need for boosting regional maritime security networks is recognised clearly by the EU, which has responded with support via the MASE and CRIMARIO projects described in Section 1.5.

4.5.6 Sanitary controls and certification of fishery products

Seychelles is presently listed in Annex II of Commission Decision 2006/766/EC establishing the list of third countries and territories from which imports of fishery products in any form for human consumption are permitted. At present the Seychelles does not have any specific legislation setting sanitary standards for aquaculture products, and the country is not listed in the Annex to Commission Decision 2004/432/EC and therefore cannot export farmed fishery products to the EU.

Currently, seven shore-based establishments are approved by the nominated Competent Authority, the Fish Inspection and Quality Control Unit under the Seychelles Bureau of Standards for export to the EU, along with 13 freezer vessels.

During the course of the current FPA protocol the Directorate F of DG Health and Food Safety has undertaken two audits of the sanitary controls implemented by the Government

of Seychelles. One was undertaken in 2017³⁹. A further mission was undertaken in November 2018 as a follow up. Prior to 2017, the previous mission was undertaken in 2011.

The January 2017 mission by the former Food and Veterinary Office (now Directorate F of DG SANTE) aimed to evaluate controls for tuna products exported to the EU and assess whether they met the requirements laid down in the European Union legislation, and in particular with the health attestations according to Regulation (EC) No 2074/2005. The FVO mission identified that three out of five approved tuna vessels visited had installed dual use fish holds (fish holds that can be used to store fuel and later to freeze and store fish, with a subsequent risk of contamination), an issue which had not been detected by the Competent Authority, and which was not addressed by the HACCP plans of the vessels concerned.

DG SANTE undertook a follow up mission to check on progress in addressing the findings of the 2017 mission. Of the 11 recommendations in the agreed action plan, 7 were found to have been addressed satisfactorily, 3 were in progress (updating of regulations was delayed due to drafting issues), and one was outstanding. The issue of the dual use brine freezing tanks had been resolved to the satisfaction of DG SANTÉ by seeking guarantees from operators and sealing relevant valves to prevent dual usage. The outstanding issue concerned the validation of HACCP plans for a Seychelles tuna vessel with a mixed brine/dry freezing process. The Competent Authority is continuing to work to address the remaining issues.

4.5.7 Training of crew and observers

Crew training

The Seychelles Maritime Academy offers two-year full-time skills-based courses in three areas: Fisheries Science & Fishing Technology, Navigation & Seamanship, and Marine Mechanics. Management is outsourced to the Sri Lankan Maritime Training institution CINEC (Colombo International Nautical & Engineering College). The academy takes in around 200 students every year. In addition, the Sectoral Support Programme under the FPA has supported the operation of a training vessel for the SFA which has been used to train crew members in basic seamanship. This was in operation in 2017 and was available for training 89 students on basic fisheries courses and 19 on advanced courses, providing a potential source of future crew members, observers and other professionals for the fishery sector.

Observer training

The French producer organization frozen and deep-frozen tropical tuna (ORTHONGEL) representing French tropical tuna operators coordinates a program in both Atlantic and Indian Oceans to facilitate and optimize the boarding of well-trained scientific observers on the fleet of the fishing companies' member of ORTHONGEL. This voluntary program is OCUP for "Observateur Commun Unique et Permanent", coordinated by consultants with the support of the French Institute of Research for the Sustainable Development (IRD), and the competent authorities of several coastal countries, including the SFA. Two training sessions were organized in the Indian Ocean (May 2014 and June 2015) and two in the Atlantic Ocean (May 2014 and November 2016). During these two weeks training sessions, the observers follow specific training, and is awarded a "fisheries observer individual

³⁹ Final Report of an Audit Carried out in the Seychelles From 24 January 2017 to 02 February 2017 in Order to Evaluate the Control Systems in Place Governing the Production of Fishery Products Derived From Tuna Species Intended For Export to The European Union, DG(SANTE) 2017-6003 – MR, Ref. Ares(2017)3375907 -05/07/2017

passport". At the time of writing 18 Seychellois nationals had been trained under this scheme (out of 32 nationals within the IO region) and have been deployed⁴⁰ on EU vessels.

Capacity of fisheries observers has also been strengthened through in-service training courses delivered by various regional fisheries programmes. The World Bank Funded SWIOFish1 project and the EU SmartFish project hosted a Regional Observer Workshop in Seychelles in September 2016 with participants from the 12 Southwest Indian Ocean Fisheries Commission (SWIOFC) States, which trained fifteen regional observers. Smartfish also developed a protocol on observer and data certification and coordination at regional level and advised on the steps necessary for the establishment of a regional observer scheme under the IOTC.

It should be noted that the IOTC operates a regional observer programme, monitoring transhipments from the longline sector. The programme is contracted out to a service provider. There are currently 80 observers who have received IOTC training since 2009, some of whom were trained directly through the IOTC whilst others crossed over from ICCAT with prior approval from IOTC Secretariat⁴¹.

4.6 State Budgets in the fishery sector

4.6.1 Budgetary income

The overall state budget situation was described in Section 1.3. In relation to the fishery sector, the state budget is defined in the annual publication of the Ministry of Finance Trade Investment and Economic Planning. Within this the annual budget for the Seychelles Fishing Authority (along with all other state ministries and executive authorities) is provided annual Programme Performance Based Budget Statements (PPBBS), setting out budget appropriations, a strategic overview of the entity, mandate, achievements in the last period and mid-term (3 year) strategic priorities. The PPBBS for each entity provide for current year and projected revenues, current and capital expenditures for a 3-year period (mid-term expenditure). For SFA the operational programmes are set out specifically Fisheries Management, Fisheries Research and Fisheries Development, Fisheries MCS. Finally, the fishery sector Public Sector Investment Programme (PSIP) sets out capital investment expenditure in the area of fisheries.

Budget structure and content therefore provides for a clear and transparent picture of the finances of the Seychelles Fishing Authority. Compensation under the FPA and income from EU vessels licenced under the FPA are provided with separate entries in the budgetary revenues generated and received by the consolidated account. Overall the SFA has generated a revenue of EUR10 to 11 million/year for the treasury account from fisheries related activities.

Table 13 shows the level of dependency of the SFA on revenues linked to the FPA (compensation for access and licence fees paid by EU vessels). The actual amounts declared do not fully correspond to the amounts specified in the protocol (possibly due to exchange rates used). Typically, the Agreement has contributed about 60% of the income generated by the SFA. Except in 2017 and 2018 when there were substantial infrastructure allocations, SFA activities have been a net contributor to the Treasury account. The appropriation has been quite variable (with high budgets in 2017 and 2018 due to high levels of programmed infrastructure investment in the development programme).

⁴⁰ Kennelly, S.J. & Borges, L. (eds.) (2018). Proceedings of the 9th International Fisheries Observer and Monitoring Conference, Vigo, Spain. ISBN: 978-0-9924930-7-3, 397 pages.

⁴¹ A Summary of the IOTC Regional Observer Programme During 2016 IOTC, Annual Contractors' Report, IOTC-2017-CoC14-04b, MRAG and Capfish, March 2017

Financial element	Annual amount (EUR)							
	2015	2016	2017	2018	2019			
Annual EU Access	2 908 389	2 421 482	2 377 254	2 473 058	2 497 304			
Fishing licences EU	2 498 662	2 231 029	2 827 887	2 260 908	2 945 849			
Total SFA revenues generated to CF	10 142 418	9 658 722	10 553 961	9 940 723	10 734 769			
Appropriation from CF	7 878 846	7 931 035	16 470 972	17 347 775	8 485 983			
% EU Contribution to revenues	53%	48%	49%	48%	51%			
% EU contribution to appropriation	69%	59%	32%	27%	64%			

 Table 13: Contribution of EU compensation and licence fees to SFA revenues and appropriations

Source: Annual Programme Performance Based Budget Statements, Ministry of Finance, Seychelles

From 2019 the status of the SFA was changed regarding procedures for disbursement. According to the SFA Act the Authority has budgetary independence, but until the end of 2018 this was never fully implemented, with all expenditure subject to Ministry of Finance approval. The Authority is now considered to be a fully autonomous with direct responsibility for budget implementation. Income generated, including the FPA compensation, licence fees and sectoral support will be paid as usual into the Consolidated Fund, but will be transferred to the operating account of the Authority, held in a commercial bank. It means that expenditures can be made directly by the SFA on the authority of programme managers, subject to *ex post* audits by the Ministry of Finance against budgeted expenditure. This is expected to allow for a much more efficient and responsive execution of projects, and for example will allow the Authority to recruit extra staff at relevant salaries to meet its needs.

4.6.2 Budgetary expenditure

SFA programmed expenditure is classified under 5 budget headings and 3 classes of expenditure (salaries, goods and services and capital investment) as shown in Table 14. Proposed budgetary expenditure for strategic actions in the fishery sector for the period 2018-2020 is also set out in the SFA Strategic plan in Section 4.2.1. This proposes specific budgets for priority actions shown in Table 15. As can be seen, the budgets are allocated only generally, with no expression of specific measures, monitoring indicators, sources of information. Furthermore, the proposals and associated financial allocations do not reflect the mid-term projections set out in the state budget.

In addition, the financial contribution in respect of the sectoral support programme (EUR 2.5 million/year from 2016 onwards) is not reported as income but is correctly reported to be included under the P4 Fisheries Development expenditure and identified as lump sum under the Public Sector Investment Programme for 2018. However no more data is provided to allow the identification of Sectoral Support Programme. Under the new budget independence, the approach will need to provide a greater disaggregation to clearly identify the sector support measures within the budget, their respective sources of income, and associated monitoring indicators.

Expenditure Programme		2019 (EUR)	2020 (EUR)			
	Total appropriated	Salaries etc.	Goods and services	Capital	Forecast	Forecast
P1: Governance, Management & Admin	1 743 377	453 937	1 168 211	121 228	1 982 409	2 399 513
P2: Fisheries Management	1 653 388	463 369	1 190 019		1 663 301	1 652 266
P3: Fisheries Research	347 891	292 702	55 189		360 169	356 610
P4: Fisheries Development	13 196 867	224 271	861 717	12 110 880	4 183 715	3 850 147
P5: Monitor, Control and Surveillance	409 351	204 109	205 243		292 669	311 496
Total	17 350 875	1 638 388	3 480 379	12 232 109	8 482 262	8 570 031

Table 14: SFA consolidated expenditure budget 2018 and forecast 2019 and 2020

Source: Ministry of Finance Trade Investment and Economic Planning, 2018 PSBB Budget statement

Table 15: Budget estimate for the implementation of priority actions identified under theSFA Strategic Plan (2018 - 2020).

Measure	Value in EUR*					
	2018	2019	2020			
Goal 1: Effective governance arrar	gements:	1				
1.1 Strengthen organizational planning and strategic management to improve service delivery.	88 848	104 485	92 342			
1.2 Enhance the organization financial, administrative and risk management capability.	10 606	41 818	37 576			
1.3 Close gaps in the legal framework and ensure that legislation meets the requirement for effective control of fisheries and aquaculture value chain.	27 273	-	-			
1.4 Improve compliance to fisheries regulations.	128 788	224 848	228 485			
Goal 2: Institutional strengthening	g of SFA:					
2.1 Improve infrastructure to provide for conducive working environment for staff.	364 848	618 182	624 242			
2.2 Build core competencies across the organization required for execution of organizational mandates.	63 030	79 394	87 879			
2.3 Enhance the quality of services provided and facilitate the decision-making process through more effective use of Information and Communication Technology.	1 212	61 212	1 212			
2.4 Build a strong organization image and improve public awareness.	87 879	83 939	86 667			
Goal 3: Ensure the sustainability o	f fisheries reso	urces:	L			
3.1 Ensure that all fisheries and related industry are sustainable and economically viable through enhanced planning, performance evaluation and stakeholders' participation.	6 667	34 242	16 364			
3.2 Develop fisheries and aquaculture infrastructure in line with emerging priorities while ensuring sustainability.	872 727	1 151 515	1 151 515			
3.3 Improve understanding of fisheries, fisheries resources and the ecosystems that supports fisheries through targeted research and surveys.	52 121	41 212	41 212			
Goal 4: Optimize the economic and	d social benefits	s of fisheries:				
4.1 Promote Port Victoria as the hub of the Indian Ocean tuna fishery.	87 879	87 879	100 000			

4.2 Increase the national economic gains from fisheries.	63 636	57 576	18 182
4.3 Support and facilitate the development of new fisheries, aquaculture, value addition, marketing and encourage diversification.	162 121	154 545	148 485
4.4 Formalization of the small- scale fisheries sector through appropriate policies and support to fishermen's associations, boat owners and fisher.	9 091	45 455	24 242
4.5 Encourage consumption of local fish and fisheries products and ensure the freshness of produce reaching the local market.	31 818	30 303	15 152
TOTALS	2 058 545	2 816 606	2 673 555

*converted from SCR at 2018 rates

5 IMPLEMENTATION OF THE PROTOCOL TO THE AGREEMENT 2014-2017

5.1 Joint management of the Agreement and the Protocol

Article 9 of the Agreement requires the parties to establish a Joint Committee to monitor the application of the Agreement and its Protocol. It should meet at least once per year to perform the following functions:

- monitor the performance, interpretation and application of the Agreement, particularly the sectoral support programme
- provide a means of liaison on matters of mutual interest
- act as a medium for amicable settlement of disputes
- reassessing the fishing opportunities where necessary

The Joint Committee met on the following dates and locations:

Table 16: Dates and places of meetings of the Joint Committee under the EU Seychelles FPA

Dates	Locations
24-26 March 2014	Victoria, Seychelles
9-10 February 2015	Brussels, Belgium
9-11 December 2015	Victoria, Seychelles
30 June.1 July 2016	Victoria, Seychelles
3-4 May 2017	Brussels, Belgium
31 January-1 February 2018	Victoria, Seychelles

The Agreement provides for an extraordinary meeting of the Joint Committee should circumstances require, and in fact the meeting held in December 2015 was of this nature. It was convened by mutual agreement to review the financial execution of the 2014 sectoral support contribution under the Agreement, to assess progress with a view to enabling payment of the delayed 2015 tranche (see section 5.4 for the details).

Both parties were well represented at all meetings. In addition, all meetings were attended by representatives of the Fisheries Attaché, EU Delegation Mauritius and representatives of at least one participating Member State. Records of the meetings have been kept, and it is clear that the meeting have performed their expected functions in providing the mechanism for coordination of the implementation of the Agreement. In addition, the Committee has provided a valuable means of communicating externalities of relevance to the Agreement, such as the issue of the blue bond (impacting on sectoral development programmes) and the proposals for the extension of marine protected areas (impacting on future fishing zones).

5.2 Fisheries access component

5.2.1 Utilisation of fishing opportunities

The Protocol provided fishing opportunities for two types of EU tuna vessels.

Tuna purse seiners are large fishing vessels measuring up to 100 m. Tuna purse seiners target tuna species when they are close to the surface with encircling nets, either when they are swimming in free schools or concentrated under fishing aggregating devices (FADs). Targeted species are skipjack, yellowfin and bigeye. Tuna purse seiners stay several weeks at sea, 45 days on average. Fishing areas exploited include most of the tropical Western Indian Ocean between 5°N and 10°S, with some seasonal fishing in the Mozambique Channel up to 15°S (see Figure 12 in Annex 2). Fishing areas exploited include

international waters and waters under jurisdiction of coastal States including Seychelles, Madagascar, Mauritius, Kenya and Tanzania. Port Victoria is the main logistic base of the EU tuna purse seine fleet with possible use of the Madagascar port of Diego Suarez during the Mozambique channel fishing season taking place in March-April. Catches are frozen onboard in brine and sold as raw material to canneries, being unsuitable for direct human consumption. Tuna purse seiners, and in particular those flagged to Spain, use supply vessels for FADs deployment and logistical support during fishing operations.

The Protocol provides fishing opportunities for access for a maximum of 40 EU tuna purse seiners in the Seychelles fishing zone with no limitation on catches. The 40 fishing authorisations negotiated are below IOTC capacity limits imposed to the EU through Res. $03/01^{42}$. Access of EU supply vessels is also allowed by the Protocol, which does not set a limit on their number.

Surface longliners are vessels measuring up to 50 meters targeting different species of the pelagic ecosystem with longlines mounted with one to two thousand baited hooks deployed in the sub-surface environment. Species targeted include swordfish, tuna species and oceanic pelagic sharks (mainly blue shark and shortfin mako shark). EU surface longliners active in the Indian ocean include i) long distance fishing vessels flagged to Spain, Portugal or the United Kingdom staying several months at sea exploiting mainly the Southern latitudes of the Indian Ocean between 20°S and 35°S with Durban (South Africa) and Mauritius as main logistic bases; and ii) smaller units flagged to France based in the EU Outermost Region of La Réunion staying one to two weeks at sea. Long distance surface longliners keep catches dry-frozen onboard, while most smaller units based in La Réunion keep catches fresh onboard. However, La Réunion surface longline fleet recently re-introduced 24-meter longliners with onboard freezing capacities.

The Protocol provides fishing opportunities for a maximum of 6 EU surface longliners in the Seychelles fishing zone with no limitation on catches. At least two of the six fishing opportunities were earmarked by Reg. (EU) 11/2014 for surface longliners based in La Réunion, with a specific access fee schedule for vessels of less than 250 GRT (which correspond to vessels \approx 35 meters in length).

The next table compares the number of fishing authorisations drawn by EU vessels in the two Protocol categories with the maximum number of fishing authorisations available according to the Protocol. Utilisation rates are depicted according to the following colour coding:



Low – less than 25% utilisation rate Average – Between 25% and less than 75% Good – between 75% and 100% Excessive – more than 100%

⁴² IOCT capacity limit for the EU is a maximum of 55 vessels targeting tropical tuna with a maximum tonnage of 110 511 GT. For EU vessels targeting swordfish and albacore, capacity limit is 87 vessels with a maximum tonnage of 27 797 GT (IOTC Res. 03/01 transposed in EU Law through the annual TAC & quota Regulation)

Protocol periods*	2014	2015	2016	2017	2018	Average 2014-2018
A – Number of fishir	ng authori	sations us	sed			
Surface longliners						
ESP	0	0	0	0	0	0
FRA	0	0	1	1	0	0
PRT	0	0	0	0	0	0
sub-total LL	0	0	1	1	0	0
Tuna purse seiners						
ESP	14	17	14	14	14	15
FRA	13	12	12	12	12	12
ITA	0	0	1	1	1	1
sub-total PS	27	29	27	27	27	27
TOTAL	27	29	28	28	27	28
B – Maximum numb	er of fishi	ng author	isations			
Surface longliners						
ESP	2	2	2	2	2	2
FRA	2	2	2	2	2	2
PRT	2	2	2	2	2	2
sub-total	6	6	6	6	6	6
Tuna purse seiners						
ESP	22	22	22	22	22	22
FRA	16	16	16	16	16	16
ITA	2	2	2	2	2	2
sub-total	40	40	40	40	40	40
TOTAL	46	46	46	46	46	46
Utilisation rate (A/E	3)					
Surface longliners						
ESP	0%	0%	0%	0%	0%	0%
FRA	0%	0%	50%	50%	0%	20%
PRT	0%	0%	0%	0%	0%	0%
sub-total	0%	0%	17%	17%	0%	7%
Tuna purse seiners						
ESP	73%	77%	64%	64%	68%	68%
FRA	81%	75%	75%	75%	75%	75%
ITA	0%	0%	50%	50%	50%	50%
sub-total	68%	73%	68%	68%	68%	<u>68%</u>

Table 17: No. of fishing authorisations drawn by EU vessels in the Seychelles EEZ (2014-2018)

Sources: DG MARE for number of fishing authorisations used; Protocol and Reg. (EU) 11/2014 for maximum numbers by Member State.

Note: * *For protocol periods, year n denotes period between* 18th *January year n to* 17th *January year n+1*

For surface longliners, the utilisation rate has been low throughout the period of the protocol so far with only 1 French surface longliner utilising the fishing opportunities in 2016 and 2017, and no ESP or PT surface longliners using available fishing opportunities. On average across the first four years, the utilisation rate stands at 7%.

The low utilisation rate for long-distance longliners flagged to Spain and Portugal is explained by the low interest of this fleet for an access to the Seychelles fishing zone. As shown in Figure 14, the fishing grounds exploited by this fleet made up of \approx active 50 units are sub-tropical, below 20°S, which is far more southerly than the limits of the Seychelles fishing zone. For French longliners based in La Réunion, the Seychelles fishing zone is too far for vessels keeping catches fresh onboard. The only fishing authorisation has been drawn by a 24-meter Réunion longliner with onboard freezing capacity. Under previous protocols between EU and Seychelles, fishing opportunities for surface longliners have been always underused with few if any EU vessels utilising fishing opportunities available.

For tuna purse seiners, fishing opportunities have on average been 68% utilised for Spanish purse seiners, and 78% for French purse seiners. On average across the first four years of the Protocol, utilisation rate stands at 68% (average of 27 vessels compared to a maximum of 40) with small variations around this value from year to year.

The comparison between the number of EU purse seiners active in the Indian Ocean and the number of purse seiners having utilised the fishing opportunities negotiated shows that almost 100% of EU purse seiners active in the Indian Ocean have drawn a fishing authorisation to access the Seychelles fishing zone. This clearly demonstrate the interest of the Protocol for this fleet segment which makes substantial catches in the Seychelles fishing zone (see next section) and which use Port Victoria as its logistic base. The 71% utilisation rate measured between 2014 and 2018 is therefore more the result of an overestimation of the maximum number of purse seiners that could be interested by an access (40 negotiated while no more than 30 purse seiners have been active in the Indian Ocean since 2010), than the result of a lack of interest for an access, unlike surface longliners. Since there is no overshooting of access opportunities negotiated the Protocol limits have been complied with.

Supply vessels were not limited in number by the Protocol. The number of authorisations granted is therefore irrelevant to measure utilisation of Protocol opportunities. For the record, the number of EU supply vessels having obtained an access to the Seychelles fishing zone varied between 9 and 11 (Source: Seychelles licence data), with 10 licenced EU supply vessels on average per year between 2014 and 2018.

5.2.2 Catches

The reference tonnage set by the Protocol is not a catch limit for EU vessels in the Seychelles EEZ, but the basis for setting the level of the EU financial compensation for access.

According to EU vessel catch data transmitted by DG MARE, only purse seiners caught tunas in the Seychelles fishing zone. The only surface longliner having drawn a fishing authorisation did not exploit the fishing area, and therefore did not declare any catches.

As shown in the following table based on DG MARE catch data, total annual EU purse seine catches averaged close to 48 000 tonnes between 2014 and 2018 suggesting that the reference tonnage set by the protocol (50 000 tonnes) is in proportion to actual catches. Note that EU purse seiners caught their usual target species, yellowfin tuna (22 375 tonnes on average per year, 47%) and skipjack (21 890 tonnes, 46%), representing 92% of total catches and bigeye tuna another 8%. Catches of other species (less than 5 000 tonnes per year) include mostly other tuna species, including albacore. EU catches have varied between a minimum of almost 32 000 tonnes in 2015 and a maximum of close to 62 000 tonnes in 2016. In fact, in 2018, to avoid excessive over-quota catches the Spanish general secretary of fisheries ordered the precautionary closure of yellowfin fishery for the Spanish fleet from early November until the end of the year. EU tuna catches in the Seychelles fishing zone exceeded the reference tonnage in 2016 and 2018. For 2017, EU catches were close to the reference tonnage.

English name	Scientific name	2014	2015	2016	2017	2018	Average
Yellowfin tuna	T. albacares	23 384	17 205	30 095	24 579	16 610	22 375
Skipjack tuna	K. pelamis	15 160	12 656	28 206	19 971	33 457	21 890
Bigeye tuna	T. obesus	3 416	2 075	3 452	4 062	5 249	3 651
Other species		56	49	179	121	39	89
Total		42 017	31 985	61 932	48 732	55 356	48 004

Table 18: Total EU tuna catches	(tonnes) in the Seychelles fishing zone
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Source: DG MARE from ACDR database extracted 5 February 2019.

Note: Catch data in ACDR database may be different from catch data considered by the Joint Committee

Catches by purse seine fleets of EU Member States in the Seychelles fishing zone are shown below with a comparison with total catches in the Indian Ocean as shown in Table 19. Data show that catches by ES purse seiners and FR/IT purse seiners in the Seychelles fishing zone are broadly balanced. However, the relative importance of the Seychelles fishing zone differs between the two fleet segments. For ES purse seiners, catches in the Seychelles fishing zone represent 16% on average of total catches in the Indian Ocean, while it is 37% for the FR/IT purse seiners. This difference is explained by different strategies between the two fleet segments. ES purse seiners deploy substantial fishing effort off Somalia, while activities of the FR/IT segment are more concentrated in the equatorial zone (see maps in Figure 13 in Annex 2).

Table 19: Comparison between EU purse seine catches in the Seychelles fishing zone andin the whole Indian Ocean

EU MS		2014	2015	2016	2017
ES	Whole IO	133 720	120 890	136 147	151 392
	Seychelles	20 179	16 791	30 631	23 914
	% Seychelles	15%	14%	22%	16%
FR/IT	Whole IO	58 339	54 390	68 250	66 934
	Seychelles	21 837	15 194	31 301	24 818
	% Seychelles	37%	28%	46%	37%

Source: DG MARE from ACDR database extracted 5 February 2019.

Compared to historical EU catches in the Seychelles fishing zone, catches obtained under the current Protocol appear to be higher than during previous Protocols, during which annual catches never exceeded 50 000 tonnes. With respect to reference tonnages, catches during previous periods were markedly below the reference tonnages (55 000 tonnes for the 2005-2011 period decreased to 52 000 tonnes for the 2011-2014 period).

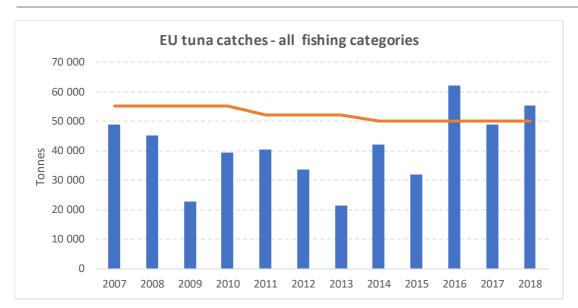


Figure 6: Historical EU tuna catches in the Seychelles fishing zone (histogram) with comparison with reference tonnages (solid line) set under the successive EU-Seychelles SFPA Protocols

Source: DG MARE from ACDR database extracted 5 February 2019.

Bycatch is required to be declared under IOTC rules. Since 2018 all bycatch must be landed. There is no consistent time series data on landings into Seychelles of bycatch from the EU fleet. According to SFA data, bycatch landing data was collected only from 2017 (and only for French vessels), with 702 tonnes reported, and 1 216 tonnes reported up to Q3 2018. Export certification records indicate that 6 832 tonnes of bycatch were exported in 2018 (mostly small tunas). This was derived from vessels of all flags and it is not possible to determine the amount which is attributable to the EU fleet.

5.2.3 Access fees paid

Fees paid by the EU party include:

- A fixed amount paid by the EU corresponding to 50 000 tonnes catches, plus a variable amount for quantities caught in excess of the reference tonnage.
- A fixed amount paid by individual vessels corresponding to a level of catches set by the Protocol (e.g. 700 tonnes for a purse seiners), plus a variable amount for quantities caught in excess of this level.

Total access fees (EU plus shipowners) are based on a negotiated value of each tonne of tuna and tuna-like species caught in the Seychelles fishing zone, which increased from EUR 110 / tonne the first year of the Protocol to EUR 125 / tonne the last year (14% increase). The Protocol also foresees a progressive increase of the share the negotiated unit value of tuna borne by EU shipowners, from 50% the first year to 60% the last year. See next table.

Payee	(EUR / tonne)							
	2014	2015	2016	2017	2018	2019		
EU	55	55	50	50	50	50		
EU shipowners	55	60	65	70	70	75		
Total	110	115	115	120	120	125		
% EU shipowners	50	52	57	58	58	60		

Table 20: Negotiated access value of each tonne of tuna and tuna-like species caught in the Seychelles fishing zone

Source: Protocol

EU payment for access

Based on total EU catches in the Seychelles fishing zone according to DG MARE data (Figure 6) and on the unit licence fee for each tonne caught in excess of the reference tonnage of 50 000 tonnes (Table 20), the consultants estimate that fees paid by the EU in exchange for access were close to EUR 2.8 million per year on average as shown in the Table 21, with the variable part representing a relatively minor share of EU access payments (6% on average between 2014 and 2018).

Table 21: Access fees paid from the EU budget to Seychelles

(kEUR)	2014	2015	2016	2017	2018	Average 2014-2018
EU fixed	2 750	2 750	2 500	2 500	2 500	2 600
EU variable	0	0	597	0	268	173
Total	2 750	2 750	3 097	2 500	2 768	2 773

Source: Based on DG MARE catch data from ACDR database extracted 5 February 2019 and relevant *Protocol rules.*

EU shipowners' payments for access

Concerning fees paid by EU shipowners in exchange for access, estimates have been obtained by reviewing catches declared by each vessel having drawn a fishing authorisation to access the Seychelles fishing zone. The fixed part is based on the value of the advance payment set by the Protocol multiplied by the number of vessels having drawn of a fishing authorisation, and the variable part is the amount of catches obtained by each vessel in excess of the reference catches (i.e. 700 tonnes by purse seiners) multiplied by the value of each tonne of tuna and tuna-like species as shown in Table 20.

For EU supply vessels, access fee is set by Seychelles relevant legislation as agreed in the Protocol. For the 2014-2018 period, access fee value is USD 5 000 per supply vessel per year, equivalent to an average access fee of EUR 4 300 per supply vessel with actual annual value depending on USD / EUR exchange rate.

The results shown in the table below show that EU shipowners paid on average EUR 3.1 million in exchange for access, with 61% of this amount (EUR 1.9 million) being a variable part linked to catches obtained in the Seychelles fishing zone. Access fees paid by EU shipowners varied between around EUR 2 million in 2015 and EUR 4 million in 2016, i.e. twice as much, as a result of the high difference in variable payments from one year to the next.

(kEUR)	2014	2015	2016	2017	2018	Average 2014-2018
EU shipowners fixed						
Spain	539	714	637	686	686	652
France/Italy	501	504	597	643	637	576
Total fixed	1 040	1 218	1 234	1 329	1 323	1 229
EU shipowner's variable	e					
Spain	586	391	1 354	1 033	1 627	998
France/Italy	701	424	1 480	1 100	925	926
Total variable	1 287	815	2 834	2 133	2 552	1 924
Total fixed + variable	2 326	2 033	4 069	3 463	3 875	3 153
Supply vessels	34	45	50	49	38	43

Table 22: Estimates of access fees paid by EU shipowners in exchange for access to the
Seychelles fishing zone under the current Protocol

Source: Based on DG MARE catch data from ACDR database extracted 27th December 2018 and relevant Protocol rules.

Note: * Access fees paid by the only surface longliner are included FRA and ITA merged for confidentiality reasons

The relatively high value of the variable part of access fees paid by EU shipowners compared to the fixed part is explained by the fact that almost all EU purse seiners caught more than the 700 tonnes considered by the Protocol to set the value of the advance payment. Between 2014 and 2018, the average catch by purse seiner was 1 725 tonnes, meaning an average value of access fee paid in excess of EUR 110 000 per vessel. One EU purse seiner with the highest catches in the Seychelles fishing zone (record of 4 319 tonnes in 2017) paid a total access fee of more than EUR 300 000 EUR for the year. Depending on the amount of catches obtained in the Seychelles EEZ, access fees paid by EU vessels may therefore be significantly higher than access fees paid by non-EU purse seine operators which consist of a fixed fee (i.e. not related to catch quantity) of EUR 80 346 for Seychelles flagged purse seiners and EUR 107 128 for purse seiners from other third countries (see Table 7 page 26).

In total and on average over the 2014-2018 period, Seychelles received about EUR 6 million per year from the EU in exchange for access with 65% being the fixed part and 35% being the variable part linked to catches obtained by EU vessels (see Figure 7). Cost of access is broadly shared between the EU budget (47%) and the EU private sector beneficiary of fishing opportunities negotiated (53%).

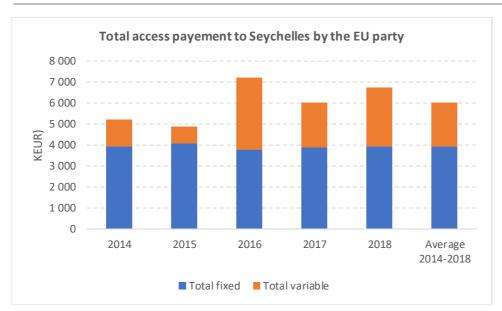


Figure 7: Total EU payments (EU budget and EU shipowners) in exchange for access to the Seychelles fishing zone under the current Protocol

Source: Based on DG MARE catch data from ACDR database extracted 5th February 2019 and relevant Protocol rules.

Note: Access fees paid by EU supply vessels (\approx EUR 43 000 per year in total on average) not included

5.3 Review of the application of Protocol conditions

5.3.1 Request/issuing of fishing licenses

Foreseen in the Protocol

The procedure for the application and issue of fishing authorisations is set out in detail in Chapter 1 of the Annex to the Protocol, including the application forms to be used, and the requirement for vessel operators to submit applications via the Commission, and to appoint an agent in the Seychelles.

The Seychelles authorities are required (under Section 2.5 of the Annex to the Protocol) to prepare an annual statement of fees due on the basis of catch declarations. This provides the basis for the payment of fees payable by operators for catches in excess of the advance (700 tonnes for each purse seiner, 120 tonnes for surface longliners >250GRT and 90 tonnes for those <250GRT).

Implemented

There have been no major difficulties reported in the issue of the fishing licences and the payment of the advance fees. Some minor issues were reported in 2015 regarding applications being made in a non-official language, and in 2018 when some vessel operators submitted applications using the forms reserved for non-EU vessels. Bank documents submitted in the Spanish language have also caused delays. It was also noted that some agents had sought licences directly, rather than via the European Commission, but the issue was resolved. The issue of one surface longline licence was delayed due to the failure of the operator concerned to appoint an agent in the Seychelles. Also, the French administration complains that they did not always know when fishing licenses have been issued or whether they have been distributed, unless informed by the vessel owners.

The protocol did not specify the requirements relating to supporting documents to be submitted with fishing licence applications. These were subsequently clarified (registration and certification documents with translations) by the Joint Committee and required in subsequent years. A new application form in the appendix to the Protocol was designed accordingly.

It is noted that the annual fees for the authorisation of a supply vessel is not specified in the protocol (which refers to the fees applicable to such vessels in Seychelles legislation which is currently US\$5000/annum). No specific issues were reported in the issue of authorisations for supply vessels.

5.3.2 Arrangements for catch recording and calculation of variable access fees

Foreseen in the Protocol

Catch recording responsibilities to allow the calculation of the variable access fee components of the Protocol are set out in Ch.III of the Annex to the Protocol, which refers to the forms to be used and the procedures for their submission. Under the Protocol the Seychelles is *prima facie* responsible for communicating catches to the Commission. The Commission subsequently verifies the data with the Member States concerned. Under Article 11 of the Protocol the parties are to implement systems for the electronic exchange of information, and they are required to endeavour to implement from 1 June 2014 a system for the electronic exchange of catch and reporting data (ERS). The specification and guidelines for the ERS are set out in a technical Annex.

Implemented

Catch reporting systems were implemented throughout the period. The Logbooks provide the contemporary daily catches records as estimated by the vessel master and are communicated by email to the Fisheries Monitoring Centre of the SFA every three days. However, for the generation of the catch data the SFA statistics section works from the printed logbooks submitted by vessels at the end of each trip. The record forms were revised in 2015 to account for new IOTC requirements for species disaggregation of sharks and reporting of bycatch. An error in the fishing areas defined in the Protocol, which could potentially impact on reporting, was corrected in December 2015. The data in the daily catch records are factored to provide detailed catch estimates in the Seychelles zone and species breakdowns, taking into account the landing and transhipment data, collected through the port state controls and from the vessel agents by the MCS section.

Whilst data on catches by French vessels is provided in a timely manner, the Research and Statistic Department of SFA reports that there are frequent delays in submission of logbook data from Spanish purse seiners. The delays in submission and limited functionality of electronic catch recording (see below) can mean that some catch data is not recorded by SFA. This is critical since SFA should receive the catch data, prepare the summaries and the annual statement of fees due, and transmit them to the Commission by the end of March each year. The Commission would then confirm the catch data by reference to the catch declarations transmitted via MS. The delays and the resulting risk of omission of some catch declarations could be one of the reasons for the difference between EU and Seychelles annual catch estimates. As shown in the next table, EU catches reported by Seychelles were lower than EU catch data consolidated by DG MARE in 2014 and 2016, but higher in 2015. Catch statements by Seychelles for 2017 and 2018 are still provisional.

Catch records for 2014 and 2015 were confirmed by the Commission. In 2016, there were catches in excess of the reference tonnage (of 57 861 tonnes according to Seychelles) which necessitated payment for additional compensation with payment of EUR 393 050, made at end of 2017. However, MS subsequently reported a higher figure to the Commission (61 931 tonnes). The Commission has commenced enquires with MS regarding the source of the discrepancy. In the meanwhile, the Seychelles confirmed that the additional fees due from vessel operators for 2016 had also been paid on the basis of their catch reports to the Seychelles. Catches in 2018 appear to have exceeded the reference tonnage as well, but these are still in the process of verification.

	2014	2015	2016
		(tonnes)	
Seychelles catch data	37 602*	34 408*	57 861*
DG MARE catch data	42 017	31 985	61 932
Difference	-4 415	2 423	-4 071
%	-12%	7%	-7%

 Table 23: Comparison between EU catch data according to Seychelles and according to DG MARE

Source: Joint Committee minutes for Seychelles catch data; ACDR database extracted on 5/02/2019 for DG MARE

Note: 2014 Seychelles data as reviewed during the 2016 Joint Committee; 2015 as reviewed by the 2017 Joint Committee and 2016 as reviewed by the 2018 Joint Committee.

Whilst there is a Technical Working Group, comprising SFA and the two Member States' technical institutions (Institut de Recherche pour le Développement and Instituto Español de Oceanografía) the IRD team works much more closely with SFA. One staff member is based in the Authority, there are training workshops, and support for development of data systems, and importantly a joint approach to data analysis, resulting in fully consistent data reporting (to French and Seychelles fisheries management bodies). For data from Spanish vessels, the SFA can only query data anomalies with the IEO and await a response.

The complexity of the catch verification process has delayed the finalisation of the catch submissions, and the parties agreed in 2016, that the submission deadline should be changed from end of March to 15 May each year for the remainder of the Protocol period. The parties also agreed that, for convenience, the catches would be reported on a calendar year basis (rather than the anniversary of the Protocol).

Whilst EU vessels have capacity to report to their MS by electronic means, at the outset the SFA did not have the capacity to receive the data on catches in the EEZ automatically and enter it into the catch record database. A pilot system was launched in January 2015. There were various technical problems which had to be overcome. Technical questions were clarified by consultation with Member States via the Commission. There were problems reported with a server malfunction and communication protocols. An additional complication was the changes to the data standards for ERS reports introduced by the EU Member States from November 2017 (FLUX Fisheries Language for Universal Exchange). The Commission was able to provide guidance during this year. Seychelles was also invited to participate in EU scientific workshops of validation of catch data. The test phase was continuing through 2018, and at the time of writing the system was still not fully functional. There appears to an ongoing lack of compatibility which means that some data fields are not reported. As a result, paper-based catch reporting is continuing.

5.3.3 Transhipment requirements

Foreseen in the Protocol

Transhipment should take place only in ports and with 24 hours' notice provided to the Seychelles Authorities. The notification of transhipment communicated by the vessel or agent should indicate the quantity to be transhipped (to 100kg) and the species.

Implemented

The Seychelles authorities indicate that transhipment only takes place in Victoria Port or at the Île du Port quay, subject to the required notice. However, there are insufficient staff available from SFA to ensure comprehensive supervision of transhipment (or discharge), which may therefore sometimes take place without official controls and data collection. According to the SFA, the omission means that Seychelles must rely on disaggregated catch data (by species and size) supplied subsequently by Member States authorities, often with delays, as noted above.

5.3.4 Landing requirements

Foreseen in the Protocol

Under ChIII Section 3 of the Annex to the Protocol EU purse seiners shall endeavour to supply tuna to the Seychelles cannery and/or the local industry at the international market price. They should also endeavour to make their bycatch available locally at the local market price.

Implemented

The distribution of regional catches by EU vessels visiting the Seychelles for discharge operation is shown in Table 24. Note that it is not possible to determine distribution of catches made in the EEZ per se. Nevertheless, vessels operating under the Agreement during the period 2014-2017 landed an estimated 22% of their tuna catch into the IOT cannery at the international market price. French vessels landed a significantly higher percentage of the catch to the Seychelles than Spanish ones (31% cf. 18%). The balance of the declared catch of tunas (78%) was transhipped to bulk carriers for delivery to external markets.

	Sum of Total Operation			
Country	Year	Landing	Transhipment	Grand Total
Spain	2014	23 242	95 925	119 167
	2015	19 228	96 973	116 201
	2016	25 467	99 186	124 652
	2017	16 080	103 608	119 688
Spain Total		84 017	395 692	47 9709
France	2014	18 287	29 019	47 306
	2015	15 572	32 579	48 152
	2016	18 243	46 648	64 891
	2017	17 672	47 567	65 239
France Total		69 775	155 812	225 587
Italy	2015	1 654	2 121	3 775
	2016	1 454	2 554	4 008
	2017	1 154	3 550	4 705
Italy Total		4 262	8 225	12 488
Overall Total		158 054	559 730	717 783

Table 24: Distributions of Indian Ocean catches by EU vessels in Seychelles,2014 to 2017

Source: SFA

Many EU and other vessels declare non-tuna bycatches and landings of small tunas as "mixed". This portion of the catch used to be considered as an informal crew benefit, and mostly entered local consumption in the Seychelles. Since the landing obligation entered into force, all of the bycatch (which includes small tunas) is landed and formally sold to two newly established processing companies at Providence (employing 55 persons) which re-freeze, pack and export to non-EU countries for human consumption. Export certification records indicate that 6 832 tonnes of bycatch were exported in 2018 (mostly small tunas, derived from vessels of all flags). It is not possible to disaggregate the portion attributable to the Agreement.

EU vessels appear to have delivered an estimated 22% of the total catches in the Indian Ocean (plus bycatch) to the Seychelles processing operators and market. This may be considered to have met the requirement foreseen in the Protocol. However, IOT indicates that it would require an input target of 30% of the tunas caught by the EU vessels to meet

current needs and more to meet the needs for future expansion. Despite growth in processing and export of bycatch, the proportion landed at present does not satisfy the current and future needs of the Seychelles processing sector.

5.3.5 VMS

The Fisheries Monitoring Centre of the SFA was fully functional throughout the period. No out of the ordinary problems were reported in the implementation of the vessel monitoring system. Entry and exit notifications were filed in accordance with the protocol.

5.3.6 Signing-on of seamen from Seychelles

Foreseen in the Protocol

The Protocol Annex Ch.IV requires that each EU vessels operating under the Agreement embark at least two qualified Seychellois seamen whilst operating in Seychelles waters. These are to be selected from a list of authorised seamen submitted by the SFA. The operators should also endeavour to take on two trainees. Under the protocol terms EU vessels are required to pay a compensation to the SFA at a rate of EUR20/day for each crew member not recruited (unless no such recruits were available). Conditions of service for Seychelles crew must meet the ILO standards.

Implemented

The numbers of seamen embarked during the period were reported during the Joint Committee meetings. Typically, there was a corps of 40-60 qualified seamen reported to be available for recruitment. As can be seen from Table 25 the coverage of fishing activities by Seychellois mariners is only 51%. Vessel agents in Victoria indicated that requests for Seychelles crew are received from the vessels, but the number of qualified crew is limited, and they are not always available, nor suitable. Complaints have been made by EU vessel operators regarding the skill level of local fishermen. As a result, EU vessels did not always carry the required number of Seychelles crew and have paid additional amounts in each of the years of the protocol to date. Definitive statements from the SFA regarding compensation for non-employment were frequently delayed. It is also not clear whether the compensation was routinely paid on time and in line with protocol conditions (within the 90 days from the end of the licence period).

However, in 2018 it was reported that some EU operators had paid compensation even when no seamen were available to be taken on as crew. This is because agents are only required to report numbers on board, not the numbers not recruited when available. This is not in line with the Protocol, which exempts the operators from liability when no suitable crew are available. The vessel operators were requested to provide more regular reports on the embarkation of Seychellois seamen, to include information regarding the nonavailability of recruits, to allow the SFA to monitor the situation more effectively. However, the reporting system was not changed.

Year	Fishing Days	Days with Seamen	% coverage
2013	2 325	1 118	48
2014	1 162	727	63
2015	1 977	1 258	64
2016	2 849	1 102	39
Overall	8 313	4 205	51

Table 25: Coverage of EU fishing effort with Seychellois mariners on board

Source: Seychelles Fishing Authority

5.3.7 Observers

Foreseen in the Protocol

IOTC resolution 11/04 on the Regional Observer Scheme requires contracting parties to mobilise observers onboard fishing vessels for at least 5% of the fishing trips undertaken by vessels operating under their flag in the IOTC management area. This is recognised in Chapter V of the Annex to the Protocol, which requires vessel operators fishing under the Agreement to take onboard one observer nominated by the Seychelles Authorities in line with the IOTC requirement. The conditions under which the observers are taken onboard are defined, as well as the duties and responsibilities of the observers. The observers are to be paid by the Seychelles authorities, whilst the cost of accommodation is sustained by the operators.

Implemented

The Seychelles observer programme was created in 2012. Seaborne operations were launched in quarter 4 of 2014⁴³ several months after the commencement of the Protocol period and were applied to vessels fishing under the Agreement throughout the period thereafter. SFA signed an MoU with EU vessel operators for embarking of Seychelles observers, describing the responsibilities of the parties and the communication protocols. At the start of the Protocol period it was recognised that there was a need to strengthen the observer corps. The SFA reported that it had 2 qualified observer instructors and in 2015 implemented an in-house observer training programme. By 2016 a corps of 36 observers was in place, rising to 42 in 2018. The number was reduced to about 30 of the most reliable observers in 2019. A new recruitment and training drive will be launched in 2020. A pilot electronic observer scheme was also developed, and an MoU signed between the SFA and EU vessel operators but did not deliver any conclusive benefits. Nevertheless, there has been a significant strengthening of the observer capacity of the Seychelles throughout the period of the Protocol.

However, despite the increase in numbers of observers, the observer coverage of the EU purse seine vessel operations appears to have declined over the period, as shown in Table 26. This is because of a high level of on-the-job training voyages in 2015 and progressive introduction by EU operators of CCTV⁴⁴ observation systems. The observer coverage of Seychelles vessels has maintained a consistently high rate. No problems were reported with the logistics of taking onboard observers, and no non-compliances with the conditions set by the protocol were reported. The establishment of an effective observer regime for purse seiners is one of the major achievements of the Protocol. However, observer coverage of the surface longline segment is effectively zero, although this does not currently impact on the FPA (since these opportunities are not utilised).

Year	Observer coverage (% of trips)			
	EU vessels Seychelles vessel			
2015	69*	72		
2016	32	61		
2017	25	69		

Table 26: Observer coverage of purse seine vessels 2015-2017

*reported as Spanish vessels

Source: SFA reports to the Joint Committee

⁴³ IOTC Compliance report, Seychelles Report of Implementation for the year 2016, 3 April 2017

⁴⁴ Closed-Circuit Television: a set of cameras record all activities taking place on the deck and below. Video footages are analysed by independent third parties.

5.3.8 Other control requirements foreseen in the Protocol

Foreseen in the Protocol

EU vessels are required to comply with the laws of the Seychelles and cooperate with authorised inspection and control operations. A list of fisheries control platforms should be supplied by the Seychelles to the EU

Implemented

A number of Coastguard patrols, accompanied by SFA Officers, were implemented during the period of the Protocol. Air and sea patrol activities were financially supported under the SSP. The Seychelles also engaged in the regional surveillance programme supported by SMARTFISH as reported in Section 4.5. A list of MCS assets (patrol vessels, aircraft, vehicles, VMS transmitters and operational status) was not provided to the EU as required by the Protocol. Data on the dimensions of port state controls, marine and air patrols was requested by the consultants but not provided.

5.3.9 Summary of compliance with Protocol Conditions

In general, there appears to have been a high level of compliance with the conditions set by the Protocol. The management of requests and issue of authorisations for fishing have been free of significant problems. Whilst the introduction of the ERS system has been slow, it has not prevented catch reporting and data treatment, which has been consistent throughout the period. Landing requirements have been met. EU vessels have taken onboard Seychellois crew when they could, and when not feasible, they have paid the compensation at the rate set in the Protocol. Weak communication on the recruitments of crew may have resulted in payment of compensation at times when no crew were available. The observer capacity of the Seychelles has been progressively strengthened (as a result of the sectoral support programme and other EDF intervention projects), although human observer coverage on the EU vessels has declined since 2015. A number of air and sea MCS patrols have been implemented to ensure that checks on compliance by EU vessels were implemented.

5.4 Sectoral support component

5.4.1 Sectoral Support under the 2011-2014 Protocol

The programmed sectoral support budget allocated for the 2011-2014 Protocol was EUR 7 503 033. Of this 16% was programmed for Priority Area 1: Improve management of artisanal and industrial fisheries; 74 % for Priority Area 2: Fisheries infrastructure development; and 8% for Priority Area 3: Capacity building. There was a total of 36 different action headings. Two percent was reserved for contingencies, which were in the event applied to meet an urgent need to increase heavy metal testing capacity at the SBS laboratory.

Delays due to problems in design, tendering and procurement for infrastructure investments meant that the implementation rate was lower than planned. The utilisation of the allocated funds at the termination of the 2011-2014 Protocol was reported to be 70% (Joint Committee Minutes, March 2014) with an outstanding balance of EUR 2,420,342. The parties agreed in March 2014 that this balance would be carried forward into the period of the 2014-2020 Protocol.

Seventy indicators and targets were specified for the 2011-2014 sectoral support programme. As reported to the joint Committee, by the end of the programme in March 2014, 38 (54%) had been achieved or partially achieved (Table 27). A significant part of the under achievement is attributable to the low rate of disbursement. Taking this into account, the parties considered that the implementation of the program was satisfactory. The table below indicates that the most problematic areas for implementation of the programme were with regard to capacity building and fisheries management.

Objective/priority area	No. of indicators/targets			
	Total	Achieved target	Partially achieved target	
1.Improve management of artisanal and industrial fisheries	43	13	9	
2.Fisheries infrastructure development	12	7	4	
3.Capacity building	15	4	1	
Overall	70	24	14	

Table 27: Achievement rate for indicators in the 2011-2014 Sectoral Support programme

In March 2014 the Seychelles authorities presented the draft recommendations from a "Independent Audit on the Implementation of the Sectoral Support" under the 2011-2014 protocol to the Joint Committee. This limited report did not provide sufficient detailed information to assess the performance of the programme against its objectives. The EU requested a final report from the Seychelles Authorities on 2011-2014 implementation of the sectoral support programme in March 2014 and in Feb 2015.

In December 2015 the Seychelles presented the Joint Committee with a "Performance Audit Evaluation" on the implementation of the support provided under the 2011-2014 protocol. In its recommendations (reported in the minutes of the Joint Committee), this called for improved reporting of activities (both annual, and quarterly progress reports to the SFA Board). The recommendations also called for an annual and quarterly progress reporting on measures, and a strategic plan for the fishery sector with multi-annual budgeted actions (for financing by different sources of finance).

Furthermore, as discussed in detail below, the management of the 2011-2014 Sectoral Support programme was considered in the report of the European Court of Auditors in its 2015 report "Are the Fisheries Partnership Agreements well managed by the Commission". This report identified weaknesses in the management of the programme which led to the agreement of the Joint Committee on measures to improve the situation during the implementation of the 2014-2020 Protocol.

Two of the intervention projects under the 2011-2014 Protocol continue to present concerns to the parties.

The Fisheries Development Fund, a revolving credit fund of EUR4.3 million was established under the 2011-2014 Sectoral Support Programme. The objective of the fund was to boost investment in fisheries value addition and processing, purchasing of new, and upgrading existing longline vessels. This was managed by the Development Bank of the Seychelles and targeted at small scale fishery operators. At the end of 2013, the fund was 49% disbursed with 12 loans issued. Observing the weak performance of some loans to fishing vessel operators, in 2015 the Joint Committee restricted the loans to fish processing investments only and allocated finance to support strengthened monitoring of the fund. In mid-2018 the fund was about 73% disbursed with 14 active loans to 11 borrowers, of which only 2 loans (one borrower) were not defaulting on repayments. The defaulting loans were between 3 and 19 months in arrears. Total amount payable (capital plus interest) is about EUR3.3 million. The payments in arrears are 10% of this amount but increasing monthly. The reimbursement rate was considered by the Joint Committee to be inadequate, and several loans are considered to be non-performing with little hope of recovery. The Seychelles authorities are considering options for resolving the problem. There may be a case for considering any losses under this aspect of the 2011/2014 sectoral support programme to be inconsistent with the budgeted programme, which could be considered grounds for permanently withdrawing a corresponding part of the contribution. Furthermore, there is no agreed end-point to the intervention at which it will cease to be a concern of the Joint Committee.

The Providence Fish Processing Units are nine small processing units built at the Providence Artisanal Fishing Port at a budget cost of EUR2.1 million. However, on completion they were found to have serious design flaws. The SFA's Performance Audit Review⁴⁵ submitted to the Joint Committee reported that "the structures are not suitable for fish processing and that the quantity surveyor had not adhered to the quality and standards as set out in the bill of quantities". Ceilings were too high, power supply was inadequate for ice plants, floors were poorly insulated and improperly designed and drainage was inadequate. The facilities were inaugurated only in 2016, after the re-construction work required, financed by Government (with power supply upgrade financed by the 2014-2020 sectoral support programme). However, until 2019, only two operators have taken a lease and only one third of the capacity is in use. The ineffectiveness of the investment is demonstrated by the fact that in 2019 an investor is building a new fish processing establishment on adjacent land less than 50m from the empty facilities. The failure of the investment caused the Performance Audit Review to question SFA capacity to implement infrastructure projects.

5.4.2 Sectoral support under the 2014-2020 protocol

The total financial amount of sectoral support programmed for the 2014-2020 period was EUR 17 632 015, which included the balance of EUR 2 420 342 from the 2011-2014 programme. The three priority areas identified in the 2011-2014 Programme were retained for the 2014-2020 period. The initial programming of funds aimed for 34% programmed for Priority Area 1: Improve management of artisanal and industrial fisheries; 45 % for Priority Area 2: Fisheries infrastructure development; and 18% for Priority Area 3: Capacity building, with 2% for Contingencies. As with the previous programme, the major focus (albeit much reduced from 74%) was on infrastructure, with a relatively greater focus on fisheries management and capacity building.

The matrix of measures agreed at the first Joint Committee meeting in March 2014, along with financial allocations by objectives, is shown in Table 28.

⁴⁵ Performance audit evaluation of the implementation of the sectoral support provided under the 2011-2014 protocol of the EU/Seychelles fisheries partnership agreement, SFA July 2015

Priorities	Objectives	Budget (EUR)						
		2014	2015	2016	2017	2018	2019	TOTAL
1 Development and Implementation of Fisheries and Aquaculture Management Plans	1.1 Monitoring of the tuna fishing activities in the EEZ of Seychelles	195 000	148 396	196 439	160 459	120 344	120 344	940 982
	1.2 Development and Implementation of the Demersal Fisheries Management Plan	416 161	316 701	419 233	347 145	256 834	256 834	2 012 908
	1.3 Development and implementation of the aquaculture management plan	160 000	121 761	161 181	131 659	98 744	98 744	772 089
	1.4 Monitoring, Control, Surveillance and Enforcement	444 101	337 964	447 379	365 436	274 077	274 077	2 143 034
Subtotal		1 217 276	926 837	1 226 248	1 006 716	752 017	752 018	5 881 112
2. Fisheries Infrastructure Development	2.1 Fish processing and increased value addition of fish products landed in Seychelles	2 729 660	944 258	662 026	634 754	846 339	846 339	6 663 376
	2.2 Maintain Port Victoria as the Major Tuna landing / transhipment port in the West Indian Ocean	495 597	171 400	120 197	115 246	153 661	153 661	1 209 762
Subtotal		3 225 257	1 115 658	782 223	750 000	1 000 000	1 000 000	7 873 138
3 Capacity Building	3.1 Human Resource Development	163 858	122 119	120 809	206 698	206 698	206 698	1 026 880
	3.2 Post harvest and seafood processing capacities enhanced	27800	20 719	20 496	35 068	35 068	35 068	174 219
	3.3 Participation in International and Regional Forums	77 300	57 610	56 991	97 510	97 510	97 510	484 431
	3.4 Contribution for improved facilities and functioning to fisheries related bodies and organisations	225 694	168 204	166 399	284 701	284 701	284 701	1 414 400
Subtotal		494 652	368 652	364 695	623 977	623 977	623 977	3 099 930
Contingencies		84 360	190 223	128 252	125 000	125 000	125 000	777 835
TOTAL		5 021 545*	2 601 370	2 501 418	2 505 693	2 500 994	2 500 995	17 632 015

*includes balance of EUR2,420,342 from the 2011-2014 programme

A breakdown of the individual actions initially supported under each of the above objectives is shown in the box below. There were 21 Actions supported under Priority 1, 5 under Priority 2 and 10 under Priority 3.

Priority Areas, Objectives and Actions under the 2014-2020 Sectoral Support
Programme
Priority 1: Development and Implementation of Fisheries and Aquaculture
Management Plans
1.1 Monitoring of the tuna fishing activities in the EEZ of Seychelles
1.1.1 Data collection, processing and dissemination
1.1.2 Implementation of an Electronic Reporting System
1.1.3 Implementation of a Scientific Observer Programme
1.1.4 Development of anchored Fish Aggregating Devices (FADs) fishery
1.1.5 Semi-industrial Long Line fishery bycatch mitigation research programme
1.1.6 Monitoring of the Fisheries Development Fund (\in M 3.2) under the Development Bank of Seychelles (DMS)
1.2 Development and Implementation of the Demersal Fisheries Management Plan
1.2.1 Endorsement of the management plans by stakeholders
1.2.2 Scientific surveys and applied research
1.3 Development and implementation of the sea cucumber fishery management plan
1.3.1 Fisheries independent survey
1.4 Development and implementation of the lobster fishery management plan
1.4.1 Fisheries independent survey
1.5 Development and implementation of the aquaculture fishery management plan
1.5.1 Development of the aquaculture plans for the outer islands 1.5.2 Development of small-scale aquaculture on inner islands (Mahe, La Digue and Praslin)
1.6 Monitoring, Control, Surveillance and Enforcement
1.6.1 Air Patrols
1.6.2 National Sea Patrols
1.6.3 Inspection at Ports
1.6.4 SYC flagged vessels compliance inspection overseas
1.6.5 Prosecution of the infringements
1.6.6 Licensing of Foreign and Local vessels
1.6.7 VMS data collection and crosschecking with other related data
1.6.8 Safety at Sea communication systems
1.6.9 Portable VMS transceiver on board small-scale fishing vessels
Priority 2: Fisheries Infrastructure Development
2.1 Fish processing and increased value addition of fish products landed in Seychelles
2.1.1 Artisanal infrastructure projects / Bel Ombre
2.1.2 Artisanal infrastructure projects / Providence Zone 6
2.1.3 Access channels/infrastructure in Districts
2.1.4 Ice plants construction
2.2 Maintain Port Victoria as the Major Tuna landing / transhipment port in the West Indian Ocean
2.2.1 Tuna purse sein infrastructure
Priority 3: Capacity Building
3.1 Human Resource Development

3.1.1 Overseas training of the technical staff

3.1.2 Fisheries Aquaculture and Environment science BSc with UNISEY

3.2 Post harvest and seafood processing capacities enhanced

3.2.1 Applied research to support private sector initiatives

3.2.2 Improved fish products quality and handling within the industry

3.3 Participation in International and Regional Forums

3.3.1 Participation to International and Regional Forums

3.4 Contribution for improved facilities and functioning to fisheries related bodies and organisations

3.4.1 Fish Sanitary Inspection Unit (Seychelles Bureau of Standards)

3.4.2 Empowerment of fishermen professional organisation

3.4.3 Insurance scheme for artisanal fisheries vessels

3.4.4 Training vessel for Maritime Training Centre

3.4.5 Standard Training Certification and Watch keeping for Seafarers

During the course of the implementation between 2014 and 2018, a number of changes were introduced with the approval of the Joint Committee. Notably, there were no activities undertaken in respect of prosecution of the infringements, licensing of Foreign and Local vessels and an Insurance scheme for artisanal fisheries vessels. New activities were introduced including under infrastructure "Support Fishing communities in districts" and under capacity building "Applied research to support private sector initiatives" and "Technical Assistance: Management of Sectoral Support Programme". The last item was introduced in 2016 at the request of the Seychelles Authorities following difficulties experienced in maintaining the pace and effectiveness of disbursement of sectoral Support officer to manage public procurement procedures and other implementation activities of the programme.

5.4.3 Monitoring of the sector support

The Joint Committee has met on 6 occasions since the commencement of the Protocol on 18 January 2014 (Table 29). During these meetings the monitoring of the Sectoral support programme always featured on the agenda and was considered in detail by the parties.

The first meeting to agree the sectorial support matrix was held within the 90-day period after the coming into force of the Protocol (18 January 2014). Annual meetings have been held with detailed discussions on implementation and problems have been identified in a timely measure and decisions on corrective actions taken.

Article 9 of the Agreement requires that the Joint Committee monitor the performance of the Protocol and in particular the definition and evaluation of the sectoral support programme. There is however no specific requirement for establishment of a monitoring system and regular reporting on its implementation.

At the outset of the programme and throughout, multi-annual programming was only applied at the level of objectives. Within these envelopes budget allocations to activities were provided annually, or in some cases bi-annually. Each specific activity was not individually budgeted *ex ante* to completion. As a result, it was not possible for the Committee, on the basis of the documents presented, to follow the implementation of each programmed activity over the several years during which expenditure was incurred, which would have allowed the Committee to assess cumulative expenditure and annual progress towards completion of each activity.

Monitoring indicators were specified adequately for some activities in the annual workplan (for example number of hours of air patrols). Performance against the indicators was also reported in the reports of the implementation of the annual workplans, along with notes regarding achievements, problems in implementation etc. However, because activities were programmed only on a year by year basis, and not over the whole period, it was not possible for the Committee to follow the cumulative performance of the programmed activities against any output indicators. This difficulty is compounded by the weak selection and definition of indicators in some areas and lack of consistency in the programme structure when new activities were inserted into the matrix. As a result of difficulty in following multi-annual progress towards results, as the discussions in the Joint Committee indicate, the parties placed an excessive reliance on financial expenditure as the indicator of performance of the sectoral support programme, rather than considering the actual outputs.

Recognising the weaknesses in the reporting, and in line with the recommendations of the Court of Auditors, the parties agreed that the implementation of the sectoral support would be reported in the SFA annual reports. The 2014 SFA Annual report was published in 2016 and contains a report on some of the activities implemented. However, the reporting is purely descriptive and does not appear to deliver on the assurances provided regarding a more rigorous approach to reporting. In particular the measures are described in general and neither financial not output indicators are reported.

A combined report for 2015 and 2016 was planned for publication by the end of 2017, but was still not available in February 2019, (due to delays in validating the artisanal fishery data). Work is also continuing on the 2017 reports. Furthermore, whilst the integrity of the public procurement processes, disbursement rates and financial monitoring have improved significantly during the course of the protocol, some of the recommendations of the Court of Auditors are still to be fully implemented, in terms of the multi-annual aspects of the design of the programme, selection and definition of indicators, and implementation of monitoring system.

Date and place	Decisions made/matters discussed concerning the Sectoral Support Programme
24/26 March 2014, Seychelles	Review of the 2011-2014 implementation and decision to apply unused funds to the 2014-2020 programme Adoption of the 2014-2020 matrix of measures Adoption of 2014 WorkPlan
0/40.5.1	Agreement on reporting of implementation in SFA Annual Report Reminder of need for final report on 2011-2014 programme
9/10 February 2015, Brussels	Reporting of implementation delays leading to under-utilisation of 2014 budget Delay in approval of release of 2015 payment, until execution
	rate reaches 75%, and holding of Extraordinary Meeting to review progress Adoption of 2015 WorkPlan
	Reminder of need for EU visibility Reminder of need for final report on 2011-2014 programme
9/11 December 2015, Seychelles	Extraordinary Meeting Report by Seychelles on update on execution of 2014 action plan Presentation on Progress of 2015 Workplan
	Agreement on payment of 2015 tranche of sectoral support finance
	Agreement on improvement management procedures for the sectoral support programme, following findings of EU Court of Auditors
	Presentation by Seychelles of final « Performance Audit Evaluation of the 2011-2014 sectoral support
30 June/1 July 2016, Seychelles	Report by Seychelles on update on execution of 2015 action plan Agreement on deferral of 2016 payment until execution rate reaches 75%
	Adoption of 2016 Work Plan Adoption of 2017-2020 multi-annual programme Agreement that National PPBB will reflect Sectoral Support
	programme Adoption of guidelines for the implementation of the sectoral support programme
	Agreement on recruitment of TA to support implementation of the programme
3/4 May 2017, Brussels	Presentation of report of sectoral support programme in 2014 SFA report
	Cycle of sectoral support aligned to calendar year Report of technical committee review of progress of sectoral support matrix 2016
	Agreement on release of the delayed 2016 payment Adoption of work plan for 2017
31 January/1 February2018, Seychelles	Noted improvement in management and execution of the SSP Satisfactory execution rate of 2017 activities Approval of release of 2017 sectoral support instalment
Exchange of letters	Adoption of 2018 Workplan Re-allocation of the budget between activities
August 2018	Information indicating a satisfactory level of execution of the programme 2018
	Approval of the payment of the 2018 tranche, which was dispatched in December 2018.

Table 29: Meetings of the Joint Committee under the 2014-2020 Protocol to the EU Seychelles FPA

5.4.4 Sectoral support disbursements

The European Commission has disbursed the sectoral support according to the schedule shown in Table 30. All of the payments were made into an account of the Central Bank of Seychelles Account.

Work plan budget	Date Paid	Sectoral support Tranche	Amount paid
2014	06/05/2014	TRANCHE 1/6*	2 600 000.00
2015	18/12/2015	TRANCHE 2/6	2 600 000.00
2016	04/04/2017	TRANCHE 3/6	2 500 000.00
2017	15/02/2018	TRANCHE 4/6	2 500 000.00
2018	10/12/2018	TRANCHE 5/6	2 500 000.00

Table 30: Disbursement of sectoral support under the EU-Seychelles FPA 2014-2018

*Included within a total payment of EUR5 350 000 including access compensation Source: DG MARE

As noted, the 2014 transfer of Tranche 1 was supplemented with an additional balance of EUR 2 420 342 from the 2011-2014 programme, with the result that the 2014 Workplan provided for a disbursement of EUR 5 020 341.

The implementation of the sectoral support reached 55% by the time the second Joint Committee meeting was held in February 2015. This was considered to be insufficient to justify the authorisation of the 2016 tranche by the Commission, which set a minimum disbursement target of 75%. Under Article 8(2) of the Protocol the EU may suspend payment if results are "materially inconsistent with the budgeted programming". As a result the disbursement was delayed until a subsequent extraordinary meeting of the Joint committee held in December 2015, by which time the disbursement of the 2014 had reached 81%, considered to be sufficient to authorise the delayed payment of the 2015 tranche, which as can be seen from Table 30 was disbursed promptly thereafter.

Further delays occurred in the implementation of the subsequent year's work plan for 2015. By the time progress was considered by the Joint Committee in mid-2016, disbursement under the programme had reached only 49%. Once again, the decision was adopted to delay transfer of the 2016 tranche until the 2015 disbursement had reached the target of 75%. In the event this was considered at a technical meeting held in March 2017, when it was determined that the disbursement had reached 77%. The transfer of the 2016 budget tranche was agreed by correspondence and endorsed at the May 2017 meeting of the Joint Committee.

In 2017, the impact of strengthened management of the programme had a clear effect, with a significant improvement in the rate of disbursement. In the most recent meeting of the Joint Committee (January 2018), the 2017 budget implementation rate was reported to be 80%, which led to the release of the instalment of the 2017 sectoral support on time. The information indicating a satisfactory level of execution of the programme 2018 was provided by formal exchange of letters, and lead to the approval of the payment of the 2018 tranche, which was dispatched in December 2018.

5.4.5 Implementation and management of sectoral support

The Seychelles Fishing Authority was nominated as the sole executing agency for implementation of all components of the sectoral support programme. The SFA has shown strong ownership throughout and has sought to actively engage in programme design and implementation. However, at the time the SFA was also suffering a recruitment freeze, undergoing functional reform and associated restructuring of its organisation, as well as managing several active national and regional donor interventions in the fishery sector.

As a result, there were a number of critical delays in the implementation of the annual plans for 2014 and 2015, especially in the implementation and management of public

procurement investments. These were attributed by the Joint Committee not only to the SFA capacity limitations, but also to delays in public tendering procedures out of the control of the SFA.

The Commission requested the Joint Committee to respond to the criticisms made by the European Court of Auditors in its report "Are the Fisheries Partnership Agreements well managed by the Commission" published in 2015. This report studied the Seychelles FPA 2011-2014 (among others) and highlighted the sectoral support programmes as one of the areas where management should be improved.

As a consequence, the extraordinary Joint Committee Meeting in December 2015, the parties recognised the limitations and addressed the need for strengthening the management of the 2014-2020 SSP by seeking to:

- Establish clear guidelines for the management of the monitoring process through the development of a precise framework for the management of the sectoral support
- Ensure that the EU contribution is clearly traceable and identified as a receipt in the annual and multiannual budget, as a transfer to the SFA budget, and in the SFA budget, as well as the identification of the designated actions to which it is allocated.
- Develop a more detailed multi-annual matrix of measures
- Use actual expenditure and achievement of targeted outcomes as measures of implementation
- Provide an annual report on progress against the measures, with comments detailing progress towards outcomes, with a template to be agreed.
- Provide a final report at the end of the protocol
- Ensure that any outstanding funds at the end of the protocol which are not utilised within 6 months, to be subject to forfeiture.

At the subsequent meeting of the Joint Commission in mid-2016 parties acted to strengthen the project management capacity of SFA, by agreeing that the programme should be amended to finance the recruitment of Technical Assistance. A well-qualified officer was subsequently appointed, which resulted in a significant improvement in the management of the programme, as noted in subsequent Joint Committee meetings.

A further significant step towards the strengthening of the management of the programme was the adoption by the Joint Committee in 2016 of a document "Guidelines for the Implementation of the EU Sectoral Support for Fisheries Policy in the Seychelles". This document provides a clear approach towards the design of the programming document. It addresses objectives, eligibility requirements, programming, traceability reporting, terms of payment, programme vision and visibility. It provides a template for reporting on progress. This document has been instrumental in guiding the work of the technical assistance in establishing a more rigorous management of the programme.

Furthermore, several donors are active in the Seychelles fishery sector, and the Commission has expressed concerns regarding traceability regarding sources of finance. This issue is of greater relevance considering possible areas of overlap with the SWIOFish3 project. The Commission has requested copies of relevant project documents and seeks greater clarity in National Budgets regarding the traceability of project expenditure to its source (FPA sectoral support programme, donor or national budget). There was a risk of overlap with the programmed interventions supported by the SWIOFish3 project and the Blue Bond, indicating the need for close coordination, or co-financing or measures where feasible. The SWIOFish3 annual workplan is developed in collaboration with SFA senior staff which should ensure against duplication. There are some boundaries agreed, for example research is supposed to fall under sectoral support, whilst SWIOFish3 shall focus on designed to focus on management and governance, with a priority being the Mahé

Plateau management plans. Although SWIOFish3 Project manager has participated in some planning meetings on the sectoral support, there is no documented coordination mechanism in place.

5.4.6 Results achieved

Status of financial implementation

Based on the reports provided by the Seychelles Authorities to the Joint Committee, Table 31 shows the degree of financial implementation of the sectoral support against the programmed budget for each priority and objective. Overall, at the end of 2017 after 4 years of the 6-year programme, the budget was 53% implemented. Whilst there will be a 6-month period for finalising expenditure after the expiry of the Protocol, disbursement rates will need to be maintained and possibly accelerated to avoid the risk of not fully utilising the funds available. However, it should be considered that the implementation period also programmed and implemented an outstanding balance from the previous Protocol of EUR2.4 million.

Not all parts of the programme were implemented at the same rates. The activity "Development and Implementation of Fisheries and Aquaculture Management Plans" has been implemented on schedule, including some measures in which the budget has been fully or over consumed. In fact, the Commission reminded the Seychelles authorities of the obligation to ensure agreement of the Joint Committee for any re-allocations within the programme.

Priorities	Objectives	Programmed (EUR)	Implemented 2014-2017 (EUR)	% implemented (end of 2017)
1 Development &Implementation of Fisheries and	1.1 Monitoring of the tuna fishing activities in the EEZ of Seychelles	940 982	869 488	92
Aquaculture Management Plans	1.2 Development and Implementation of the Demersal Fisheries Management Plan	2 012 908	933 126	46
	1.3 Development and implementation of the aquaculture management plan	772 089	870 121	113
	1.4 Monitoring, Control, Surveillance and Enforcement	2 143 034	1 226 373	57
Subtotal		5 881 112	3 899 108	66
2. Fisheries Infrastructure	2.1 Fish processing and increased value addition of fish products landed in Seychelles	6 663 376	3 314 265	50
Development	2.2 Maintain Port Victoria as the Major Tuna landing / transhipment port in the West Indian Ocean	1 209 762	406 658	34
Subtotal		7 873 138	3 720 923	47
	3.1 Human Resource Development	1 026 880	623 514	61
3 Capacity Building	3.2 Post harvest and seafood processing capacities enhanced	174 219	177 343	102
	3.3 Participation in International and Regional Forums	484 431	346 128	71
	3.4 Contribution for improved facilities and functioning to fisheries related bodies and organisations	1 414 400	388 745	27
Subtotal		3 099 930	1 535 731	50
Contingencies*		777 835	139 430	18
TOTAL	to implementation	17 632 015	9 295 193	53

Table 31: Status at end of 2017 of financial implementation of the Sectoral SupportProgramme 2014-2020

*Technical assistance to implementation

Achievements

A summary of the mid-term results achieved under the 2014-2020 Sectoral Support programme is shown in the table overleaf.

Table 32: Interim results (to end of 2017) of the 2014-2019 Sectoral Support programme

Priorities	Objectives	Programme results (at end of 2017)
1. Development &Implementation of Fisheries and Aquaculture Management Plans	1.1 Monitoring of the tuna fishing activities in the EEZ of Seychelles	Four anchored FADs installed. New log books designed in line with IOTC requirements. Statistical reports were compiled regarding tuna fishing activities for inclusion in SFA Annual Statistical Reports and posting on website. New equipment was supplied, and software developed/introduced. The ERS system introduced and pilot tested, but not yet fully implemented Artisanal fishing database and fishery observer database were development and operational
	1.2 Development and Implementation of the National Fisheries Management Plan	Catch assessment survey for artisanal fishery was conducted and consultative management workshops and dissemination activities held. New log books designed for small scale fishery and catch data system established Demersal Management Plan developed (partially funded by UNDP) and adopted by Cabinet in 2017. Steering committee for implementation was set up. Draft regulation on fishing gears was drafted. Scientific surveys on fish traps undertaken and co-management plan for Praslin developed and endorsed by Cabinet. A stock assessment of 3 demersal species was conducted (2016). Surveys and stock assessments for lobsters and sea cucumbers completed and reports prepared. Management advice adopted and used for determining numbers of licences/closed seasons for these fisheries. NPOA Sharks was reviewed and updated (2015). Several scientific research projects were supported, results published in journals. The Regional Observer programme was strengthened and fully implemented on Purse seiners in line with IOTC requirements. In 2014, there were 35 observer trips on national purse seiners. Coverage in 2015 was national vessels 72% and 36% foreign. In 2016 73% coverage observer 2540 days at sea and 2017 was national 69% and foreign fleets 25%.
	1.3 Development and implementation of the aquaculture management plan	Outer island surveys and mapping of aquaculture potential were conducted on several islands Research vessel was adapted for broodstock collection. Small scale aquaculture guidelines were produced and adopted, Aquaculture management plan developed and peer reviewed. Economic and Social Impact analyses were conducted for 6 proposed aquaculture investments An aquaculture licensing regulation was drafted and adopted Water monitoring introduced at proposed aquaculture sites.
	1.4 Monitoring, Control, Surveillance and Enforcement	In 2014, 18 hours of air patrols were conducted (plus 3.3 hours under IOC/EDF Smartfish). Also 14 days of sea patrols (plus 10 days under Smartfish). 23 onboard vessel inspections were conducted. 2 foreign vessels arrested. 335 vessels under monitoring. New terminals installed in FMC. 2015; no air patrols reported; sea patrols (Coastal) and only 6 seaborne patrols undertaken.

	Monitoring of Fisheries Development Fund of the	2016 3 sea patrols, with 20 vessels inspected. In 2017, 27 hours air patrol were conducted, but no sea patrols. 886 EU IUU catch certificates were issued. VMS/Communication units were purchased for national vessels in small scale fishery Terminals for the FMC were applied and installed. MCS FMC office extended Fisheries Development Fund was limited to investment in processing only in 2017.
	Seychelles Development Bank	
	Applied research and advice to support local private sector processing.	9 private and public sector services were supported (not specified) 4 post-harvest dissemination workshops undertaken
2. Fisheries Infrastructure Development	2.1 Fish processing and increased value addition of fish products landed in Seychelles	Fish processing facilities and water treatment were constructed at Bel Ombre (in progress). The processing units at Providence Zone 6 were upgraded and cold storage repaired.
		A pilot processing laboratory was installed for use of the sector in product development. A Broodstock and Quarantine facility was constructed at Providence and commissioned for services to aquaculture sector
		Small scale fishing facilities upgrades. Completed at Anse Royale and La Digue, in progress at Bel Ombre, Glacis, Cascade, La Retraite and Anse aux Pins, and in planning at Praslin These included: variously landing quay, breakwater, rock-breaking, market, roadway, processing halls (Bel Ombre), gear stores and fuel station. Design study of Fish Centre on behalf of the FBOA.
	2.2 Maintain Port Victoria as the Major Tuna landing / transhipment port in the West Indian Ocean	2014 Project management for Government Public works contract at Ile du Port tuna quay for quay extension and access road, water and power supply and sewage connection. Delays in implementation but completed in 2018.
3 Capacity Building	3.1 Human Resource Development	A staff Training Plan was developed and adopted by the SFA Board Course fees were paid for sponsored students attending University of Seychelles 2014 16 enrolled on BsC, 2 MSc, 1 PhD ongoing.
		2015 Overseas. 2 MSc Aquatic Science, 2 MSc International Maritime Law, 1 BSc Biology plus distance learning marine biology and fisheries management. Plus 2 students enrolled in Uni Seychelles.
		2016 1 Bsc in Marine Biology, 1 BSc Computer science enrolled 2017 - 2 MSc data analysis and 1 PhD in environmental economics). Attendance on short courses (national and international) by SFA staff was supported.
	3.2 Post harvest and seafood processing capacities enhanced	Workshops for industry were provided on histamine testing and dissemination of best hygiene practices
	3.3 Participation in International and Regional Forums	Attendance at IOTC and other international meetings was supported. Included RFMOs (SWIOFC, SIOFA, IOTC), regional workshops, Fisheries Transparency Initiative, FAO Annual COFI meeting, African Tuna Conference, CITES conference of the parties, INTERPOL Fisheries Crime Working Group.

in fu	nproved facilities and unctioning to fisheries	2014: Sanitary controls and laboratory supported with equipment (thermometers, sampling equipment and bandsaw). SBS assisted with technical assistance for proficiency tests and laboratory equipment of heavy metal testing and its accreditation.
-	related bodies and organisations	2015. Mercury analyser installed and training in testing. Support for accreditation.
or		2017: Fish inspection was equipment supplied, and participation in international World Seafood Congress (International Association of fish Inspectors) in Iceland.
		Fishermen's associations (FBOA, PSA and Apostolat de la Mer) were assisted to strengthen their secretariats and services to members. Development of FBOA quality label.
		A training vessel was donated in March 2014, to the Seychelles Maritime Academy. Vessel operating costs were covered, including insurance. In 2015, 28 trips were undertaken. 2017 108 students at benefited from training activities on the vessel.

Investment in infrastructure has been a central, significant and visible feature of the Programme, with significant upgrades in facilities serving the small-scale fishery sector and to a lesser extent the tuna sector. Infrastructure investments have improved safety and sanitary conditions, as well as efficiency at a number of small-scale fishery landing sites (with variously breakwaters, landing stages, ice plants, fish market and gear stores). Facilities are completed at Anse Royale and La Digue, in progress at Bel Ombre, Glacis, Cascade, La Retraite and Anse aux Pins, and in planning at Praslin. Although procurement of public works and supply have proved challenging and been subject to delays, the outputs are clear, and highly appreciated by the respective sector operators such as the FBOA. Investments in infrastructure financed by other donors (notably Japan) were clearly distinguished in the budgets. For the tuna operators the project management contract for the Île du Port PPP investment has helped the Seychelles to retain its strategic role as the EU fleet's main landing and transhipping port for tuna in the Indian Ocean (being one of the objectives of the programme).

The programme was also successful in consolidating the **observer programme** for the tuna sector, which was launched at the end of the 2011-2014 Protocol. Although there was a slow start, observer training has continued, and the Seychelles has been able to develop a solid corps of observers, allowing it to consistently exceed by a large margin the minimum IOTC observer coverage of 5% of trips in the purse seine sector, on both Seychelles and EU and other third country vessels. Although significant focus was placed on installing the technical capacity to receive electronic catch records from EU vessels this has not been successfully implemented.

The Sector support has also supported the **strengthening of the fisheries MCS system**, by extending the satellite VMS to national vessels and upgrading of the Fisheries Monitoring Centre to cope with the increased level of activity. Although the programme also allocated finance for the implementation of air and sea patrols, these were only sporadically implemented, due to difficulties in maintaining the full operational capacity of the aircraft and vessels. As a result, there were no air patrols in 2015, and only 6 seaborne patrols. Only 3 sea-patrols were conducted, in 2016, and none in 2017. However, MCS activities were also supported by the EU SMARTFISH project, and the activities financed from this source were clearly identified. Although setting up data reception from EU vessels by ERS has proved to be challenging, after initial procurement delays work is progressing well with establishing ERS for Seychelles vessels (as part of a VMS and data system upgrade in 2019). The sectoral support has also part-financed some missions to inspect Seychellois vessels in foreign ports. The main challenge facing the MCS function is the lack of staff, and the new budgetary approach from 2019 is expected to lead to increased freedom to recruit the required staff, which needs to be considered a high priority.

Fisheries management planning has also been successfully supported, with a demersal fisheries management plan developed (although it is not clear whether there was any overlap with the UNDP project working in the same area), and scientific studies and advice leading to specific management decisions to ensure the sustainability of lobster and sea cucumber fisheries. The development of the **commercial aquaculture** sector has been supported, with development of the policy, legal and institutional framework, and investment in a public broodstock facility. Several sites have been identified and investors have shown interest. However, until now no commercial projects have been launched and the sustainability of these actions remains to be established, given the high cost of inputs.

In terms of **capacity building** the scholarships and support for operation of a long-line training vessel donated to the Seychelles Maritime Training School have clear benefits. Sanitary controls for fishery products by the Competent Authority have been strengthened, along with laboratory testing for histamine. The support for the refurbishment of the pilot laboratory for product development in SFA has potential to provide a useful service for the fishery sector, but until now does not appear to have yielded clear benefits. Development of safety testing capacity in SFA (for example heavy metals) appears not to meet the needs of an established market and risks potential overlap with the work of laboratories of the Seychelles Bureau of Standards.

5.4.7 Visibility of the Sectoral Support

There is no specific requirement set out in the Protocol for visibility of the EU finance in the activities undertaken under the sectoral support programme. Nevertheless, the Joint Committee was informed in 2015 that EU visibility measures foreseen for EDF investments were applied by SFA to the Providence Fishing Quay and the Marine Training Vessel supported by the programme. Whilst EU flags are visible on major items of infrastructure and public works, there is little visibility on smaller items, including equipment. Also, it is not evident how EU visibility was achieved in the substantial services financed by the Sectoral Support (for example in reports and press releases).

For a programme of these dimensions, a higher level of visibility should be a specific requirement in the Protocol, with an allocated budget and all interventions should include an appropriate visibility action in line with Commission guidelines.

5.5 Scientific cooperation

Foreseen in the Protocol

Article 4 of the Agreement requires the establishment of an annual joint scientific meeting to monitor the evaluation of resources in the Seychelles EEZ, with a view to providing scientific advice regarding sustainable exploitation levels to the Joint Committee. It requires that the parties consult with regard to management measures under the IOTC.

Implemented

In fact, there have been no joint scientific meetings held between the parties, since they did not consider them to be necessary since both are active members of the IOTC in which the regional management decisions are undertaken, and IOTC measures have been found to provide sufficient basis for the management decisions taken by the Joint Committee.

During the meetings of the Joint Committee, the EU and Seychelles discussed on several occasions the possibility of coordinating their IOTC positions, for example by co-sponsoring proposals where there is mutual interest and agreement on measures. One example discussed was the FAD management plan. However, there were a number of differences which could not be reconciled. The parties also discussed the need for engaging sector stakeholders in a dialogue on IOTC management measures. Until now, although there has been no formal framework established for such a dialogue, the parties have sought to find common positions.

Given that there has been no material utilisation of the surface longline opportunities, the issue of non-target impacts (i.e. bycatch) in catches made under the Protocol has not arisen during the course of this Protocol. Had it done so, the update for the National Plan of Action for Sharks 2007-2010 would have been found to be long overdue. As described in section 4, the plan was reviewed, and recommendations were made for the design and implementation of the NPOA 2016-2019. However, the plan has not been finalised and the opportunity for enhanced scientific cooperation on this matter through the framework of the Protocol has not been utilised.

5.6 Communications on other matters

The Parties have a strong relationship on matters related to national, regional and international fisheries governance, and this is often reflected on subjects of mutual interest were raised and discussed in the Joint Committee, but not necessarily directly concerning implementation of the Protocol. Over the years this dialogue has concerned, *inter alia*:

- Possible collaboration on matters of mutual interest on the frame of the IOTC, for example on the subject of FADs
- Seychelles debt swap approach and establishment of the Blue Bond
- Development of marine spatial planning capacity and integration of Seychelles into regional initiatives supported by the EU

- Establishment of Marine protected Area
- Interventions supported by other donors (JICA, SWIOFFish3)
- New Fisheries Agreement concluded with Mauritius
- Seychelles Fisheries Transparency Initiative
- Autonomous tariff quotas for tuna imported by the EU

6 ECONOMIC ANALYSIS OF THE PROTOCOL

6.1 Methodology

The cost-benefit analysis of the Protocol is considered in this section. It takes into account only the **access component** of the financial transfers. The sectoral support component of the financial contribution is decoupled by the parties from access fees and is therefore not included in the consideration of the financial costs and benefits of the Protocol.

Due to the level of details needed (catches by species by vessels each year between 2014 and 2018), catch data used in this economic analysis are those extracted from the DG MARE ACDR database on 5/02/2019. Seychelles data on catches by EU vessels in the fishing zone do not provide this required level of detail.

Methods used and results obtained are detailed in Annex 5 to this report. The next sections present the main results of the cost-benefit analysis of the access component of the current Protocol.

6.2 Turnover (income) of EU tuna fleets under the Protocol

Based on catches obtained as a result of fishing opportunities available and weighted average first sale prices of tuna species caught (EUR 1 458/tonne), the turnover of EU purse seiners under the current Protocol is approximately EUR 70 million per year on average over the 2014-2018 period, varying between EUR 39.2 million in 2015 and EUR 83.0 million in 2017.

Table 33: Turnover obtained by EU purse seiners from catches in the Seychelles fishingzone

(kEUR)	2014	2015	2016	2017	2018	Average
Spanish purse seiners	26 374	19 273	38 250	38 399	44 358	33 331
French & Italian purse seiners	33 911	19 941	46 663	44 610	37 903	36 606
Total EU purse seiners	60 284	39 213	84 914	83 009	82 261	69 936

Source: see Annex 5 for details on the methodology used and results. Note: excludes bycatch values

It is noted that bycatch (which may be commercially referred to as "mixed") contains nontuna species and is not declared as catch for the purpose of the Agreement. The Seychelles does not receive compensation from shipowners or the EU, although a significant (but unknown) proportion comprises smaller tunas. Now that this is compulsorily landed, new export businesses have started. Whilst at least 6 832 tonnes of bycatch was landed in 2018, it is not possible to determine how much of this can be attributed to EU vessels operating under the Agreement, although there will be a positive contribution to turnover.

6.3 Intermediate operating totals

6.3.1 Direct Gross Value Added

Direct Gross Value Added (GVA) estimates take into account operating expenses borne by EU tuna vessels to deploy their activities. As per STECF methodology⁴⁶, operating expenses include energy costs, repair and maintenance costs, other variable costs and other non-variable costs. GVA reflects the economic wealth generated by the EU fishing activities. GVA is used to pay the workforce, return on the capital invested and taxes, including access fees paid to Seychelles for access.

From estimates based on the operating accounts of EU tuna purse seiners benefiting from fishing opportunities in the Seychelles fishing zone, the direct GVA generated by EU tuna

⁴⁶ See for example Scientific, Technical and Economic Committee for Fisheries (STECF) – The 2018 Annual Economic Report on the EU Fishing Fleet (STECF-18-07). Publications Office of the European Union, Luxembourg, 2018, JRC112940, ISBN 978-92-79-79390-5, doi:10.2760/56158

vessels has been slightly in excess of EUR 30 Million on average over the five years, varying between EUR 11.3 million in 2015 and EUR 44.5 million in 2017.

Table 34: Direct Gross Value Added estimates for the EU tuna purse seiners active in the	
Seychelles fishing zone	

(kEUR)	2014	2015	2016	2017	2018	Average
Spanish purse seiners	10 075	5 366	16 311	20 203	19 671	14 325
French & Italian purse seiners	12 519	5 949	21 152	24 317	17 444	16 276
Total	22 594	11 315	37 462	44 521	37 115	30 601

Source: see Annex 5 for details on the methodology used and results

6.3.2 Gross Profit

Gross Profit (GRP) is calculated by subtracting to GVA cost of labour (i.e. wages paid), access fees paid by EU shipowners to access the fishing zone under Protocol conditions and other taxes. GRP provides a preliminary indicator of EU fleet profitability. However, GRP does not represent the net profit of fishing companies concerned since it is also used to remunerate the capital invested (depreciation, dividends) and to pay taxes to which fishing companies are liable in their countries of origin (corporate taxes, etc.).

According to consultant estimates, the EU fleet GRP has been positive on average over the five years with an average amount of EUR 12 million over the period. EU tuna purse seiners GRP is found negative in 2015 due to low catches in the Seychelles fishing zone (close to 32 000 tonnes), but positive for all other years.

Table 35: Gross Profit estimates for the EU tuna vessels active in the Seychelles fishing zone

(kEUR)	2014	2015	2016	2017	2018	Average
ES purse seiners	4 960	886	8 455	13 961	12 134	8 079
FR & IT purse seiners	74	-2 162	4 152	11 523	6 067	3 931
Total	5 034	-1 276	12 607	25 483	18 201	12 010

Source: see Annex 5 for details on the methodology used and results

6.3.3 Share of access fees in EU tuna vessels operating accounts

The next table presents *i*) the access fees / turnover ratio, and *ii*) the access fees / direct GVA ratio. These ratios support a comparison between access fees paid and economic performances of the vessels. Access fees have an impact of the fleet profitability measured through the GRP indicator (Table 35Table 35).

Access fees paid by the EU purse seiners represent 5% on average of their income per year over the 2014-2018 period. The share of access fees in value added is 10% on average per year over the same period, but was significantly higher in 2015 mostly as a consequence of low tuna prices (skipjack in particular, see Table 47Table 47 in Annex 5) and relatively low catches in the Seychelles fishing zone.

EU purse seine operators under the EU-Seychelles Protocol							
		2014	2015	2016	2017	2018	Average
	Access fees / turnover						
	Spanish purse seiners	4%	6%	5%	4%	5%	5%

5%

5%

21%

16%

18%

4%

4%

11%

10%

10%

French & Italian purse seiners

French & Italian purse seiners

All EU purse seiners

All EU purse seiners

Access fees / GVA Spanish purse seiners 4%

4%

9%

7%

8%

4%

5%

12%

10%

11%

4%

5%

12%

9%

10%

4%

5%

12%

9%

10%

 Table 36: Estimates of Access fees / turnover ratio and access fees / GVA ratio for the

 EU purse seine operators under the EU-Seychelles Protocol

Source: based on data shown in Table 22 for access payments, Table 33 for turnover and Table 34 for GVA

6.4 Economic impacts for ancillary upstream and downstream industries

Table 37 presents estimates of indirect GVA (iGVA) generated by the activities of EU tuna vessels for the benefit of upstream industries (shipbuilding and repair, purchase of goods and services by vessels) and of downstream industries (fish processing). Estimates include total amounts, with all geographic entities included (EU, Seychelles and other entities involved in the EU tuna fishing value chain.

On average per year between 2014 and 2018, indirect GVA generated by the activities of EU tuna purse seiners in the Seychelles fishing zone amounted to EUR 22.8 million. The largest share of indirect gross value added accrues to the downstream industries (tuna processing) with 75% on average.

Table 37: Estimates of indirect GVA (iGVA) generated by the activities of EU tuna vessels for the benefit of upstream industries (shipbuilding and repair, purchase of goods and services by vessels) and of downstream industries (fish processing).

(kEUR)	2014	2015	2016	2017	2018	Average
Upstream iGVA	5 321	4 084	7 817	6 129	6 673	6 005
Downstram iGVA	14 468	9 411	20 379	19 922	19 743	16 785
Total iGVA	19 789	13 495	28 196	26 051	26 416	22 789

Source: see Annex 5 for details on the methodology used and results

6.5 Distribution of gross value added between the different beneficiary entities

Direct and indirect gross value added generated by the operations of the EU tuna fleet in the Seychelles fishing zone is distributed between economic entities located in the EU, in Seychelles and in other countries involved in the EU tuna value chain. These other countries are principally Mauritius and Madagascar where EU tuna catches are also processed.

Table 38Table 38 presents the results of estimates developed in Annex 5 concerning distribution of direct and indirect GVA generated by EU vessels beneficiaries from fishing opportunities set out by the Protocol. Data in the table also take into account the average financial contribution paid by the EU in exchange for access (sectoral support envelope not included) since this amount is part of the gross value-added accruing to Seychelles. On average over the first five years of the Protocol, 43% of the total value-added is estimated to have accrued to EU, 24% to Seychelles and 32% to other entities which include mostly coastal States of the Western Indian Ocean.

Table 38: Results of estimates concerning the evaluation of the distribution of direct and indirect GVA generated by EU vessels

	EU	Seychelles	Other entities
Direct GVA	21 033	4 922	3 597
Indirect GVA	2 879	5 697	14 213
EU financial contribution (access only)		2 773*	
Total	23 913	13 392	17 810

Source: see Annex 5 for details on the methodology used and results

Note: * average annual amount paid from EU budget between 2014 and 2018, see Table 21Table 21

Figure 8 details the main economic items constituting the value-added benefiting to the EU, Seychelles and other entities respectively.

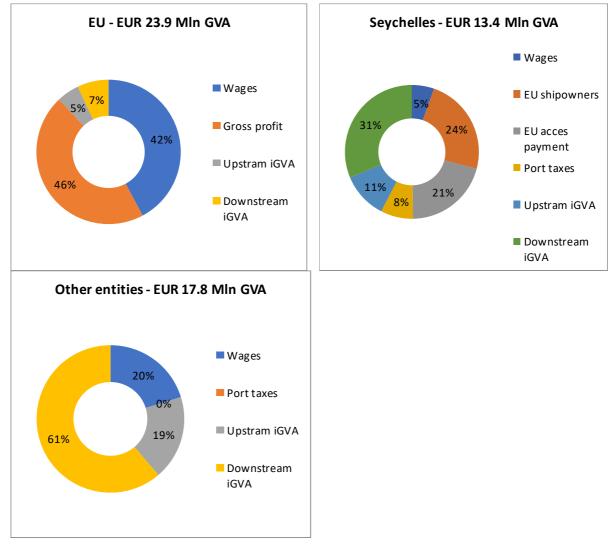


Figure 8: Main components of direct and indirect GVA accruing to the different entities involved in the EU-Seychelles Protocol

Source: see Annex 5 for details on the methodology used and results

• For the EU, the main part of the GVA is comprised of wages paid to EU fishermen working on the tuna vessels active in the Seychelles fishing zone (42%) and by gross profit generated by fishing activities (46%). Indirect added value is low by comparison mainly due to the low level of interactions with economic entities based

in the EU for services to vessels and for processing of catches. However, Spain and Italy import some tuna caught by EU purse seiners for processing in their territories, which supports value-added creation in the downstream sector for the EU (7% total value added according to consultant estimates).

- For Seychelles, an estimated 44% value added is from payments of the EU party for access (EU payments and EU shipowners' payments). Seychelles received 31% of its share of value added from processing of EU catches in its territory, and 11% from services to EU purse seiners when they call in to Port Victoria for offloading catches and loading consumables.
- For other entities, most value added (61%) accrues from processing of EU tuna catches, with Mauritius as the main beneficiary, and Madagascar, to a lesser extent. Data available show that some significant quantities of tuna caught in the Indian Ocean are also exported for processing to Turkey or Ecuador. For other entities, another 19% of total value added is captured by upstream industries, mainly in Mauritius through activities of the *Chantier Naval de l'Océan Indien* (CNOI) for maintenance and repair of EU purse seiners. The Madagascar shipyard in Diego Suarez also provides services to EU purse seiner fleet. Finally, 20% of value added is represented by wages of ACP fishermen working onboard EU vessels. According to representatives of the industry, EU purse seiners employ significant number of Madagascar and other African nationals (Senegal, Côte d'Ivoire) onboard their vessels, including when their vessels are active in the Seychelles fishing zone.

6.6 Synthesis: cost sharing and cost benefit indicators of the Protocol

The cost-benefit ratios in relation to value of access payments and catches are shown in Table 39. In total, Seychelles is estimated to have received an average of 124 EUR / tonne for tuna caught by EU operators in its fishing zone with 53% of this borne by EU shipowners. This represents 8.6% of the first sales price of the catch. This average price is slightly more than the average EUR 115 / tonne negotiated, ex-ante, and can be explained by average catches (about 48 000 tonnes per year) slightly below the reference tonnage (50 000 tonnes) used to set the level of EU access payments.

Table 39: Cost benefit indicators in relation to average price paid for each tonne caught
by EU tuna purse seiners in the Seychelles fishing zone over the 2014-2018 period

Compensation element	Amount
EU payments for access (kEUR)	2 773
Access fees paid by EU shipowners (kEUR)	3 153
Total EU payments (kEUR)	5 926
Average access cost by tonne caught (EUR/tonne)	123
Access cost paid by the EU (EUR/tonne)	58
Access cost paid EU shipowners (EUR/tonne)	66
Average % borne by EU shipowners	53%
Average first sales price of tuna (EUR/tonne)	1 458
Average % of market value received by Seychelles	8.6%

Source : Table 21 and Table 22 for access payments ; Table 18 for catches

Concerning cost-benefit ratios in relation to GVA, the main finding is that every EUR 1 invested by the EU in the compensation payment for access supports the creation of EUR 18.9 value added. A noted, this shared between the EU, Seychelles and third country entities as shown in Table 40. For the EU, most economic benefits are from direct GVA, with fewer benefits from activities of ancillary activities both upstream and downstream. For Seychelles, the Protocol has multiplier effects mostly through indirect GVA captured through services to EU vessels and through processing of catches of EU vessels in Port Victoria. The Protocol supports a value-added multiplier effect for Seychelles (EUR 3.83) generated in up and down stream value added for each EUR 1 invested.

Table 40:Cost-benefit indicators in relation to Gross Value-Added generated by the activities of EU purse seiners in the Seychelles fishing zone over the 2014-2018 period (annual average)

	GVA	Catches (EUR / t)	Compensation (EUR /EUR)*	Shipowners fees (EUR/EUR)	Total payments (EUR/EUR)
All entities	Direct GVA	616	10.66	9.37	4.99
	Indirect GVA	475	8.22	7.23	3.85
	Total GVA	1 090	18.88	16.60	8.83
EU	Direct GVA	438	7.59	-	-
	Indirect GVA	60	1.04	-	-
	Total GVA	498	8.62	7.58	4.04
Seychelles	Direct GVA	103	1.77	-	-
	Indirect GVA	119	2.05	-	-
	Total GVA	221	3.83	3.37	-
Other entities	Direct GVA	75	1.30	-	-
	Indirect GVA	296	5.13	-	-
	Total GVA	371	6.42	-	-

Source: see Annex 5 for details on the methodology used and results

6.7 **Protocol impacts on employment**

6.7.1 Direct employment

The number of full-time equivalent (FTE) jobs on EU tuna purse seiners concerned by the Protocol is slightly in excess of 900 for activities in all the Indian Ocean. According to the estimated dependency rate of each purse seine segment on access to Seychelles fishing zone (i.e. 17% for ES purse seiners and 37% of FR/IT purse seiners), the number of FTEs directly linked to the EU-Seychelles Protocol is close to 215, including 15 FTEs for Seychelles nationals employed as crew. Other seamen include Madagascar, Côte d'Ivoire or Senegal nationals employed as crew on EU fishing vessels.

Table 41: Estimates of average annual FTE crew positions onboard EU purse seinersdependant on an access to Seychelles fishing zone

(FTE)	Total	EU	Seychelles	Other
Spanish purse seiners	101	39	5	57
French/Italian purse seiners	114	43	9	62
All EU PS	215	82	15	119

Source: see Annex 5 for details on the methodology used and results

6.7.2 Indirect employment

Consultant estimates indicate that almost 1 350 FTEs are supported by the Protocol in upstream and downstream ancillary industries, with a large majority of them (95%) in the downstream sector (tuna processing). For Seychelles, most indirect employment (approximately 340 FTEs) is generated in downstream industries, principally from handling and processing of EU tuna purse seine catches. This includes substantial numbers of migrant workers from South Asia. The activities of EU tuna purse seiners under the Protocol also have a large impact on employment in other third countries (870 FTEs) where EU tuna catches are processed. Jobs in the canning industry are largely dominated by female employment.

Table 42: Estimates of average annual FTE supported by EU purse seiners activities in the	
Seychelles fishing zone	

FTE	Total	EU	Seychelles	Other
Indirect jobs upstream				
ES purse seiners	33	7	8	18
FR/IT purse seiners	38	8	9	21
All EU PS	71	14	18	39
Indirect jobs downstream				
ES purse seiners	673	67	168	437
FR/IT purse seiners	606	61	151	394
All EU PS	1 278	128	320	831
TOTAL	1 349	142	337	870

Source: see Annex 5 for details on the methodology used and results

6.7.3 Synthesis

The EU-Seychelles Protocol is estimated to support directly and indirectly a total of 1 560 FTEs. In total, Seychelles employment supported is equivalent to 22% total (350 FTEs) with most jobs supported in the upstream and downstream ancillary activities of non-EU and non-Seychelles parties (Figure 9).

Ex-post and Ex-ante evaluation study of the Sustainable Fisheries Partnership Agreement between the European Union and the Republic of Seychelles

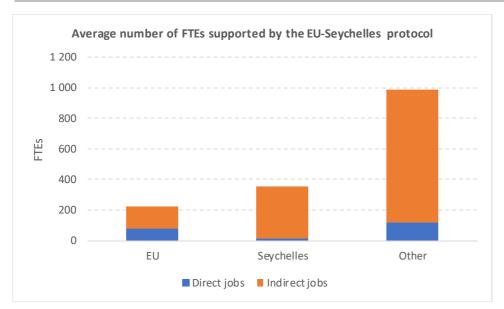


Figure 9: Summary of Protocol impacts on employment (average annual number of FTEs supported)

7 EX-POST EVALUATION OF THE CURRENT PROTOCOL

This section responds to the specific evaluation questions presented in the Terms of Reference. The questions deal successively with the effectiveness, efficiency, economy, relevance, acceptability, coherence and EU added value of the intervention of the Protocol. Each answer is subject to a synthesis and conclusion with the colour code presented below:

	Level of achievement of evaluation criteria
	Criterion achieved satisfactorily
	Criterion broadly achieved, but some points deserve special attention
	Criterion not met

7.1 Effectiveness: the extent to which the specific FPA objectives were achieved?

7.1.1 **Objective 1:** To contribute towards resource conservation and environmental sustainability through rational and sustainable exploitation of living marine resources of Seychelles:

Objective	Success criterion
	regional level (highly migratory species (Tuna) or at national level, and the EU fishing capacity is within the limits established or recommended by the relevant RFMO or RFO. The FPA takes into account the management strategies expressed by Seychelles. Seychelles takes part in the relevant RFMO/RFOs

Response

The concept of available surplus in the waters of Seychelles does not apply as the Protocol relates to the resource for highly migratory species distributed throughout the Indian Ocean, subject to the management of IOTC. The Resource inventory assessments conducted in the multilateral framework of IOTC (see section 2.3) indicate that the Indian Ocean skipjack stock and bigeye tuna stocks targeted by EU purse seine vessels are within viability limits. However, the status of yellowfin tuna is outside these limits. Specific conservation and management measures are adopted by IOTC aimed at restoring and conserving this stock. They apply to all RFMO Contracting Parties fishing entities, including the EU and Seychelles, wherever they operate. The Protocol does not derogate from or conflict with any of these rules and purse seine fishing capacity and their supply vessels operating under the Agreement have not exceeded the limits established by the Protocol.

The EU longline fishing opportunities under the Agreement have not been used to any significant extent and this element of the Agreement has not impacted on sustainability of any of the stocks targeted by EU surface longline vessels in the Indian Ocean region (principally sharks and swordfish).

The Sectoral Support Programme implemented under the Agreement has contributed to the strengthening of the IOTC framework for sustainable management of fishery resources by supporting Seychelles to strengthen its Regional Observer programme. The sectoral support has also strengthened the participation of Seychelles in fisheries MCS functions, including participation in joint regional activities.

Seychelles has taken an active role in the RFMO (supported in part by the Sectoral Support Programme) and contributes data to the to IOTC. It has applied the IOTC measures to its own fleet of vessels.

Conclusion

The Protocol is consistent with and supports conservation and management rules adopted in the multilateral framework of the IOTC applicable to EU fleets. The Protocol has supported the Seychelles to comply with the IOTC measures in relation to catch reporting, observer programmes and MCS activities through its sectoral support component.

Objective

Success criterion

1.2 To follow the same principle and promote the same standards for fisheries management as applied in EU

Response

waters

The Protocol does not require specific measures to reduce bycatch. Management measures introduced by the IOTC, which the parties are bound to apply have sought to limit the use of FADs, which are associated with a higher level of catch of small sizes of tunas and non-tuna species. In addition, the parties have implemented IOTC rules which require the landing of bycatch of tunas and non-tuna species, with the result that increased landing of bycatch are now evident. However, until now the data regarding the species breakdown of bycatch has not been collected systematically. Little is known regarding the stock status of many of the non-tuna species within the bycatch.

Conclusion

The Protocol does not contradict, and indeed supports, IOTC's by-catch and landing obligation measures which bind the EU vessels to land their bycatch of small tunas and non-target species.

Objective	Success criterion
1.3 To improve the scientific and technical evaluation of the fisheries concerned	EU fishing activities are subject to an appropriate reporting obligation framework (logbook, VMS, observers etc.) in the FPA and a scientific data collection framework (size composition of the catches, biological parameters etc.). This information is transmitted to the relevant RFMO and national research institutes. EU scientists and scientists from Seychelles actively participate in RFMO/RFO scientific committees. Cooperation between scientific institutes is encouraged and supported where appropriate. Joint scientific meetings are organised on a regular basis.

Response

EU vessels have complied with the requirements regarding submission of catch logbook data to the Seychelles authorities. The parties implemented a new logbook format in 2016. Until now the Electronic Reporting System for receiving daily catch reports from EU vessels is not yet fully implemented by the Seychelles authorities but further developments are ongoing. Vessel satellite VMS reporting has been consistently in line with the Protocol. Observer coverage of the vessels operating under the Protocol has been significantly strengthened.

There have been no formal joint scientific committee meetings recorded under the Protocol as such committee would have been redundant with IOTC scientific committees to which the two parties contribute. However, the Seychelles Authorities and the responsible EU scientific institutions in France and Spain have collaborated extensively on the establishment of systems for validation of data. In the case of France this has led to a formal MoU setting out the protocols for joint validation of catch data, but Seychelles and Spanish institutions responsible for generation of the validated catch data have not yet been able to agree on a joint approach. Seychelles fulfils its obligations to the IOTC and plays a full part in IOTC plenary and scientific committees. It is up to date in payment of IOTC mandatory contributions (US\$238,352 will be due in 2019).

Conclusion

EU vessels provide data which is important to IOTC scientific and technical evaluation for stock assessment. However, there are some technical barriers to effective data sharing which remain to be resolved, notable implementation of the ERS and establishing clear procedures for timely validation of scientific data derived from catch records from certain purse seiners.

Objective	Success criterion
1.4 To ensure compliance and control of EU-fleet activities	The activity of the EU fleet is properly monitored (VMS, AIS, etc.); parties hold monthly monitoring meetings on fishing opportunities, catches and catch composition and compare and reconcile their catch data from all sources; possible infractions are sanctioned; sectoral support is used to reinforce monitoring, control and surveillance (MCS) capacities in the Seychelles fishing zone.

Response

The EU vessels possess functioning VMS which enables their flag Member States and the Seychelles to monitor them when operating under the Protocol. Entry and exit reporting procedures were followed. There were very few non-compliances by EU vessels, and those that were detected were mostly of a clerical nature related to the application for fishing authorisations. There were no instances which gave rise to a need to sanction the operators concerned.

Validation by the Commission of catch data provided in the first instance by the Seychelles has experienced some delays in resolving differences (with a variation of -7 to +12%) in annual catches declared. This has complicated the calculation of additional licence fees and additional compensation when the reference tonnage is exceeded.

Good scientific data is collected from the purse seine segment through the implementation of an effective observer system. However, due to lack of resources, there have been only limited offshore controls conducted. Similarly, port sampling by the Seychelles authorities during transhipment and landing is insufficient to generate reliable disaggregated data on catch by species and size. Since 1 January 2018 all catch including bycatch must be landed, and until now the opportunity for sampling of bycatch to significantly improve estimates of fishing mortality has not yet been realised.

Conclusion

EU vessels which operate under the Protocol are broadly compliant with the fisheries conservation obligations set out in the Protocol (VMS, observers, reporting obligations). Port sampling of catches to determine species composition is under-resourced, which complicates validation and reduces the reliability of catch data.

7.1.2 Objective 2: To protect the EU long distance fleet and the employment linked to the fleet operating within SFPAs

Objective

Success criterion

2.1 To seek appropriate share of the surplus resources, fully important for the EU fleet. Species and quantities covered by the protocol correspond to the fishing patterns of the EU fleet fleets interests

The importance of the Seychelles fishing zone for the EU tuna purse seine fleet is evidenced by the fact that 100% of EU tuna purse seiners active in the Indian Ocean utilised fishing opportunities available under the Protocol. On average, for EU tuna purse seiners, catches under the Protocol in the EEZ of Seychelles equated to 23% of total catches in the Indian Ocean. There is a higher dependency ratio for the FR / IT fleet with 37% of total catches in the Indian Ocean taken from Seychelles waters. For the ES fleet, the dependency ratio is lower (17% on average).

Estimates based on the operating accounts of EU tuna vessels benefiting from fishing opportunities in the Seychelles fishing zone suggest that the value of catches generated has averaged approximately EUR 70 million per year over the 2014-2018 period, varying between EUR 39.2 million in 2015 and EUR 83.0 million in 2017. The direct GVA generated by EU tuna vessels has been slightly in excess of EUR 30 million on average over the five years, varying between EUR 11.3 million in 2015 and EUR 44.5 million in 2017. All the EU fishing activity generating economic benefits is undertaken by the purse seine segment.

The EU surface longliners segment however has not realised any fishing activity under the Protocol, leading to the conclusion that, at present, it finds the opportunities available to be of little or no relevance. However, the Seychelles remains an important supply base for this segment.

The landings from the EU vessels into the Seychelles have totalled about 39,500 tonnes/annum (2014-2017). The IOT cannery has operated on an annual raw material basis of about 75,000 tonnes (300 tonnes raw material/day). The Protocol has therefore provided about 53% of the raw material supply to the cannery sector. The balance is made up of imports via containers and landings from Seychelles vessels. Since the landing obligation, two operators have commenced packing and exporting bycatch (small tunas and non-tuna species). These operators have a similar, if not higher dependency on the EU fleet.

Conclusion

	Access to the EEZ of Seychelles through the Protocol has allowed the EU tuna vessels to pursue migratory resources of tuna as they pass through the Seychelles zone, this contributing to their regional fishing strategy. The opportunities have been of extremely high relevance to the EU purse seine segment in the Indian Ocean, accounting for almost one quarter of catches and revenues. However, EU longliners operating in the region have demonstrated little practical interest in the fishing opportunities in the Seychelles zone. The Protocol therefore has only met the needs of one of the two EU fleet segments operating in the region.
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ObjectiveSuccess criterion2.2 To ensure that the level of
fees payable by Union ship-
owners for their fishing activities
is fair, non-discriminatory and
promotes a level playing field
among the different fleetsThe SFPA framework offers similar conditions to all foreign
fleets operating in the Seychelles fishing zones.

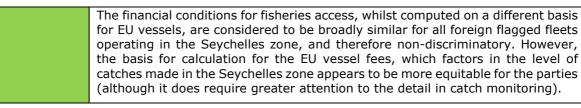
Response

Level of fees and technical conditions applied to third countries fleets operating in the Seychelles fishing zones are not directly comparable to the FPA with the EU due to different

method of calculation defined in the Protocol (based on EUR/tonne with minimum annual deposit). However, for the EU purse seine operators, the average value of access fees paid during the period (deposit plus variable fee based on tonnage) was in excess of EUR 110 000 per vessel. This compares to a flat fee licence fee of US\$110,000 for Mauritian flagged purse seiners and US\$120,000 for others (e.g. Koreans). In general, therefore, on average the EU vessels paid 14% more than Mauritian operators and 5% more than Korean operators for access. However, some EU vessels have paid less, and some more (one vessel with a catch of 4 319 tonnes in 2017 paid more than EUR 300 000).

For EU flagged surface longliners, the fees would be on average EUR7 800/year plus a fee per tonne. For other foreign flagged operators, the fees are US\$30,000 (Mauritius) and US\$33,500 (private). Since only 1 French surface longliner utilised the fishing opportunities in 2016 and 2017 and no catches were made it is not possible to make a valid comparison.

Conclusion



Objective

Success criterion

favourable to private investment port- and ancillary activities and economic activities

2.3 To encourage the creation of Part of the fish caught in the framework of the SFPA supplies a secure environment that is local market and processing industry; the EU-fishing supports

Response

Almost all of the catches made by the EU fleet under the Agreement are discharged or transhipped in Victoria. Of these some 22% enter the IOT cannery, and since the landing obligation was introduced with full effect in 2018, there are additional supplies to bycatch processing operations in Mahé (to which the contribution of the Protocol cannot be determined with precision). Over the period, landings from the EU fleet of fish caught in the Seychelles zone (48,000 tonnes/year) have contributed about 10,600 tonnes/year to the national processing establishments for subsequent export. Transhipment activities, both bulk and containerised, of the balance (37,400 tonnes/year) have also provided significant revenues and employment opportunities via the Victoria Port Authority and the Île du Port Handling Services Company, as well as cold-storage and container suppliers. Pro rata based on catches, the Agreement directly accounts for an estimated 15% of the total supplies to processing (c.75,000-80,000 tonnes), and 22% of the port handling services provided by these operators (landing and transhipment of 229,000 tonnes/year from all fleets).

Conclusion

Fishing under the Protocol has directly contributed about 15% of the raw
material supplies for local processors. Landing and transhipment activities linked to the Protocol have accounted for 22% of the revenues of port and ancillary
activities. Bycatch processing activities also utilise product caught by vessels
operating under the Agreement. The Agreement has therefore made a significant contribution to the sustainability of shore based-activities in the
Seychelles.

Objective

Success criterion

Ex-post and Ex-ante evaluation study of the Sustainable Fisheries Partnership Agreement between the European Union and the Republic of Seychelles

2.4 To take into account the FPA covers the specific needs of the EU fleet based in outermost specific interests of the Union's outermost regions located in the vicinity

Response

The Protocol makes specific provision (in terms of reserved fishing opportunities and reduced licence fees) for access by smaller surface longliners, to accommodate the EU fleet operating from La Réunion. However, since most of this fleet has short range limited to two weeks at sea (with fish stored on ice) the distance to good longline fishing areas within the Seychelles EEZ has meant that the opportunities have had limited interest. Only one vessel from this operating base (but equipped to freeze catches onboard) has drawn a fishing authorisation (on two occasions) but has not utilised it.

Conclusion

Whilst specific provision is made in the Protocol to account for the needs of EU fleets based in the Outermost Region, the logistics of effectively utilising the opportunities have limited their exploitation.

7.1.3 Objective 3: To support the development of a sustainable fisheries sector in partner countries (sectoral support)

Objective	Success criterion
3.1 To contribute to capacity building in SYC	The sectoral support contributes to the improved functioning of the fisheries administration and the fisheries sector in Seychelles. It provides for adequate training, equipment and infrastructures namely in the areas of science and MCS. Utilisation of the sectoral support has been duly reported (detailed results on expected economic and social benefits in all geographical regions).

Response

The supplies of tuna landed from the EU vessels fishing under the Protocol make a vital contribution to the supply of raw material for fish processing in the Seychelles and subsequent export, accounting for about one fifth of inputs (the balance being from EU vessels fishing elsewhere and Seychelles and other third country vessels). In this respect the Protocol has made a significant contribution to the continued existence of an economically sustainable national fishery sector.

The financial contribution from the Agreement plus licence fees paid by EU operators contributed an annual average of EUR8.6 million to the national budget, representing about 1.7% of Government expenditure in 2018. The income accounts for about 50-60% of all fishery sector revenues generated from primary fisheries activity by SFA (which are variable depending on uptake of longline licences by SE Asian longliners). The agreement has provided a small but stable and significant contribution to national income. The significance of this will increase as the SFA moves to budgetary independence from 2019, for the last year of the protocol, when it will be dependent on fisheries income to finance its various operational and development activities.

The sectoral support programme has financed significant upgrades in facilities serving the small-scale fishery sector and to a lesser extent the tuna sector. The programme was successful in consolidating and strengthening the observer programme for the tuna sector. Implementation of the Electronic Recording System for catch reporting has only been partially successful and is not yet fully implemented. Sectoral support available to the MCS area was not effectively applied due to capacity limitations, with only 9 sea patrols

conducted so far in the course of the Protocol, only partial coverage of port landings and transhipment and limited air patrols. Fisheries management plans for demersal fish, lobster and sea cucumber have been strengthened. Updating of the NPOA on sharks is still outstanding. Capacity building activities have addressed a wide range of human resource needs but appear to lack a cohesive training plan.

Overall, at the end of 2017, 53% of the programmed finance of EUR 17 632 015 had been expended (which included the balance of EUR 2 420 342 from the 2011-2014 programme). Except for a revolving credit fund and under-utilised fish processing investments (legacy interventions from the 2011-2014 programme) the programme is considered to have been broadly relevant to the needs of the sector.

Low rates of implementation in the early years meant that payments of the support were delayed by the EU, but the recruitment of Technical Assistance for the Management of the Sectoral Support Programme and adoption of new implementation guidelines have significantly improved management in 2017 and 2018. Monitoring indicators selected by the parties placed undue reliance on financial expenditure, rather than outputs and results. Multi-annual programming periods are considered to have been too short to allow the Joint Committee to monitor overall progress towards results and specific objectives. The programme was not linked to a new Strategic Plan for SFA for the years 2018 – 2020.

A decision to report the progress of implementation of the sectoral support within the Annual Reports of the SFA meant that such reports were delayed by external and unrelated factors, and these reports should be de-linked. The project management team remains under-resourced, resulting in progress reports being substantially delayed and weak monitoring; quarterly reporting has not been implemented despite repeated requests by the EU in the Joint Committee. In any case the lack of focus on output indicators in programme design does not permit a comprehensive assessment of impacts. Many of the problems experienced in the Sectoral support were identified in the European Court of Auditors 2015 report "Are the Fisheries Partnership Agreements well managed by the Commission". However, corrective measures could only have limited impact on the 2014 – 2020 activities since programme design was already fixed and implementation was in progress.

Conclusion

The sectoral support implemented under the Protocol has contributed to strengthening the implementation of fisheries policy primarily through establishing the observer programme and new infrastructure. Other measures have had limited impact or impacts which are difficult to measure due to insufficient attention to programme design and ex ante evaluation, and insufficient resources allocated to programme management.

Objective

Success criterion

3.2 To promote the employment of seamen, landings and fishing processing industry EU vessels recruit part of their staff locally: they benefit from good working conditions and appropriate training, equivalent to ILO standards. Part of the catches is landed and processed locally.

Response

EU purse seine vessel operators use Victoria as an operating base, and this provides a good potential for recruitment of Seychellois crew. Local vessel agents provide a recruitment service. All vessels endeavour to respect the minimum number of 2 Seychellois crew per trip from a corps of 40-60 qualified seamen reported to be available for recruitment. However, coverage of fishing activities by Seychellois mariners is only 51% of possible

fishing days by EU vessels. EU vessels have paid compensation to the Government of Seychelles for the non-employment of Seychellois crew, although inadequate reporting on non-availability of crew meant that at times compensation was paid when it should not have been. This is not in line with the Protocol which exempts the operators from liability when no crew are available. No information is available on the offer of training for junior seamen.

A significant proportion of the catch (about 22% plus some bycatch) from the EU vessels enters local processing. Overall the EU-Seychelles Protocol is estimated to support directly and indirectly employment equivalent to 350 FTEs in the Seychelles, with most jobs supported in the upstream and downstream ancillary activities.

Conclusion

The Protocol fosters interactions between EU tuna vessels and the Seychelles fisheries sector through the employment of seamen, significant landings and transhipment by the EU fleet operating under the Agreement and contributing to the raw material used by the processing sector and employment on shore. The limited supply of seamen and insufficient detail in monitoring means that EU operators may pay excessive compensation in non-recruitment situations.

7.2 Efficiency – The extent to which the desired effects are achieved at reasonable costs

Questions	Success criterion
To what extent does the SFPA offer value-for-money to the EU?	The EU financial contribution for access is commensurate to the fishing opportunities

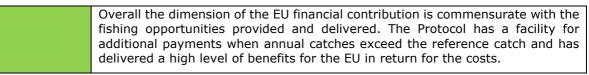
Response

Although in two years of the Protocol, the annual catches have exceeded the reference tonnage of 50,000 tonnes, on average catches have been slightly below, at 48,000 tonnes. This suggests that the dimensions of the Protocol were in line with the demand, and that the EU has not paid for un-utilised fishing opportunities. The Protocol provides for excess payments to the Seychelles when catches exceed the reference tonnage. However, opportunities provided within the Protocol for surface longliners have hardly been used.

The EU annual financial contribution foreseen in the protocol has averaged just under EUR5.4 million, including a compensation for access averaging EUR2.6 million. The EU compensation corresponds to EUR 58/ tonne caught, which is 4% of the sales value of the tuna caught under the Protocol (fleet operators contribute a further 4.5%). The Protocol is estimated to have generated a GVA slightly in excess of EUR 30 million on average over the five years, varying between EUR 11.3 million in 2015 and EUR 44.5 million in 2017. Concerning cost-benefit ratios, the Protocol has generated EUR 18.90 value added for every EUR 1 invested by the EU in the access payments.

It is noted that bycatch (which since 2018 is subject to a landing obligation) delivers a potentially definable benefit under the Agreement. However, its value is not considered in the compensation approach set by the Protocol.

Conclusion



Questions	Success criterion
	Sectoral support has been properly used by Seychelles (results achieved, initial budget respected)

Response

The utilization rate of the contributions from the sectoral support during 2014 and 2015 did not meet the conditions of 75% of disbursement required for payment of the following years grant. In subsequent years, disbursement rates were significantly improved thanks to the recruitment of technical assistance to the executing agency (the SFA) for implementation.

The sectoral support under the Agreement contributed an annual average grant of EUR2.53 million for investment in implementation of the Seychelles fishery sector policy. In addition, in 2014 and 2015 the support benefited from a balance of 2.4 million from the previous protocol. In 2018, the Sectoral support accounted for about 24% of the EUR12 million budget for fisheries development (see budget heading P4 Table 14Table 14), and is foreseen to account for 70 and 76% in 2019 and 2020 respectively, with the balance contributed by other donors. The regular programmed investment from this component of the contribution has permitted a rational planning of sectoral development by the Seychelles authorities. Although there are notable and clear results, because of limitations to the programme design (limited linkages to fisheries policy and strategy, lack of detail in identification and formulation and lack of relevant objectively verifiable indicators of achievement and outputs), a comprehensive evaluation against intended results is not possible.

Conclusion

The sectoral support component has contributed a significant proportion of the public investment programme for the Seychelles fishery sector. Challenges in programme management due to mismatch between the dimensions of the support and implementation capacity in the executing agency, the SFA, were evident in the early stages, but eventually overcome. Sectoral support has delivered some clear successes and had a positive impact on the fishery sector, notably infrastructure and the observer programme. There are doubts about the relevance and efficiency of some of the other expenditures made, and it is not possible to define these in more detail due to a lack of clear programming, ex ante evaluation of the programme matrix and lack of attention to monitoring and evaluation of some components.

Questions

Success criterion

To what extent does the FPA The EU ship-owners' contribution is commensurate to effective offer value-for-money to the EU catches and profits shipowners?

Response

For EU tuna purse seiners access fees paid represented about 5% of turnover and 10% of GVA averaged of the years 2014-2018. The costs of access were therefore a relatively low part of the overall cost structure, largely due to the reference tonnage used by the Protocol to set the value of the fixed part of access fees, and its full utilisation. The Protocol can be considered to be efficient, insofar as the point of view of EU vessel operators, generating a net profit of EUR12 million, divided 2/3 to Spanish operators and 1/3 French/Italian operators, based on annual gross revenues averaging EUR70 million.

Conclusion

rion

from a fair part of the added value of the catches.

Questions	Success crite
To what extent is the financial compensation for the fishing possibilities under the SFPA advantageous for SYC?	SYC benefits

Response

Seychelles received compensation for access equivalent to 8.6% of the average price at first sale of the tuna generated under the Protocol, with about 5% from vessel owners and 3.5% from the EU. Distribution of the annual GVA generated between the EU and Seychelles is relatively balanced with an estimated EUR 24 Million (44%) of both direct and indirect GVA benefiting to the EU and EUR 13.4 Million (24%) benefiting to Seychelles, with 32% benefiting other entities which include mostly coastal States of the Western Indian Ocean.

A large part of the GVA benefiting Seychelles derives from the processing of EU catches (31% of total gross value added), EU access payments (21%) and access fees paid by EU vessel operators (24%). Wages paid to Seychelles nationals employed onboard EU tuna vessels, port taxes and upstream activities (vessel supplies) account for the balance. Seychelles benefits from 350FTEs employed in fishing, up- and downstream industries (22% of the total linked to the Agreement).

The Seychelles economy obtains EUR 222 GVA per tonne caught by EU tuna vessels in its fishing zone, equivalent to EUR 3.83 GVA per EUR 1 paid by the EU in exchange for access (not accounting for sectoral support). The EU-Seychelles Protocol is estimated to support a total employment of 1 560 FTEs of all nationalities. In total, Seychelles employment supported is equivalent to 22% of the total (350 FTEs) with most jobs supported in the upstream and downstream ancillary activities.

Conclusion

Overall the EU-SCY FPA Protocol delivers 24% of its net benefits (in terms of gross value added) and 22% of employment generate (350FTEs) to the
Seychelles.

7.3 Economy – the extent to which resources are available in due time, in appropriate quantity and quality at the best price

Questions	Success criterion
contribution for sectoral support	The EU contribution for sectoral support is in line with SYC's needs and absorption capacity. The total amount of sectoral support is used according to the foreseen calendar

Response

No part of the sectoral support programme contradicts the Fisheries Policy of 2005, which set out the needs of the sector, and the strategies to be adopted. The focus of expenditure on infrastructure is fully in line with section 5.9 of the policy which states "*The Government will give urgent attention and will identify funds either locally or abroad, for the development and improvement of the existing port infrastructure, services and facilities, identify locations for the development of a new port and the development of shore-based installations for the benefit of local fishers.".* Other measures regarding fisheries management, strengthening observer corps and MCS functions and post-harvest handling and value added are also relevant. However, concerns remain regarding the relevance of the sectoral support from the 2011 - 2014 Protocol for a revolving credit fund, which appeared to support an economically unsustainable investment in the national longline fishing sector.

The dimensions of support, which annually represent about 1% of the sales value generated by the fishing sector, is not disproportionate to the dimensions of the sector. However, there was an initial mismatch between the sectoral support programme and the implementation capacity of the selected executing agency for all actions, the Seychelles Fishing Authority. The result of simultaneously programming disbursement of these dimensions, along with a balance of EUR2.4 million carried forward from the previous protocol, is that by the end of 2017 the financial contribution for the sectoral support was 53% disbursed, with two years of the Protocol period left to run, plus a half year grace period for finalising disbursement after the expiry. The situation was greatly improved by the recruitment of technical assistance in 2017. Nevertheless, there remains a potential risk of losing benefits to the national fishery sector. Budgetary independence of SFA from 2019 onwards should allow greater flexibility in the allocation of resources to programme management.

Conclusion

The nature and dimensions of the sectoral support programme were commensurate with the needs of the fishery sector. However, implementation of such an ambitious and large sectoral support programme has proved to be challenging for the Seychelles Fishing Authority, which has struggled to effectively manage the programme with its own resources.

Questions	Success criterion
	Contributions have been paid in due time and consistent with the protocol, and so that they could be allocated to Seychelles' fisheries budget without delay.

Response

The calendar of payments and allocations of the sectoral support have proceeded in line with the Protocol prescriptions and the needs of the executing agency. Although payments were suspended on two occasions, this was due to the slow disbursement rate of previously transferred tranches and did not delay implementation. Slow public procurement procedures out of the control of the SFA also resulted in considerable implementation delays. Financial contributions are paid to a single public treasury account. The investment from the sectoral support was identifiable in the annual appropriations budgets and the threeyear mid-term expenditure programme. No problems were experienced by the executing agency with regard to access to budget for implementation.

Conclusion

The EU has disbursed the sector support financial contributions in a timely
manner and consistent with the Protocol. National budgetary discipline was
good, but in the early stages of the Protocol there was insufficient management
attention to programme design and to allow for effective and timely budget
implementation.

7.4 Relevance – the extent to which the objectives of the SFPA match current needs and problems

Questions	Success criterion
Extent to which the original objectives of the SFPA still correspond to the needs of EU ship-owners and of SYC?	The FPA and its protocol are in line with the SFPA objectives (resource and environmental sustainability; support to the development of a sustainable fisheries sector in Seychelles; facilitation of the integration of coastal states into the global economy; improvement of scientific and technical knowledge) and address correctly the needs of Seychelles and of the EU ship-owners

Response

For EU fishery operators, the uptake of the purse seine fishing opportunities under the FPA have been consistent and averaged 71% of the authorisations available over the period of the Protocol so far. This suggests that there is high degree of relevance of the agreement to EU ship-owners in this segment. Along with the FPA with Mauritius, the Protocol contributes to a network of arrangements in the region that enables EU vessels to fish for highly migratory species throughout the Indian Ocean. However, the low uptake of the surface longline opportunities (7%) suggest that whilst there is some interest, for all practical purposes, the Protocol has not met the needs of this fleet segment.

For the Seychelles, the FPA represents a significant contribution to sectoral management and investment budgets, supports employment and economic activity in port services, onshore processing and exporting, and the sectoral support measures are relevant to national fisheries policy objectives. Compared to alternatives, and whilst the dimensions of the Seychelles flagged fleet remains limited, the FPA provides a mechanism of providing access to its fisheries resources which not only provides financial income, but also strengthens the environmental and economic sustainability of its fishery sector. In these respects, the Agreement and Protocol are therefore considered to be highly relevant to the needs of the Seychelles party.

However, Seychelles fish processing stakeholders consider that their interests are not fully protected due to lack of a clear landing obligation in the Protocol, which is considered to contribute to a critical limitation to their operations during times of short supply.

Conclusion

	With the exception of the surface longline fishing operators, the Protocol has been highly relevant to the needs of the EU fishery sector. It has also met the needs of the Government of Seychelles and has strengthened the environmental
	and economic sustainability of its fishery sector, in line with its fisheries policy.

Ex-post and Ex-ante evaluation study of the Sustainable Fisheries Partnership Agreement between the European Union and the Republic of Seychelles

Questions	Success criterion
policy objectives of RFMOs and	For highly migratory species, the protocol contributes to achieving objectives set at IOTC level and to maintaining a network of (S)FPAs in the region.

Response

The objectives of the Agreement and protocol are to promote responsible fishing in the Seychelles waters, in accordance with the principles of good economic and social governance. These objectives are considered to be consistent with the objectives of the IOTC, as set out in Article 5 of its charter⁴⁷ "*The Commission shall promote co-operation among its Members with a view to ensuring, through appropriate management, the conservation and optimum utilization of stocks covered by this Agreement and encouraging sustainable development of fisheries based on such stocks."* For both the EU and the Government of Seychelles, the Protocol includes provisions which support the objectives of resource and environmental sustainability. In particular, it makes provision for catch reporting, strengthening MCS and the observer scheme and requires vessels to comply with the laws of Seychelles relating to fishing activities, as well as with the conservational, management and other measures adopted by the IOTC.

The Protocol provides for dimensions of purse seine fishing opportunities consistent with the dimensions of the EU fleet operating in the Indian Ocean and other EU Fisheries Partnership Agreements in the region. With respect to the purse seine fleet, it therefore is relevant to the EU policy of enabling EU fishery operators to pursuing migratory resources within the Indian Ocean region.

Conclusion

The Protocol objectives are consistent with the objectives of IOTC and contribute towards their achievement through support for effective catch reporting, strengthening the MCS system and observer scheme and requiring vessels to comply with the fisheries regulations of Seychelles.

7.5 Coherence – The extent to which the intervention logic does not contradict other interventions with similar objectives

Questions	Success criterion
	The protocol is in line with the CFP in general, contributes to achieving EU objectives at regional level - including the creation of a regional network of SFPAs - and is consistent with other SFPAs in the region.

Response

The objective of the common fisheries policy (CFP), as set out in Regulation (EU) No 1380/2013 of the European Parliament and of the Council (1) (the 'Basic Regulation'), is to ensure that fishing activities are environmentally, economically and socially sustainable and are managed consistently with the objectives of achieving economic, social and employment benefits, and of restoring and maintaining fish stocks above levels which can produce maximum sustainable yield and that they are contributing to the availability of food supplies. In all of these respects the design of the current Protocol is found to have been consistent with the CFP objectives since it safeguards the Union's interests in terms

⁴⁷ Agreement for the Establishment of the Indian Ocean Tuna Commission (IOTC), http://www.iotc.org/

of access rights and conditions within the wider framework of SFPAs. Insofar as management of the tuna stocks is concerned, the EU fleet is just one of many which exploits these fisheries. Management decisions are addressed at the level of the RFMO, the IOTC, and the Agreement obliges the parties to ensure that IOTC measures are respected by contracting parties wherever the vessels operate. The Protocol, by securing access to fish stocks which can be processed regionally and exported to the EU, has contributed to the supply of good quality and safe fishery products to the EU consumer.

Since the establishment of the Fisheries Partnership Agreement and the latest Protocol 2014-2020 with the Seychelles, the EU has adopted Regulation (EU) 2017/2403 of the European Parliament and of the Council of 12 December 2017 on the sustainable management of external fishing fleets which sets out the rules under the CFP for the management of the EU's external fleets. The Protocol contains several provisions subsequently adopted by this regulation, namely concerning the requirement for licensing of supply vessels, and adoption of electronic data recording (ERS).

The Protocol sets no limits to the numbers of supply vessels, which since 2018 have been limited to one auxiliary vessel for every two freezer tuna vessels under IOTC Resolution 18/01 concerning the plan for recovery of the yellowfin stock in the Indian Ocean. However, these measures have been adopted after the implementation of the Protocol.

The Protocol is consistent with EU's FPA with Mauritius, in terms of the dimensions of the fishing opportunities defined, and financial and technical access conditions.

Conclusion

The Protocol is consistent with the CFP and the objectives of IOTC. It requires the application of IOTC measures to the activities of EU vessels operating under it. The Protocol contains several provisions subsequently adopted by the EU regulation on the sustainable management of external fishing fleets, namely concerning the requirement for licensing of supply vessels, and adoption of electronic data recording (ERS). The Protocol is consistent with other FPAs in the region, in terms of the dimensions of the fishing opportunities provided and access conditions.

Questions	Success criterion
How is the protocol consistent with the other EU policies	The protocol makes an effective contribution to other EU policies

Response

The Agreement supports the provision of raw materials for processing within the region for subsequent export to the EU, and therefore supports the EU's wider development policy, as expressed in the National Indicative Programme for increased value addition for the Seychelles. The Protocol is coherent in its objectives and through sectoral policy support measures for MCS and observer programmes, in line with EU's regional development policy, which through Programmes such as SMARTFISH and €COFISH seeks to ensure environmentally sustainable fishing in the Indian Ocean through support for improved fisheries governance. On a wider basis, the Agreement is also relevant to EU maritime policy, in that the activities of EU commercial operators under the Agreement benefit from improved maritime security measures supported by the EU's regional development policy.

The Agreement is aligned to the EU's regional trade policy within the region, as reflected in the interim Economic Partnership Agreement. The EU origins of the catches under the Agreement allow EU vessels' products to enter the EU free of all duties after processing in Seychelles. The Interim Economic Partnership Agreement with the ESA states allow products of Seychelles origin to similarly enter duty free, along with quotas of nonoriginating products under a derogation granted to COMESA members Seychelles, Madagascar and Mauritius. This coherent approach thus guarantees EU market access for the products of the IOT cannery from a range of raw material sources. The conjunction between the EPA and the FPA is therefore highly complementary and generates increased revenues and interests for the Seychelles. The Protocol, through the sectoral support programme, has also contributed to the strengthening of sanitary controls implemented by the Competent Authority (Seychelles Bureau of Standards), and has therefore contributed to the protection of EU consumers through improved standards of safety in fishery products exported to the EU.

Conclusion

The Protocol is consistent with other EU initiatives in the region particularly in relation to fisheries conservation, environment and maritime security and contributes to their effectiveness. It is coherent with EU trade and consumer protection policies to ensure adequate supplies of safe, reasonably priced fishery products to EU consumers.

Questions	Success criterion
In what ways is this FPA consistent with Seychelles' fisheries policy?	The protocol contributes to achieving the priorities identified by Seychelles

Response

The Seychelle's national fisheries policy has an objective "to maximise revenue from fisheries and other related activities" and commits the Government to ensure that the "maximum amount of foreign exchange is earned through the export of fish and fish products, as well as to negotiate access agreements with foreign countries or fishing companies, and ensure that the facilities and services in Port Victoria are developed and utilised to the maximum". In generating an estimated EUR8.6 million annual income for the Government of Seychelles (including investment funds) the Protocol has provided a significant contribution (accounting for 50-60% of fisheries income and about 1% of all

government revenues). In addition, the Seychelles share of annual GVA derived from the Agreement (including up- and downstream industries) contributed a further EUR13.4 million to the national economy.

Although there were initial difficulties in implementing the sectoral support programme according to the foreseen timetable, the sectoral support programme has broadly supported infrastructure development and strengthening the sectoral management capacities of the SFA and is thus in line with the national fisheries policy of 2005.

In particular, there may be a case for considering any losses under the Fisheries Development Fund scheme under the Development Bank of Seychelles financed from 2011/2014 sectoral support programme to be inconsistent with the budgeted programme, which could be considered grounds for permanently withdrawing a corresponding part of the contribution. In any case, the parties should agree an end-point to the intervention, at which it will cease to be a concern of the Joint Committee.

Conclusion

The Protocol has made a very significant contribution towards achieving the priorities identified by the strategic framework for the fishery sector, delivering significant financial, economic and socioeconomic benefits. The Sectoral Support Programme has also contributed to implementation of fisheries policy, also a precise and quantitative assessment is undermined by the limited resources applied to programme design, management and monitoring.

7.6 The EU added value – The extent to which the intervention brings EU added value

Questions	Success criterion
	Financial contribution, in particular sectoral support, successfully used to support and develop the national fisheries sector.

Response

In the absence of an SFPA, shipowners could have engaged in direct private agreements with the Seychelles. Compared to this option, the EU intervention adds value in terms of the following features of the Agreement, which would have been difficult, if not impossible to generate under private access arrangements.

- Dialogue and direct exchange between EU and Seychelles authorities, in terms of scientific cooperation and a framework for joint monitoring and control of EU activities:
- Promotion of responsible fishing practices, including more transparent access conditions;
- Coherence with EU policies in terms of national and regional development, trade and market access and sanitary conditions.
- Financing of actions aimed at achieving the objectives of the Seychelles sectoral policy.
- Investments in the development of the Seychelles fishery sector by other EU national and regional programmes (and other donors) which are complementary in nature with the sectoral support component of the Agreement

It is notable, that even though the surface longline opportunities are not taken up by EU operators, many of these benefits are still evident in relation to this fleet. In addition,

compared to private access arrangements the Agreement has promoted nondiscriminatory access conditions across all foreign access agreements (EU and non-EU fleets). Until now, potential synergies from the development of an EU-Seychelles Framework for collaboration on promotion of new management measures for adoption by the IOTC have not been realised.

Conclusion

Questions	Success criterion
What is the additional value resulting from the EU intervention under the FPA, compared to what could be achieved by the Union fleet outside the framework of the FPA?	Union vessel owners prefer the SFPA/Protocol over private agreements.

Response

EU purse seine vessel operators express a strong preference to accessing the Seychelles zone through the mechanism of the Agreement and the Protocol. The current Protocol provides a politically stable and guaranteed lawful access to the Seychelles zone over a 6-year period, which has provided a foundation for their multi-annual investment and operating plans. Although average access fees for EU vessels are slightly higher than for Seychelles and non-EU purse seiners, the relatively small differences in costs of access of alternative arrangements do not appear to have influenced access rates. In fact, the approach of linking additional catches pro rata to increased licence payments is considered to have provided more equitable access conditions for those vessels which have chosen to utilise the zone less than others.

Conclusion

7.7 Acceptability – The extent to which stakeholders accept the policy in general and the particular instrument proposed or employed

Questions	Success criterion
	The EU ship-owners are satisfied with the technical and financial conditions set up by the protocol and support its renewal (with possible adaptations).

Response

EU purse seine vessels owners, as represented by Producers' Organisations of tuna purse seine operators, OPAGAC, ORTHONGEL and ANABAC were consulted and consider the Agreement and its Protocol to have been strategically important; after Somalian waters (which have not been accessible since 2009) the Seychelles zone is considered to offer the

most productive fishing in the Indian Ocean. Distance from main centres of operation and high rates of predation are given as reasons for the reduced interest by the surface longline segment.

The ready local market offered by the IOT, and most recently bycatch processors, is highly appreciated. Tuna vessel operators consider that Port Victoria provides very convenient port facilities, being close to the main tuna fishing grounds and with a ready market with no shipping costs by supplying the IOT tuna canning factory. It has good facilities and services for re-provisioning, and crew changes. The importance of the Seychelles zone is considered to have been even higher during the latter part of the Protocol period since access to the waters of the Comoros and Madagascar was closed (where Agreements were in place for most of the period⁴⁸, but no Protocols adopted).

In terms of the technical and financial conditions for fisheries access under the Protocol EU vessel operators report that no specific problems have arisen. They are broadly satisfied with the access conditions. However, French operators consider the flat-rate fees for seiners (EUR 52 500 per year in the sixth year of the Protocol) to be excessively high. Observers are always available and of good quality. However, meeting the crew recruitment conditions is sometimes difficult due to lack of qualified/experience mariners willing to go at-sea. They consider that current requirements and conditions in the existing Protocol are equitable but consider that they have been asked to pay compensation for non-recruitment when no seamen were available. At present, operators are only required by the Seychelles authorities to report the numbers recruited, not non-recruitment and the reasons. An alternative approach suggested by vessel operators would be to introduce more flexibility by setting the condition in relation to ACP nationals from within the region.

EU Member States are generally satisfied with the Agreement and Protocol, subject to comments regarding more timely communication of the issue of licences. They also seek greater coordination between the EU and Seychelles regarding IOTC measures. They would also prefer to utilise the ERS catch recording system for catch validation, which until now has not been fully implemented. They would wish to see questions regarding disagreement on the embarkation of sailors and discrepancies in the validation of captures, being resolved more quickly. They criticise that discussions are too drawn out and that it is time-consuming to resolve discrepancies. It is proposed that data provided by the Vessels ERS to the Flag Member State should be used for control purposes, instead of waiting for validation by third parties, due to the long delays in finalising the data.

Conclusion

EU operators of purse seine vessels fully support the renewal of the Protocol which is considered to be an essential strategic pillar of their operations in the Indian Ocean. On the other hand, EU surface longline operators appear to have only limited interest in fishing the Seychelles zone, although the port facilities are used by their supply vessels. Whilst broadly satisfied with the conditions set out the Protocol, the implementation of the crew recruitment requirements by
are used by their supply vessels. Whilst broadly satisfied with the conditions set out the Protocol, the implementation of the crew recruitment requirements by
purse seiners causes difficulties and it is suggested that the new Protocol should review the procedural rules for reporting this aspect.

⁴⁸ The Partnership Agreement with Comoros wa denounced by the Council on 14 May 2018 (Council Decision 2018/757).

Questions	Success criterion
•	Representatives of the civil society are satisfied with the environmental and social conditions set up by the protocol and support its renewal (with possible adaptations).

Response

Environmental NGOs are disappointed that there was no transparency requirement applied to access conditions in the Protocol. This is considered to be especially important since Seychelles has declared the intent of adhering to the standards of the Fisheries Transparency Initiative. NGOs call for future Protocol provisions to require greater transparency in reporting the activities and outputs of the vessels and compliance with the conditions of access, along the lines of the 2015 Mauritania Protocol. They consider that failure to publish the required data should result in suspension of the Protocol.

NGOs also consider that the justification of access to the Seychelles zone as exploitation of a "surplus" is misleading since the EU and vessel operators pay to access the fishing opportunities regulated by the RFMO within the zone of the partner country. There is no surplus per se (a point also expressed in the report of the Court of Auditors). The approach diverts attention from the focus on the strengthening the ways in which the socio-economic benefits can be derived to local populations (especially fishing communities) from tuna transiting their EEZs. A stronger development focus should therefore be evident in the approach to this important Protocol.

Regarding sustainability, the NGO sector is concerned that the increase in capacity linked to the use of FADs has resulted in over-fishing of catch limits and an increased proportion of juveniles and bycatch. There is a need to ensure that a future Protocol with Seychelles, contains stronger mechanisms to ensure that its vessels comply with the IOTC limits and limits on the number of FADs, while recognizing that Seychelles may decrease this number in their zone if it seems appropriate to them. NGOS are concerned that the demands of local artisanal fishing communities, who complain about the impact of FADs on their fisheries and fragile areas (coral, etc.) have not been taken into account.

Furthermore, civil society complains of a lack of transparency regarding the choice of funding priorities through sectoral support, as well as what has been achieved. In a future Protocol, national and international NGOs seek transparent prioritization of funding for sectoral support and greater involvement of coastal communities. They complain that the reports submitted by Seychelles to the EU on the use of sectoral support were not made public.

Conclusion

The EU makes information on the SFPA publicly available via its website, but in EU and the Seychelles civil society organisations raised concerns about the lack of transparency and information provided by the authorities on the uptake of opportunities, catches and compliance with the conditions of the SFPA/Protocol, as well as information provided on access agreements concluded by Seychelles with other fishing entities.
Concerns were also raised with regard to the sustainability of the purse seine opportunities, as well as reporting conditions and implementation of control measures and the sectoral support programme.

Questions

Success criterion

To what extent is the protocol supported by the sector (ship owners and processors) in SYC? The Seychelles ship-owners do not experience competition by the EU fleet and fish processors benefit from purchase opportunities generated by the protocol and support its renewal

Response

The fisheries sector in the Seychelles, represented by the Fishing Boat Owners Association, does not directly compete with the EU fleet. Several of its members operate small scale longliners which could compete with EU vessels, but since there has been no activity under these opportunities, there is no competition for resources. The Seychelles purse seine segment presently has the same beneficial ownership as the EU vessels and operates within a coordinated strategy. The access provided to eight Seychelles operators to the EU waters of Mayotte under the EU -Seychelles Fisheries Agreement is considered to complement the access provided under the FPA. The Seychelles fishery sector is broadly supportive of the Agreement and Protocol. It recognises the substantial financial income generated and that this has enabled strong policy support for fisheries from Government, as well as significant investments which have benefited the small scale fisheries sector from the Sectoral Support Programme, principally new infrastructure, management plans for demersal fish, lobsters and sea cucumber, and the quality standard and labelling scheme (although the latter until now has not met expectations).

However, it considers that there has been insufficient consultation regarding the overall approach to the sectoral support programme, and doubts that SFA expenditure on capacity building and IT systems has delivered tangible benefits. Similarly, it is highly critical of the poor quality of the investment decisions in respect of the Providence Fish Processing facilities and the Fisheries Development Fund (both launched under the previous protocol). The sector also considers that the Agreement has failed to protect the fishery sector's interests and ensure a level playing field for fishery trade, which is undermined by the policy of EU Member States in selectively sampling and testing swordfish exported to the EU from Seychelles for sanitary compliance. The FBOA considers that the benefits of the Protocol are broadly shared equitably between the partners. Some sector operators hold contrary opinions, but this is considered to be due to the relatively low visibility of much that is undertaken or enabled under the Agreement.

The IOT cannery considers that it could not have survived without the supplies delivered to it under the Agreement. Two bycatch processors are almost fully dependent on bycatch from the EU fleet and its practice of landing fish in the Seychelles. The fish delivered from the Protocol has provided about 22% of the cannery inputs. In addition, the Protocol provides a foundation for the wider activities of the EU fleet in the region, allowing the Seychelles to provide the operating base, which ensures the entire supplies of raw material to the cannery (since the cannery operator Thai Union does not operate a tuna fleet in this region). However, IOT cannery considers that the requirement to "endeavour" to deliver supplies to the Seychelles processing sector does not sufficiently meet its strategic needs. In times of scarcity, IOT considers that EU operators have sought to preferentially supply the EU factories linked to the fleet, with the result that they have not had access to sufficient raw material (particularly in relation to a shortage of yellowfin tuna in 2018).

Conclusion

The implementation of the Protocol has raised some specific concerns from Seychellois fishing vessel and fish processing operators, which have meant that the benefits have not been fully optimised. However, the Protocol delivers clearly recognised benefits and is strongly supported by both the fishing and processing sector. There is no undue competition for resources between Seychelles and EU
operators.

Questions	Success criterion
	SYC authorities are satisfied with the implementation of the protocol's obligations and seek its renewal; they praise the fisheries partnership

Response

The Seychelles Authorities recognise the clear financial benefits to the Government and fishery sector derived from the Agreement and its current Protocol. The level of financial income generated (in terms of access fees and compensation) has made a significant contribution to the state budget which has allowed the Ministry of Agriculture and Fisheries to negotiate substantial budget appropriations for sectoral management by the SFA. The decision of the Government to grant the SFA budgetary independence is also based on the historical reliability of the income derived from the Protocol, as is the restructuring of SFA and its strategic re-orientation as set out in the 2018 SFA Strategy Plan. In addition, the contribution of the Sectoral Support Programme towards investment in the fishery sector, and it's management by the SFA as an implementing agency, is clearly recognised. For these reasons, the Agreement and its current Protocol are regarded as having been strategically important to the Government of Seychelles.

The Government is aware that the implementation of some parts of the Agreement have been sub-optimal. There is concern that the Agreement has not always been able to deliver guaranteed supplies to the IOT cannery, and that these gaps cannot always be fully compensated by EU quota tariffs for non-originating raw materials and cumulation benefits (although they are indeed helpful measures). The Government is concerned regarding the provision of timely validated landing and transhipment data from the EU vessels but is also aware it has not always been able to meet its MCS obligations in terms of monitoring the Seychelles zone and implementing effective port state controls.

The Government is also aware that until now it has not expressed a clear policy regarding the equitable sharing of the benefits of the Agreement, which is expected to be addressed in the development of the new Seychelles Fisheries Policy 2019, in terms of improved landing controls, increased supplies to processing and the recruitment of Seychellois operators all of which it seeks to address in a new Protocol. The Government expects that budgetary independence and the new policy framework will allow the SFA greater flexibility in the fulfilment of its future obligations under the Agreement, including addressing the need for improved management of the sectoral support programme to deliver clearer benefits to the Seychelles.

Conclusion

The authorities of Seychelles have been broadly satisfied by the Protocol and recognise the strong benefits which it has delivered. They therefore support its renewal. They are currently seeking to strengthen their institutional capacity (policy and legal framework, human resources) to allow for optimising the associated benefits of any future Protocol to the nation.

8 EX-ANTE EVALUATION OF A FUTURE PROTOCOL

8.1 Identification of the main problems, needs of each party and the expected objectives of an EU intervention

8.1.1 For Seychelles and the European Union

- Both parties recognize the mutual advantages in the renewal of both the Agreement and the Protocol. The current arrangements have broadly satisfied the needs of the parties, although certain details in the design and implementation of the Protocol have rendered the arrangements sub-optimal. The best interests of the parties would be served by renewal of both the Agreement and the Protocol.
- The common needs of the parties are to ensure that the future Agreement and Protocol maintain the high level of socio-economic benefits delivered to both as well as the supplies of fish for processing in the Seychelles and the EU, for supply to the EU market. Furthermore, concerns regarding the sustainability of the tuna resources need to be addressed, especially in the context, in the short term, of the IOTC measures for rebuilding the yellowfin tuna stocks and the fight against IUU fishing.
- A new Protocol should aim to create a strong framework for the ongoing sectoral dialogue between the parties. It should have as an objective the creation of a powerful axis (between a major resource owner and major fishing nations) for positively leading regional measures for a more sustainable management of the Indian Ocean living marine resources.
- Both sides recognize that the duration of a new Protocol should be sufficient to ensure stability and predictability for EU vessel operations in the area. The six-year duration of the current Protocol should be maintained.
- There shall be a clear focus on ensuring a better defined and disciplined approach to each stage of programming, identification, formulation and management of interventions supported through the sectoral support programme (including periodic external result orientated monitoring). The approach could adopt some of the relevant EuropeAid methodology for orientating EU External assistance funded actions⁴⁹. The parties should ensure that the management of a programme of such dimensions and complexity is supported by a sufficient investment in project management.
- The approach to sectoral support should ensure clear performance criteria determined *a priori* for investment projects financed under the sectoral support programme, with a rigorous approach to timely closure of under-performing activities.
- The relationship should recognise that a future SFPA and a future EU Seychelles Fisheries Agreement in respect of Mayotte should reflect equitable and reciprocal conditions of access.

8.1.2 For Seychelles specifically

The challenges facing the Seychelles, and needs to be considered in the context of a possible EU intervention are:

⁴⁹ See: <u>https://ec.europa.eu/europeaid/methodological-guidance-cycle-management-tools-and-methods_en</u>

- Ensuring increased financial and economic value generated from the EEZ resources, through increased catches by Seychelles flagged vessels with a genuine economic linkage to the country, and increased landings for processing in Victoria (compared to transhipment for processing elsewhere);
- To provide improved services to national and foreign tuna operators with a view to maintaining Victoria as the premier tuna business hub in the Indian Ocean, to include high quality and efficient port, repair and provisioning services, cold storage, good local markets for bycatch, and a source of well qualified crew;
- To facilitate the strengthening of information channels on catch rates to Seychelles commercial operators when the fleets are approaching regional catch limits, so that they can better plan procurement of relevant origins, species and sizes of tuna from other vessels/zones.
- More effective monitoring control and surveillance mechanisms to ensure compliance with IOTC conservation and management measures as a flag State and as a port State when landing and transhipping regional catches in the Seychelles;
- Protection and preservation of the marine environment to optimise the delivery of ecosystem services through the implementation of the Marine Spatial Planning policy. This is foreseen to include the introduction and extension of limitations of activities in the proposed Marine Protected Areas.

8.1.3 For the European Union

In the event of a new Protocol being concluded, the interests of the EU would be served through:

- Setting the financial contribution in line with the actual demand from EU fishing vessels, and in particular taking into account the limited demand and utilisation from the surface longline vessel segment. In line with the Report of the EU Court of Auditors, it is necessary for the EU to avoid paying for fisheries access which is not utilised. In this respect, the forthcoming implementation of MPAs and its likely impacts on fishing opportunities may need specific attention to preserve the proportionality of EU access payments (see section 8.2)
- For tuna seiners, the number of fishing opportunities should be adapted to the number of tuna seiners currently foreseeably active in the Indian Ocean and consistent with those recorded in the SFPA Protocols with neighbouring coastal States
- Addressing the need for a much more rapid and accurate determination of actual catches under the Agreement, to eliminate uncertainty and delays in the determination of fees for additional catches by the Commission and EU vessel operators (an issue also highlighted by the EU Court of Auditors);

Furthermore, there is a need to reflect the findings and recommendations of the report of the European Court of Auditors in its 2015 report "Are the Fisheries Partnership Agreements well managed by the Commission" which was published during the course of the current Protocol. These should include strengthening the management of the sectoral programme and incorporating as far as possible in the design of a new Protocol the measures adopted by the Joint Committee to improve the situation during the implementation of the 2014-2020 Protocol. This could include inter alia:

- Reference to the guidelines for the management of the sectoral support, with greater attention to monitoring of progress and implementation, to be carried out inter-sessionally
- Better traceability of the support contribution (to be clearly identified as a receipt in the annual and multi annual budgets
- Clear designation of the actions which are financed under the sectoral support and other sources, all within a single matrix.
- More detailed annual matrix to set the work programme (with particular attention to the coherence of programme design with the new Seychelles Fisheries Policy under preparation and the selection of relevant monitoring indicators, targets and data sources.
- Specific annual reports by the SFA of the actions which have been implemented (not linked to publication of any other report).
- Final activity report on the expiry of the current protocol
- Use of any unused funds within 6 months of expiry of the protocol, subject to forfeiture

8.1.4 For EU fishing vessel owners

Concerning EU tuna purse seiners access to the Seychelles fishing zone is a strategic imperative for vessel operators, the zone being a central pillar of their fishing activities in the Indian Ocean, one of the world's three main tuna fishing regions. The Protocol provides for stability of access over a longer period than can be provided by alternative means of access, thus allowing for planned multi-annual investments in capacity. Therefore, these EU shipowners strongly support the renewal of the Protocol. Operators suggest that lack of any access to the Seychelles zone would probably cause them to decide to transfer vessels to the Atlantic or increase the number of FADs to catch fish outside the EEZ, with implications for sustainable fishing elsewhere.

The financial conditions of access for this segment during 2014-2018 have been considered by operators to be quite expensive (with the increasing cost and share to vessel operators over the course of the Protocol). The purse seine operators are also concerned regarding the impacts of the proposed MPAs on their activities, which will displace and/or alter some fishing activities. Although the displaced catch will be partially or fully compensated by alternative fishing activities, this is presented as an argument for the adjustment of access costs. On the other hand, the access to the zone has been highly profitable in four out of the five years of the current Protocol, and the major limitation on activities is now considered by operators to be the regional catch limit for yellowfin tuna, so requests for modification of access costs borne by this sector may not be justified.

Concerning the EU operators of surface longline vessels, although there has been negligible utilisation over the 2011-2014 and 2014-2020 Protocols, this segment professes some continuing interest. One larger vessel has recently joined the fleet in La Réunion and may wish to utilise the opportunities under a future Protocol. In the longer term the longliners have an interest in the renewal of the Agreement. In the meanwhile, reduced opportunities within a new Protocol from 2020 are indicated and would be unlikely to damage their interests in the short-term.

Regarding technical clauses; the provisions of the current Protocol concerning the issue of fishing authorisations, transhipment, landing requirements, VMS system, and observers have all been found to be broadly satisfactory. Operators seek improved reporting of non-recruitment of national crew to avoid unnecessary compensation payments for non-recruitment when crew were not available. There should be more effective and faster catch recording, and in particular comprehensive port-state validation of catches. There is also an interest in clarification of procedures and improved communication when vessels are

approaching and reaching regional catch limits when fishing under the Protocol, especially so since these procedures also ultimately determine the payments of additional licence fees. The need for rapid introduction of the electronic recording system (ERS) should be recognised, to avoid continued reliance on paper reporting which extends the time required for validation and is subject to greater errors.

8.2 Assessment of impacts of provisional MPA Zones on EU purse seine catches

8.2.1 Methodology

The Seychelles Marine Spatial Plan proposes the establishment of two Marine Protected Areas covering some 400,000 km² in which purse seine fishing activities will be restricted. At present it is proposed that all purse seine fishing in Zone 1 (Aldabra Group) will be prohibited, and that in Zone 2 (Amirantes to Fortune Bank) purse seine fishing using FADs will be prohibited (but it will be permitted on free schools). The implementation of this proposal will therefore be likely to impact on the fishing activities under a potential future Protocol. However, at the time of writing, it should be noted that no management measures applicable to Zones 1 and 2 of the Marine Protected Area proposal have been adopted.

The Seychelles Marine Spatial Plan and the proposal for establishing the MPAs recognises the likely impact of the measure on the tuna purse seine fishery and estimated the overlap with the proposed MPA to affect 6 851 tonnes of tuna catch in Zones 1 and 2. However, this analysis applied out of date catch data (2003 to 2012) and was not specific to any fleet.

The consultants therefore assessed the potential for loss of catches by EU vessels due to the expected limitations on activities due to the installation of Zones 1 and 2 of the Marine Protected Area (as gazetted on 21 Feb 2018.) under the Seychelles Marine Spatial Plan. Catches declared to IOTC by EU vessels during the period 2014 to 2017 were obtained for each 1° rectangle covered fully or partially by the proposed MPA.

For this Scenario the consultants undertook a quantitative estimate of the MPA impacts through a spatially disaggregated analysis of historical catches of EU vessels (as reported in the IOTC catch and effort database⁵⁰) in the proposed zones during the first four years of the current protocol (2014-2017). Data for 2018 is not yet available at this level of spatial disaggregation. The analysis was based on catches declared to IOTC by EU vessels during the period for each 1° rectangle covered fully or partially by the proposed MPA (see Figure 18). The overall assumption in the methodology is that spatial distribution of catches in the Seychelles EEZ will remain the same as during 2014 – 2017. The analysis also disaggregated catches in Zone 2 according to whether they were declared as taken using FAD or not.

The method allowed the calculation of estimates regarding possible catches made in the MPA, which will be potentially impacted should activities in the MPA be restricted according to the published proposals. Details of the methodology are shown in Annex 4.

8.2.2 Results

Based on the assumptions that the MPA will be implemented as set out as proposed in Seychelles Marine Spatial Plan, the best estimate of future impact based on historical evidence is shown in the next table. For Zone 1, estimates are made for prohibition of all purse seine fishing within MPA limits. For Zone 2, estimates are made for prohibition of FAD fishing only, free school fishing being authorised. The results are computed for the average annual catches (2014-2017), and for the lowest and highest annual catches.

⁵⁰ Released in the public domain by IOTC (see <u>http://www.iotc.org/node/4109</u>). This database lists catch in weight by species by fishing method (free schools or FADs) by 1°x1° grid area for each fleet.

Table 43: Results of the analysis of possible impacts (catch reductions in tonnes) ofMPAs on EU purse seine catches

	Average 2014- 2017	Min 2014- 2017	Max 2014- 2017
Zone 1 : Total purse seine fishing prohibition	389	41	1 315
Zone 2: FAD fishing prohibition	3 000	1 483	5 087
Total	3 389	1 524	6 402

Source: see details on methods and results in Annex 4

Based on the assumptions that the MPA will be implemented as set out in the 2018 Draft Phase 1 Seychelles Marine Spatial Plan: MSP Marine Areas, the best estimate of future impact based on historical evidence (2014-2017) will be a reduction in catches lying between 41 and 1 315 tonnes for MPA Zone 1, with a tentative mean value of 389 tonnes. For MPA Zone 2, a FAD fishing prohibition would indicate a reduction in catches between 1 483 tonnes and 5 087 tonnes, with a mean value of 3 000 tonnes. On aggregate considering both MPA 1 and 2, the expected impact would be a catch reduction between 1 524 and 6 402 tonnes, with a mean value at 3 389 tonnes.

8.2.3 Impacts assessment of the scenario

It should also be pointed out that the actual impact is highly likely to be different than indicated by this analysis. If a vessel is not able to fish in Zone 1, it will not remain idle but will make catches elsewhere in or outside the EEZ. If a vessel is not able to fish on FADs in Zone 2 it will either fish on free schools in that zone, or fish using FADs elsewhere. In both cases catches will be made which will partially or potentially wholly replace the catches not made inside the respective MPA.

Vessel operators are fully aware of the proposals for the MPA and have been engaged in the stakeholder consultations. They consider that even though they have been consulted and that their views on the boundaries have been reflected in the definition of the zones, the approach will have a measurable impact on their fishing activities in the Seychelles, with an estimated average impact representing around 10% of the catches taken in the EEZ (corresponding to 4 800 tonnes per year). This figure is broadly aligned with the consultants' findings.

The creation of the proposed marine protected areas is therefore considered to be limited and bearable by the EU tuna boats operating in the Seychelles zone. The operators concern regarding impacts of the MPAs have decreased after the establishment of catch limits for the yellowfin stock in the Indian Ocean, which is now considered to be the main limiting factor for fleet activity. The NGOs consulted strongly support the Marine Spatial Planning process and consider that such decisions are the sovereign right of the Government of Seychelles, although it is recognised that this may have some impacts on the value of the forthcoming Protocol.

Vessel operators consider that even the limited impact on total catches would need to be taken into account in adjustments to the Protocol so that license and other fees are adjusted accordingly. In this scenario, the catch level used to set the value of the fixed part of the access fee is proposed to be set at a level up to 5 000 tonnes lower than it would otherwise have been, to account for the effects of the MPA. Operators also point out that the reduced fishing activity may also lead to a reduced use of Port Victoria, as fishing effort may be redistributed to areas outside the Seychelles EEZ and catches landed in other ports of the region.

8.3 Objectives to be achieved

To meet the needs of the different stakeholders (as expressed above) a future EU intervention may have the following objectives:

General objectives

- Implementation of a framework for the sustainable exploitation of fisheries resources in Seychelles waters aligned with international standards;
- Protection of the interests of the EU fishing fleet and related economic sectors that depend on it;
- Sustainable development of the fishing sector, and more generally of the blue economy, in the Seychelles;

Specific Objectives

- Establishment of transparent access modalities under conditions ensuring:
 - $\circ~$ fair and non-discriminatory treatment of the various fleets operating in the Seychelles fishing zone; and
 - consistency with IOTC resolutions and recommendations, in particular concerning management measures for the yellowfin tuna
- Fees for access to the fishing zone established in a fair and non-discriminatory manner, proportionate to the benefits obtained
- Improved scientific and technical information and advice available to support the formulation of management and conservation measures for stocks in the Indian Ocean and managed by the IOTC
- Strengthening the Seychelles' capacity to implement its new Fisheries Policy due in 2019 and associated sectoral strategy
- Strengthening the Seychelles' capacity and cooperation with the EU for the improvement of ocean governance, including the fight against IUU fishing
- Contribution to the economic and social development of the fisheries sector in Seychelles through the landing of target and bycatch species and the transhipment of catch in in the partner country, and the employment of national seafarers on board EU fishing and supply vessels

8.4 Available options and associated risks

8.4.1 Status quo: renewal of the Agreement and a new Protocol

Under a status quo scenario, the parties could allow the existing Agreement to be automatically renewed, or a new Sustainable Fisheries Partnership Agreement could be concluded. In either case a new Protocol would be negotiated.

A new Sustainable Fisheries Partnership Agreement would be obliged to respect the objectives and terms of the Common Fisheries Policy according to the regulation (EU) No 1380/2013 in force since January 2014, in particular Articles 31 and 32. These relate to the principles and objectives of the SFPAs, which stress in particular the scope of such agreements to:

• Strengthen fisheries governance under the SFPAs by supporting scientific research institutes, improving MCS capacity and developing sustainable fisheries policy in third countries that have signed a SFPA;

• Continuing to separate EU payments related to sectoral support from EU financial compensation related to access rights. The payments of this support are conditional on the achievement of the expected results of the support in coherence with the sectoral policy of the third country.

In particular, the parties may consider some adjustments to the previous Fisheries Partnership Agreement insofar as:

- **Principles of Governance:** As parties to the Cotonou Agreement, the EU and Seychelles should commit to upholding the principles set out in Article 9 of the Agreement, concerning essential elements regarding human rights, democratic principles and the rule of law, and essential elements regarding good governance.
- **Scientific cooperation:** since all of the resources are migratory and management measures are adopted at the level of the IOTC, based on the advice of the relevant scientific advisory committee, the concept of joint scientific meetings to monitor the evaluation of the resources in the IOTC zone (as expressed in Article 4 of the Agreement) does not fully serve the needs for sustainable management. Instead the Agreement should be specific in committing the parties to scientific data in line with IOTC requirements for effective management of the migratory resources managed by the IOTC.
- **Non-discrimination clause:** there is scope for a clearer expression of the principle of non-discrimination. Notwithstanding the rights of coastal state to negotiate different cost structures for access, access costs should be broadly similar for a similar scale and nature of fishing.
- **Transparency clause:** The Agreement should commit the parties to publication of all of their bilateral and multilateral access agreements which concern access to the resources subject to the Agreement and Protocol, and to publication of licence and catch data under each agreement.
- **EU fishing in Seychelles outside the framework of the Agreement:** Unless the Agreement is denounced, it should specifically prevent EU vessels from fishing within the Seychelles zone except when they are in possession of a fishing authorisation issued under the Agreement.
- **Powers of the Joint Committee:** The decision-making function of the Joint Committee should be explicitly extended to include approval of modifications of the Protocol and its Annex regarding the fishing opportunities and the relevant financial contribution. This will ensure the degree of flexibility necessary to accommodate any change in demand during the course of the Protocol.

A new Protocol under the Sustainable Fisheries Partnership Agreement should have a period of 6 years, sufficient to ensure efficient medium-term financial planning of the EU fleet operators.

The proposed reference tonnage could be negotiated in the region of 45 000 tonnes, with the commensurate financial conditions, in the event that Seychelles implement its SMSP programme.

Regarding technical clauses, the provisions of the current Protocol concerning the issue of fishing authorisations, transhipment, landing requirements, VMS system, and observers have all been found to be satisfactory and can be retained. However, the Protocol should seek to strengthen its provisions in some areas:

- **limits on numbers of supply vessels** should be introduced in a new Protocol, to ensure consistency with the IOTC measures (2 supply vessels in support of no less than 5 purse seine fishing vessels authorised between 2020 and 2022, and automatic adaptation to any further IOTC prescriptions as from 2023).
- **improved means of determining circumstances of non-recruitment** of national crew to ensure that vessels do not pay for non-recruitment when crew are not available. This could include a new crew recording form to be completed by vessel agents for each vessel trip, which includes a section for indicating the reason for non-recruitment of Seychellois crew.
- **more effective catch recording**, including implementation of electronic recording system (ERS), to avoid continued reliance on paper reporting which extends the time required for validation and is subject to greater errors.
- **more effective port-state verification** of reported catches and bycatches.
- **regarding catches recorded under the Agreement** which determine the payments of additional access and licence fees, clarification of procedures and improved communication between the two parties.
- With regard to sectoral support, its actions should notably have the objective of assisting the Seychelles authorities to:
 - strengthen fulfilment of obligations under the Agreement and to the IOTC, in respect of strengthening scientific collection, processing, analysis and communication of catch data, and strengthening fisheries monitoring control and surveillance, including port state controls on landings and transhipment.
 - undertake agreed measures contributing to the implementation of the Seychelles Fisheries Policy (if adopted by the time of the new Protocol).

The management of the intervention approach should be better structured and strengthened to ensure its relevance and coherence with new and alternative sources of investment and project finance available to the sector, such as PPP initiatives,SWIOFish3, EIB, and the Blue Grants and Blue Investment Funds, financed by the Government's Blue Bond issue. There may be a case for blending FPA sectoral support with some of these other sources.

8.4.2 No Protocol is concluded: other available EU mechanism (s)

In the event that a new Protocol is not concluded, the partnership will lapse without any further action by the parties. Only denunciation of the Agreement by one of the two parties would allow EU vessels to immediately negotiate private fishing authorizations with the Seychelles authorities. It would be to the advantage of the Seychelles authorities to issue private licences to the EU fleet in the region, to ensure that they continue to use the Seychelles as an operating base and supply raw material for shore-based processing activities. The EU will however retain control of these authorizations under the provisions of Regulation (EU) 2017/2403 on the sustainable management of external fishing fleets, in force since January 2018. It would also maintain controls over suspected products of IUU fishing under Regulation (EU) 1005/2008. In the medium-term Seychelles could also create incentives for the re-flagging of EU vessels in such a scenario (with 12 vessels flagged already, plus one additional due in 2019).

The failure to conclude a new Fisheries Partnership Agreement and Protocol could also cause the EU to consider the political relevance of the access granted to the Seychelles

vessels to EU waters around Mayotte under the terms of the EU-Seychelles Fisheries Agreement, which expires on 5th June 2020.

The failure to conclude a new Protocol would result in the loss of the financial contribution in favour of the fisheries sectoral support programme of the Seychelles. Whilst this could impact on fisheries related investments in the short-term, it is also clear that other financial instruments are rapidly emerging to meet the needs of the sector. Major port, cold storage and transhipment infrastructure investments are being financed by PPP initiatives and the EIB. Other blue economy and climate change adaptation investments are being financed by other donors and under the Blue Grants and Blue Investment Funds. As a consequence, the loss of the Sectoral Support Programme under this Scenario would be likely to have reduced relevance to the Seychelles in the longer-term.

For EU tuna seiners their fishing strategy would be unlikely to change in the short term in the event the Agreement is denounced. Their average costs of access would be likely to fall by 5 to 10%, although for vessels which did not make extensive use the zone the higher fixed costs could mean that their costs of access would increase. There would be a loss of flexibility in the way in which the EU fleet utilises the zone. The impact of the proposed introduction of the MPA zones 1 and 2 from 2020 would be the same. In the longer term, due to the reduced security of access (one year at a time) the EU operators would be less likely to undertake medium and longer investments in their vessels and shore-based service facilities in the Seychelles, resulting in reduced financial and economic benefits for vessel operators and the Seychelles Government from the fishery. Vessel operators could consider the option of re-flagging under the Seychelles flag, which could include joint ventures with Seychellois investors, in particular if the Agreement is not denounced, which would continue to apply the exclusivity clause.

For EU surface longline operators, the failure to conclude a new protocol would have no impact. The Seychelles zone holds little interest for them, and should any vessel seek access in the future, this can be easily achieved by directly obtaining private licences from the Seychelles at a broadly comparable cost, providing the Agreement is denounced.

8.4.3 Comparison of options

The comparison of options is summarised in **Table 44** below. This indicates that the option leading to the renewal of the Protocol of the Agreement between the EU and Seychelles should be favoured by the parties. The non-renewal of the Protocol would deprive the EU of an instrument to meet the needs of different stakeholders and its own needs in strengthening global ocean governance and would undermine continued strengthening of the capacity of Government of Seychelles for effective and efficient management of its fishery sector.

Criterion / Option	Status quo (Agreement & Protocol renewed)	No renewal of Agreement & Protocol
Relevance (how well the option meets the needs)	Good The conclusion of a new protocol responds globally to the identified needs of the different stakeholders	Partial The non-renewal of the Agreement and protocol does not meet all of the identified needs for either party.
Effectiveness (to what extent can the objectives assigned to the intervention be achieved)	Good The protocol favors a framework for dialogue and exchanges between the European Commission's technical	Partial Without a framework for dialogue and exchanges with the European Commission's fisheries technical services (DG MARE), cooperation

Table 44 : Comparison of the performances of the two options with respect to the	
classical evaluation criteria	

	Status quo	No renewal of
Criterion / Option	(Agreement & Protocol renewed)	Agreement & Protocol
	services (DG MARE) and those of Seychelles	between the EU and Seychelles would only take place within the EU's development cooperation framework and RFMO.
Efficiency (without which measure the resources used are proportionate to the expected results)	Good: Assuming relative dimensions of the Protocol and catches made under it are retained the efficiency of a new protocol would be likely to remain high	Not applicable Absence of EU budget commitment
Coherence	Good	Good
(to what extent does the intervention not contradict other interventions with similar objectives)	An active SFPA contributes to the achievement of the objectives of good governance and transparency of fisheries activities of the CFP and EU development cooperation	There would be a reduced range of cooperation mechanisms for the EU and Seychelles to implement CFP and sustainable fishing principles in the region. However, policy coherence could still be achieved through other existing instruments.
Acceptability	Good	Partial
(to what extent is the intervention acceptable to stakeholders)	This is preferred option for all parties, but dependent on: Improved transparency clause (by the EU and civil society); Adjustments to the current protocol by EU shipowners, to reduce the risk of under-utilised fishing opportunities for the EU. Ensuring landing of fish caught under the agreement meets demand of national processors	The Seychelles authorities will engage with vessel operators to meet demand for fisheries access and supplies to processing; may include private licences and/or flagging to Seychelles. There would be no requirements for supervision or transparency of the arrangements. EU interests will be protected by the IOTC and EU regulatory measures, but with reduced controls and increased risks of unsustainable fishing

Source: Consultants' analysis

8.5 Added value of the European Union's involvement

If the renewal of the Protocol with or without a renewal of the Agreement is the chosen option, only the European Union is competent for its negotiation under the Treaty on the Functioning of the European Union (TFEU). Beyond this obligation, the involvement of the EU in the negotiation of a new Protocol brings added value in terms of:

- i. Ensuring that the protocol and its implementation comply with the CFP and international applicable legal instruments (UNCLOS in particular);
- ii. The possibility for the EU to implement its sectoral policy at sub-regional level through leverage effects associated with a network of coherent fisheries agreements in the Indian Ocean;
- iii. Ensuring that the protocol and its implementation comply with the measures adopted by the relevant RFMO (IOTC);
- iv. Providing a stable and multiannual legal framework for EU vessel access thus supporting their exploitation strategies in a transparent manner;
- v. Providing a tailored bilateral instrument for cooperation in the fisheries sector with the Seychelles, which is coherent with national and regional development intervention approaches.

8.6 Lessons from Similar Experiences

The retrospective evaluation of the current Protocol takes into account similar experiences and has identified possible areas for improvement in a future Agreement and Protocol, the most important of which are analysed below.

8.6.1 Transparency clause

One of the objectives of the transparency clause is to obtain a clear vision of the access conditions and catches of the different fleets accessing the fisheries exploited by the EU vessels in the waters of the third country. The data can provide a guarantee of equitable and on-discriminatory access for all operators.

8.6.2 Monitoring catches against their limits

The monitoring of yellowfin catches in 2017 and 2018 appears to have been a problem for the EU fleet, Member States and the Commission, as well as for the Seychelles fleet and Authorities. The issue of catches in excess of regional catch limits set by IOTC can only be addressed at a regional level, and not within the framework of an individual SFPA. However, given the importance of port state checks by the Seychelles authorities in generation of data for validation of catch declarations, a future SFPA with the Seychelles should ensure that there is an obligation for fully effective port state controls on all landing and transhipment of products arising from the Agreement.

8.6.3 Sector support - management and monitoring of actions financed by the Support

The 2015 Report of the Court of Auditors in relation to the management of Fisheries Partnership Agreements by the Commission identified a number of generic findings based on analysis of several FPAs, including the Seychelles. Several of these are relevant to any future EU Seychelles FPA and could be more specifically referenced in a future Protocol.

Although these requirements could continue to be expressed in the form of Guidelines (as they are at present), the parties could ensure they have greater force by including some or all of them in a new Protocol,

These measures would guarantee that the relevance, effectiveness, efficiency and coherence of the intervention approach under the Protocol's sectoral support programme is comparable to other EU supported interventions, both within the region and elsewhere.

8.7 Planning for monitoring and evaluation

Following its entry into force, the SFPA and Protocol between the EU and Seychelles should be subject to continuous monitoring and evaluation through a technical dialogue between the Seychelles authorities and a local fisheries attaché, designated by DG MARE to follow the Agreement and the Protocol.

This technical dialogue will support the preparation of the annual meetings of the Joint Committee which has the authority to make decisions on the implementation of the access and sector support components of the Agreement. In order to ensure policy coherence on the Seychelles side, the Seychelles representation in the negotiating meetings for a possible future protocol and on the Joint Committee should reflect the division of functions between policy (being the Ministry of Agriculture and Fisheries) and implementation (Seychelles Fishing Authority). It should also reflect any additional or emerging functions and responsibilities expressed within the 2019 Fisheries Policy preparation.

As noted in the previous section, the matrix of support measures is recommended to adopt a result-based monitoring framework. This should reflect the measures defined in the fisheries policy expected to be adopted in 2019 and for each measure express defined quantifiable measures of outputs, along with corresponding indicators and sources of verification data. This approach would facilitate monitoring and evaluation, both internal by the Joint Committee and by external evaluators.

Given the dimensions of the Sectoral Support Programme, the implementation in interim Results Orientated Monitoring missions may also be considered. In line with the approach adopted by other external actions, the budget for monitoring and evaluation could be considered within the envelope of the financial contribution allocated for the support.

The Protocol will have to be subject to an independent "ex-post" evaluation according to the EU Financial Regulation and the CFP. It should be completed no later than one year (ideally 18 months) before the expiry date of the Protocol, which allows the EU institutions to prepare for its possible renewal by following the ordinary legislative procedure, without interrupting the possibilities of access.

9 CONCLUSION AND RECOMMENDATIONS

9.1 Evaluation of the current Protocol

The 2014-2020 Protocol under the Fisheries Partnership Agreement between the EU and the Republic of Seychelles has broadly met the evaluation criteria for EU interventions (effectiveness, efficiency, relevance, coherence, acceptability). The Protocol can be broadly described as a win-win agreement in that it addresses most of the identified needs of different stakeholders. The main elements of concern have been the relatively low utilisation of surface longline fishing opportunities, inconsistencies and delays in the communication and validation of catches under the Agreement, and difficulties of the parties to implement the sectoral support programme.

The Protocol will expire on the 17th January 2020. The findings of the study indicate that the timely adoption of a new Protocol will ensure a continuity of fisheries access and associated benefits will be in the interests of both parties.

9.2 Recommendations for a Future Sustainable Fisheries Partnership Agreement

Although the Seychelles party has expressed only a preference for the continuation of an Agreement and a new protocol, the consultants consider that it could be in the mutual interests of both parties to consider updating the framework for their cooperation by the adoption of a new Sustainable Fisheries Partnership Agreement. The alternative approach to ensuring continuity of the relationship would be to allow the automatic renewal of the existing Fisheries Partnership Agreement.

In the negotiations regarding any new Agreement, the parties are recommended to consider establishing clear principles of governance in line with Article 9 of the Cotonou Agreement, including a clause regarding human rights. The Agreement should also commit the parties to scientific collaboration on the acquisition, validation, analysis and transmission of scientific data in line with IOTC requirements. There should be included specific requirements for non-discrimination and transparency, and if needed, a prohibition on EU fishing in Seychelles outside the framework of the Agreement for full alignment with Regulation (EU) 2017/2403 on the sustainable management of external fishing fleets. To improve flexibility, the powers of the Joint Committee may also be explicitly extended to include approval of modifications of the Protocol and its Annex regarding the dimensions and spatial limitations of the fishing opportunities.

9.3 Recommendations for Future Protocol to the SFPA

The result of the evaluation and lessons learned from other similar interventions lead to the following recommendations for consideration in the negotiation of a future Protocol:

9.3.1 Fishing zones to be included

Within the EEZ of the Seychelles, the spatial limits of different fishing practices under a new Protocol should take into account final decisions of the Government of Seychelles regarding the implementation of the Seychelles Marine Spatial Plan. This currently proposes to extend and apply new restrictions which will limit purse seine and surface longline fishing in two zones (Zone 1 Aldabra Group and Zone 2 Amirantes to Fortune Bank). The Gazetted coordinates are currently under review and are expected to be republished by Government.

9.3.2 Duration of Agreement and Protocol

The parties are satisfied with the durations expressed in the current arrangements which may be retained (six-year terms for both Agreement and Protocol).

9.3.3 Fishing opportunities

- A future Protocol may retain tuna purse-seine and surface longline fishing opportunities.
- As regards fishing opportunities for purse seine vessels, demand has not exceeded 30 vessels during the course of the Protocol. Although the application of catch limits by IOTC renders any increase to be unlikely, the 40 fishing authorisations in the current Protocol may be retained, if the parties so wish without any impact on sustainability or financial implications for the EU budget.
- A corresponding limit on authorisations for supply vessels may also be introduced, to ensure coherence with IOTC Resolution 18/01 on an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC area of Competence, which applies limits from 1st of January 2020 of a maximum of two supply vessels for every 5 purse seine vessels deployed. This would suggest a limit of about 12 supply vessels within the Protocol.
- As regards fishing opportunities for surface longline vessels, the present number of 6 vessels appears to exceed demand. To the extent that the retention of fishing opportunities for this segment is unlikely to contribute to any significant utilisation of the reference catch, the opportunities may be retained to meet a possible future expressed interest by stakeholders, in particular those based in the outermost region of La Réunion.

9.3.4 Reference tonnage and compensation for access to Seychelles' waters

The reference tonnage used to establish the level of compensation paid from the EU budget may reflect historical catch levels in the area and can therefore be of a similar order to the current Protocol. The EU fleet operators consider that the current reference catch is adequate for their needs and indicate that in the medium term the yellowfin catch limit measure is expected to be the main limitation on activities. Indeed, this may act as a "choke species" (as it did in 2018, causing vessels to cease fishing of all species when they reached their limit on this species). In this respect the parties should be aware that there is a risk that future reference tonnages may not be consumed due to this limitation. The negotiations on reference tonnage should also take into account the proposals expressed in the Seychelles Marine Spatial Plan, which is expected to extend fishing (and other) restrictions in two zones comprising some 15% of the EEZ. Based on average historical fishing patterns and currently gazetted zone coordinates this is expected to impact on some 4 000 to 5 000 tonnes of catch by the EU vessels fishing under the Agreement, although the fishing effort associated with this catch will of course be re-directed to other zones/fishing methods.

9.3.5 Access fees for vessel operators

- The access fees for purse seiners applied during the final year of the previous Protocol (EUR125/tonne out of which EUR 75/tonne was sustained by the vessel operators) is amongst the highest of the EU's access agreements. However, the zone has remained profitable for vessel operators, and the retention of these financial conditions for access is therefore considered equitable and justified.
- The level of catch used in the current Protocol to establish the amount of the flatrate advance fee paid by EU tuna seiners (currently 700 tonnes/annum) may be increased slightly to provide greater predictability of budget income from the EU shipowner's access payments to the Seychelles

- With regard to supply vessels for EU tuna purse seine operations, the access fees may be expressed in the Protocol, commensurate with the current rate (to non-EU operators) of US\$5 000/year.
- With regard to the surface longline opportunities, the costs of access applied during the final year of the current protocol may be considered for a future arrangement (EUR125/tonne out of which EUR 75/tonne is sustained by the vessel operators, with advances in respect of 90 tonnes for vessels <250GRT and 120 tonnes for vessels >250GRT).
- The Protocol should ensure that the non-discrimination clause in the framework Agreement may be invoked in case that access fees for other non-neighbouring third country vessels appear to undermine the competitiveness of the EU vessels.
- Access fees (and other conditions) for Seychelles purse seine vessels fishing in the Mayotte zone should remain fully aligned with the conditions within a future Protocol.

9.3.6 Technical clauses

The technical clauses of the current Protocol are generally satisfactory and may be extended to a new Protocol, with some provisions adjusted according to the following recommendations.

- Conditions should be introduced within a future Protocol to improve joint monitoring of catches by EU vessels in the Seychelles EEZ with involvement of concerned scientific institutes for catch validation as appropriate.
- The requirement for recruitment of national crew and compensation may be retained, but new forms and communication procedures should be defined to avoid unnecessary payment of compensation when crew are not available. A new form should record Seychelles crew on each trip, and where it is less than the required number (two) the vessel operator should select one of a limited range of reasons (one which is non-availability of suitable candidate)

Implementation of the catch recording provisions will need to be strengthened under any new Protocol to avoid ongoing delays and difficulties in validating catches. The key step is to implement strengthened checks on landing and transhipment by the MCS section of the SFA. This should be supported through the Sectoral Support Programme.

9.3.7 Sector support

Future sectoral support should seek to:

 strengthen fulfilment of obligations under the Agreement and to the IOTC, in respect of strengthening scientific data collection, processing, analysis and communication, and strengthening fisheries monitoring control and surveillance. Given the importance of Port Victoria as a hub for tuna landings and transhipments, future sectoral support could consider a specific emphasis on port State controls by Seychelles in line with its international obligations stemming from the FAO PSMA and relevant IOTC resolutions. In view of its extended mandate⁵¹ the Commission's Fisheries Control Agency could be requested to support this process.

⁵¹ <u>Regulation (EU) 2019/473 of the European Parliament and of the Council of 19 March</u> 2019 on the European Fisheries Control Agency

- undertake agreed measures contributing to the implementation of the Seychelles Fisheries Policy 2019 (if adopted by the time of the new Protocol).
- They could, however, facilitate and support such investment, especially where it **supports diversification into the blue economy**. One example for consideration could be (if there is interest) supporting a feasibility study for the establishment of a drydock and vessel repair facility in the Seychelles, to provide an alternative option to the current facility in Madagascar. Another example could be the continued technological support for aquaculture development. Economic feasibility in the face of structural constraints will remain a challenge and should be considered at all stages. Both of these areas are fully coherent with the Blue Economy Roadmap, in that they seek to diversify marine related activities.

In terms of the programming, identification, formulation and management the sectoral support programme should apply the measures introduced in the current Protocol following the 2015 Report of the Court of Auditors in relation to the management of Fisheries Partnership Agreements by the Commission. Although these requirements could continue to be expressed in the form of Guidelines (as they are at present), the parties could ensure they have greater force by including some or all of them in a new Protocol. This should include: the adoption of a detailed multi-annual matrix of measures; the selection of relevant result-based monitoring indicators (with targets and data sources); the need for rigorous annual reporting; and, the 6-month termination limit for measures after Protocol expiry.

Some of the approaches applied by the EU in programming of development interventions could also be considered for adoption. This could include the possibility specifically permitting the utilisation of part of the financial contribution for the professional management of the sectoral support programme and including a visibility clause, with reference to the EU Communication and Visibility Manual for EU External Actions.⁵²

- The parties may wish to consider allocating a defined component of the sectoral support to programme management, to establish a programme implementation unit to ensure improved coherence in selection of measures, relevant choice of implementation modality, increased management capacity for implementation and effective result orientated monitoring against objectively verifiable indicators of achievement.
- The maritime sector is also a beneficiary of the SWIOFish3 Project, which is programming numerous intervention activities (including under the newly-launched Blue Grants and Blue Investment Funds) which have potential to overlap with current and future interventions under the Sectoral Support Programme. At the least there will be a need for identification and formulation of a future FPA sectoral support programme to be closely coordinated with these interventions.
- Furthermore, and more efficiently, where there is commonality of measures (for example aquaculture development) the parties are strongly recommended to **consider blending elements of a future sectoral support programme** with the finance under the management of the SWIOFish3 Programme.
- Reporting on progress by the executing bodies such as the SFA should be undertaken through **stand-alone periodic progress reports to the Joint Committee** on the exclusive subject of implementation of the sectoral support programme. Progress reports should therefore not be included in other more general reports concerning other matters, such as annual reports of the executing agency. This will help to avoid publication delays.

⁵² <u>https://ec.europa.eu/europeaid/work/visibility/ en</u>

• It is also recommended that a future Protocol should incorporate **more prescriptive measures regarding the visibility** of sectoral support actions and keep a budget to ensure communication regarding the results of the programme.

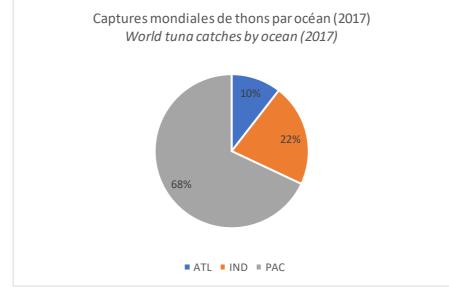
ANNEX 1 : LIST OF ABBREVIATIONS AND ACRONYMS

ACA	Agreement on Administrative Cooperation
ACDR	Aggregated Catch Data Reporting
AIS	Automatic Identification System
ASFA	Artisanal Shark Fishers Association
CA	Competent Authority
CFP	Common Fisheries Policy
CCTV	Closed-Circuit Television
CEO	Chief Executive Officer
CFP	Common Fisheries Policy
CIF	Cost, Insurance and Freight
CNOI	Chantier Naval de l'Océan Indien
CINEC	Colombo International Nautical & Engineering College
COFI	Committee of Fisheries (FAO)
COI	Indian Ocean Commission (French)
COMESA	Common Market for Eastern and Southern Africa
COMEXT	Eurostat International Trade Database
CRIMARIO	Critical Maritime Route Wider Indian Ocean
CPUE	Catch Per Unit Effort
DBS	Development Bank of Seychelles
DG DEVCO	Directorate-General for International Cooperation and Development
EDF	European Development Fund
EEAS	European Union External Action
EEZ	Exclusive Economic Zone
EIB	European Investment Bank
EPA	Economic Partnership Agreement
ERS	Electronic Recording System
ES	Spain
ESA	Eastern and Southern Africa
EU	European Union
EU-NAVFOR -	European Naval Force Somalia - Operation Atalanta
ATALANTA	· · · · ·
ATALANTA EUR	Euro
ATALANTA EUR FADs	Euro Fish-aggregating devices
ATALANTA EUR FADs FAO	Euro Fish-aggregating devices Food and Agriculture Organisation
ATALANTA EUR FADs FAO FBOA	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association
ATALANTA EUR FADs FAO FBOA FDI	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment
ATALANTA EUR FADs FAO FBOA FDI FMC	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre
ATALANTA EUR FADs FAO FBOA FDI FMC FPA	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement France
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FR FTE	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement France Full-time Equivalent
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FR FTE FVO	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement France Full-time Equivalent Food and Veterinary Office
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement France Full-time Equivalent Food and Veterinary Office Global Environment Facility
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement France Full-time Equivalent Food and Veterinary Office Global Environment Facility Gross Domestic Product
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FR FTE FVO GEF GDP GRP	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement France Full-time Equivalent Food and Veterinary Office Global Environment Facility Gross Domestic Product Gross Profit
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRP GRT	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement France Full-time Equivalent Food and Veterinary Office Global Environment Facility Gross Domestic Product Gross Profit Gross Register Tonnage
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRP GRT GVA	EuroFish-aggregating devicesFood and Agriculture OrganisationSeychelles Fishing Boat Owners AssociationForeign Direct InvestmentFisheries Monitoring CentreFisheries Partnership AgreementFranceFull-time EquivalentFood and Veterinary OfficeGlobal Environment FacilityGross Domestic ProductGross Register TonnageGross Value Added
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRP GRP GRT GVA HACCP	EuroFish-aggregating devicesFood and Agriculture OrganisationSeychelles Fishing Boat Owners AssociationForeign Direct InvestmentFisheries Monitoring CentreFisheries Partnership AgreementFranceFull-time EquivalentFood and Veterinary OfficeGlobal Environment FacilityGross Domestic ProductGross Register TonnageGross Value AddedHazard Analysis and Critical Control Points
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRP GRT GVA HACCP IATCC	EuroFish-aggregating devicesFood and Agriculture OrganisationSeychelles Fishing Boat Owners AssociationForeign Direct InvestmentFisheries Monitoring CentreFisheries Partnership AgreementFranceFull-time EquivalentFood and Veterinary OfficeGlobal Environment FacilityGross Domestic ProductGross Register TonnageGross Value AddedHazard Analysis and Critical Control PointsInter-American Tropical Tuna Commission
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRP GRT GVA HACCP IATCC IBRD	EuroFish-aggregating devicesFood and Agriculture OrganisationSeychelles Fishing Boat Owners AssociationForeign Direct InvestmentFisheries Monitoring CentreFisheries Partnership AgreementFranceFull-time EquivalentFood and Veterinary OfficeGlobal Environment FacilityGross Domestic ProductGross Register TonnageGross Value AddedHazard Analysis and Critical Control PointsInter-American Tropical Tuna CommissionInternational Bank for Reconstruction and Development
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRT GVA HACCP IATCC IBRD IDC	EuroFish-aggregating devicesFood and Agriculture OrganisationSeychelles Fishing Boat Owners AssociationForeign Direct InvestmentFisheries Monitoring CentreFisheries Partnership AgreementFranceFull-time EquivalentFood and Veterinary OfficeGlobal Environment FacilityGross Domestic ProductGross Register TonnageGross Value AddedHazard Analysis and Critical Control PointsInter-American Tropical Tuna CommissionInternational Bank for Reconstruction and DevelopmentIsland Development Company
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRP GRP GRT GVA HACCP IATCC IBRD IDC IEPA	EuroFish-aggregating devicesFood and Agriculture OrganisationSeychelles Fishing Boat Owners AssociationForeign Direct InvestmentFisheries Monitoring CentreFisheries Partnership AgreementFranceFull-time EquivalentFood and Veterinary OfficeGlobal Environment FacilityGross Domestic ProductGross Register TonnageGross Value AddedHazard Analysis and Critical Control PointsInter-American Tropical Tuna CommissionInternational Bank for Reconstruction and DevelopmentIsland Development CompanyInterim Economic Partnership Agreement
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRP GRP GRT GVA HACCP IATCC IBRD IDC IEPA IFREMER	EuroFish-aggregating devicesFood and Agriculture OrganisationSeychelles Fishing Boat Owners AssociationForeign Direct InvestmentFisheries Monitoring CentreFisheries Partnership AgreementFranceFull-time EquivalentFood and Veterinary OfficeGlobal Environment FacilityGross Domestic ProductGross Register TonnageGross Value AddedHazard Analysis and Critical Control PointsInter-American Tropical Tuna CommissionInternational Bank for Reconstruction and DevelopmentIsland Development CompanyInterim Economic Partnership AgreementL'Institut Français de Recherche pour l'Exploitation de la Mer
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRP GRP GRT GVA HACCP IATCC IBRD IDC IEPA IFREMER ILO	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement France Full-time Equivalent Food and Veterinary Office Global Environment Facility Gross Domestic Product Gross Register Tonnage Gross Register Tonnage Gross Value Added Hazard Analysis and Critical Control Points Inter-American Tropical Tuna Commission International Bank for Reconstruction and Development Island Development Company Interim Economic Partnership Agreement L'Institut Français de Recherche pour l'Exploitation de la Mer International Labour Organisation
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRP GRP GRT GVA HACCP IATCC IBRD IDC IEPA IFREMER ILO IMF	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement France Full-time Equivalent Food and Veterinary Office Global Environment Facility Gross Domestic Product Gross Profit Gross Register Tonnage Gross Value Added Hazard Analysis and Critical Control Points Inter-American Tropical Tuna Commission International Bank for Reconstruction and Development Island Development Company Interim Economic Partnership Agreement L'Institut Français de Recherche pour l'Exploitation de la Mer International Labour Organisation International Monetary Fund
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRP GRP GRT GVA HACCP IATCC IBRD IDC IEPA IFREMER ILO IMF IMO	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement France Full-time Equivalent Food and Veterinary Office Global Environment Facility Gross Domestic Product Gross Profit Gross Register Tonnage Gross Value Added Hazard Analysis and Critical Control Points Inter-American Tropical Tuna Commission International Bank for Reconstruction and Development Island Development Company Interim Economic Partnership Agreement L'Institut Français de Recherche pour l'Exploitation de la Mer International Labour Organisation International Monetary Fund International Maritime Organisation
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRP GRP GRT GVA HACCP IATCC IBRD IDC IEPA IFREMER ILO IMF IMO INTERPOL	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement France Full-time Equivalent Food and Veterinary Office Global Environment Facility Gross Domestic Product Gross Profit Gross Register Tonnage Gross Value Added Hazard Analysis and Critical Control Points Inter-American Tropical Tuna Commission International Bank for Reconstruction and Development Island Development Company Interim Economic Partnership Agreement L'Institut Français de Recherche pour l'Exploitation de la Mer International Monetary Fund International Monetary Fund International Maritime Organisation International Criminal Police Organization
ATALANTA EUR FADs FAO FBOA FDI FMC FPA FR FTE FVO GEF GDP GRP GRP GRT GVA HACCP IATCC IBRD IDC IEPA IFREMER ILO IMF IMO	Euro Fish-aggregating devices Food and Agriculture Organisation Seychelles Fishing Boat Owners Association Foreign Direct Investment Fisheries Monitoring Centre Fisheries Partnership Agreement France Full-time Equivalent Food and Veterinary Office Global Environment Facility Gross Domestic Product Gross Profit Gross Register Tonnage Gross Value Added Hazard Analysis and Critical Control Points Inter-American Tropical Tuna Commission International Bank for Reconstruction and Development Island Development Company Interim Economic Partnership Agreement L'Institut Français de Recherche pour l'Exploitation de la Mer International Labour Organisation International Monetary Fund International Maritime Organisation

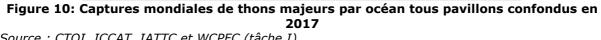
IOT	Indian Ocean Tuna
IOTC	Indian Ocean Tuna Commission
IPHS	Île du Port Handling Services
IT	Italy
IMO	International Maritime Organisation
IT	Information Technology
ITC	International Trade Centre
IUCN	International Union for the Conservation of Nature
IUU	Illegal Unreported Unregulated
ISPC	International Sales and Promotion Company
JICA	Japan International Cooperation Agency
LoA	Length overall
MCS	Monitoring, Control and Surveillance
MoU	Memorandum of Understanding
МРА	Marine Protected Area
MS	Member State
MSC	Marine Stewardship Council Certification
MSP	Marine Spatial Plan
MSY	Maximum Sustainable Yield
МТ	Metric tonne
MS	Member State
MUS	Mauritius
NBS	National Bureau of Statistics
NBSAP	National Biodiversity and Action Plan
NGOs	Non Governmental Organisations
NIP	National Indicative Programme
NPOA	National Plan Of Action
OCUP	Observateur Commun Unique et Permanent (Common Permanent Unique
	Observer)
OECD	Organisation for Economic Co-operation and Development
OFCF	Overseas Fishery Cooperation Foundation
ORTHONGEL	French producer organization frozen and deep-frozen tropical tuna
PSA	Praslin Fisher's Association
РТ	Portugal
PPBB	Programme Performance Based Budget
PPP	Public-Private Partnership
PSIP	Public Sector Investment Programme
PSMA	Port State Measures Agreement
RAMSAR	Wetlands of International Importance
RECs	Regional Economic Communities
RCOC	Regional Coordination Centre for Maritime Operations
RFMOs	Regional Fisheries Management Organisations
SADC	Southern African Development Community
SBS	Seychelles Bureau of Standards
SCG	Seychelles Coast Guard
SCR	Seychelles Rupee
SCG	Seychelles Coast Guard
SeyCCAT	Seychelles' Conservation and Climate Adaptation Trust
SEPA	Seychelles Economic Partnership Agreement
SFA	Seychelles Fishing Authority
SFPA	Sustainable Fisheries Partnership Agreement
SIOFA	South Indian Ocean Fisheries Agreement
SMB	Seychelles Marketing Board
SMSP	Seychelles Marine Spatial Plan
SMEs	Small and Medium-sized Enterprises
SPA	Seychelles Ports Authority
SR	Seychelles Rupee
SSDS	Seychelles Sustainable Development Strategy
STECF	Scientific, Technical and Economic Committee for Fisheries
SW	South West

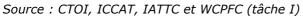
SWIOFish	South West Indian Ocean Fisheries Governance and Shared Growth
	Project
SSDS	Seychelles Sustainable Development Strategy
SYC	Seychelles
TA	Technical Assistance
TTA	Taiwan Deep-sea Tuna Longline Boat Owners and Exporters Association
TFEU	Treaty on the Functioning of the European Union
TNC	The Nature Conservancy
UK	United Kingdom
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNCTADStat	World Statistical Database United Nations Conference on Trade and
	Development
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNISEY	University of Seychelles
USD	United States Dollar
VA	Value Added
VMS	Vessel Monitoring System
WTO	World Trade Organisation
WWF	World Wide Fund for Nature

ANNEX 2 : REGIONAL ACTIVITIES OF THE EU TUNA FISHING FLEET - DATA AND ADDITIONAL INFORMATION



Perspective globale : part des captures de thonidés majeurs dans l'océan indien





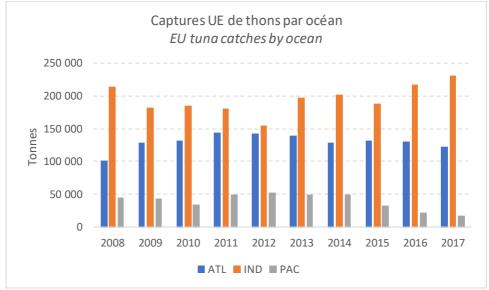


Figure 11: Captures de thons majeurs par océan par la flotte UE Source : CTOI, ICCAT, IATTC et WCPFC (tâche I)

La pêche de thonidés à la senne dans l'océan indien

Tableau 1 : Nombre de senneurs UE et Seychellois actifs dans l'océan indien

	2008	2009	2010	2011	2012	2013	2014*	2015	2016	2017	Moyenne 2013-2017
France	17	15	8	8	10	8	13	12	11	12	11
Espagne	17	15	13	13	14	14	15	17	16	14	15
Italie	1	1	0	0	0	0	1	1	1	1	1
Sous-total UE	35	31	21	21	24	22	29	30	28	27	27
France-Territoires	2	3	5	5	5	5	1	0	0	0	1
Seychelles	10	10	9	8	8	7	10	13	13	13	11

Note : * à partir de janvier 2014, Mayotte est devenue partie de l'UE Source : CTOI

Tableau 2 : Captures de thonidés à la senne dans l'océan indien tous pavillons et toutes espèces confondus (tonnes)

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013- 2017
Espagne	123 941	111 919	130 497	130 328	108 607	146 987	133 670	120 892	136 183	151 392	137 825
France	74 919	56 940	47 098	42 894	37 141	39 852	58 339	54 390	68 250	66 934	57 553
Italie	7 222	5 976	0	0	0	0	0	4 262	3 800	5 712	2 755
Sous-total UE	206 082	174 836	177 594	173 222	145 748	186 839	192 010	179 544	208 232	224 038	198 132
Seychelles	56 382	68 339	75 786	63 211	50 938	57 324	60 255	88 739	108 179	121 597	87 219
Indonésie	59 844	70 240	72 066	74 751	73 670	82 657	69 195	67 220	56 858	56 858	66 558
Corée	0	0	0	0	2 857	12 251	16 412	14 555	24 635	18 237	17 218
Malaisie	14 596	18 117	17 885	20 390	23 511	16 855	12 896	13 127	12 472	12 008	13 472
Inde	11 383	10 076	10 810	13 107	13 318	14 292	13 855	11 588	12 455	12 455	12 929
Thailande	21 735	25 264	13 825	21 112	14 147	9 120	11 130	10 938	11 427	12 782	11 079
Maurice	0	0	0	0	0	842	8 556	9 809	11 777	17 673	9 731
Iran	4 858	3 846	3 377	4 621	5 120	5 429	5 791	5 280	4 855	6 167	5 504
Australie	5 323	5 171	3 660	3 909	4 492	4 211	3 649	4 789	5 012	3 952	4 323
Japon	5 368	5 562	2 055	3 157	2 205	1 153	1 121	2 772	3 037	3 892	2 395
Sri Lanka	0	0	0	0	0	1 957	1 289	1 257	2 232	2 301	1 807
TOTAL	385 571	381 451	377 058	377 480	336 006	392 930	396 159	409 618	461 171	491 960	430 367

Source: CTOI

ES + FR	20	08 20	09 201	.0 201:	1 2012	2013	2014	2015	2016	2017	Moyenne 2013- 2017
YFT	83 7	62 55 7	'03 67 8 :	1 73 45	7 81 479	90 024	91 405	83 678	85 212	84 474	86 958
SKJ	94 5	50 95 2	264 95 99	96 85 10	9 53 244	78 360	86 541	76 681	106 144	116 667	92 878
BET	19 2	84 175	542 13 63	l6 14 29	8 10 207	18 114	13 628	14 562	12 793	16 937	15 207
ALB	1 2	51 3	347 16	50 35	9 819	336	6 431	360	248	249	325
ОТН		67	31 3	34 2	2 35	0	54	0	0	0	11
Total ES+FR			68 17 86 61						204 397	218 326	195 379
ES	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013-2017
YFT	46 119	33 511	45 212	52 256	57 746	68 352	57 892	52 631	51 490	54 513	56 976
SKJ	65 029	66 571	75 133	67 247	42 892	64 632	66 597	58 284	75 267	84 432	69 842
BET	12 490	11 781	10 022	10 704	7 591	13 880	8 988	9 832	9 369	12 348	10 883
ALB	299	52	130	121	378	117	189	144	22	100	114
ОТН	57	31	23	22	35	0	54	0	0	0	11
Total ES	123 995	111 946	130 520	130 350	108 643	146 982	133 720	120 890	136 147	151 392	137 826
FR	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013-2017
YFT	37 643	22 192	22 599	21 201	23 732	21 671	33 513	31 047	33 721	29 961	29 983
SKJ	29 521	28 693	20 863	17 862	10 352	13 728	19 944	18 397	30 877	32 235	23 036
BET	6 794	5 760	3 595	3 594	2 616	4 234	4 640	4 730	3 425	4 589	4 324
ALB	952	295	29	238	441	219	242	216	227	149	211
OTH	10	0	11	0	0	0	0	0	0	0	0
Total FR	74 919	56 941	47 098	42 894	37 141	39 852	58 339	54 390	68 250	66 934	57 553

Tableau 3 : Captures de thonidés à la senne dans l'océan indien pour l'UE, l'Espagne et la France

Note: YFT : albacore / SKJ : listao / BET : patudo / ALB: germon / OTH : autres espèces Source: CTOI – Task I

France dans l'o	cean indie	n									
ES	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013-2017
Bancs libres	32%	17%	13%	17%	27%	12%	14%	22%	12%	15%	15%
DCP	68%	83%	87%	83%	73%	88%	86%	78%	88%	85%	85%
FR	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013-2017
Bancs libres	45%	28%	29%	25%	44%	30%	38%	41%	28%	21%	32%
DCP	55%	72%	71%	75%	56%	70%	62%	59%	72%	79%	68%

Tableau 4 : Proportion des captures suivant la nature des coups de pêche (DCP ou bancs libres) pour les senneurs de l'Espagne et de la France dans l'océan indien

Source: CTOI – Task II

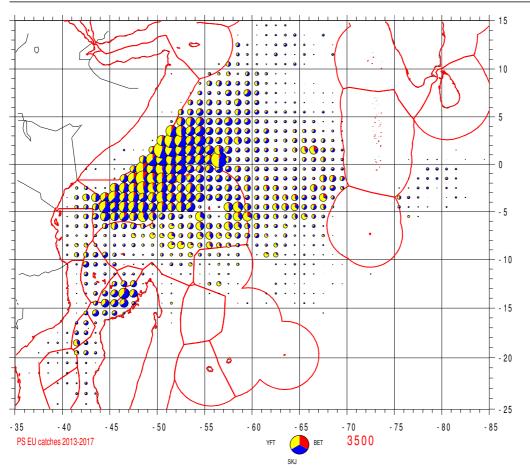


Figure 12: Cartes de répartition des captures moyennes 2013-2017 des senneurs UE (Espagne et France) dans l'océan indien Source : CTOI – d'après données Task II – cartographie propre

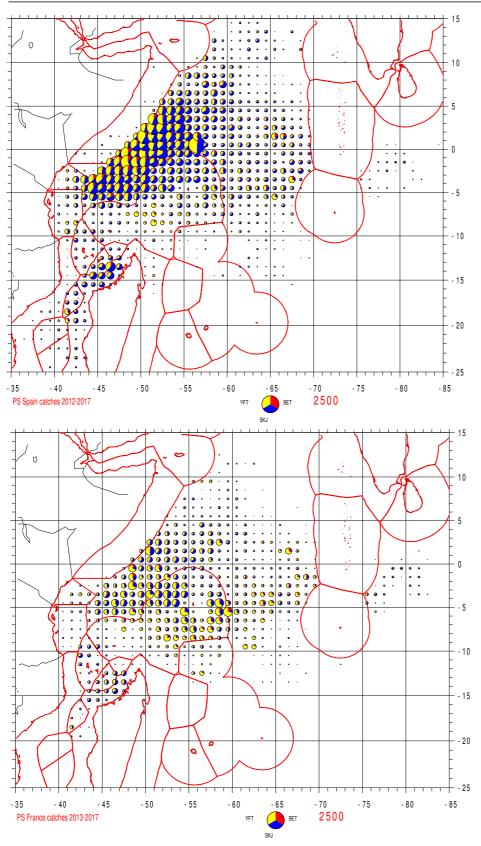


Figure 13: Cartes de répartition des captures des captures moyennes 2013-2017 des senneurs Espagne (haut) et France (bas) dans l'océan indien *Source : CTOI – d'après données Task II – cartographie propre*

La pêche de thonidés et espèces apparentées à la palangre dans l'océan indien

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013-2017
France	43	43	38	37	35	32	36	39	22	22	30
Espagne	19	15	12	14	18	22	21	18	19	13	19
Portugal	4	3	4	4	3	7	6	6	7	5	6
Royaume-Uni	?	?	?	?	3	3	4	2	2	2	3
Total UE	66	61	54	55	59	64	67	65	50	42	58

Tableau 5 : Nombre de palangriers actifs dans l'océan indien

Source: CTOI et rapports nationaux

Tableau 6 : Captures (tonnes) des palangriers par pavillon, hors requins

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013- 2017
Espagne	4 628	4 071	3 870	3 672	5 233	6 008	5 552	4 517	4 060	3 269	4 681
France	2 477	2 067	2 238	2 366	1 954	2 009	2 101	2 145	2 296	1 454	2 001
Portugal	581	616	1 205	957	789	1 205	1 952	1 920	1 719	2 014	1 762
Royaume-Uni	1 091	1 034	660	727	772	638	636	468	253	308	461
Sous-total UE	8 777	7 788	7 973	7 722	8 748	9 860	10 241	9 050	8 328	7 045	8 905
Autres entités:											
Indonésie	74 196	71 665	72 425	82 058	96 823	96 755	90 336	91 154	108 858	108 858	99 192
Taiwan (Chine)	66 239	70 891	57 851	53 763	76 149	65 629	62 299	62 699	69 416	59 519	63 912
Sri Lanka	32 585	35 316	40 654	36 806	43 035	43 807	32 922	33 569	34 210	48 540	38 610
Inde	10 324	13 582	14 661	15 032	25 309	32 450	32 863	12 273	12 853	12 853	20 658
Japon	33 686	21 255	14 352	13 709	14 347	14 049	15 110	13 791	11 995	10 855	13 160
Seychelles	6 784	6 491	6 461	7 165	13 445	9 760	8 548	11 188	12 536	11 418	10 690
Chine	6 589	3 941	7 649	2 088	5 142	7 220	7 200	10 205	10 358	13 795	9 756
NEI-ICE	16 679	9 779	6 031	5 801	5 542	6 424	8 484	6 189	1 686	0	4 557
Iran	0	0	0	0	0	0	0	0	5 760	8 452	2 842
NEI-DFRZ	6 304	10 664	8 591	4 182	9 613	5 749	2 293	2 289	2 875	0	2 641

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013- 2017
Corée	2 713	2 585	2 085	1 532	1 848	2 249	2 859	2 855	2 229	2 735	2 585
Maldives	1 382	1 092	0	4	113	2 646	3 240	470	1 824	1 824	2 001
Malaisie	3 261	2 673	3 712	113	745	1 141	970	1 356	1 684	2 380	1 506
Tanzanie	629	771	562	970	1 479	812	659	394	328	0	439
Philippines	3 202	994	705	210	2 744	1 415	762	0	0	0	435
Afrique du Sud	575	519	756	875	885	661	308	513	318	318	424
Oman	2 950	1 348	824	5 148	2 351	945	554	210	150	150	402
Australie	181	443	456	261	417	352	327	392	433	424	386
Thailande	269	295	608	368	451	341	811	513	0	0	333
Maurice	434	95	246	117	43	85	51	103	392	840	294
Madagascar	111	106	355	291	271	254	276	278	257	139	241
Belize	589	252	195	200	583	111	428	0	0	0	108
Mozambique	0	0	298	298	298	0	6	191	106	204	101
TOTAL	278 459	262 545	247 450	238 713	310 381	302 715	281 547	259 682	286 596	290 349	284 178

Source: CTOI

Tableau 7 : Captures (tonnes) des palangriers UE par espèce dans l'océan indien

EU	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013-2017
YFT	450	555	510	531	510	682	921	832	743	421	720
BET	647	423	413	676	700	931	1 171	1 175	807	445	906
ALB	853	1 033	891	387	468	600	469	520	409	245	448
SWO	6 340	5 494	5 775	5 794	6 646	7 218	7 048	6 170	5 866	5 614	6 383
Marlins	351	233	333	285	371	388	587	318	458	446	439
Requins	5 855	4 602	4 352	5 218	5 311	5 887	7 443	5 957	5 850	5 486	6 125
Autres	174	0	0	0	0	0	0	0	0	0	0
Total	14 670	12 340	12 274	12 891	14 006	15 705	17 640	14 972	14 133	12 657	15 021

Tableau 8 : Captures (tonnes) des palangriers battant pavillon de l'Espagne par espèce dans l'ocean indien											
ESP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013-2017
YFT	108	95	88	94	180	312	335	254	170	83	231
ВЕТ	136	68	64	194	346	526	494	570	295	152	407
ALB	285	485	453	46	94	151	128	145	90	34	110
SWO	3 924	3 305	3 116	3 191	4 396	4 766	4 164	3 421	3 353	2 897	3 720
Marlins	159	97	133	128	188	230	409	107	134	90	194
Sharks	4 479	3 572	3 075	3 824	4 209	4 763	5 481	4 143	4 044	3 593	4 405
Total	9 091	7 622	6 929	7 477	9 413	10 748	11 011	8 640	8 086	6 849	9 067

Tableau 8 : Captures (tonnes) des palangriers battant pavillon de l'Espagne par espèce dans l'océan indien

Tableau 9 : Captures (tonnes) des palangriers battant pavillon de la France par espèce dans l'océan indien

FRA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013-2017
YFT	339	292	276	375	266	285	351	403	416	267	344
BET	508	355	320	400	330	343	385	391	362	207	338
ALB	545	537	412	328	353	433	326	352	305	203	324
SWO	962	755	1 064	1 114	865	811	881	846	953	638	826
Marlins	100	104	138	123	119	122	143	148	0	0	83
Sharks	64	51	53	49	21	15	9	17	12	11	13
Total	2518	2094	2263	2389	1954	2009	2095	2157	2 048	1 326	1 927

Tableau 10 : Captures (tonnes) des palangriers battant pavillon du Portugal par espèce dans l'océan indien

PRT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013-2017
YFT	3	48	100	20	8	31	149	90	116	51	87
BET	3	0	27	79	21	62	292	214	150	84	160
ALB	12	2	21	9	14	9	7	14	13	5	10
SWO	513	552	1 014	827	708	1 085	1 476	1 538	1 357	1 807	1 453
Marlins	43	9	36	18	35	14	21	54	79	59	45
Sharks	489	490	831	965	691	873	1 648	1 556	1 599	1 636	1 463
Total	1 063	1 101	2 029	1 918	1 477	2 074	3 593	3 466	3 048	3 507	3 218

Tableau 11 : Captures (tonnes) des palangriers battant pavillon du Royaume-Uni par espèce dans l'océan indien											
UK	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moyenne 2013-2017
YFT	0	120	46	42	56	54	86	85	41	20	57
BET	0	0	2	3	3	0	0	0	0	2	0
ALB	11	9	5	4	7	7	8	9	1	3	5
SWO	941	882	581	662	677	556	527	365	203	272	385
Marlins	49	23	26	16	29	22	14	9	245	297	117
Sharks	822	489	393	381	390	236	306	241	195	246	245
Others	174	0	0	0	0	0	0	0	0	0	
Total	1997	1523	1054	1108	1161	874	941	709	195	246	810

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Source: CTOI et rapports nationaux Note: YFT : albacore / BET : patudo / ALB: germon / SWO: espadon

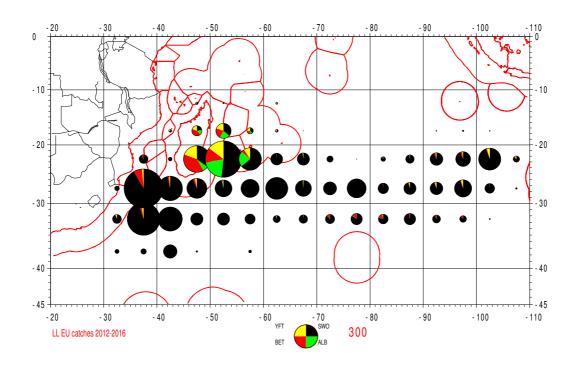


Figure 14: Cartes de répartition des captures moyennes 2012-2016 des palangriers UE (sauf Royaume-Uni) dans l'océan indien, hors requins *Source : CTOI – d'après données Task II – cartographie propre*

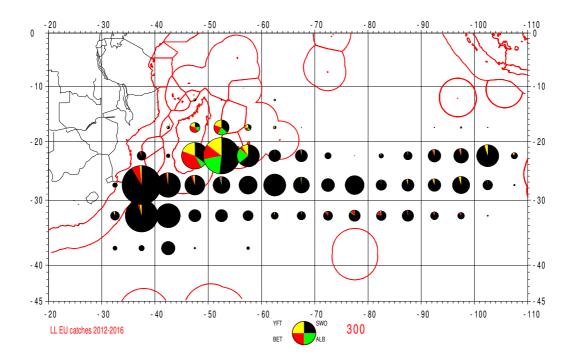


Figure 15: Cartes de répartition des captures moyennes 2012-2016 des palangriers battant pavillon de l'Espagne dans l'océan indien, hors requins *Source : CTOI – d'après données Task II – cartographie propre*

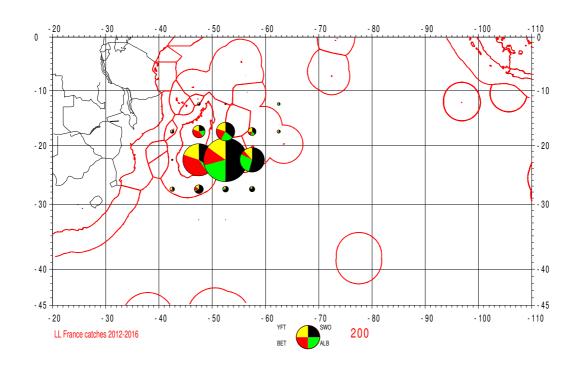


Figure 16: Cartes de répartition des captures moyennes 2012-2016 des palangriers battant pavillon de la France dans l'océan indien, hors requins *Source : CTOI – d'après données Task II – cartographie propre*

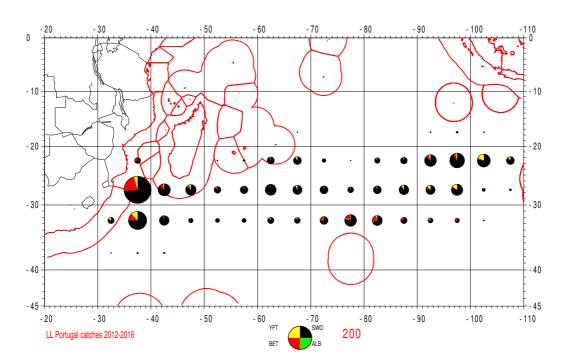


Figure 17: Cartes de répartition des captures moyennes 2012-2016 des palangriers battant pavillon du Portugal dans l'océan indien, hors requins *Source : CTOI – d'après données Task II – cartographie propre*

ANNEX 3: SUMMARY OF SCIENTIFIC INFORMATION ON THE STATUS OF EXPLOITED STOCKS IN THE INDIAN OCEAN

	B _{current} < B _{MSY}		B _{current} > B _{MSY}	
F _{current} >F _{MSY}	Overfished and o	overexploited	Overfishing occuring	
$F_{current} < F_{MSY}$	Overexploited		Neither overfished n overexploited	or
Stock entity	Reference year	Stock status	Current catches (tonnes)	Next evaluatio
Skipjack (Kastuwonus pelamis)	2017	B _{cur} /B _{Target} = 1.00 F _{cur} /F _{target} = 0.59	446 723 (2016)	2020
Yellowfin (Thunnus albacares)	2018	B _{cur} /B _{MSY} = 0.83 F _{cur} /F _{MSY} = 1.21	38 347 (2017)	2021
Bigeye (Thunnus obesus)	2016	B _{cur} /B _{MSY} = 1.29 F _{cur} /F _{MSY} = 0.76	86 586 (2016)	2019
Albacore (<i>Thunnus alalunga</i>) Small tunas ⁵³	2016	B _{cur} /B _{MSY} = 1.80 F _{cur} /F _{MSY} = 0.85 ? (no conclusive assessment)	35 068 (2015)	2019
Swordfish (Xiphias gladius)	2017	$B_{cur}/B_{MSY} = 1.50$ $F_{cur}/F_{MSY} = 0.76$	31 407 (2016)	2020
Black marlin (Makaira indica)	2017	$B_{cur}/B_{MSY} = 0.81$ $F_{cur}/F_{MSY} = 2.42$	17 829	2018-2020
Blue marlin (<i>Makaira nigricans</i>)	2017	$B_{cur}/B_{MSY} = 1.11$ $F_{cur}/F_{MSY} = 0.1.18$	16 353	2019
Striped marlin (<i>Tetrapturus audax</i>)	2018	B _{cur} /B _{MSY} = 0.37 F _{cur} /F _{MSY} = 1.99	3 082	
Indopacific sailfish (Istiophorus platypterus)	2015	B _{cur} /B _{MSY} = 1.13 F _{cur} /F _{MSY} = 1.05	27 975	2019
Kawakawa (Euthynnus affinis)	2017	B _{cur} /B _{MSY} = 1.15 F _{cur} /F _{MSY} = 0.98	156 831	2020
ongtail tuna Thunnus tonggol)	2017	$B_{cur}/B_{MSY} = 0.94$ $F_{cur}/F_{MSY} = 1.04$	133 334	2020
Narrow-barrred Spanish mackerel (Scomberomorus commerson)	2015	B _{cur} /B _{MSY} = 0.89 F _{cur} /F _{MSY} = 1.28	168 350	2020

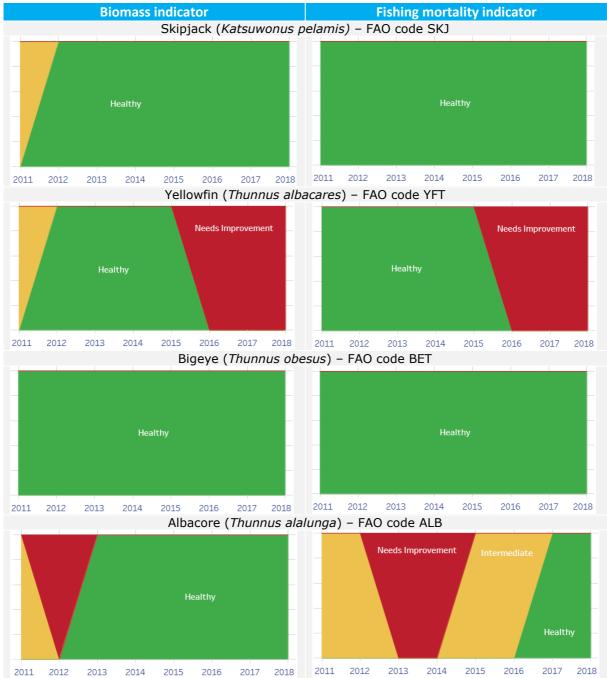
Table 45: Summarised results on the status of main tuna species in the Indian Ocean

Source: IOTC Report of the 21th Session of the IOTC Scientific Committee (2018). Doc IOTC-2018-SC21-R[E]

⁵³ Bullet tuna (Auxis rochei), Frigate tuna (Auxis thazard) and Indo-Pacific King mackerel (Scomberomorus guttatus)

Evolution of stock status since 2011

	Biomass indicator	Fishing mortality indicator
Needs	SSB < SSB _{MSY} but not stable or increasing	F > F _{MSY} and no adequate management
improvement		measures to end overfishing
Intermediate	SSB < SSB _{MSY} but stable or increasing with stock managed at F _{MSY} level	F > F _{MSY} but adequate management measures expected to end overfishing
Healthy	SSB > SSB _{MSY}	F < F _{MSY}



Note: situation as reported 2011-Oct. 2018 Source : International Seafood Sustainability Foundation (ISSF) <u>Tuna Stocks Tool</u>

ANNEX 4 : ASSESSMENT OF EU TUNA CATCHES IN MARINE PROTECTED AREAS UNDER THE SEYCHELLES MARINE SPATIAL PLAN: METHODOLOGY AND RESULTS

Methodology

The analysis identifies the specific IOTC 1° reporting rectangles which fall fully within the proposed MPAs (full overlap) as shown in the figure above and those which fall partially within the MPA. Note that metadata for the definition of IOTC rectangles is set out in Guidelines for the Reporting of Fisheries Statistics to the IOTC, IOTC Secretariat, Mahé, Seychelles, January 2014.

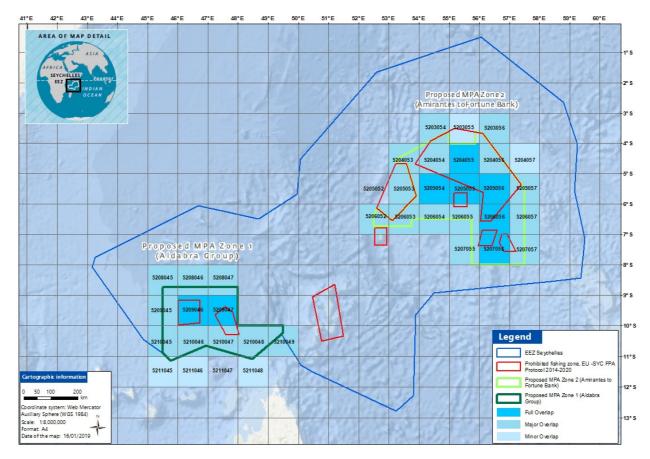


Figure 18: Proposed Seychelles MPA and related IOTC statistical reporting zones

Sources: (1) IOTC, Guidelines for the Reporting of Fisheries Statistics to the IOTC, IOTC Secretariat, January 2014; (2) Protocol to the EU -Seychelles FPA; (3) Smith, J.L., H.E. Sims, and R. Tingey. 2018. Draft Phase 1 Seychelles Marine Spatial Plan: MSP Marine Areas. Unpublished report to Government of Seychelles.

In order to account for the effect of partial coverage of an IOTC rectangle by the proposed MPA in the assessment of impact on catches a separate calculation was made of the area of overlap and percentage of IOTC covered by the MPA. This was used to factor the IOTC reported catches in that square. The methodology for the calculation of the overlap is shown in Appendix A and B (with the MPA coordinates).

Three scenarios are considered:

• **Minimal scenario**: EU purse seine fleet obtained catches only in the 1°x1° rectangles fully included in the MPAs, meaning that catches in 1°x1° rectangles not fully included within MPA limits have been obtained in the portions of the rectangles outside the MPA limits

- **Average scenario**: EU purse seine fleet obtained catches in proportion to areas included within MPA limits. This assumes that catches are evenly spread over a 1°x1° rectangle
- **Maximal scenario**: EU purse seine fleets obtained all their catches in the portion of the 1°x1° rectangle included within MPA limits. This is the opposite of the minimal scenario.

For each scenario, catch data for EU purse seiners are extracted for each year between 2014 and 2017, with calculation of average catches over this period and identification of minimum and maximum. Only the average scenario is presented in the main report, since it presents the consultants best estimates based on average catches 2014-2017.

Results

Minimal scenario

All fishing methods

МРА	2014	2015	2016	2017	Average 2014-2017	Min 2014-2017	Max 2014-2017
Zone 1	15	24	404	0	111	0	404
Zone 2	1 872	1 703	2 791	806	1 793	806	2 791
Total	1 887	1 726	3 195	806	1 904	806	3 195
Eroo cchoo	le only						

Free schools only

МРА	2014	2015	2016	2017	Average 2014-2017	Min 2014-2017	Max 2014-2017
Zone 1	0	0	20	0	5	0	20
Zone 2	445	771	1 111	255	645	255	1 111
Total	445	771	1 131	255	650	255	1 131

Log (FAD) schools only

МРА	2014	2015	2016	2017	Average 2014-2017	Min 2014-2017	Max 2014-2017
Zone 1	15	24	383	0	106	0	383
Zone 2	1 426	932	1 681	551	1 148	551	1 681
Total	1 442	956	2 064	551	1 253	551	2 064

Average scenario

All fishing methods

MPA	2014	2015	2016	2017	Average 2014-2017	Min 2014-2017	Max 2014-2017
Zone 1	41	90	1 315	112	389	41	1 315
Zone 2	4 203	3 514	6 968	1 999	4 171	1 999	6 968
Total	4 244	3 603	8 282	2 111	4 560	2 111	8 282

Free sch	ools only						
МРА	2014	2015	2016	2017	Average 2014-2017	Min 2014-2017	Max 2014-2017
Zone 1	8	4	78	0	23	0	78
Zone 2	1 198	1 087	1 881	516	1 171	516	1 881
Total	1 206	1 091	1 960	516	1 193	516	1 960
) school	sonly					

Log (FAD) schools only

МРА	2014	2015	2016	2017	Average 2014-2017	Min 2014-2017	Max 2014-2017		
Zone 1	33	86	1 236	112	367	33	1 236		
Zone 2	3 005	2 426	5 087	1 483	3 000	1 483	5 087		
Total	3 037	2 512	6 323	1 595	3 367	1 595	6 323		
Maximum scenario									

All fishing methods

МРА	2014	2015	2016	2017	Average 2014-2017	Min 2014-2017	Max 2014-2017
Zone 1	99	618	2 950	472	1 035	99	2 950
Zone 2	8 797	7 402	16 009	5 298	9 376	5 298	16 009
Total	8 896	8 020	18 959	5 770	10 411	5 770	18 959

Free schools only

2014	2015	2016	2017	Average 2014-2017	Min 2014-2017	Max 2014-2017
32	26	182	0	60	0	182
2 637	2 170	4 475	980	2 565	980	4 475
2 669	2 195	4 656	980	2 625	980	4 656
	32 2 637 2 669	32 26 2637 2170	32 26 182 2637 2170 4475 2669 2195 4656	32 26 182 0 2 637 2 170 4 475 980 2 669 2 195 4 656 980	2014-2017 32 26 182 0 60 2 637 2 170 4 475 980 2 565 2 669 2 195 4 656 980 2 625	2014-2017 2014-2017 32 26 182 0 60 0 2 637 2 170 4 475 980 2 565 980 2 669 2 195 4 656 980 2 625 980

Log (FAD) schools only

МРА	2014	2015	2016	2017	Average 2014-2017	Min 2014-2017	Max 2014-2017
Zone 1	67	592	2 768	472	975	67	2 768
Zone 2	6 160	5 232	11 534	4 319	6 811	4 319	11 534
Total	6 227	5 824	14 302	4 790	7 786	4 790	14 302

Appendix A - Technical methodology for calculation of the percentage of the area within the MPA zones, for each Latitude and Longitude 1 degree square.

Note that the calculation is based on current gazetted coordinates for Zones 1 and 2 (see appendix B for details).

All of the geospatial analysis was done using ArcMap 10.5.1 software. The final percentages were calculated using Excel 2013.

The geographical coordinated system used for the geospatial analysis was Web Mercator Auxiliary Sphere (WGS 1984)

Each 1 degree square has an area of approximately 12 318 Km2 (Total area), which was calculated using the "Calculate Geometry" tool available in ArcMap 10.5.1. This adds information to a feature's attribute fields representing the spatial or geometric characteristics and location of each feature, such as, in this case, area in square kilometres. The area of any polygon, when the coordinates are known, can be given by the following formula:

$$AREA = \frac{[(X1 x Y2) - (Y1 x X2)] + [(X2 x Y3) - (Y2 x X3)] \dots [(Xn x Y1) - (Yn x X1)]}{2}$$

To determine the area of each of these 1 degree squares within the MPAs zones, the geoprocessing tool "Intersect" was used. This geoprocessing tool computes a geometric intersection (equation below) of the input features. Features or portions of features which overlap in all layers and/or feature classes will be written to the output feature class. The output is a polygon that represents the area in which the square is within the MPA zone (Area within MPA (Km2)).

The intersection of two sets, for example A and B, is written as:

 $A \cap B$ is the set $A \cap B = \{x \mid x \in A \land x \in B\}$. If $A \cap B = \emptyset$, we say that the two sets are disjoint.

This process was repeated for every 1 degree square that overlapped partially the MPA.

The "Calculate Geometry" tool was used in each of the newly created polygons (Area within MPA (Km²)) to calculate their respective areas in square kilometres.

After this process was complete, the values of each polygon (Area within MPA (Km²)), where exported to Excel to calculate the percentage of the Total Area of the MPA zones falling within each square. The results are shown in the table below:

Table 46: Estimated % area of each 1°x1° rectangle within MPAs limits

MPA	Grid*	Coverage**
Zone 1	5208045	13%
Zone 1	5208046	25%
Zone 1	5208047	25%
Zone 1	5209045	50%
Zone 1	5209046	100%
Zone 1	5209047	100%
Zone 1	5210045	50%
Zone 1	5210046	83%
Zone 1	5210047	81%
Zone 1	5210048	91%
Zone 1	5210049	21%
Zone 1	5211045	3%
Zone 1	5211046	0%
Zone 1	5211048	1%
Zone 2	5203054	15%

Zone 2520305555%Zone 252030569%Zone 2520405339%Zone 2520405498%Zone 25204055100%Zone 2520405711%Zone 2520405711%Zone 2520505321%Zone 25205054100%Zone 25205055100%Zone 25205056100%Zone 2520505741%Zone 2520605222%Zone 2520605349%Zone 2520605450%Zone 2520605564%Zone 25206056100%Zone 2520605726%Zone 2520705526%Zone 25207056100%Zone 2520705526%Zone 25207056100%Zone 2520705526%Zone 25207056100%Zone 2520705650%			
Zone 2 5204053 39% Zone 2 5204054 98% Zone 2 5204055 100% Zone 2 5204056 74% Zone 2 5204057 11% Zone 2 5205053 21% Zone 2 5205054 100% Zone 2 5205055 100% Zone 2 5206052 22% Zone 2 5206053 49% Zone 2 5206055 64% Zone 2 5206055 100% Zone 2 5206056 100% Zone 2 5206057 50% Zone 2 5206057 26% Zone 2 5206057 26%<	Zone 2	5203055	5%
Zone 2 5204054 98% Zone 2 5204055 100% Zone 2 5204056 74% Zone 2 5204057 11% Zone 2 5204057 11% Zone 2 5205053 21% Zone 2 5205054 100% Zone 2 5205055 100% Zone 2 5206052 22% Zone 2 5206053 49% Zone 2 5206054 50% Zone 2 5206055 64% Zone 2 5206057 50% Zone 2 5206057 50% Zone 2 5206057 50% Zone 2 5206057 26% Zone 2 5207055 26% <td>Zone 2</td> <td>5203056</td> <td>9%</td>	Zone 2	5203056	9%
Zone 25204055100%Zone 2520405674%Zone 252040571%Zone 2520505321%Zone 25205054100%Zone 25205055100%Zone 25205056100%Zone 2520505741%Zone 2520605222%Zone 2520605349%Zone 2520605450%Zone 2520605564%Zone 25206056100%Zone 2520605750%Zone 2520605750%Zone 2520705526%Zone 25207056100%	Zone 2	5204053	39%
Zone 2 5204056 74% Zone 2 5204057 1% Zone 2 5205053 21% Zone 2 5205054 100% Zone 2 5205055 100% Zone 2 5205055 100% Zone 2 5205056 100% Zone 2 5205056 100% Zone 2 5205057 41% Zone 2 5206052 22% Zone 2 5206053 49% Zone 2 5206054 50% Zone 2 5206055 64% Zone 2 5206056 100% Zone 2 5206057 50% Zone 2 5206056 100% Zone 2 5206057 50% Zone 2 5206057 50% Zone 2 5206057 50% Zone 2 5206057 50% Zone 2 5207055 26% Zone 2 5207055 26% Zone 2 5207055 26%	Zone 2	5204054	98%
Zone 252040571%Zone 2520505321%Zone 25205054100%Zone 25205055100%Zone 25205056100%Zone 2520505741%Zone 2520605222%Zone 2520605349%Zone 2520605450%Zone 2520605564%Zone 25206056100%Zone 2520605750%Zone 2520605726%Zone 2520705526%Zone 25207056100%	Zone 2	5204055	100%
Zone 2520505321%Zone 25205054100%Zone 25205055100%Zone 25205056100%Zone 2520505741%Zone 2520605222%Zone 2520605349%Zone 2520605450%Zone 2520605564%Zone 25206056100%Zone 2520605750%Zone 25206056100%Zone 2520605726%Zone 2520705526%Zone 25207056100%	Zone 2	5204056	74%
Zone 25205054100%Zone 25205055100%Zone 25205056100%Zone 2520505741%Zone 2520605222%Zone 2520605349%Zone 2520605450%Zone 2520605564%Zone 25206056100%Zone 2520605750%Zone 2520605750%Zone 2520705526%Zone 25207056100%	Zone 2	5204057	1%
Zone 25205055100%Zone 25205056100%Zone 2520505741%Zone 2520605222%Zone 2520605349%Zone 2520605450%Zone 2520605564%Zone 25206056100%Zone 2520605750%Zone 2520705526%Zone 2520705526%Zone 25207056100%	Zone 2	5205053	21%
Zone 25205056100%Zone 2520505741%Zone 2520605222%Zone 2520605349%Zone 2520605450%Zone 2520605564%Zone 25206056100%Zone 2520605750%Zone 2520705526%Zone 25207056100%	Zone 2	5205054	100%
Zone 2520505741%Zone 2520605222%Zone 2520605349%Zone 2520605450%Zone 2520605564%Zone 25206056100%Zone 2520605750%Zone 2520705526%Zone 25207056100%	Zone 2	5205055	100%
Zone 2520605222%Zone 2520605349%Zone 2520605450%Zone 2520605564%Zone 25206056100%Zone 2520605750%Zone 2520705526%Zone 25207056100%	Zone 2	5205056	100%
Zone 2520605349%Zone 2520605450%Zone 2520605564%Zone 25206056100%Zone 2520605750%Zone 2520705526%Zone 25207056100%	Zone 2	5205057	41%
Zone 2520605450%Zone 2520605564%Zone 25206056100%Zone 2520605750%Zone 2520705526%Zone 25207056100%	Zone 2	5206052	22%
Zone 2520605564%Zone 25206056100%Zone 2520605750%Zone 2520705526%Zone 25207056100%	Zone 2	5206053	49%
Zone 25206056100%Zone 2520605750%Zone 2520705526%Zone 25207056100%	Zone 2	5206054	50%
Zone 2 5206057 50% Zone 2 5207055 26% Zone 2 5207056 100%	Zone 2	5206055	64%
Zone 2 5207055 26% Zone 2 5207056 100%	Zone 2	5206056	100%
Zone 2 5207056 100%	Zone 2	5206057	50%
	Zone 2	5207055	26%
Zone 2 5207057 50%	Zone 2	5207056	100%
	Zone 2	5207057	50%

Source : own estimates

Notes: * Grid refers to the universal statistical identifier of $1^{\circ}x1^{\circ}$ rectangle as used by IOTC in the C/E database

** denotes the % area of each 1°x1° rectangle falling within MPA limits

Appendix B - MPAs coordinates

Note that for Zones 1 and 2 coordinates are current Gazetted coordinates (correct at 7 February 2019). Proposals for changes to the zone coordinates are currently being considered.

Zone 1: Aldabra Group Marine National Park

Comprising an area around the Aldabra Group, with the boundary as follows -Starting at the southwest corner at the boundary of the EEZ, at coordinates (38S, 554642.81, 8794475.77), move in а northerly direction up to (38S, 554994.86,9032750.44), then easterly over to (38S, 830110.08, 9031471.35), then southerly to coordinates (38S, 828928.74, 8893091.15), then easterly to (39S, 335588.96, 8894213.74), then south to (39S, 335702.87, 8869602.02), then southwesterly to (39S, 328431.15, 8862842.06), then southwesterly to (39S, 225219.20, 8780563.75), then west-northwesterly to (38S, 709055.59, 8822044.50), then southwesterly to (38S, 583807.45, 8768462.93), then northwesterly back to the point of commencement (38S, 554642.81,8794475.77).

This area excludes;

1. Aldabra Special Reserve and the proposed extension of Aldabra Special Reserve

Comprising an area around Aldabra Atoll that with the boundary as follows – Starting from southwest corner at coordinates (38S, 618873.19, 8939000.39), then northerly to (38S, 618999.96, 8980000.05), then easterly to (38S, 681998.89, 8979758.49), then south to (38S, 681804.94, 8938749.48), then westerly back to the point of commencement (38S, 618873.19, 8939000.39), and including the lagoon herein.

2. Cosmoledo and Astove Islands.

Comprising an area around Cosmoledo and Astove Islandswith the boundary as follows – From Point 11 (38S, 784775.23,8860262.34) to Point 12 (38S, 745079.90, 8932483.40) to Point 13 (38S, 781899.29, 8961737.17) to Point 14 (38S, 809212.81,8941233.95) to Point 15 (39S, 175032.61, 8859912.95) and back to Point 11, the point of commencement.

Zone 2: Amirantes (Marine) to Fortune Bank (Marine) Area of Outstanding Natural Beauty Comprising an area from the Amirantes Group to Fortune bank with the boundary as follows - Starting at the southwest corner and moving in a clockwise direction from coordinates (39S, 665781.69,9253632.51), move in a northerly direction to coordinates (39S, 666464.25,9294411.63), then north-northeasterly to (39S, 677044.77, 9319949.22), then southeasterly to (39S, 732213.28, 9275511.10), then northeasterly to coordinate (39S, 823067.46, 9363606.47), then in a north-northwesterly direction to point (39S, 787713.90, 9481807.57), then westerly to (39S, 745902.64, 9481950.96), then northeasterly to (39S, 754795.46, 9502203.08), then east-northeast to (40S, 278033.48, 9602429.63), then southerly to (40S, 278139.13, 9556467.47), then easterly to(40S, 374766.41, 9556650.56), then northerly to coordinates(40S, 374807.17, 9599419.68), then east-southeasterly to (40S, 401717.97, 9594669.08), then southeasterly to (40S, 555379.80, 9389615.40), then southerly to (40S, 555136.15, 9115221.95), then westerly to (40S, 361982.62, 9115217.81), then northerly to(40S, 361783.73,9281353.13), then westerly to (39S, 804166.72, 9280697.02), then southerly to (39S, 804013.39, 9253029.60), then westerly back to point of commencement(39S, 665781.69, 9253632.51).

This area excludes;

1. Inner Islands, Port of Victoria Seychelles Ports Authority (Extension of Port Victoria)(Declaration) Order, 2012.

Comprising the waters surrounding the Inner Islands and Port of Victoria, in UTM Zone 40, with the boundary as follows -From southern point, at coordinates (335519.24, 9460050.57), then northwesterly to (292934.33, 9483907.25), then northerly to (292840.07, 9520772.40), then east-northeasterly to (337214.53, 9535612.97), then easterly to coordinates (385316.68, 9535689.85), southerly to (394622.35, 9491480.72) and then southeasterly to the point of commencement (335519.25, 9460050.57)

2. Bird and Denis Islands

Comprising an area around Bird and Denis Islands, in UTM Zone 40, with the boundary as follows – $\ensuremath{\mathsf{-}}$

Starting at the southwest corner and moving in a clockwise direction from coordinates (278139.13,9556467.47), move in a northerly direction to point (278033.48, 9602429.63), then in a northeasterly direction to (298195.18, 9612943.93), then in an east-southeasterly direction to point (374807.17, 9599419.68), then in a southerly direction to (374766.41, 9556650.56), then in a westerly direction back to the point of commencement (278139.13, 9556467.47).

3. Platte

Comprising an area around Platte Island, in UTM Zone 40, with the boundary as follows -From Point 20 (40S, 297111.06, 9324843.23) to Point 21 (296946.11, 9375165.08) to Point 22 (344213.45, 9375296.69) to Point 23 (344339.96, 9324985.29) and back to Point 20, the point of commencement.

4. Coetivy

Comprising an area around Coetivy Island, in UTM Zone 40, with the boundary as followsFrom Point 24 (382277.62, 9183733.80) to Point 25 (400565.63, 9239054.61) to Point 26 (453967.08,

9239128.15) to Point 27. (435623.09, 9183832.51) and back to Point 24, the point of commencement.

5. Amirantes Group and African Banks

Comprising an area around the Amirantes Islands, in UTM Zone 39, with the boundary as follow:-

From Point 4 (732213.28, 9275511.10) to Point 3 (677044.77, 9319949.22) to Point 7 (745902.64,

9481950.96) to Point 6 (787713.90, 9481807.57) toPoint 5 (823067.46, 9363606.47) and back to Point 4, the point of commencement.

ANNEX 5 : ASSESSMENT OF ECONOMIC AND SOCIAL IMPACTS OF EU FLEET ACTIVITIES UNDER THE CURRENT PROTOCOL

Introduction

This annex presents the methodology used and the detailed results of the assessment of the economic and social impacts of EU fleet activities under the EU-Seychelles 2014-2020 Protocol. As required by the terms of reference, the general approach used is guided by the methodology developed for tuna fishing agreements and available from the DG MARE website⁵⁴.

Analysis are conducted for the first four years of the Protocol for which catch data are available, i.e. 2015, 2016, 2017 and 2018. Data for this later year being still provisional, estimates of economic and social impact may vary depending on final catch data for 2018. Note that catch data used are those provided by DG MARE as extracted from the ACDR database on 5/2/2019. DG MARE catch data may be different from catch data held by SFA.

A- Turnover of EU fishing fleet under the Protocol

A-1 Methods and data

The turnover of the EU fleet is estimated by multiplying weight of fisheries products caught in the Seychelles fishing zone by average first sale prices.

The next table details the average first sale prices retained for the different species caught by the three different tuna fleet segments in the Seychelles fishing zone.

(EUR / tonne)	Species	FAO code	2014	2015	2016	2017	2018	Average
ES	Skipjack	SKJ	1 042	985	1 038	1 388	1 187	1 128
	Yellowfin	YFT	1 583	1 322	1 497	1 838	1 809	1 610
	Bigeye	BET	1 083	957	1 053	1 486	1 238	1 163
	Other		1 288	1 135	1 243	1 576	1 388	1 326
ES/IT	Skipjack	SKJ	1 072	1 032	1 099	1 529	1 511	1 249
	Yellowfin	YFT	1 827	1 505	1 857	2 027	1 978	1 839
	Bigeye	BET	1 175	1 029	1 106	1 469	1 604	1 277
	Other		1 503	1 209	1 381	1 720	1 700	1 503

Table 47: Average prices (EUR / tonne) of main species caught by the EU purse seine fleet in the Seychelles fishing zone

Source: average CIF prices of EU exports of whole frozen tuna to Seychelles, Mauritius and Madagascar according to COMEXT database. ALB: CN 03034110 to CN 03034190), YFT: CN 03034211 to CN 03034290, SKJ: CN 03034310 to CN 03034390 and BET: CN 03034410 to CN 03034490. Other: all species aggregated

⁵⁴ COFREPECHE, MRAG, NFDS et POSEIDON, 2014. Analyse économique de la flotte thonière de l'UE – Note de méthode. Contrat cadre MARE/2011/01 -Lot 3, contrat spécifique n°09. Bruxelles, 32p https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/tuna-fleets-methodological-note fr.pdf

A-2 Results

	FAO code	2014	2015	2010			
iniack			2015	2016	2017	2018	Average
	SKJ	9 292	7 410	15 053	14 518	25 191	14 293
llowfin	YFT	15 470	10 855	20 927	20 278	14 346	16 375
geye	BET	1 611	1 007	2 246	3 545	4 791	2 640
her		0	0	24	58	29	22
ibtotal ESP		26 374	19 273	38 250	38 399	44 358	33 331
ipjack	SKJ	6 696	5 296	15 068	14 539	18 489	12 018
llowfin	YFT	24 864	13 533	29 917	27 465	17 172	22 590
geye	BET	2 265	1 052	1 458	2 462	2 212	1 890
her		85	60	221	145	31	108
ibtotal FRA		33 911	19 941	46 663	44 610	37 903	36 606
		60 284	39 213	84 914	83 009	82 261	69 936
	llowfin geye her btotal ESP ipjack llowfin geye her	llowfin YFT geye BET her btotal ESP ipjack SKJ llowfin YFT geye BET her	IlowfinYFT15 470geyeBET1 611her0btotal ESP26 374ipjackSKJ6 696llowfinYFT24 864geyeBET2 265her85btotal FRA33 911	Ilowfin YFT 15 470 10 855 geye BET 1 611 1 007 her 0 0 btotal ESP 26 374 19 273 ipjack SKJ 6 696 5 296 llowfin YFT 24 864 13 533 geye BET 2 265 1 052 her 85 60 btotal FRA 33 911 19 941	Ilowfin YFT 15 470 10 855 20 927 geye BET 1 611 1 007 2 246 her 0 0 24 btotal ESP 26 374 19 273 38 250 ipjack SKJ 6 696 5 296 15 068 llowfin YFT 24 864 13 533 29 917 geye BET 2 265 1 052 1 458 her 85 60 221 btotal FRA 33 911 19 941 46 663	Ilowfin YFT 15 470 10 855 20 927 20 278 geye BET 1 611 1 007 2 246 3 545 her 0 0 24 58 btotal ESP 26 374 19 273 38 250 38 399 ipjack SKJ 6 696 5 296 15 068 14 539 llowfin YFT 24 864 13 533 29 917 27 465 geye BET 2 265 1 052 1 458 2 462 her 85 60 221 145 btotal FRA 33 911 19 941 46 663 44 610	Ilowfin YFT 15 470 10 855 20 927 20 278 14 346 geye BET 1 611 1 007 2 246 3 545 4 791 her 0 0 24 58 29 btotal ESP 26 374 19 273 38 250 38 399 44 358 ipjack SKJ 6 696 5 296 15 068 14 539 18 489 llowfin YFT 24 864 13 533 29 917 27 465 17 172 geye BET 2 265 1 052 1 458 2 462 2 212 her 85 60 221 145 31 btotal FRA 33 911 19 941 46 663 44 610 37 903

Source: own estimates based on DG MARE catch data and average prices

B- Standardised operating accounts of the different fleet segments and intermediate operating totals

B-1 Method and data

In the absence of detailed specific information on the costs and earnings of fishing vessels having utilised negotiated fishing opportunities, the operating accounts of the different fleet segments are estimated from data published in the last edition of the STECF Annual Economic Report⁵⁵ (STECF 18-07) for the two fishing segments active under the Seychelles Protocol (ES and FR tuna purse seiners). The next table details assumptions made on the basis of the technical characteristics of fishing vessels active in each of the three segments considered by the Protocol.

Protocol category	DCF segment utilised as proxy	Comments
ES purse seiners	ESP-PS-VL 40xx - OFR	Spanish segment of purse seiners (PS) of more than 40 meters in non-EU waters (OFR: Other Fishing Regions)
FR/IT purse seiners	FRA-PS-VL 40xx - OFR	French segment of purse seiners (PS) of more than 40 meters in non-EU waters (OFR: Other Fishing Regions) Note: no data is published for the single IT purse seiner active in the IO. Its operating accounts are considered as similar to that of FR purse seiners.

Source: From analysis of STECF (2018) segmentation

The method adopted is to extract from published operating accounts the main expenditure items in percent of total income. Below an example of the treatment of economic data for the ESP-PS-VL-40xx segment.

STECF data for all vessels comprise	d in the E	SP-PS-VL-		
40xx segment in 2016 :				% Income
Income	€	395 798 398		100%
Wages and salaries of crew	€	54 747 376		14%
Unpaid labour value	€	0	→ in % of	0%
Energy costs	€	45 090 370	income	11%
Repair & maintenance costs	€	24 352 692	income	6%
Other variable costs	€	122 575 029		31%
Other non-variable costs	€	34 643 112		9%

⁵⁵ Scientific, Technical and Economic Committee for Fisheries (STECF) – The 2018 Annual Economic Report on the EU Fishing Fleet (STECF-18-07). Publications Office of the European Union, Luxembourg, 2018, JRC112940, ISBN 978-92-79-79390-5, doi:10.2760/56158

The percentage obtained reflecting the structure of the operating accounts of each segment are then applied to the turnover by fishing category to obtain the absolute value of the different expenditure categories.

Data published in 2018 apply to 2016 situation. Operating accounts for 2017 and 2018 have been estimated on the following basis:

- Fuel costs (*energy costs*) have been updated on the basis of average fuel price: 0.41 EUR / l in 2016, 0.48 EUR / l in 2017 and 0.59 EUR / l in 2018 (source: INSEE France)
- For costs items other than labour, costs have been updated using the EUROSTAT index HICP (database [prc_hicp_aind]
- For labour, it has been estimated that 40% of costs variations as above is allocated to crew remuneration (share system) and the remaining 60% to gross profit.

Intermediate operating totals

Intermediate operating total namely Gross Value Added and Gross Profit are calculated according to the method adopted by STECF.

- **Direct Gross Value Added** (GVA) is obtained by subtracting from turnover operating expenses *i.e.* energy costs, repair and maintenance costs, other variable costs and other non-variable costs.
- **Gross Profit** (GRP) is obtained by subtracting from turnover operating expenses mentioned above, plus wages and salaries of crew, access fees paid to Seychelles treasury and miscellaneous taxes in relation to fishing activities (e.g. harbour taxes).

B.2 - Results

Intermediate operating totals

a) Direct gross value added estimates

According to the method described above, the standardized operating accounts of the different fleet segments are as shown in the next table. Direct Gross Value Added is the difference between income (or turnover) and operating expenses.

Table 49: Results of estimates of direct Gross Value-Added generated by the EU tunapurse seiners in the Seychelles fishing zone

(kEUR)	2014	2015	2016	2017	2018	Average
ES purse seiners						
Income	26 374	19 273	38 250	38 399	44 358	33 331
Operating costs incl.:						
Energy costs	5 045	3 668	4 358	4 033	6 299	4 681
Repair & maintenance costs	1 956	1 201	2 371	1 910	2 479	1 983
Other variable costs	7 225	7 153	11 863	9 556	12 407	9 641
Other non-variable costs	2 073	1 885	3 348	2 697	3 501	2 701
Direct Gross Value Added	10 075	5 366	16 311	20 203	19 671	14 325
FR & IT purse seiners						
Income	33 911	19 941	46 663	44 610	37 903	36 606
Operating costs incl.:						
Energy costs	8 537	4 567	6 326	5 576	6 405	6 282
Repair & maintenance costs	6 374	4 602	9 755	7 483	7 146	7 072
Other variable costs	1 516	1 040	1 963	1 506	1 438	1 493
Other non-variable costs	4 965	3 782	7 468	5 729	5 471	5 483
Direct Gross Value Added	12 519	5 949	21 152	24 317	17 444	16 276

Source: own estimates based on income and on STECF 18-07 operating accounts for selected segments

a) Gross Profit estimates

(kEUR)	2014	2015	2016	2017	2018	Average
ES purse seiners						
Gross value added	10 075	5 366	16 311	20 203	19 671	14 325
Wages	3 595	3 086	5 291	3 948	4 559	4 096
Access fees	1 125	1 105	1 991	1 719	2 313	1 651
Other taxes	396	289	574	576	665	500
Gross Profit	4 960	886	8 455	13 961	12 134	8 079
FR & IT purse seine	ers					
Gross value added	12 519	5 949	21 152	24 317	17 444	16 276
Wages	10 735	6 884	14 222	10 382	9 246	10 294
Access fees	1 201	928	2 078	1 744	1 562	1 503
Other taxes	509	299	700	669	569	549
Gross Profit	74	-2 162	4 152	11 523	6 067	3 931

Table 50: Gross profit estimated as the difference between gross value added and crewremuneration

Source: own estimates based on income and on STECF 18-07 operating accounts for selected segments

C - Estimate of indirect Gross Value Added in upstream (purchase of goods and services by fishing vessels) and downstream (processing of catches) ancillaries industries

C.1 - Method and data

Upstream indirect value-added

The method used consists in estimating amounts of value added supported by vessel expenses (energy costs, repair and maintenance costs, other variable costs and other non-variable costs) through rates of included value added (in % of turnover). The next table presents the assumptions retained and the data sources.

Table 51: Details and sources of indirect value-added rates utilised for each EU vessels expenditure category.

Expenditure category	VA rate included	Justification	Source
Fuel / lubricants	2%	Distribution of tax-free fuel generates low VA rates	Own estimates
Repairs / maintenance	29%	The rate selected is the VA / turnover ratio calculated by Eurostat for the EU shipbuilding and repair industry	Eurostat Industry, trade and services Note 16/2008 ref. KS-SF- 08-016-EN-N
Other variable costs	10%	Assuming that other variable costs include mostly fishing gears and other consumables, the ratio selected is the VA/turnover ratio of the wholesale trade sector in the EU	Eurostat Data NACE section G division 46 (Wholesale trade, except of motor vehicles and motorcycles) Eurostat database sbs_na_dt_r2
Other fixed costs	25%	Assuming that other fixed costs include mostly purchase of services, the ration selected is the VA/turnover ratio of non- financial services in the EU.	Eurostat Industry, trade and services Note 61/2009 ref. KS-SF- 09-61-EN-N

Downstream indirect value-added

All catches of tuna purse seiners and pole and liners are sold to canneries of different countries for industrial processing into cans or loins mainly in Seychelles and Mauritius, but also in Madagascar and in the EU although to a lesser extent. The indirect value-added generated by supply of raw material to the canning industry is estimated though analysis of operating accounts of Indian Ocean canneries reconstituted from different unpublished sources.

On the basis of these reconstituted operating accounts, it can be estimated that EUR 1 of raw material support creation of EUR 0.27 (SKJ) or 0.21 (YFT) value added in the tuna processing sector. Concerning bigeye, it will be assumed that the indirect value added generated is close to that of skipjack, most individual processed being of small size. The economic analysis will consider an average rate of EUR 0.25 added value generated for every 1 EUR of raw material.

EUR	Skipja	Skipjack		'in
Fish cost / tonne	1210		1820	
+ transport	0.0		0.0	
+ loading / unloading	15		15	
- by-product credit	51		51	
Net fish cost / tonne	1 159		1 769	
Yield	40%		46%	
For a 48 can pack*				
Fish cost	16.13	51%	21.41	57%
Can cost	4.78	15%	4.78	13%
Other packaging	0.67	2%	0.67	2%
Ingredients	0.66	2%	0.66	2%
Energy	1.64	5%	1.64	4%
Labour	1.84	6%	1.84	5%
Depreciation / taxes	2.51	8%	2.51	7%
	28.23	88%	33.51	88%
Value-added	4.35		4.35	

Table 52: Standardised operating accounts of Seychelles cannery

Note: * assumption of 116 g of tuna meat per can Sources: various unpublished information

C.2 - Results

Table 53: Estimates of upstream and downstream indirect gross value-added (iGVA) generated by activities of EU tuna purse seiners in the Seychelles fishing zone

(kEUR)	2014	2015	2016	2017	2018	Average
ES purse seiners						
Upstream iGVA incl.:	1 909	1 608	2 798	2 264	2 961	2 308
Fuel and lubricants	101	73	87	81	126	94
Repair & maintenance	567	348	688	554	719	575
Other variable costs	723	715	1 186	956	1 241	964
Other non-variable costs	518	471	837	674	875	675
Downstream iGVA	6 330	4 625	9 180	9 216	10 646	7 999
FR & IT purse seiners						
Upstream iGVA incl.:	3 412	2 476	5 019	3 864	3 712	3 696
Fuel and lubricants	171	91	127	112	128	126
Repair & maintenance	1 848	1 335	2 829	2 170	2 072	2 051
Other variable costs	152	104	196	151	144	149
Other non-variable costs	1 241	946	1 867	1 432	1 368	1 371
Downstream iGVA	8 139	4 786	11 199	10 706	9 097	8 785

Source: own estimates based on assumptions detailed in the previous section

D-Distribution of direct and indirect gross value-added

D.1 - Method and data

Direct value added

The three main components of direct GVA include salaries paid to EU vessels crew, access fees and other taxes and gross profit. Access fees are 100% distributed Seychelles while gross profit is 100% distributed to the EU as defined in DG MARE methodological guidelines⁵⁶.

For the distribution of crew wages between the EU, Seychelles and other entities (nationals from other ACP countries are employed on EU purse seiners), the following assumptions are made based *i*) on the average crew composition of EU tuna purse seiners and *ii*) on wage value of crew members according to their nationalities. These assumptions take into account higher levels of remuneration of EU crew members due to the management positions occupied onboard (captain, chief engineer, bosun) and also higher remunerations for work positions requiring same levels of qualification. The following table details the assumptions selected for the distribution of total wages between crew members according to their nationalities.

GVA wages	EU	Seychelles	Other
ES purse seiners	70%	5%	25%
FR/IT purse seiners	70%	5%	25%

Source: own assumptions based on consultations

Indirect value added in upstream sectors

The following assumptions are made based on findings of the evaluation mission in Seychelles:

Fuel and lubricants: 100% refueling operations done in Seychelles when calling in the national ports

<u>Repair and maintenance:</u> the assumption will be that repair and maintenance operations (70% of expenses) are made in Mauritius. There is no shipyard in Seychelles that can service large EU tuna

⁵⁶ COFREPECHE, MRAG, NFDS et POSEIDON, 2014. Analyse économique de la flotte thonière de l'UE – Note de méthode. Contrat cadre MARE/2011/01 -Lot 3, contrat spécifique n°09. Bruxelles, 32p https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/tuna-fleets-methodological-note fr.pdf

vessels for important repairs. Repairs and maintenance are attributed to Seychelles (20%) and to the EU (10%).

<u>Other variable costs:</u> most other variable costs (fishing gears) are purchased outside Seychelles in the EU (20%) and abroad (70%). Few items (10%) are directly purchased in Seychelles

<u>Other fixed costs:</u> for this expenditure items (various services to the vessels), it will be assumed that 30% are purchased in the EU, 30% in Seychelles and 40% abroad. This category includes in particular shipowners' overheads, expenses for insurances and financial services.

Indirect value added in downstream sectors

Most tuna caught by EU purse seiners is processed in Mauritius and in Seychelles. Port Victoria remains the main port for EU purse seiners. Once in Port Victoria, EU purse seiners either land their catches directly for processing by IOT or tranship their catches for processing in other countries (Mauritius, Madagascar, ...). According to data provided by SFA; direct landings in Seychelles represent \approx 40 000 tonnes per year and transhipments \approx 140 000 tonnes per year

Table 54: Tuna landings and transhipments in Port Victoria by EU Vessels (data in tonnes)

Year	Landed	Transhipped	Total	% landed	% transhipped
2014	41 529	124 944	166 473	25%	75%
2015	36 454	131 673	168 128	22%	78%
2016	43 710	145 834	189 544	23%	77%
2017	34 907	154 725	189 631	18%	82%
Aggregate	156 600	557 175	713 775	22%	78%

Source: SFA

For the evaluation of the economic impacts of the Protocol, we will assume that 25% of EU catches in Seychelles EEZ are processed in Seychelles, and that 75% are processed in other countries. For EU vessels, tuna caught in the Seychelles EEZ is sold to different clients, including IOT.

D-2 Results

Direct GVA

The following table shows the results of distribution of direct GVA generated by the activities of EU tuna vessels in the Seychelles fishing zone. Estimates are made for the average four years of the Protocol (2015 to 2018).

Table 55: Results of estimates of direct GVA distribution between the EU, Seychelles and other entities

(kEUR)	ltem	EU	Seychelles	Other entities
ES purse seiners	Access fees	0	1 651	0
	Wages	2 867	205	1 024
	Gross profit	7 579	0	0
	Port taxes	0	500	0
FR/IT purse seiners	Access fees	0	1 503	0
	Wages	7 206	515	2 573
	Gross profit	3 382	0	0
	Port taxes	0	549	0
All EU PS	Access fees	0	3 153	0
	Wages	10 073	719	3 597
	Gross profit	10 927	0	0
	Port taxes	0	1 049	0
	Total	21 033	4 922	3 597

Source: own estimates based on assumptions detailed in the previous section

Indirect GVA

Table 56: Results of estimates of indirect GVA distribution between the EU, Seychelles and other entities

	(kEUR)	EU	Seychelles	Other entities
ES purse seiners	Upstream iGVA	462	577	1 269
	Downstream iGVA	800	2 000	5 200
FR/IT purse seiners	Upstream iGVA	739	924	2 033
	Downstream iGVA	879	2 196	5 710
All EU PS	Upstream iGVA	1 201	1 501	3 302
	Downstream iGVA	1 678	4 196	10 910
	Total iGVA	2 879	5 697	14 213

Source : own estimates based on assumptions detailed in the previous section

E- Employment

E.1 - Method and data

Direct employment

The number of crew positions onboard EU tuna purse seiners having utilised fishing opportunities is estimated through a combination of *i*) a standard number of crew onboard by nationality according to information obtained by fishing associations and *ii*) the number of EU tuna vessels that have used the fishing opportunities by license period. The product of these two indicators gives the number of jobs onboard in full time equivalent (FTE).

The next table shows the assumptions in terms of crew composition. Numbers have been obtained through interviews of EU shipowners concerned. They take into account mandatory prescriptions of the Protocol in relation to employment of Seychelles nationals on EU vessels. Average crew is given for Spain and France purse seiners because of the large differences in crew numbers.

Table 57: Average number of crew by nationality for ES and FR/IT purse seiners active in the Seychelles fishing zone

	Total	EU	Seychelles	Other
ES purse seiners	39	15	2	22
FR/IT purse seiners	24	9	2	13

Source: own estimates based on stakeholders consultations

As mandated by the standard methodology, the number of crew dependent on an access to the Seychelles fishing zone is approximated by the dependency ratio of each type of fleet. This dependency ratio is estimated by comparing catches obtained in the Seychelles fishing zone with catches obtained in the whole Indian Ocean.

The average dependency ratios estimated are shown below. They show a higher dependency ratio for the FR / IT fleet with 37% of total catches in the Indian Ocean taken from Seychelles waters. For ES fleet, the dependency ratio is lower (17% on average). This is explained by different strategies with ES fleet spending more time than FR vessels off Somalia where FAD fishing is effective.

These dependency ratio (17% and 37% for ES and FR/IT) respectively are used to estimate the number of direct jobs directly dependent on an access to the Seychelles fishing zone.

Table 58: Comparison between EU purse seine catches in the Seychelles fishing zone andin the whole Indian Ocean

EU MS		2014	2015	2016	2017
ES	Whole IO	133 720	120 890	136 147	151 392
	Seychelles	20 179	16 791	30 631	23 914
	% Seychelles	15%	14%	22%	16%
FR/IT	Whole IO	58 339	54 390	68 250	66 934
	Seychelles	21 837	15 194	31 301	24 818
	% Seychelles	37%	28%	46%	37%

Source: DG MARE for catches in Seychelles fishing zone and Annex 2 for total catches in the Indian Ocean

Indirect employment

EU tuna vessels activities support employment in ancillary upstream and downstream industries benefiting to EU, Seychelles and other third country nationals.

Upstream industries

The number of jobs (in FTE) in the upstream industry is approximated using the indicators measured for the EU fishing industry and published in a recent study⁵⁷. All Member States included, the study (p. 18) establishes that one crew position supports 0.33 FTE in ancillary sectors, mainly in shipbuilding and repair.

Downstream industries

For employment in the tuna sector linked to processing activities, we base our estimates on the following rations obtained from different unpublished studies:

- 1 FTE per 500 tonnes landed for catch handling (dockers)
- 1 FTE per 50 tonnes processed in canning industries

Number of indirect jobs supported by EU vessel catches in the Seychelles fishing zone are estimated based on the above ratios and the amount of catches obtained.

E-2 Results

Direct employment

The results of estimates of number of crew (in FTE) onboard EU tuna vessels are shown below.

Table 59: Estimates of number of jobs (in FTE) onboard EU tuna purse seiners active in the Seychelles zone (average 2014-2018)

(ETP)	Total	EU	Seychelles	Other
ES purse seiners	101	39	5	57
FR/IT purse seiners	114	43	9	62
All EU PS	215	82	15	119

Note: number of FTEs take into account the relative level of activity in the Seychelles fishing zone compared to whole Indian Ocean (dependency ratios)

Source: own estimates

⁵⁷ Commission européenne (2016). Study on the economic importance of activities ancillary to fishing in the EU. MARE/2011/01 Lot 2 Contract Service 11. 256 p. ISBN 978-92-9202-214-3

Indirect employment

Table 60: Number of FTEs supported by activities of EU tuna vessels in the Seychelles fishing zone

	EU	СРУ	Other
Tuna purse seiners			
FTE upstream	1	0	5
FTE downtream	0	37	23
Subtotal	1	37	27
Surface longliners			
FTE upstream	0	0	2
FTE downtream	16	0	0
Subtotal	16	0	2
Pole and liners			
FTE upstream	0	0	9
FTE downtream	0	0	30
Subtotal	0	0	39
TOTAL	17	37	69

FTE	Total	EU	Seychelles	Other
Indirect jobs upstream				
ES purse seiners	33	7	8	18
FR/IT purse seiners	38	8	9	21
All EU PS	71	14	18	39
Indirect jobs downstream				
ES purse seiners	673	67	168	437
FR/IT purse seiners	606	61	151	394
All EU PS	1 278	128	320	831
TOTAL	1 349	142	337	870

Source: own estimates

Note: estimates reflect only employment supported by EU tuna fleet activities under the Protocol. Employment supported by other EU activities, for example EU tuna catches caught outside Seychelles zone but processed / transhipped in Seychelles, are not taken into account according to DG MARE methodological guidelines for assessment of socio-economic impacts of SFPA / Protocols

> *** *

ANNEX 6 : REVIEW OF THE EU-SEYCHELLES FISHERIES AGREEMENT IN RESPECT OF MAYOTTE

1-Présentation de l'Accord de pêche entre l'UE (Mayotte) et les Seychelles

L'UE et les Seychelles ont paraphé en novembre 2013 un accord de pêche permettant à des navires de pêche battant pavillon des Seychelles l'accès aux eaux et aux ressources biologiques de Mayotte qui, en tant que région ultrapériphérique de l'UE, relèvent de la compétence de l'UE. L'accord a été mis en application provisoire en avril 2014 pour une période de 6 années par Décision du Conseil⁵⁸. Le texte de l'accord est annexé à cette Décision⁵⁹.

En résumé, cet accord (désigné ci-après comme l'accord Seychelles-Mayotte) permet l'accès aux eaux de Mayotte d'un maximum de 8 thoniers senneurs et de 2 navires d'appui pour l'exploitation des ressources en thonidés et espèces associées de l'annexe 1 de la Convention des Nations Unies sur le Droit de la Mer, à l'exception des espèces interdites ou protégées. Les navires concernés paient une redevance assise sur un montant annuel de 110 EUR par tonne pêchée la première année augmentant jusqu'à 125 EUR par tonne la sixième année, avec une avance forfaitaire annuelle non recouvrable de 11 000 EUR par thonier senneur la première année à 12 500 EUR par thonier senneur la sixième année. La redevance pour l'accès des navires ravitailleurs est fixée forfaitairement à un montant annuel de 3 000 EUR par navire. La Décision du Conseil autorise la France à collecter le montant des redevances afin de les utiliser pour la mise en place d'un cadre administratif approprié des activités de contrôles et des infrastructures physiques, ainsi que le renforcement approprié des capacités afin que l'administration de Mayotte puisse satisfaire aux exigences de la PCP.

Les navires des Seychelles sont soumis par l'accord à plusieurs dispositions concernant le suivi et le contrôle de leurs activités. Parmi celles-ci:

- Un suivi permanent de la position des navires dans la zone de pêche de Mayotte par dispositif VMS ;
- Des notifications d'entrée sortie de la zone de pêche ;
- L'interdiction de transborder les captures en mer
- L'embarquement d'observateurs scientifiques désignés par l'UE ;
- La soumission de déclarations de captures par système électronique (ERS) dès que possible, et sur support papier en attendant.

Les zones situées à moins de 24 milles des côtes de Mayotte ne sont pas accessibles pour les thoniers des Seychelles suivant les dispositions de l'accord, alignées sur les dispositions du Reg. (CE) 850/9860.

⁵⁸ 2014/331/UE: Décision du Conseil du 14 avril 2014 relative à la signature, au nom de l'Union européenne, et à l'application provisoire de l'accord entre l'Union européenne et la République des Seychelles concernant l'accès des navires de pêche battant pavillon des Seychelles aux eaux et aux ressources biologiques marines de Mayotte, relevant de la juridiction de l'Union européenne. JO L 167 du 6.6.2014, p. 1–3

⁵⁹ Accord entre l'Union européenne et la République des Seychelles concernant l'accès des navires de pêche battant pavillon des Seychelles aux eaux et aux ressources biologiques marines de Mayotte, relevant de la juridiction de l'Union européenne. JO L 167 du 6.6.2014, p. 4–29

⁶⁰ Règlement (CE) № 850/98 du Conseil du 30 mars 1998 visant à la conservation des ressources de pêche par le biais de mesures techniques de protection des juvéniles d'organismes marins. JO L 125 du 27.4.1998, p. 1–36 – Article 38

Durée de l'Accord Date d'entrée en vigueur de	6 années à compter de son application provisoire. Reconductible par périodes supplémentaires de 6 années sauf dénonciation 6 juin 2014
l'Accord	
Nombre maximum de	8 thoniers senneurs
navires SYC autorisés	2 navires ravitailleurs
Espèces autorisées	Espèces hautement migratoires de l'annexe 1 de la CNUDM, à l'exclusion de la famille des <i>Alopiidae</i> , de la famille des <i>Sphyrnidae</i> et des espèces suivantes: <i>Cetorhinus maximus, Rhincodon typus, Carcharodon carcharias, Carcharhinus falciformis et Carcharhinus longimanus</i> .
Redevances armateurs	Thoniers senneurs
	 110 EUR par tonne pêchée dans la zone (année 1) puis 115 EUR (année 2 et 3), 120 EUR (années 4 et 5) et 125 EUR (année 6).
	 avances non-recouvrables équivalents à 100 tonnes par navire, soit de 11 000 EUR (année 1), 11 500 EUR (année 2 et 3), 12 000 EUR (année 4 et 5) et 12 500 EUR (année 6)
	Navires ravitailleurs :
	 Redevances forfaitaires de 3 000 EUR par an pour toute la période

Tableau 12 : Résumé des principales caractéristiques techniques et financières del'accord Seychelles-Mayotte

Source : d'après Protocole

Les conditions imposées aux senneurs des Seychelles pour l'accès aux eaux de Mayotte sont globalement identiques à celles imposées aux senneurs de l'UE pour l'accès aux eaux des Seychelles.

- Le coût de l'accès par tonnes de thonidés pêchés est exactement le même, de 110 EUR par tonne la première année à 125 EUR par tonne la dernière année. La différence est que dans le cas des senneurs de l'UE pour l'accès aux eaux seychelloises, la puissance publique prend en charge une partie du coût de l'accès, de 50% en la première année à 40% la dernière année. Les avances forfaitaires dues par les thoniers seychellois sont assises sur un tonnage de 100 tonnes par navire, contre 700 tonnes par navire pour les thoniers de l'UE, mais cela s'explique par la superficie 20 fois plus étendue de la zone Seychelles, et sa richesse relative en thonidés.
- Les conditions de suivi et de contrôle (journaux de bord, observateurs, VMS, etc.) sont globalement identiques. Pour les navires des Seychelles, les captures doivent être déclarées tous les trois jours quand ceux-ci sont en activité dans les eaux de Mayotte, contre Concernant la validation finale des déclarations de captures, l'UE en est responsable. Pour l'accord UE-Seychelles, la responsabilité est du ressort de la partie seychelloise (la SFA).
- Une commission mixte est instaurée pour le suivi conjoint de l'accord. Les commissions mixtes ont été tenues en parallèle des commissions mixtes ordinaires de l'accord UE-Seychelles, avec réunions tenues suivant le rythme annuel prévu⁶¹.

En remarque finale, il convient de signaler que les thoniers senneurs battant pavillon des Seychelles sont pour leur intégralité sous le contrôle d'intérêts de ressortissants de l'Espagne. Des marins espagnols occupent les postes à responsabilité à bord. Les stratégies

⁶¹ Février 2015 ; Juin 2016 ; Mai 2017 et Février 2018

des thoniers seychellois sont donc largement calquées sur les stratégies des senneurs de l'UE, en bénéficiant d'économies d'échelles pour les opérations de gestion des flottes.

2- Éléments de contexte

Mayotte est devenue une région ultrapériphérique de l'UE en janvier 2014. Avant cette date, Mayotte n'était pas partie du territoire couvert par le Traité sur le Fonctionnement de l'UE (TFUE), et disposait d'un statut de Pays et Territoires d'Outre-Mer (PTOM) vis-à-vis de l'UE. A ce titre, la France avait la pleine compétence pour conclure des accords d'accès aux eaux de Mayotte pour des navires étrangers et accordait ainsi des possibilités d'accès aux thoniers senneurs des Seychelles. Avec l'intégration de Mayotte dans le champ du TFUE, la conclusion d'accords d'accès est devenue la compétence exclusive de l'UE. L'intégration de Mayotte dans le TFUE a également donné un accès sans contrepartie financière aux senneurs de l'Espagne et de l'Italie aux eaux de Mayotte. Jusqu'en 2013 inclus, ces thoniers senneurs payaient des redevances à la France.

2.1 -Le secteur de la pêche à Mayotte

La flotte de pêche mahoraise est assez contrastée. Elle est composée de pirogues utilisées dans le cadre d'une pêche vivrière, et de navires de pêche professionnelle aux profils assez diversifiés. Les données présentées ci-dessous sont issues des travaux du Système d'Information Halieutique de l'IFREMER.

- Les pirogues représentent un effectif de 735 embarcations immatriculées, plutôt stable depuis 2011. Cette flotte se répartie entre pirogues motorisées (274 unités) et pirogues non-motorisées (461 unités). Ces unités pratiquent essentiellement une pêche a proximité des récifs à l'aide de lignes à main. La ligne de traine pour les thonidés est également utilisée mais dans une proportion bien moindre (5% des pirogues considérées comme exerçant une pêche pélagique plus de 75% de leur temps).
- Les navires de pêche professionnelle sont au nombre de 144. Ils ont une longueur moyenne de 7 m. La baisse de la ressource en poisson de fond à l'intérieur du lagon, autour de la barrière ou sur les zones de barrière effondrée (banc de l'Iris) conduisent certaines de ces embarcations à rechercher d'autres lieux de pêche. Elles peuvent aller chercher le poisson à plus de 100 milles des côtes, ce qui peut susciter de réelles inquiétudes en matière de sécurité.
- La pêche palangrière ciblant l'espadon est effectuée par une flottille de 4 navires pour une longueur moyenne de 9 m qui opère dans les eaux mahoraises. Les marées durent de 48h à 72 h, entre 15 et 50 milles de la côte.
- Enfin, 5 thoniers senneurs (87,3 m de longueur en moyenne) sont immatriculés à Mayotte (Dzaoudzi). Ces thoniers senneurs de grande capacité sont comparables aux thoniers seychellois concernés par l'accord, et à l'ensemble des thoniers senneurs espagnols, français et italiens qui exploitent les thonidés dans l'océan indien. Ils sont exploités à partir des Seychelles, comme leurs homologues de l'UE ou seychellois, avec peu d'interactions économiques avec le territoire.

La production de la flotte de pêche mahoraise reste encore mal connue, faute notamment d'un flux déclaratif fiable et représentatif. Selon les données fournies à la CTOI, la flotte palangrière mahoraise aurait capturé environ 60 tonnes de poisson, essentiellement du thon (33 t) et de l'espadon (22 t). Ces tonnages sont en réduction par rapport aux années 2013 et 2014 suite à l'arrêt de plusieurs navires n'ayant pu surmonter les mauvais rendements de l'année 2015.

Les barques de pêche professionnelle sont estimées avoir débarquée 501 tonnes en 2015, les barques de pêche récréative 430 tonnes et les pirogues 265 tonnes pour un total de 1 096 t. Les principales espèces sont les vivaneaux (17%), le listao (14%), les petits pélagiques (15%) les carangues (13%). Les données 2016 sont incomplètes; seules les données des barques de pêche professionnelles ont été estimées à 687 t.

Enfin, la production des cinq thoniers senneurs immatriculés à Mayotte n'est actuellement pas identifiable dans la base de données de la CTOI ou dans le rapport national à cette ORGP. Le niveau de capture d'un thonier senneur de ce type dans l'océan indien étant de l'ordre de 6 000 tonnes/an, ce serait environ 30 000 t qui seraient capturées par ces navires.

L'intégration de Mayotte dans le cadre de la PCP se fait suivant les dispositions spécifiques du Reg. (UE) 1385/2013⁶² qui prévoit des dispositions transitoires pour le respect des règles de la PCP en matière de gestion des flottes et de suivi des activités de pêche. Parmi ces dispositions transitoires, la France dispose d'un délai courant jusqu'à fin 2025 pour le développement de ses capacités de pêche en dérogation du régime entrée-sortie de flotte, et d'un délai courant jusqu'à fin 2021 pour la constitution d'un registre des navires de pêche de moins de 10 m. Depuis fin 2018 et suite à la Communication de la Commission européenne⁶³, Mayotte, comme les autres régions ultrapériphériques de l'UE, peut bénéficier d'aide d'État pour le renouvellement des navires de pêche.

2.2 - L'intérêt d'un accès à la zone de Mayotte pour les thoniers senneurs des Seychelles

La zone de pêche de Mayotte est une zone que les thoniers senneurs de toutes nationalités, Seychelles, UE et autres pavillons, sont susceptibles d'exploiter quand ils suivent les migrations des thonidés, en particulier pendant la campagne du Canal du Mozambique qui se déroule en mars-avril de chaque année. Cette zone de pêche intègre un réseau de zones sous juridiction de la France administrées par les Terres Australes et Antarctiques Françaises⁶⁴ (les Terres-Eparses : Glorieuses, Juan de Nova, Bassa da India - Europa, cf carte suivante), de Madagascar, du Mozambique et des Comores. Avec une superficie de près de 63 000 km², la zone de pêche de Mayotte fait partie des zones sous juridiction de superficie relativement modeste pour lesquelles les thoniers senneurs ont néanmoins intérêt à avoir un accès au cas où la ressource y est abondante.

L'intérêt de la zone de Mayotte pour les thoniers seychellois se vérifie par le haut niveau d'utilisation des possibilités de pêche données par l'accord, et par les licences prises par ces navires pour accéder aux zones sous juridiction françaises dans le canal du Mozambique⁶⁵.

⁶² Règlement (UE) n ° 1385/2013 du Conseil du 17 décembre 2013 portant modification des règlements du Conseil (CE) n ° 850/98 et (CE) n ° 1224/2009 et des règlements du Parlement européen et du Conseil (CE) n ° 1069/2009, (UE) n ° 1379/2013 et (UE) n ° 1380/2013, suite à la modification du statut de Mayotte à l'égard de l'Union européenne. JO L 354 du 28.12.2013, p. 86–89

⁶³ Communication de la Commission modifiant les lignes directrices pour l'examen des aides d'Etat dans le secteur de la pêche. COM(2018) 7667 final du 21.11.2018

⁶⁴ les Terres australes et antarctiques françaises (TAAF) sont une collectivité territoriale ultra-marine dotée de la personnalité morale et de l'autonomie administrative et financière. Les TAAF sont reconnues par l'Union européenne en tant que Pays et Territoire d'Outre-Mer (PTOM)

⁶⁵ En 2017, 13 senneurs seychellois et 4 de leurs navires d'appui ont pris des licences pour accéder aux zones de pêche des Terres-Eparses. Pour un thonier senneur étranger, la redevance 2017 pour ces zones est fixée à 125 EUR par tonne avec une avance forfaitaire de 12 500 EUR, plus 4 000 EUR de redevance forfaitaire par navire pour le contrôle et l'observation scientifique. La redevance d'accès pour un navire d'appui est de 12 500 EUR + 2 700 EUR pour les frais de contrôle et d'observation. Source : Journal Officiel des TAFF, 31 mars 2017.

Ex-post and Ex-ante evaluation study of the Sustainable Fisheries Partnership Agreement between the European Union and the Republic of Seychelles

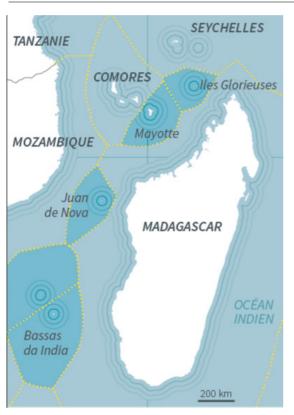


Figure 19 : Représentation schématique des zones sous juridiction de la France dans le Canal du Mozambique

3- Bilan 2014-2018 de l'accord

3.1 - L'utilisation de l'accord et les captures

Les navires seychellois ont utilisé à 100% les possibilités de pêche offertes par l'accord, avec pour chaque année depuis 2014 8 thoniers senneurs et 2 navires soutien qui ont pris des licences pour accéder à la zone de pêche de Mayotte. Il n'y a pas de discordances sur ces nombres de navires entre la partie UE et la partie seychelloise.

Les données de capture des thoniers senneurs seychellois dans les eaux de Mayotte s'avèrent plus difficiles à consolider.

D'après la SFA et sur la base des journaux de bord des navires concernés, les captures ont varié entre 52 tonnes en 2014, 1 226 tonnes en 2017 et environ 944 t en 2018 (extraits journaux de pêche), avec une moyenne qui s'établit à 561 tonnes par an sur la période 2014-2018. Le cumul du nombre de jours de pêche des senneurs seychellois dans la zone de pêche de Mayotte varie entre 1 seul jour en 2014 – ce qui s'explique par la date de la Décision (juillet 2014 – en dehors de la saison de pêche pour la pêche thonière) à 28 jours en 2017 (saison de pêche complète).

D'après les autorités françaises et sur la base des déclarations entrée-sortie de zone reçues par le Centre régional opérationnel de surveillance et de sauvetage de La Réunion (CROSS-RU), les captures des navires seychellois auraient été sensiblement inférieures aux données de la SFA en 2015 (45 tonnes contre 328 tonnes déclarées par le SFA) et de nouveau en 2017 (230 tonnes contre 1 226 tonnes), avec une convergence raisonnable pour 2018. Pour 2014 et 2016, les autorités françaises ne disposent pas de données⁶⁶.

⁶⁶ Pour 2016, la France déclare avoir arrêté le suivi à la demande de la DG MARE au motif que ce suivi relevait de la compétence de la Commission européenne

La Commission mixte de l'accord n'a pas été en situation de pouvoir arrêter des décomptes de capture d'après les PV consultés. La DG MARE ne dispose pas de données différentes de celles communiquées par la SFA entre 2014 et 2017.

Tableau 13 : Indicateurs d'utilisation de l'accord UE-Mayotte par les navires des	
Seychelles	

	2014	2015	2016	2017	2018*	Moyenne
Nombre thoniers senneurs	8	8	8	8	8	8
Nombre navires d'appui	2	2	2	2	2	2
Taux d'utilisation	100%	100%	100%	100%	100%	100%
Données captures effort d'après l	a SFA*					
Captures (tonnes)	52	328	259	1 226	944	561
Jours de pêche (nombre)	1	18	10	28	na	14
Données captures d'après la Fran	ce					
Captures (tonnes)	na	45	na	230	967	

Sources : Nombre de navires : France (DPMA et DGOM)

3.2 - Les redevances payées par la partie seychelloise

Les redevances perçues par la France au titre de l'accord sont mentionnées dans le rapport annuel que la France a soumis chaque année à la Commission comme prévu par l'Article 2.3 de la Décision du Conseil de 14 avril 2014. Le tableau suivant reprend les informations communiquées par la France dans les rapports annuels soumis en 2014, 2015, 2016 et 2017 (le rapport 2018 sera finalisé en mars 2019).

Cependant, les montants des redevances que la France rapporte à la Commission semblent peu cohérents avec les données d'utilisation de l'accord (nombre de navires et captures obtenues) qui déterminent les montants à payer par la partie seychelloise. Le tableau suivant fait dont figurer i) les montants de redevances déclarés par la France à la Commission et ii) les montants de redevances estimés par nous sur la base de l'utilisation de l'accord en tenant compte de la partie forfaitaire et de la partie variable pour les captures des senneurs qui ont excédé le niveau de référence de 100 tonnes utilisé pour établir le niveau forfaitaire des redevances (d'après les données de la SFA).

D'après les rapports de la France, les redevances auraient rapporté un montant cumulé de 680 200 EUR sur la période 2014-2017, dont 342 700 (50%) au titre de l'exercice 2014. D'après nos estimations, le montant des redevances aurait dû s'établir à 443 120 EUR sur la même période 2014-2017. Il y a donc des différences substantielles pratiquement chaque année, avec un écart très important pour l'année 2014 pendant laquelle les senneurs seychellois n'auraient capturé qu'une tonne de thonidés d'après les données de la SFA. D'après les autorités françaises, le montant de redevances reporté pour cette première année inclurait par erreur les redevances payées par les armements seychellois pour l'accès aux zones de pêche autour des autres territoires sous juridiction française (voir Figure 19) situés dans le Canal du Mozambique.

En tout état de cause, les erreurs probables côté autorités françaises et les discordances dans les données de capture indiquent que le montant des redevances perçues par la France doit faire l'objet de vérifications supplémentaires.

Captures : voir tableau

Note : *pour 2018, les données sont établies sur la base des données communiquées par la DG MARE (données journaux de pêche provisoires – les autorités seychelloises étaient en train d'affiner les données pour 2018 – données globalement similaires) na: non disponible

Tableau 14 : Montants déclarés par la France et montants estimés des redevancesperçues par la France en échange de l'accès aux eaux de Mayotte

(EUR)	2014	2015	2016	2017	2018	Cumul 2014-2017
D'après la France*	342 700	145 000	128 000	64 500	na	680 200
Estimation**						
Fixe	94 000	98 000	98 000	102 000	102 000	
Variable	0	0	0	51 120	16 680	
Total	94 000	98 000	98 000	153 120	118 680	443 120

Sources : *Rapports France 2014 à 2017 inclus

** Propres estimations sur la base des données du Tableau 13 (données d'utilisation) et Les navires des Seychelles sont soumis par l'accord à plusieurs dispositions concernant le suivi et le contrôle de leurs activités. Parmi celles-ci:

- Un suivi permanent de la position des navires dans la zone de pêche de Mayotte par dispositif VMS ;
- Des notifications d'entrée sortie de la zone de pêche ;
- L'interdiction de transborder les captures en mer
- L'embarquement d'observateurs scientifiques désignés par l'UE ;
- La soumission de déclarations de captures par système électronique (ERS) dès que possible, et sur support papier en attendant.

Les zones situées à moins de 24 milles des côtes de Mayotte ne sont pas accessibles pour les thoniers des Seychelles suivant les dispositions de l'accord, alignées sur les dispositions du Reg. (CE) 850/98.

Tableau 12 (bases tarifaires de l'accès)Note :données 2018 provisoires

3.3 - Utilisation des redevances par la France

D'un point de vue comptable, les montants des redevances payées sont rattachés, via le fonds de concours correspondant, au Programme 123 « Conditions de vie Outre-mer » de la Mission ministérielle « Outre-mer » du Ministère de l'Outre-mer. Ils ont été reversés vers la préfecture de Mayotte et sont délégués au budget opérationnel local de Mayotte au profit de la filière pêche comme le prévoit la Décision du Conseil. D'après les rapports France, les montants perçus chaque année ont fait l'objet de reports sur le budget de l'année suivante.

D'après les rapports de la France, les recettes issues de redevances ont été utilisées pour l'acquisition d'un navire de patrouille permettant s'assurer des missions de surveillance des pêches et de sauvetage en mer à des distances situées entre 12 et 20 milles de la côte. La raison est que cette zone est susceptible d'être fréquentée illégalement par des pêcheurs des Comores et des pêcheurs de Madagascar. Le navire qui était affecté à cette mission était en fin de carrière et inadapté, et son remplacement s'avérait nécessaire.

Le choix s'est porté sur un navire semi-léger propulsé par deux moteurs de 300 CV d'un coût total estimé de 300 000 EUR. Commandée en 2016, la vedette « *Foundi* » est opérationnelle depuis août 2017 à disposition des services déconcentrés de l'État à Mayotte (voir photos ci-dessous).



Figure 20 : vues du moyen nautique de contrôle acheté par la France avec une partie des redevances des thoniers seychellois

Source : photos transmises par la DPMA (France)

Le coût de l'achat de la vedette a été prise en charge à 70% par le FEAMP, soit 231 000 EUR. Les redevances payées par la partie seychelloise en échange de l'accès ont été utilisées pour financer le reliquat et les coûts associés soit :

Le reliquat du coût non pris en charge par le FEAMP :	99 000 EUR
Remorque :	10 000 EUR
Le coût de la livraison :	20 793 EUR
L'octroi de mer ⁶⁷	106 780 EUR
Un avenant au contrat	32 784 EUR
Frais de douane :	3 333 EUR
Total :	272 690 EUR
(source : rapport France 2017)	

D'après les informations analysées, il resterait donc un reliquat à utiliser. D'après le rapport France (2016), les montants pourraient être utilisés pour la mise en place de moyens

⁶⁷ Sorte de droit à l'importation sur le territoire de Mayotte (système de taxation en vigueur dans tous les RUP français)

novateurs d'identification des navires de pêche consistant en l'apposition d'une plaque d'identification lisible par flashcode. Ce moyen permettra de vérifier automatiquement la détention de la licence de pêche européenne. Plus généralement, les reliquats et les montants à venir pourront être utilisés pour le développement d'une Unité Littorale des Affaires Maritimes (ULAM) dévolue au contrôle des activités maritimes et de la pêche dans la zone de pêche de Mayotte, et qui est actuellement en cours de déploiement.

4 – Avis des principales parties prenantes sur l'Accord en cours

Pour l'UE et les Seychelles, la mise en œuvre de l'accord Seychelles-Mayotte ne pose pas de problèmes particuliers. Un futur accord devra néanmoins s'attacher à améliorer le suivi des captures des navires seychellois par la partie UE. Tant que l'ERS n'est pas fonctionnel, il semble nécessaire de clarifier les responsabilités en la matière. L'accord spécifie en effet que les navires seychellois doivent communiquer leurs captures à l'autorité compétente de l'UE, mais les discussions tenues avec les différentes autorités UE, françaises et seychelloises concernées semblent indiquer un besoin de clarification au sujet de cette autorité compétente, qui pourra se faire en Commission mixte le cas échéant. Nonobstant, tous les efforts pour la mise en œuvre de l'ERS tant sous l'accord Seychelles-Mayotte que sous l'accord UE-Seychelles devront être poursuivis.

Du point de vue des Seychelles, un nouvel accord devrait permettre d'augmenter le nombre d'autorisations de pêche possible. Depuis 2014, la flotte des thoniers senneurs seychellois a augmenté de 8 à 13 unités suivant le plan de développement soumis par les Seychelles à la CTOI. Un nouvel accord devrait ainsi permettre l'accès de ces 13 navires plus l'accès de navires de soutien dans les limites quantitatives prévues par la résolution 17/01 de la CTOI. Une telle demande d'augmentation a été plusieurs fois notifiée par la partie seychelloise à l'UE lors des Commissions mixtes tenues en 2016 et après, mais elles n'ont pu être satisfaites en l'absence de mandat spécifique donné par le Conseil de l'UE.

Les autorités françaises sont en cours d'élaboration des recommandations nationales pour la préparation du mandat de négociation de la Commission, aucune position officielle n'est encore fixée. Néanmoins, la France indique qu'elle réitèrera probablement sa demande non-satisfaite en 2014 de limiter l'accès des senneurs seychellois à au moins 50 milles des lignes de base (au lieu de 24 milles actuellement). La France envisage également de solliciter auprès du Conseil de l'UE l'autorisation de pouvoir utiliser une partie des redevances d'accès payées par les navires seychellois pour soutenir la modernisation des flottes de pêche de Mayotte maintenant que les aides d'État ont été rendues possible en vertu de la décision de la Commission intervenue fin 2018⁶⁸.

Du point de vue de représentants des pêcheurs de Mayotte, les thoniers senneurs seychellois et plus généralement la pêche industrielle thonière dans l'océan Indien contribuent à l'épuisement des ressources thonières exploitées dans les eaux mahoraises par les pêcheurs locaux. En rappelant que la ZEE de Mayotte a été érigée en Parc Naturel Marin en 2010 ce qui confère à la zone un statut spécial, les pêcheurs mahorais ont plusieurs fois demandé une exclusivité dans la zone des 100 milles que la législation européenne peut leur donner, mais la demande reste insatisfaite. Des demandes avaient également été formulées pour l'interdiction de l'usage des DCP dans la zone. L'accord Seychelles-Mayotte n'est donc pas bien accepté, d'autant plus que les recettes de cet accord ne profitent pas pour le moment aux communautés de pêcheurs locaux mais à l'administration pour augmenter ses capacités de contrôle des membres de ces mêmes communautés.

5- Recommandations

L'accord Seychelles-Mayotte permet une réciprocité entre les deux parties en matière d'accès aux eaux pour des navires de pêche de même type et ciblant les mêmes espèces. Il devrait être renouvelé dans l'éventualité où le Protocole UE-Seychelles est lui-même renouvelé, en conservant le même alignement entre les deux textes en ce qui concerne les conditions techniques et financières.

⁶⁸ COM (2018) 767 du 22.11.2018 modifiant les lignes directrices pour l'examen des aides d'Etat dans le secteur de la pêche et de l'aquaculture

Il semble bien réel que le suivi de cet accord doit être amélioré par les parties concernées. Les difficultés rencontrées par les auteurs pour obtenir des données fiables et cohérentes de la part des différentes parties le démontrent, ce que suggèrent également les comptesrendus des différentes Commissions mixtes dès lors qu'il s'agit d'informations quantitatives.

L'impact des captures des senneurs sur la disponibilité en thonidés pour le secteur des pêches de Mayotte pourrait faire l'objet d'une étude scientifique indépendante afin d'obtenir des bases factuelles de nature à répondre aux interrogations des représentants du secteur de la pêche de Mayotte sur les impacts de cet accord d'accès sur la filière locale. Une telle étude pourrait aider à identifier les positions et la saisonnalité des captures des senneurs dans la zone de Mayotte, ainsi que l'impact de ces captures sur les ressources exploitables par les pêcheurs artisanaux mahorais.

ANNEX 7 : EU STAKEHOLDERS CONSULTED

Member States Administrations	
France, Ministère de l'Agriculture et de l'Alimentation - Direction des pêches maritimes et de l'aquaculture (DPMA) Sous- direction des ressources halieutiques (SDRH)) / BAEI	Chargé de mission
Acuerdos y Organizaciones Regionales de Pesca (ORPs), Government of Spain	Subdirector Geral and Subdirector Geral Adjunto
Private sector	
French and Spanish association / producers or vessels	ganisations representing EU tropical tuna fishing
OPAGAC (Producers' Organisation of large tuna freezers of Spain)	Deputy Manager (Sustainability)
ORTHONGEL French organization of frozen tuna producers	Directeur
Asociacion Nacional De Armadores De Buques Atuneros Congeladores (ANABAC), Spain	Operations manager
Civil Society	
CFFA – CAPE, NGO	Coordinator
Oceana in Europe, NGO	Policy advisor
EU institutions and services	·
DG MARE	Units, B3, Unit B2
EEAS	Fisheries Attaché, EUD Mauritius, Southern Africa and Indian Ocean
DG Devco	Unit E2

ANNEX 8 : SEYCHELLES STAKEHOLDERS CONSULTED

Partner State Administration	
Ministry of Fisheries & Agriculture	Minister
Seychelles Fishing Authority	CEO/ Deputy CEO
	Head of MCS Unit
	Aquaculture department
	Statistics department
	Financial Controller
Ministry of Finance, Trade, Investment and Economic Planning	Director General, Trade Division,
Fish Inspection and Quality Control Unit, Seychelles	Chief Officer
Bureau of Standards	
Seychelles Bureau of Standards	Chief Executive Officer
SWIOFish3 Project	Project Coordinator
The Nature Conservancy, Seychelles Marine Spatial Planning Unit,	Project Manager MSP Initiative
Private sector	
Seychelles Fishing Boat Owners Association	Treasurer
Hunt, Deltel & Co. Ltd, Victoria, shipping agents	General Manager
Oceana Fisheries	Food Technologist
Indian Ocean Tuna, Thai Union	Chief Executive

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