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**EX-POST AND EX-ANTE EVALUATION OF THE  
PROTOCOL TO THE FISHERIES PARTNERSHIP AGREEMENT BETWEEN  
THE EU AND THE REPUBLIC OF MOZAMBIQUE**



**Final Report**

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## SUMMARY

This report provides an ex post evaluation for the existing Protocol to the Fisheries Partnership Agreement (FPA) between the European Union (EU) and the Republic of Mozambique. The Protocol enables a maximum of 75 EU tuna fishing vessels (fishing vessels flying the flag of an EU Member State and registered in the EU) to operate in the fishing zone of Mozambique, including 43 purse seiners and 32 surface longliners. The evaluation considers the Protocol in terms of its effectiveness, efficiency, coherence and acceptability. It also provides an ex ante evaluation to support the potential negotiation and implementation of a new Protocol. The current Protocol was provisionally applied on 1<sup>st</sup> February 2012 and will expire on 31<sup>st</sup> January 2015. EU payments under the current protocol amount to a minimum of EUR 980 000 per year, including EUR 460 000 for the support and implementation of Mozambique's sectoral policy.

Mozambique is located on the east coast of Southern Africa. Its total population was estimated to be slightly in excess of 24 million in 2013. The current GDP of Mozambique is estimated to be close to USD 14.2 billion in 2012 with an average GDP per capita of USD 565 (source : World Bank), placing Mozambique in the category of low-income economies. The Mozambican economy maintained robust performances in 2012 with a real GDP growth of 7.4%. The progressive increase in coal production and the implementation of large infrastructure projects are expected to continue to drive growth. According to the World Bank, the emerging extractive industry could provide the means for Mozambique to reach the status of a middle-income country by 2025. The contribution of the fisheries and aquaculture sector to the macroeconomic framework is estimated to be in the region of 4% of the GDP. Receipts from the sector represented 0.2% of total domestic State income in 2012, and exports of fisheries products about 2% of total exports of goods and service the same year.

Mozambique is an ACP country. Under the 10th EDF covering the 2008-2013 period, the programmable resources of the NIP amounted to EUR 622 million, including 50% for budget support. The envelope has been recently increased by EUR 67.2 million under the EU MDG initiative, with an envelope of EUR 14.6 million allocated to a fisheries and aquaculture development programme managed by IFAD (ProPesca and ProAqua programmes) to be disbursed over the next five years. Mozambique also received EDF assistance for the fisheries sector under ACP FISH II interventions.

The Mozambique fishing sector comprises three main segments: artisanal, semi-industrial and industrial fisheries. Artisanal fisheries represented in 2012 about 90% to the total catches of marine products which were estimated at 145 000 tonnes. The artisanal sector is estimated to provide income to about 280 000 persons, of whom 43% do not use a fishing boat. The percentage of motorized boats remains low (3%, 2007 estimate). The various fish and crustacean species caught by artisanal fishermen are consumed locally. The semi-industrial sector includes mostly small trawlers (about 80) involved in the domestic coastal shrimp fisheries. The catch is marketed locally or exported. The industrial sector comprises of large vessels with a majority targeting coastal shrimps species and deep-sea shrimps species mostly for export. In 2012, there were 80 industrial vessels flagged to Mozambique and to other countries. Foreign vessels active on the industrial shrimp fisheries operate under charter arrangements with National fishing companies owning the fishing rights. At least until 2012, four of these trawlers were flagged to Portugal. The activities of these four vessels appear to be outside the scope of the FPA and therefore, may be in contravention of the exclusivity clause of the agreement.

As far as tuna fisheries are concerned, National interests in 2013 included artisanal vessels and one long-distance tuna longliner (active since 2012 and duly registered under IOTC). Total catches of tuna and related species by the artisanal Mozambican fleet in 2012 were 5 364 tonnes, 41% of which were neritic tuna species. The Mozambican longliner caught 239 tonnes in 2012, of which 59% was swordfish. Altogether, the artisanal fleet and the industrial longliner have caught in 2012 about 2 140 tonnes of major tuna species (skipjack, yellowfin and bigeye) plus 142 tonnes of swordfish.

In 2012 and 2013, 61 and 45 licenses have been granted to foreign vessels which represent the main fleet fishing for tuna within the Mozambique fishing area. For 2012, these included 26 purse-seiners of which 20 EU purse seiners and 35 longliners of which 12 EU longliners operating under the framework of the FPA. For 2013, the foreign fleet included 18 purse seiners of which EU 12 purse seiners and 27 longliners of which 9 EU longliners. Other foreign interests active in the fishing zone during this time were Seychellois and Korean purse seiners as well as Japanese longliners. The number of foreign fishing vessels licensed to fish in Mozambique

fishing areas in 2012 and 2013 is low compared to the average annual number of 125 foreign vessels active in the fishing zone between 2005 and 2010. The annual catches of foreign vessels vary between 2 400 tonnes (2012) and 8 500 tonnes (2008). EU tuna fishing vessels represent between 25% (2007) and 87% (2009) of total catches of highly migratory species by foreign fleets in the Mozambique fishing zone.

Mozambique has a clear ambition to develop its own National tuna fleet. This ambition is identified in sectoral policy documents and through a fleet development plan submitted to IOTC which considers introduction of 130 tuna vessels over the 2008-2028 period, mostly through the replacement of foreign tuna vessels licensed to access the Mozambique fishing zone. The recent order by Mozambique of 24 fishing vessels including 21 longliners to a French shipyard may be a first step in the implementation of the fleet development programme. The legitimate ambition of Mozambique to develop its own tuna fleet has been openly discussed with the EU during meetings of the joint committees organised under the FPA. Mozambique stated that it will be a long term process, and that it will not affect the continuation of the relations between the two parties.

The management of the fishing sector falls under the mandate of a dedicated Ministry for Fisheries organised in several directorates and having direct supervision of public entities specialising *inter alia* in management (ADNAP) research (IIP), sanitary control (INIP), development of artisanal fisheries (IDPPE) or training (fishing school). Mozambique policies concerning the fisheries sector and cross-cutting issues are guided by the overarching objectives set out under the National poverty reduction plan (PARP 2011-2014) and operationalised through a Fisheries Master Plan (PDP II 2010-2019) and related sectoral policy documents including a Strategic Plan for Tuna Fisheries Development (PEDPA). The financial appropriations of the Ministry to achieve the development objectives included between 2011 and 2013 an investment budget varying between EUR 60 million (2011) and EUR 20 million per year (2012 and 2013) utilising National and external sources of funding. International Donors activities on the fisheries sector of Mozambique are significant with a flow of external aid of USD 143 million secured for the next 3-7 years. Most donors implement their development programmes through a budget support approach. Another source of budget income for the Ministry includes the receipts from the sale of fishing licenses to National and foreign interests. In 2012, sales of license amounted to about EUR 2 million with approximately 17% from sales of licenses to foreign tuna vessels of which 9% of the payments were made by the EU tuna fleet under the FPA.

The National scientific institute IIP develops several research programmes. Some of these programmes include the development of a data collection scheme on artisanal fisheries activities and annual evaluations of the status of the coastal shrimp stocks supported by annual research surveys at sea using chartered commercial vessels.

MCS capacities have been dramatically developed over the past few years. Mozambique now operates an FMC selected as a potential MCS regional centre for the SADC region. The FMC monitors *inter alia*, VMS positions mandatory for any National industrial vessel or foreign vessels, and since 2012, electronic submission of logbook data implemented for the EU fleet in cooperation with the EU under the FPA. Mozambique is the first country in the history of EU FPAs receiving electronic transmission of logbook data through an ERS. Mozambique is considering expanding ERS mandatory provisions to other foreign vessels authorised to access the fishing zone. For the at-sea control of fishing vessels the Ministry of Fisheries uses two dedicated patrol vessels which are former commercial vessels plus a number of small inflatable vessels for coastal patrols. In terms of MCS policy, Mozambique is firmly engaged in the fight against IUU fishing. An action plan has been adopted in 2008 and the country since reinforced this commitment by engaging in international cooperation with other Coastal States.

The activities of the EU tuna fleet in the Mozambique fishing zone complement activities in the Western Indian Ocean in the high-seas and in the waters under other coastal states jurisdiction which have concluded an FPA with the EU - Seychelles, Madagascar, Comoros, Mauritius - or with whom the EU may negotiate an FPA (Tanzania, Kenya). The Mozambique fishing zone is accessed by the EU fleet primarily on a seasonal basis when the resource is abundant in the Mozambique Channel. Over the past few years, EU catches in the Mozambique fishing zone represented between 1 and 2% of total EU catches in the Indian Ocean. The limits of the Mozambique fishing zone in which provisions of the FPA apply were revised in June 2012 under the joint committee to include remote areas of the claimed EEZ that were previously excluded. This important modification increases the area of the fishing zone by 11%.

Catches of EU vessels in the Mozambique fishing zone and in the Indian Ocean includes primarily skipjack, yellowfin and bigeye (purse seiners) and swordfish and commercial shark species (longliners). The status of the key target species is assessed under the IOTC scientific committee, which provides advice and where necessary proposes the adoption under the multilateral framework of the IOTC, of management and conservation measures, including measures to mitigate the impacts of fishing on the environment. The status of stocks does not raise particular issues of concern. However, the South West Indian Ocean swordfish population is estimated to be subject to local depletion. In addition, little is known on the status of commercial shark species (blue shark and shortfin mako) but available evidence indicates considerable risk to the stock status at current fishing effort levels. Impacts of purse seine fisheries on the environment can be considered as well known with data on by-catches showing relatively low incidence (4.7% of landed catches, including 2.8% of commercial tuna species which have now to be landed according to the landing obligation introduced by IOTC in 2014). The EU purse seine fleet is currently implementing unilateral measures to reduce environmental impacts of FAD fishing under the industry-driven ISSF programme. By contrast, environmental impacts of longline fishing are less well known on a comprehensive basis due to difficulties to obtain statistical information from a large number of IOTC contracting parties which operate their several thousands of active longliners. According to information available, EU activities in the Mozambique fishing zone do not generate any additional potential threats on target species and ecosystems.

The provisions of the protocol have been implemented in a satisfactory manner for the two parties. However several issues need clarification and follow-up actions. One of these is in relation with the situation of the 4 trawlers flagged to Portugal operating on the domestic shrimps fisheries outside the scope of the FPA. It needs to be clarified whether this situation is in conflict with the exclusivity clause contained in the FPA and the protocol, and to take appropriate action. Another issue that requires further follow-up action concerns the validation and verification catches of EU vessels by the respective scientific institutes. At the Joint Committee meeting of November 2013, the EU identified a scientific co-ordinator within DG MARE, who will ensure follow-up action with the Member States. Accordingly, a consultation process with the Member States has been launched to ensure that there is an agreed methodology between the scientific institutes regarding the validation of catches. This will ensure that there is closer co-operation between the Parties on the reconciliation of catches, thereby reducing the likelihood of friction between the Parties.

The ex-post evaluation of the current protocol indicates that utilisation of fishing possibilities negotiated by EU vessels has been low in 2012 (43% of maximum number of vessels) and even lower in 2013 (27%). As a result, catches are relatively low (1 156 tonnes in 2012) compared to the reference tonnage of 8 000 tonnes used to calculate the minimum payments for access from the EU budget. The real cost of fishing opportunities negotiated has been 6 times greater than the cost considered ex-ante (EUR 612 per tonne by comparison with EUR 100 per tonne negotiated), with the EU supporting 73% of access cost and EU shipowners the remaining 27%. Nonetheless, the EU investment generates positive returns with EUR 2.08 value-added generated for every EUR 1 invested. The low utilisation of fishing possibilities negotiated by the EU can be explained *i)* by a discrepancy between the maximum number of vessels allowed and the real size of the EU fleet active in the Indian Ocean probably as a consequence of piracy, and *ii)* by a lack of interest of approximately half of the active EU fleet to apply for a license to access Mozambique waters. This latter explanation suggests that the Mozambique fishing zone is not sufficiently attractive to support the economic-driven deployment strategy of a portion of the EU fleet. The low utilisation undermines the efficiency of the EU intervention.

In terms of effectiveness, the ex-post evaluation concludes that the FPA succeeds to broadly achieve its objectives of protecting the interest on the EU long-distance fleet and contributing towards sustainable exploitation of fisheries resources in the Mozambique fishing zone. The protocol has been less effective to support the development of the fishing sector in Mozambique mostly as a result of the absence of economic interactions between the EU fleet and the Mozambique private fishing sector (no employment of National seamen, no utilisation Mozambique ports for commercial operations). The limited amount of the sectoral support (EUR 460 000 per year), which represents only 2 % on average of the Ministry annual investment budget, is transparently supporting some selected budget lines utilised by the Ministry in conjunction with internal and external sources. The sectoral support hence contributes to the achievement of performances indicators related to the monitoring of the fishing effort and the catches both for artisanal and industrial fisheries activities and the capacity building of the human resources of the Ministry. Although the results of the programmes implemented seemed satisfactory, the effectiveness of the programme implementation could

have certainly been improved with better budget execution performances limited to 52 % in 2012 and 33 % in 2013.

Concerning the economy of the protocol, the evaluation indicates that sectoral support is compatible with the absorption capacity of Mozambique. Delays in payments of the sectoral support tranches are mostly explained by technical difficulties from Mozambique to comply with Commission internal financial rules in terms of programming and monitoring of the utilisation of funds.

The protocol is evaluated as being broadly coherent with both the CFP and Mozambique fisheries policy. In addition, there are some potential synergies between the FPA and Mozambique aspirations to develop its own national fleet. Two technical issues may impact the coherence of the FPA with the CFP orientations: the non-inclusion of a human rights clause in the protocol, but this did not raise any particular problems since the implementation of the current protocol, and the presence of EU flagged trawlers on the domestic shrimp fisheries outside the scope of the agreement. Considering the importance of external support to the fishery sector and in particular the 10th EDF project addressing small scale fisheries and aquaculture development, the sectoral support component of the FPA should continue to focus on very specific activities of the fisheries administration and related services, identified for their potential synergies and complementarities with existing initiatives on the basis of transparent programming documents established by the Mozambique Authorities.

Finally, the evaluation raises some difficulties in terms of acceptability by some EU shipowners. From their perspective, the mandatory inspection of 33% of the EU vessels prior to their operations decreases the economic attractiveness of the agreement up to a point where some EU fleet segments prefer not to use the fishing opportunities negotiated, with knock on effects on the efficiency of the protocol.

The ex-ante evaluation concludes that the continuation of the agreement is a win-win compromise for both parties. Any other solution would have detrimental impacts on the two parties. The EU and Mozambique both need to have a framework for sectoral political dialogue, in particular under the context of in-depth reforms of the IOTC management strategy. In addition, the EU needs to conserve a legal instrument to monitor the activities of the EU vessels in the Mozambique fishing zone to comfort its credibility as leading force in the implementation of sustainable fishing practices in the Indian Ocean along the reformed CFP orientations, including the fight against IUU fishing.

The evaluation concludes of several recommendations to be considered in the perspective of the termination of the current protocol and the preparation of the negotiation of a next one.

#### **On a forthcoming protocol itself:**

- Renew the protocol over an extended duration of 4 or 5 years to ensure some degree of stability
- Introduce in a next protocol a human rights clause in accordance with the reformed CFP
- Fishing opportunities for tuna vessels may remain broadly identical as utilisation (licenses and catches) can be expected to increase over the next few years
- If needed and possible, introduce under a next protocol access provisions for the EU shrimp trawlers in compliance with the principles of the reformed CFP

#### **On technical issues in relation with the current and forthcoming protocols:**

- Implement the scientific cooperation between Mozambique and Member States on catch validation procedures. If needed, use article 4 of the FPA to formally create a joint scientific working group mandated to address the methodologies for catch validation and their application on data held by the different parties
- Address under a next sectoral support the issue of training of Mozambique seamen under an objective to promote the availability of a competitive workforce available to EU shipowners
- Follow-up industry-driven or multilateral initiatives concerning the implementation of a regional observer scheme and ensure Mozambique is part of the schemes
- Develop under a next sectoral support a plan to operationalise the objectives of Mozambique towards the development of shore services in support of the tuna industries, and support Mozambique efforts to identify sources of external funding to implement the plan in the medium term.

## RESUME

Ce rapport présente une évaluation ex post du Protocole en cours de l'Accord de Partenariat de Pêche (APP) entre l'Union Européenne et la République du Mozambique. Ce protocole permet à un maximum de 75 navires de pêche thonière de l'UE (navires battant pavillon d'un Etat Membre de l'UE et enregistrés dans l'UE) d'opérer dans la zone de pêche du Mozambique, comprenant 43 senneurs et 32 palangriers de surface. Le présent rapport évalue le Protocole en termes d'efficacité, d'efficience, de cohérence et d'acceptabilité. Il fournit également une évaluation ex ante destinée à supporter une éventuelle négociation et la mise en œuvre d'un nouveau Protocole. Le Protocole en cours a été provisoirement appliqué à compter du 1<sup>er</sup> février 2012 et prendra fin au 31 janvier 2015. Le paiement minimum par l'UE sous le présent Protocole s'élève à 980 000 EUR par an, dont 460 000 EUR au titre de l'appui à la mise en œuvre de la politique sectorielle du Mozambique.

Le Mozambique est situé sur la côte orientale de l'Afrique australe. Sa population dépasse légèrement 24 millions d'habitants en 2013. Le PIB du Mozambique est estimé à environ 14,2 milliards USD en 2012, soit une moyenne de 565 USD par habitant (source : Banque Mondiale), plaçant le Mozambique dans la catégorie des pays à faible revenu. L'économie mozambicaine a connu des performances élevées en 2012 avec une croissance du PIB de 7,4%. L'augmentation progressive de la production de charbon et la réalisation de grands projets d'infrastructure devraient contribuer à maintenir ce niveau de croissance. Selon la Banque Mondiale, l'émergence de l'industrie extractive devrait permettre au Mozambique d'atteindre le statut de pays à revenu intermédiaire vers 2025. La contribution du secteur des pêches et de l'aquaculture est estimée à 4% du PIB. Les recettes provenant du secteur ont représenté 0,2% des revenus nationaux de l'Etat en 2012, et les exportations de produits halieutiques environ 2% des exportations totales de biens et services pour la même année.

Le Mozambique fait partie des pays ACP. Dans le cadre du 10<sup>e</sup> FED, qui couvre la période 2008-2013, les ressources programmables du PIN s'élèvent à 622 millions EUR, dont 50% d'appui budgétaire. Cette enveloppe a récemment été augmentée de 67,2 millions EUR au titre de l'initiative MDG, dont une enveloppe de 14,6 millions EUR affectée au programme de développement des pêches et de l'aquaculture mis en œuvre par le FIDA (programmes ProPesca et ProAqua) exécutable dans les cinq ans à venir. Le secteur des pêches du Mozambique a également reçu un appui du FED dans le cadre des interventions ACP FISH II.

Le secteur des pêches du Mozambique comprend trois segments principaux : les pêcheries artisanales, semi-industrielles et industrielles. En 2012, la pêche artisanale représentait environ 90% des captures marines totales, estimées à 145 000 tonnes. La pêche artisanale fournit un revenu à près de 280 000 personnes, dont 43% ne disposent pas d'embarcation. Le pourcentage de bateaux motorisés reste très faible (estimé à 3% en 2007). Les différentes espèces de poissons et crustacés capturés par les pêcheurs artisans sont consommées localement. Le segment semi-industriel comprend quelques 80 petits chalutiers impliqués principalement dans la pêche nationale de crevettes côtières. Les captures sont vendues localement ou exportées. Le segment industriel est composé de navires de grande taille ciblant principalement les espèces de crevettes côtières et profondes, essentiellement pour l'exportation. En 2012, on comptait 80 navires industriels battant pavillon du Mozambique ou d'autres pays. Les navires étrangers impliqués dans la pêche industrielle crevette opèrent sous régime d'affrètement avec des compagnies de pêche nationales qui possèdent les droits de pêche. Au moins jusqu'en 2012, quatre de ces chalutiers battaient pavillon du Portugal. L'activité de ces quatre navires en dehors du cadre de l'APP pourrait contrevenir à la clause d'exclusivité de l'accord.

En ce qui concerne la pêche thonière, les intérêts nationaux se limitaient en 2013 à des bateaux artisans et à un unique palangrier industriel (actif depuis 2012 et dûment enregistré auprès de la CTOI). Les captures totales de thons et espèces associées par la flottille artisanale mozambicaine sont estimées à 5 364 tonnes en 2012, dont 41% d'espèces néritiques. Le palangrier mozambicain a capturé pour sa part 239 tonnes en 2012, dont 59% d'espéron. Les flottilles artisanales et le palangrier industriel réunis ont capturé en 2012 environ 2 140 tonnes de thon (listao, albacore et patudo) plus 142 tonnes d'espéron.

Les principales flottilles actives sur la pêche thonière dans les limites de la zone de pêche du Mozambique sont étrangères, avec en 2012 et 2013, respectivement 61 et 45 licences accordées à des navires étrangers. En 2012, ces navires étrangers étaient composés de 26 senneurs, dont 20 senneurs de l'UE, et de 35 palangriers, dont 12 palangriers de l'UE opérant dans le cadre de l'APP. En 2013, la flotte étrangère comptait 18 senneurs dont 12 de l'UE, et 27 palangriers, dont 9 palangriers de l'UE. Les autres flottilles étrangères actives dans la

zone au cours de cette période étaient des senneurs Seychellois et Coréen ainsi que des palangriers Japonais. Le nombre de navires étrangers licenciés pour pêcher dans les zones de pêche du Mozambique en 2012 et 2013 a été faible comparé à la moyenne de 125 navires étrangers actifs chaque année dans la zone entre 2005 et 2010. Les captures des navires étrangers ont varié entre 2 400 tonnes (2012) et 8 500 tonnes (2008) par an. Les navires thoniers de l'UE ont représenté entre 25% (2007) et 87% (2009) des captures totales d'espèces hautement migratrices par les flottilles étrangères dans les eaux du Mozambique.

Le Mozambique affiche clairement son ambition de développer sa propre flottille thonière nationale. Cette ambition est inscrite dans les documents de politique sectorielle et dans un plan de développement de flotte soumis à la CTOI et qui prévoit l'introduction de 130 navires thoniers sur la période 2008-2028, principalement en remplacement des navires thoniers étrangers licenciés pour accéder à la zone de pêche du Mozambique. La récente commande par le Mozambique de 24 navires de pêche, dont 21 palangriers, à un chantier naval français pourrait constituer la première étape de mise en œuvre de ce programme de développement de flotte thonière, mais il n'a pas été possible de le confirmer au cours des échanges avec les autorités mozambicaines. L'ambition légitime du Mozambique de développer sa propre flottille thonière a été ouvertement discutée avec l'UE durant les réunions du comité mixte mis en place dans le cadre de l'APP. Le Mozambique a déclaré qu'il s'agirait d'un processus de longue durée qui n'affecterait pas la poursuite des relations entre les deux parties.

La gestion du secteur des pêches incombe au Ministère chargé des Pêches, qui est organisé en plusieurs directions et assure la tutelle de plusieurs institutions publiques spécialisées entre autres dans l'aménagement (ADNAP), la recherche (IIP), le contrôle sanitaire (INIP), le développement de la pêche artisanale (IDPPE) et la formation (Ecole de pêche). Les orientations politiques du Mozambique concernant le secteur de la pêche et les questions liées sont guidées par les objectifs généraux énoncés dans le Plan national de réduction de la pauvreté (PARP 2011-2014) et inscrites dans le plan directeur des pêches (PDP II 2010-2019) et les documents connexes de politiques sectorielles, y compris un plan stratégique pour le développement des pêches thonières (PEDPA). Les crédits du ministère pour atteindre les objectifs de développement ont compris entre 2011 et 2013 un budget d'investissement variant entre 60 millions EUR (2011) et 20 millions EUR (2012 et 2013) constitué de sources de financement nationales et externes. L'activité des bailleurs de fonds internationaux sur le secteur de la pêche au Mozambique est significative avec un montant approuvé de l'aide extérieure à 143 millions USD pour les 3-7 prochaines années. La plupart des bailleurs mettent en œuvre leurs programmes de développement à travers une approche d'appui budgétaire. Une autre source de revenu budgétaire pour le ministère est constituée des recettes provenant de la vente de licences de pêche à des intérêts nationaux et étrangers. En 2012, la vente des licences a rapporté environ 2 millions EUR dont 17% correspondant à la vente de licences aux thoniers étrangers, dont 9% pour la flotte thonière de l'UE au titre de l'APP.

L'institut scientifique national (IIP) développe plusieurs programmes de recherche. Certains de ces programmes concernent le développement d'un système de collecte de données de pêche de la flotte artisanale et des évaluations annuelles de l'état des stocks de crevettes côtières soutenues par des campagnes annuelles de recherche en mer au moyen de navires commerciaux affrétés.

Les capacités en matière de SCS ont été considérablement développées au cours des dernières années. Le Mozambique exploite un CSP identifié comme potentiel centre régional SCS pour la région SADC. Le CSP suit entre autres les positions VMS obligatoires pour tout navire industriel national ou étranger, et depuis 2012, la transmission électronique de données du journal de pêche mis en place pour la flotte de l'UE, en coopération avec l'UE dans le cadre de l'APP. Le Mozambique est le premier pays dans l'histoire des APP de l'UE à recevoir par transmission électronique les données des journaux de pêche via un ERS. Le Mozambique envisage d'étendre l'obligation des dispositions ERS à d'autres navires étrangers autorisés à accéder à sa zone de pêche. Pour le contrôle en mer des navires de pêche, le ministère des Pêches utilise deux patrouilleurs dédiés qui sont d'anciens navires commerciaux, ainsi qu'un certain nombre de petits bateaux pneumatiques pour les patrouilles côtières. En termes de politique MCS, le Mozambique est fermement engagé dans la lutte contre la pêche INN. Un plan d'action a été adopté en 2008 et le pays a depuis renforcé ses engagements notamment en s'engageant dans la coopération internationale avec d'autres États côtiers.

L'activité de la flotte thonière de l'UE dans la zone de pêche du Mozambique est complémentaire de ses activités dans l'ouest de l'Océan Indien, en haute mer et dans les juridictions d'autres Etats côtiers qui ont passé un APP avec l'UE - Seychelles, Madagascar, Comores, Maurice – ou avec lesquels l'UE pourrait négocier un APP (Tanzanie, Kenya). La flotte de l'UE accède à la zone de pêche du Mozambique principalement sur une



base saisonnière, lorsque la ressource est abondante dans le Canal du Mozambique. Au cours des dernières années, les captures de l'UE dans la zone de pêche du Mozambique ont représenté entre 1 et 2% des captures totales de l'UE dans l'océan Indien. Les limites de la zone de pêche du Mozambique applicables selon les dispositions de l'APP ont été révisées en juin 2012 dans le cadre du comité mixte afin d'inclure des zones hauturières qui étaient auparavant exclues de la ZEE revendiquée. Cette modification importante augmente la surface de la zone de pêche de 11%.

Les captures des navires de l'UE dans la zone de pêche du Mozambique et dans l'océan Indien sont principalement composées de listao, d'albacore et de patudo (senneurs), d'espadon et d'espèces commerciales de requins (palangriers). Le statut des principales espèces cibles est évalué dans le cadre du comité scientifique de la CTOI qui fournit des avis et, si nécessaire, propose l'adoption dans le cadre multilatéral de la CTOI de mesures de gestion et de conservation, y compris de mesures visant à atténuer les impacts de la pêche sur l'environnement. L'état des stocks ne suscite pas de préoccupation particulière. Toutefois, on estime que la population d'espadon du Sud-Ouest de l'océan Indien est localement épuisée. En outre, le statut des espèces de requins commerciales (requin bleu et requin mako) est mal connu, mais les données disponibles indiquent un risque non négligeable pour l'état du stock aux niveaux d'effort de pêche actuels. Les connaissances sur l'impact des senneurs sur l'environnement sont considérées comme bonnes avec des données sur les prises accessoires montrant une incidence relativement faible (4,7% des débarquements, dont 2,8% d'espèces de thon commerciales qui doivent désormais être débarquées conformément à l'obligation mise en place par la CTOI en 2014). La flotte de senneurs de l'UE applique de façon unilatérale des mesures de réduction de l'impact environnemental de la pêche sur DCP à travers le programme ISSF piloté par l'industrie. En revanche, les impacts environnementaux de la pêche à la palangre sont globalement moins bien connus notamment en raison des difficultés à obtenir des informations statistiques de la part de plusieurs parties contractantes à la CTOI qui opèrent plusieurs milliers de palangriers actifs. Selon les informations disponibles, les activités de l'UE dans la zone de pêche du Mozambique ne génèrent pas de menaces potentielles supplémentaires sur les espèces cibles et les écosystèmes.

Les dispositions du protocole ont été mises en œuvre de manière satisfaisante pour les deux parties. Toutefois, plusieurs questions nécessitent des éclaircissements et des actions de suivi. L'un d'elles est la situation des quatre chalutiers battant pavillon du Portugal opérant sur la pêcherie de crevettes en dehors du champ d'application de l'APP. Il convient de préciser si cette situation est en conflit avec la clause d'exclusivité contenue dans l'APP et dans le protocole, et de prendre les mesures appropriées. Un autre point qui demande un suivi concerne la validation et la vérification des captures des navires de l'UE par leurs instituts scientifiques respectifs. Durant la Commission Mixte de Novembre 2013, l'UE a désigné un coordinateur scientifique à la DG MARE qui suivra ce point avec les Etats membres. Un processus de consultation a été lancé afin de s'assurer qu'il existe une méthodologie validée entre les Etats membres pour la validation des captures. Ceci permettra de renforcer la coopération entre les parties sur l'établissement des statistiques de capture au bénéfice de la qualité des relations bilatérales.

L'évaluation ex-post du protocole en cours indique que l'utilisation des possibilités de pêche négociées par les navires de l'UE a été faible en 2012 (43% du nombre maximum de navires) et encore plus en 2013 (27%). Il en résulte que les captures ont été relativement faibles (1 156 tonnes en 2012) par rapport au tonnage de référence de 8 000 tonnes utilisé pour calculer le montant minimal à payer par l'UE pour le droit d'accès. Le coût réel des possibilités de pêche négociées a été 6 fois supérieur au coût évalué ex ante (612 EUR par tonne contre 100 EUR par tonne négocié), avec l'UE supportant 73% du coût de l'accès et les armateurs les 27% restants. Néanmoins, l'investissement de l'UE génère un rendement positif avec 2,08 EUR de valeur ajoutée générée pour chaque euro investi par la puissance publique. La faible utilisation des possibilités de pêche négociées par l'UE peut s'expliquer i) par l'écart entre le nombre maximal de navires autorisés et la taille réelle de la flotte active de l'UE dans l'océan Indien probablement en raison de la piraterie, et ii) par un manque d'intérêt concernant près de la moitié de la flotte active de l'UE d'obtenir une licence pour accéder aux eaux du Mozambique. Cette dernière explication suggère que la zone de pêche du Mozambique n'est pas suffisamment attractive pour une partie de la flotte de l'UE dont la stratégie de déploiement est motivée par des raisons économiques. Cette faible utilisation réduit l'efficacité de l'intervention de l'UE.

En termes d'efficacité, l'évaluation ex-post conclut que l'APP parvient largement à atteindre ses objectifs de protection de l'intérêt de la flotte de pêche lointaine de l'UE et de contribution à l'exploitation durable des ressources halieutiques dans la zone de pêche du Mozambique. Le protocole a été moins efficace en ce qui

concerne l'appui au développement du secteur de la pêche au Mozambique, principalement en raison de l'absence d'interactions économiques entre la flotte de l'UE et le secteur privé de la pêche du Mozambique (pas d'emploi de marins nationaux, pas d'utilisation des ports Mozambicains pour des opérations commerciales). Le montant limité du soutien sectoriel (460 000 EUR par an), qui représente en moyenne 2% du budget annuel d'investissement du Ministère, finance des lignes budgétaires sélectionnées utilisées par le Ministère avec d'autres sources de financement internes et externes. L'appui sectoriel contribue donc à atteindre des indicateurs de performance en relation avec le suivi de l'effort de pêche et des captures des segments artisanaux et industriels et avec le renforcement des capacités des ressources humaines du Ministère. Bien que les résultats des programmes semblent satisfaisants, l'efficacité du programme aurait pu être améliorée avec une meilleure exécution du budget qui a été limitée à 52% en 2012 et 33% en 2013.

En ce qui concerne l'économie du protocole, l'évaluation indique que l'appui sectoriel est compatible avec la capacité d'absorption du Mozambique. Les retards dans le versement des tranches de l'appui sectoriel s'expliquent principalement par des difficultés techniques du Mozambique à se conformer aux règles financières internes de la Commission en termes de programmation et de suivi de l'utilisation de ces fonds.

L'évaluation considère que le protocole est globalement cohérent à la fois avec la PCP et avec la politique des pêches du Mozambique. En outre, il existe des synergies potentielles entre l'APP et les aspirations du Mozambique à développer sa propre flotte nationale. Deux problèmes techniques peuvent influencer sur la cohérence de l'APP avec les orientations de la PCP : la non-inclusion d'une clause sur les droits de l'homme dans le protocole, mais cela ne semble pas poser de problèmes particuliers depuis l'entrée en vigueur du présent protocole, et la présence de chalutiers battant pavillon d'un Etat membre de l'UE sur les pêcheries de crevettes en dehors du cadre de l'APP. En considérant l'importance des financements externes, et en particulier le financement dans le cadre du 10<sup>ème</sup> FED d'un programme de développement de la pêche artisanale et de l'aquaculture, le soutien sectoriel sous l'accord devra se focaliser sur des activités très spécifiques de l'administration et des services liés, identifiées pour leurs synergies et complémentarités potentielles avec des initiatives existantes sur la base des documents de programmation transparents établis par les autorités du Mozambique.

Enfin, l'évaluation soulève des difficultés en termes d'acceptabilité du protocole par certains armateurs de l'UE. De leur point de vue, l'inspection obligatoire de 33% des navires de l'UE avant de démarrer leurs opérations diminue l'attractivité économique de l'accord, au point que certains segments de la flotte de l'UE préfèrent ne pas utiliser les possibilités de pêche négociées, avec des répercussions sur l'efficacité du protocole.

L'évaluation ex-ante conclut que la poursuite de l'accord est un compromis gagnant-gagnant pour les deux parties. Toute autre solution aurait des effets néfastes sur les deux parties. L'UE et le Mozambique ont besoin de disposer d'un cadre pour le dialogue politique sectoriel, en particulier dans le contexte des réformes en profondeur de la stratégie de gestion de la CTOI. En outre, l'UE a besoin de conserver un instrument juridique pour contrôler les activités des navires de l'UE dans la zone de pêche du Mozambique pour maintenir sa crédibilité en tant qu'acteur principal dans la mise en œuvre de pratiques de pêche responsable dans l'océan indien en accord avec les orientations de la PCP révisée, y compris la lutte contre la pêche INN.

L'évaluation formule plusieurs recommandations à considérer dans la perspective de la fin du protocole actuel et pour la préparation de la négociation du prochain.

#### **Sur le prochain protocole:**

- Renouveler le protocole pour une durée prolongée de 4 ou 5 ans afin d'assurer une certaine stabilité
- Introduire dans le prochain protocole une clause sur les droits de l'homme conformément à la PCP réformée
- Les possibilités de pêche pour les thoniers peuvent rester globalement identiques car on peut s'attendre à ce que leur utilisation (licences et captures) augmente au cours des prochaines années
- Si nécessaire et si possible, introduire dans le prochain protocole des dispositions pour l'accès des chalutiers crevettiers de l'UE dans le respect des principes de la PCP réformée.

#### **Sur les questions techniques en relation avec les protocoles actuels et à venir :**

- Mettre en œuvre la coopération scientifique entre le Mozambique et les États Membres sur les procédures de validation de capture. Si nécessaire, utiliser l'article 4 de l'APP pour créer officiellement un groupe de travail scientifique conjoint mandaté pour traiter des méthodologies de validation des captures et de leur application aux données détenues par les différentes parties
- Considérer dans le cadre d'un prochain appui sectoriel la question de la formation des marins Mozambicains afin de promouvoir la disponibilité d'une main-d'œuvre compétitive auprès des armateurs de l'UE
- Suivre les initiatives multilatérales ou portée par l'industrie concernant la mise en œuvre d'un programme régional d'observateurs et s'assurer que le Mozambique en soit partie prenante
- Développer dans le cadre d'un prochain appui sectoriel un plan d'opérationnalisation des objectifs du Mozambique vers le développement de services à terre en appui à l'industrie du thon, et soutenir les efforts du Mozambique pour identifier des sources de financement externes pour mettre en œuvre ce plan à moyen terme.

## RESUMO

Este relatório apresenta uma avaliação *a posteriori* do protocolo em vigor no âmbito do Acordo de Parceria no domínio das Pescas (APP) entre a União Europeia e a República de Moçambique. Este protocolo permite um máximo de 75 navios de pesca de atum (navio com pavilhão de um Estado-Membro da UE e registado na UE) para operar na zona de pesca de Moçambique, dos quais 43 cercadores e 32 palangreiros de superfície. Este relatório avalia o protocolo em termos de eficácia, eficiência, coerência e aceitabilidade. Ele também fornece uma avaliação *a priori* para as possíveis negociações para a implementação de um novo protocolo. O Protocolo foi provisoriamente implementado com efeito a partir de 1 de fevereiro de 2012 e terminará em 31 de janeiro de 2015. O pagamento mínimo pela UE no quadro do presente Protocolo totaliza 980.000 EUR por ano, incluindo 460.000 EUR para apoiar a implementação da política setorial de Moçambique.

Moçambique está situado na costa oriental da África Austral. A sua população ultrapassa ligeiramente 24 milhões em 2013. O PIB de Moçambique é de cerca de 14,2 bilhões USD em 2012, ou seja uma média de 565 USD por habitante (fonte: Banco Mundial), colocando Moçambique na categoria dos países de baixo rendimento. A economia moçambicana tem tido alto desempenho em 2012 com um crescimento do PIB que ronda os 7,4%. O aumento gradual da produção de carvão e a implementação de grandes projetos de infraestrutura devem ajudar a manter esse nível de crescimento. Segundo o Banco Mundial, a emergência da indústria extrativa deverá permitir a Moçambique atingir o estatuto de país de rendimento médio em 2025. A contribuição da pesca e da aquicultura é estimada em 4% do PIB. As receitas provenientes do setor são de 0,2% do rendimento nacional total do Estado e as exportações de produtos haliêuticos representam aproximadamente 2% do total das exportações de bens e serviços.

Moçambique faz parte dos países ACP. No quadro do 10º FED, que abrange o período 2008-2013, os recursos programáveis do PIN totalizam 622 milhões de euros, dos quais 50% de apoio orçamental. Este envelope foi recentemente acrescentado de 67,2 milhões EUR no âmbito da iniciativa ODM, incluindo um montante de 14,6 milhões de euros atribuídos ao programa de desenvolvimento da pesca e da aquicultura implementado pelo FIDA (programas ProPesca e ProAqua) executáveis dentro dos próximos cinco anos. O sector das pescas em Moçambique também recebeu o apoio do FED no âmbito das intervenções do programa ACP Fish II.

O sector das pescas em Moçambique é composto por três segmentos principais: as pescarias artesanais, semi-industrial e industrial. Em 2012, a pesca artesanal foi responsável por cerca de 90% das capturas totais da pesca marinha, estimada em 145 000 toneladas. A pesca artesanal proporciona um rendimento para cerca de 280 000 pessoas, dentre as quais 43% não têm nenhum barco. A percentagem de embarcações motorizadas é ainda muito baixa (estimada em 3% em 2007). As várias espécies de peixes e crustáceos capturados pelos pescadores artesanais são consumidas localmente. O segmento semi-industrial é composto de aproximadamente 80 pequenos arrastões principalmente envolvidos na pescaria nacional do camarão costeiro. As capturas são vendidas localmente ou exportadas. O segmento industrial é composto de grandes navios, principalmente dirigidos às espécies de camarão costeiros ou de água profunda, principalmente para exportação. Em 2012, havia 80 embarcações industriais que arvoravam pavilhão de Moçambique e de outros países. As embarcações estrangeiras envolvidas na pesca industrial do camarão operam em regime de fretamento com empresas de pesca nacionais que possuem os direitos de pesca. Pelo menos até 2012, quatro destes arrastões arvoravam pavilhão de Portugal. A atividade destes quatro navios fora do âmbito do APP pode violar a cláusula de exclusividade do acordo.

No que diz respeito a pescaria de atum, os interesses nacionais foram limitados em 2013 á embarcações artesanais e um único palangreiro industrial (ativo desde 2012 e devidamente registado na IOTC). As capturas totais de atum e espécies relacionadas pela frota artesanal de Moçambique são estimadas em 5 364 toneladas em 2012, das quais 41% de espécies neríticas. O palangreiro Moçambicano capturou por sua parte 239 toneladas em 2012, das quais 59% de espadarte. As frotas artesanais junto com o palangreiro industrial capturaram em 2012 cerca de 2 140 toneladas de atum (gaiado, albacora e atum-patudo), mais 142 toneladas de espadarte.

As principais frotas ativas na pescaria de atum dentro da zona de pesca de Moçambique são estrangeiras, com respetivamente 61 e 45 licenças concedidas á navios estrangeiros em 2012 e 2013. Em 2012, essa frota estrangeira era composta por 26 navios cercadores, dos quais 20 cercadores da EU, e por 35 palangreiros dos

quais 12 palangreiros da UE que operavam no âmbito do APP. Em 2013, a frota estrangeira contava 18 cercadores dos quais 12 da EU, e 27 palangreiros, dos quais 9 da UE. As outras frotas estrangeiras que operaram na área durante o mesmo período foram cercadores das Seicheles e coreanos, e palangreiros japoneses. O número de navios estrangeiros que têm licenças para pescar na zona de pesca de Moçambique em 2012 e 2013 foi baixo em comparação com a média de 125 embarcações estrangeiras que operavam a cada ano na área entre 2005 e 2010. As capturas dos navios estrangeiros atingiram 2 400 toneladas (2012) e 8 500 toneladas (2008) por ano. Os navios atuneiros da UE foram responsáveis por cerca de 25% em 2007 e de 87% em 2009 do total das capturas de espécies altamente migratórias por frotas estrangeiras nas águas de Moçambique.

Moçambique mostra claramente a sua ambição de desenvolver a sua própria frota atuneira nacional. Esta ambição é patente nos documentos de políticas sectoriais e no plano de desenvolvimento de frota submetido à IOTC, que prevê a introdução de 130 atuneiros no período 2008 - 2028, principalmente em substituição dos atuneiros estrangeiros com licença de acesso à zona de pesca de Moçambique. A recente encomenda por Moçambique de 24 embarcações, incluindo 21 palangreiros, á um estaleiro naval francês poderá ser o primeiro passo na implementação deste programa de desenvolvimento da frota atuneira, mas não foi possível confirmar este ponto durante as discussões com as autoridades moçambicanas. A ambição legítima de Moçambique para desenvolver a sua própria frota atuneira foi discutida abertamente com a UE durante as reuniões do Comité Misto instituído no quadro do APP. Moçambique informou que seria um processo demorado que não afetará a continuidade das relações entre as duas partes.

A gestão do sector das pescas cabe ao Ministério das Pescas, que é organizado em várias direcções e supervisiona diversas instituições públicas especializadas, entre outros em matéria de gestão (ADNAP), de pesquisa (IIP), de controlo sanitário (INIP), de desenvolvimento da pesca artesanal (IDPPE) e de formação (Escola de pesca). As orientações políticas de Moçambique no domínio da pesca e assuntos relacionados são guiados pelos objetivos gerais do Plano Nacional para a Redução da Pobreza (PARP 2011-2014) e incluído no Plano Diretor das Pescas (PDP II 2010 - 2019) e documentos de políticas sectoriais relacionados, incluindo um plano estratégico para o desenvolvimento da pescaria de atum (PEDPA). As dotações do Ministério para atingir as metas de desenvolvimento incluíram entre 2011 e 2013 um orçamento de investimento que variou entre 60 milhões (2011) e 20 milhões EUROS (2012 e 2013), constituído por fontes nacionais e externas. A atividade dos doadores internacionais no sector das pescas em Moçambique é significativa, com uma ajuda externa aprovada de 143 milhões USD para os próximos 3-7 anos. A maioria dos doadores está a implementar os seus programas de desenvolvimento através duma abordagem de apoio orçamental. Uma outra fonte de rendimento para o orçamento do Ministério é composto por receitas provenientes da venda de licenças de pesca para empresas nacionais e estrangeiras. Em 2012, a venda de licenças representou cerca de 2 milhões de euros, dos quais 17% corresponde à venda de licenças aos atuneiros estrangeiros, incluindo 9% para a frota atuneira da UE ao abrigo do APP.

O Instituto Nacional de Investigação Pesqueira (IIP) tem desenvolvido vários programas de investigação. Alguns desses programas incluem o desenvolvimento de um sistema de recolha de dados sobre a frota artesanal e avaliações anuais do estado das unidades populacionais de camarões costeiros apoiado por campanhas anuais no mar realizadas com navios comerciais fretados.

As capacidades em termos de MCS foram consideravelmente desenvolvidas nos últimos anos. Moçambique opera um CVP que foi identificado como um potencial centro regional MCS para a região SADC. O CVP monitora nomeadamente as posições VMS obrigatórias para qualquer navio industrial nacional ou estrangeiro e, desde 2012, a transmissão eletrónica de dados do diário de bordo implementado para a frota da UE, em cooperação com a UE no quadro do APP. Moçambique foi o primeiro país na história dos APP da UE á receber por transmissão eletrónica dados dos jornais de bordo por meio de uma ERS. Moçambique pretende estender a obrigação das disposições do ERS para outras embarcações estrangeiras tendo acesso à sua zona de pesca. Para o monitoramento dos navios de pesca no mar, o Ministério das Pescas utiliza dois patrulheiros dedicados que são antigos navios comerciais, bem como uma série de pequenos barcos infláveis para as patrulhas costeiras. Em termos de política MCS, Moçambique está firmemente comprometido com a luta contra a pesca IUU. Um plano de ação foi aprovado em 2008 e desde então o país tem concretizado os seus compromissos, empenhando-se nomeadamente na cooperação internacional com outros países costeiros.

A atividade da frota atuneira da UE na zona de pesca de Moçambique é complementar às suas atividades no Oceano Índico Ocidental em alto mar e nas águas de outros Estados costeiros que celebraram um APP com a UE - Seicheles, Madagáscar, Comores, Maurícia - ou com os quais a EU poderia negociar um APP (Tanzânia, Quênia). O acesso da frota da UE à zona de pesca de Moçambique é principalmente sazonal, quando o recurso é abundante no Canal de Moçambique. Nos últimos anos, as capturas da UE na zona de pesca de Moçambique representaram entre 1% e 2% do total das capturas da UE no Oceano Índico. Os limites da zona de pesca de Moçambique aplicável de acordo com as disposições do APP foram revisados em junho de 2012, no quadro da Comissão Mista para incluir áreas remotas que anteriormente estavam excluídas da ZEE reivindicada. Esta importante mudança aumenta a superfície da zona de pesca em 11%.

As capturas dos navios da UE na zona de pesca de Moçambique e no Oceano Índico são compostas principalmente de gaiado, albacora e atum patudo (cercadores), espadarte e espécies comerciais de tubarões (palangreiros). O estatuto das principais espécies-alvo é avaliado no quadro do Comité Científico da IOTC que fornece aconselhamento e, quando for necessário, propõe a adoção no âmbito multilateral da IOTC, de medidas de gestão e conservação, incluindo medidas para mitigar os impactos da pesca sobre o ambiente. O estado das unidades populacionais não levanta uma preocupação especial. No entanto, estima-se que a população de espadarte do Sudoeste do Oceano Índico está localmente esgotada. Além disso, o estado das espécies comerciais de tubarão (tintureira e tubarão-anequim) é desconhecido, mas os dados disponíveis indicam um risco significativo para a unidade populacional nos atuais níveis de esforço de pesca. Os conhecimentos sobre o impacto dos cercadores sobre o ambiente são considerados bons, com dados sobre as capturas acessórias que mostram uma incidência relativamente baixa (4,7% dos desembarques, incluindo 2,8% de espécies de atum comerciais que devem agora ser desembarcadas em conformidade com a obrigação estabelecida pelo IOTC em 2014). A frota de cercadores da UE aplica unilateralmente medidas para reduzir o impacto ambiental da pesca sobre os DCP através do programa ISSF conduzido pela indústria. Ao contrário, os impactos ambientais da pesca com palangre são geralmente menos bem conhecidos, principalmente por causa de dificuldades na obtenção de informações estatísticas de várias partes contratantes da IOTC operando milhares de palangreiros ativos. De acordo com as informações disponíveis, as atividades da UE na zona de pesca de Moçambique não geram ameaças potenciais adicionais para as espécies-alvo e os ecossistemas.

As disposições do Protocolo foram implementadas de forma satisfatória para ambas as partes. No entanto, ainda há várias questões que necessitam de esclarecimentos e ações de acompanhamento. Uma delas é a situação dos quatro arrastões que arvoram pavilhão de Portugal que operaram na pescaria do camarão fora do âmbito do APP. Deve ser esclarecido se esta situação está em conflito com a cláusula de exclusividade incluída no APP e no Protocolo, e tomar as medidas adequadas. Um segundo ponto que merece ser seguido diz respeito à validação e à verificação das capturas dos navios da EU pelos seus respetivos institutos de investigação. No âmbito da Comissão Mista de novembro de 2013, a EU designou um coordenador científico no seio da DG MARE, que é encarregado do seguimento deste ponto com os Estados Membros. Um processo de consulta foi lançado para assegurar a existência de uma metodologia validada entre os Estados Membros em termos de validação das capturas. Isso irá reforçar a cooperação entre as Partes para estabelecer estatísticas de capturas ao benefício da qualidade das relações bilaterais.

A avaliação *a posteriori* do protocolo atual indica que a utilização das possibilidades de pesca negociadas pelos navios da UE foi baixa em 2012 (43% do número máximo de navios) e ainda mais em 2013 (27%). Daí resulta que, as capturas foram relativamente baixas (1 156 toneladas em 2012) em comparação com a tonelagem de referência de 8 000 toneladas utilizada para calcular o valor mínimo a ser pago pela UE para o direito de acesso. O custo real das possibilidades de pesca negociadas foi 6 vezes maior do que o custo estimado *a priori* (612 euros por tonelada contra 100 euros por tonelada negociados), sendo o custo de acesso suportado pela UE de 73% e pelos armadores de 27% restantes. No entanto, o investimento da UE gera um retorno positivo com 2,08 EUR de valor acrescentado gerado por cada euro investido. A baixa utilização das possibilidades de pesca negociadas pela UE pode ser explicada por *i*) a diferença entre o número máximo de navios autorizados e o tamanho real da frota ativa da EU no Oceano Índico, provavelmente por causa da pirataria, e *ii*) a falta de interesse por quase metade da frota ativa da EU em obter uma licença de acesso às águas de Moçambique. Esta última explicação sugere que a zona de pesca de Moçambique não é suficientemente atraente para uma parte da frota da EU cuja estratégia de implantação é motivada por razões económicas. Este uso baixo reduz a eficiência da intervenção da UE.

Em termos de eficácia, a avaliação *a posteriori* conclui que o APP consegue em grande parte atingir a os seus objetivos de proteção do interesse da frota de pesca longínqua da UE e de contribuição para a exploração sustentável dos recursos haliêuticos na zona de pesca de Moçambique. O protocolo é menos eficaz no que diz respeito ao apoio ao desenvolvimento sustentável do sector da pesca do Moçambique, principalmente devido à falta de interações econômicas entre a frota da UE e do setor privado na pesca de Moçambique (nenhum emprego para os marinheiros nacionais, não utilização dos portos moçambicanos para operações comerciais). O montante limitado do apoio sectorial (460 000 euros por ano), que representa em media 2% do orçamento anual de investimento do Ministério, apoia linhas orçamentais selecionadas utilizadas pelo Ministério com outras fontes internas e externas de financiamento. O apoio setorial contribui portanto ao alcance de indicadores de desempenho relacionados com o monitoramento do esforço de pesca e das capturas de ambos os sectores artesanal e industrial e com a capacitação dos recursos humanos do Ministério. Embora os resultados dos programas pareçam satisfatórios, a eficácia do programa poderia ser melhorada com uma melhor execução do orçamento que foi limitado à 52% em 2012 e 33% em 2013.

No que diz respeito a economia de protocolo, a avaliação indica que o apoio sectorial é compatível com a capacidade de absorção de Moçambique. Os atrasos no desembolso das parcelas do apoio sectorial podem ser explicados principalmente por dificuldades técnicas de Moçambique em cumprir com as regras financeiras internas da Comissão em termos de programação e controlo da utilização destes fundos.

A avaliação considera que o protocolo é coerente tanto com a PCP como com a política das pescas de Moçambique. Além disso, existem sinergias potenciais entre o APP e as aspirações de Moçambique para desenvolver a sua própria frota nacional. Dois problemas técnicos podem afetar a coerência do APP com as diretrizes da PCP: a não inclusão de uma cláusula sobre direitos humanos no protocolo, mas não parece levantar problemas particulares desde a implementação do atual protocolo, e a presença de arrastões que arvoram pavilhão de um Estado Membro da UE sobre as pescarias de camarão fora do quadro do APP. Considerando a importância dos financiamentos externos, em especial o financiamento no âmbito do 10º FED do programa de desenvolvimento da pesca artesanal e de apoio ao sector aquícola, o apoio sectorial com base no acordo deverá focalizar-se nas atividades específicas da administração e dos serviços relacionados, identificadas por suas potenciais sinergias e complementaridades com as iniciativas já existentes com base em documentos de programação transparentes elaborados pelas autoridades de Moçambique.

Finalmente, a avaliação apresenta dificuldades em termos de aceitabilidade por parte de alguns armadores da UE. Do seu ponto de vista, a inspeção obrigatória de 33% dos navios da UE antes de iniciar suas operações reduz a atratividade económica do acordo, a ponto de que alguns segmentos da frota da UE preferem não usar as possibilidades de pesca negociadas, com impacto sobre a eficiência do Protocolo.

A avaliação *a priori* conclui que a continuação do acordo é um compromisso vantajoso para ambas as partes. Qualquer outra solução teria efeitos negativos sobre ambas as partes. A UE e Moçambique precisam ter um quadro de diálogo setorial, particularmente no contexto das reformas da estratégia da IOTC. Além disso, a UE precisa manter um instrumento legal para controlar as atividades dos navios da UE na zona de pesca de Moçambique, para manter a sua credibilidade enquanto ator principal na implementação de práticas de pesca responsável no Oceano Índico, de acordo com as diretrizes da PCP revisada, incluindo a luta contra a pesca IUU.

A avaliação faz várias recomendações a ser consideradas na perspectiva do fim do atual protocolo e também para a preparação e negociação do próximo.

#### **Sobre o próximo protocolo:**

- Renovar o protocolo por um período de 4 ou 5 anos, a fim de garantir uma certa estabilidade
- Introduzir no próximo protocolo uma cláusula sobre direitos humanos, de acordo com a PCP revisada
- As possibilidades de pesca para o atum podem permanecer ao mesmo nível desde que se espera que seu uso (licenças e capturas) aumente nos próximos anos
- Se for necessário e possível, introduzir no próximo protocolo disposições sobre o acesso dos arrastões de camarão da UE em conformidade com os princípios da PCP revisada.

#### **Sobre questões técnicas relacionadas com os protocolos atuais e futuros:**

- Implementar a cooperação científica entre Moçambique e os Estados-Membros sobre os procedimentos de validação das capturas. Se for necessário, usar a Seção 4 do APP para criar formalmente um grupo de trabalho científico conjunto com um mandato para lidar com metodologias de validação de capturas e sua aplicação a dados pertencentes a várias partes
- Considerar como parte de um futuro apoio sectorial a questão da formação de marinheiros moçambicanos para promover a disponibilidade de uma força de trabalho competitiva disponível para os armadores da EU
- Seguir as iniciativas multilaterais ou apoiadas pela indústria sobre a implementação de um programa de observação regional e garantir que Moçambique seja implicado
- Desenvolver num próximo apoio sectorial um plano para operacionalizar os objetivos de Moçambique para o desenvolvimento de serviços em terra em apoio à indústria do atum, e apoiar os esforços de Moçambique para identificar fontes de financiamento externo para implementar esse plano a médio prazo.



## RESUMEN

Este informe presenta una evaluación a posteriori del Protocolo en curso del Acuerdo de Colaboración en el sector pesquero (APP) entre la Unión Europea y la República de Mozambique. Este protocolo permite a un máximo de 75 buques de pesca atunera de la UE (buques que enarbolan pabellón de un Estado miembro de la UE y registrado en la UE) operar en la zona de pesca de Mozambique, incluyendo 43 cerqueros y 32 palangreros de superficie. El presente informe evalúa el Protocolo en términos de eficacia, eficiencia, coherencia y aceptabilidad. Proporciona también una evaluación anterior destinada a soportar una posible negociación y la aplicación de un nuevo Protocolo. El Protocolo en curso se aplicó temporalmente a partir del 1 de febrero de 2012 y finalizará al 31 de enero de 2015. El pago mínimo por la UE bajo el presente Protocolo asciende a 980 000 EUR al año, y de ellos, 460 000 EUR de conformidad con el apoyo a la aplicación de la política sectorial de Mozambique.

Mozambique se sitúa sobre la costa oriental de la África Austral. Su población superaba ligeramente los 24 millones de habitantes en 2013. El PIB de Mozambique se acerca a 14,2 mil millones USD en 2012, lo que representa una media de 565 USD per cápita (fuente: Banco Mundial), colocando a Mozambique en la categoría de los países de escasa renta. La economía mozambiqueña conoció muy buenos resultados en 2012 con un crecimiento del PIB de 7,4 %. El aumento progresivo de la producción de carbón y la realización de grandes proyectos de infraestructura iban a contribuir a mantener este nivel de crecimiento. Según el Banco Mundial, la aparición de la industria extractiva debería permitir a Mozambique alcanzar el estatuto de país de renta media hacia 2025. Se estima la contribución del sector pesquero y de la acuicultura en un 4 % del PIB. Los ingresos procedentes del sector representan un 0,2% de las rentas nacionales del Estado, y las exportaciones de productos pesqueros alrededor del 2% de las exportaciones totales de bienes y servicios.

Mozambique forma parte de los países ACP. En el marco del 10º FED, que abarca el período 2008-2013, los recursos programables del PIN ascienden a 622 millones de EUR, el 50% de los cuales de apoyo presupuestario. Este presupuesto se aumentó recientemente en 67,2 millones de EUR, de conformidad con la iniciativa MDG, incluido un presupuesto de 14,6 millones de EUR, destinado al programa de desarrollo pesquero y de la acuicultura previsto por el IFAD (programas ProPesca y ProAqua) y ejecutable en los próximos cinco años. El sector pesquero de Mozambique recibió también un apoyo del FED en el marco de las intervenciones ACP FISH II.

El sector pesquero de Mozambique incluye tres segmentos principales: las pesquerías artesanales, semi industriales e industriales. En 2012, la pesca artesanal representaba alrededor de 90 % de las capturas marinas totales, estimadas en 145 000 toneladas. La pesca artesanal proporciona una renta a cerca de 280 000 personas, 43 % de las cuales no disponen de embarcación. El porcentaje de barcos motorizados sigue siendo muy escaso (estimado en un 3% en 2007). Las distintas especies de pescados y crustáceos capturados por los pescadores artesanos se consumen localmente. El segmento semi industrial incluye aproximadamente 80 pequeños barcos implicados principalmente en la pesca nacional de camarones costeros. Las capturas se venden localmente o se exportan. El segmento industrial está formado por buques de gran tamaño dedicados principalmente a las especies de camarones costeros y profundos, sobre todo para la exportación. En 2012, había 80 buques industriales enarbolando el pabellón de Mozambique o de otros países. Los buques extranjeros implicados en la pesca industrial del camarón operan bajo régimen de fletamento con compañías pesqueras nacionales que poseen los derechos de pesca. Al menos hasta el año 2012, cuatro de estos buques enarbolaban pabellón de Portugal. La actividad de estos cuatro buques fuera del marco del APP podría contravenir la cláusula de exclusividad del acuerdo.

En lo que se refiere a la pesca atunera, los intereses nacionales se limitaban en 2012 a buques artesanos y a un único palangrero industrial (activo desde 2012 y debidamente registrado ante la CTOI (Comisión del Atún para el Océano Índico). Las capturas totales de atunes y especies asociadas por la flotilla artesanal mozambiqueña se estiman que fueron de 5 364 toneladas en 2012, de las cuales 41 % son especies neríticas. El palangrero mozambiqueño capturó por su parte 239 toneladas en 2012, de las cuales 59 % eran pez espada. Las flotillas artesanales y el palangrero industrial juntos capturaron en 2012 alrededor de 2 140 toneladas de atún (atún listado, rabil y patudo) más 142 toneladas de pez espada.

Las principales flotillas de atuneros en activo dentro de los límites de la zona de pesca de Mozambique son extranjeras. En los años 2012 y 2013 se concedieron respectivamente 61 y 45 licencias a buques extranjeros. En 2012, estos buques extranjeros se componían de 26 cerqueros, de los cuales 20 cerqueros de la UE y de 35 palangreros, de los cuales 12 palangreros de la UE operando en el marco del APP. En 2013, estos buques extranjeros se componían de 18 cerqueros, de los cuales 12 cerqueros de la UE y de 27 palangreros, de los cuales 9 palangreros de la UE. Las otras flotillas extranjeras activas en la zona durante los dos últimos años eran cerqueros de Seychelles y Corea así como palangreros Japoneses. El número de buques extranjeros despedidos en los años 2012 y 2013 fue escaso comparado con la media de 125 buques extranjeros activos cada año en la zona entre 2005 y 2010. Las capturas de los buques extranjeros variaron entre 2 400 toneladas (2012) y 8 500 toneladas (2008) al año. Los buques atuneros de la UE representaron entre un 25 % (2007) y un 87 % (2009) de las capturas totales de especies altamente migratorias realizadas por las flotillas extranjeras en aguas de Mozambique.

Mozambique indica claramente su deseo de fomentar su propia flotilla nacional. Este deseo se inscribe en los documentos de política sectorial y en un plan de fomento de la flota sujeto al CAOI y que prevé la introducción de 130 buques atuneros en el período 2008-2028, sobre todo en sustitución de los buques atuneros extranjeros despedidos para acceder a la zona de pesca de Mozambique. El reciente pedido de 24 barcos de pesca por parte de Mozambique, 21 de ellos palangreros, a un astillero francés podría constituir la primera etapa de la aplicación de este programa de fomento de la flota atunera, pero no fue posible confirmarlo a lo largo de las conversaciones con las autoridades mozambiqueñas. La legítima ambición de Mozambique de fomentar su propia flotilla atunera se discutió abiertamente con la UE durante las reuniones del Comité mixto establecido en el marco del APP. Mozambique declaró que se trataría de un proceso de larga duración que no afectaría a la continuidad de las relaciones entre las dos partes.

La gestión del sector pesquero incumbe al Ministerio encargado de la Pesca, organizado en varias direcciones, y se garantiza la tutela de varias instituciones públicas especializadas entre otras cosas en la adaptación (ADNAP), la investigación (IIP), el control sanitario (INIP), el desarrollo pesquero artesanal (IDPPE) y la formación (Escuela pesquera). Las directrices políticas de Mozambique relativas al sector pesquero y cuestiones relacionadas, se guían por los objetivos generales enunciados en el Plan nacional de reducción de la pobreza (PARP 2011-2014) y se inscriben en el plan director pesquero (PDP II 2010-2019) y documentos anejos de políticas sectoriales, incluido un plan estratégico para el desarrollo pesquero atunero (PEDPA). Los créditos del Ministerio para lograr los objetivos de desarrollo incluyeron entre 2011 y 2013 un presupuesto de inversión que variaba entre 60 millones de EUR (2011) y 20 millones de EUR (2012 y 2013) constituido por fuentes de financiación nacionales y externas. La actividad de los proveedores de fondos internacionales al sector pesquero de Mozambique es significativa con un importe aprobado de ayuda exterior de 143 millones de USD para el periodo comprendido entre los 3 y 7 próximos años. La mayoría de los proveedores de fondos aplican sus programas de desarrollo mediante el apoyo presupuestario. Otra fuente de ingresos presupuestaria para el Ministerio está constituida por los ingresos procedentes de la venta de licencias pesqueras a empresas nacionales y extranjeras. En 2012, la venta de las licencias supuso alrededor de 2 millones de EUR de los que el 17 % correspondía a la venta de licencias a los atuneros extranjeros, y el 9 % para la flota atunera de la UE de conformidad con el APP.

El instituto científico nacional (IIP) desarrolla varios programas de investigación. Algunos de estos programas se refieren a la puesta en marcha de un sistema de recogida de datos de pesca de la flota artesanal y de la evaluación anual del estado de las reservas de camarones costeros apoyados en campañas anuales de investigación en el mar mediante buques comerciales fletados.

La capacidad de SCV se ha desarrollado considerablemente durante estos últimos años. Mozambique explota un CVP definido como potencial centro regional de SCV para la región de la SADC. El CVP centraliza entre otras cosas las posiciones SLB obligatorias para todo buque industrial nacional o extranjero, y desde 2012, la transmisión electrónica de datos del Diario pesquero establecido para la flota de la UE, en cooperación con la UE en el marco del APP. Mozambique es el primer país en la historia del APP de la UE en recibir por transmisión electrónica los datos de los Diarios pesqueros mediante un ERS. Mozambique prevé extender la obligación de las disposiciones ERS a otros buques extranjeros autorizados a acceder a su zona de pesca. Para el control en el mar de los barcos de pesca, el Ministerio de Pesca dispone de dos patrulleros, que son antiguos buques comerciales, así como una serie de pequeños barcos neumáticos para las patrullas costeras. En términos de política MCS, Mozambique está firmemente comprometido en la lucha contra la pesca INDNR. Se adoptó un

plan de acción en 2008 y desde entonces el país concretó sus compromisos sobre todo empeñándose en la cooperación internacional con otros Estados costeros.

La actividad de la flota atunera de la UE en la zona de pesca de Mozambique es complementaria a sus actividades en el Océano Índico Occidental en alta mar y dentro de la jurisdicción de otros Estados costeros que hayan suscrito un APP con la UE - Seychelles, Madagascar, Comoras, Maurice – o para los cuales la UE podrá negociar un APP (Tanzania, Kenia). La flota de la UE accede a la zona de pesca de Mozambique por estaciones, cuando los recursos son abundantes en el Canal de Mozambique. Durante estos últimos años, las capturas de la UE en la zona de pesca de Mozambique han representado entre un 1 y un 2 % de las capturas totales de la UE en el Océano Índico. Los límites de la zona de pesca de Mozambique aplicables según las disposiciones del APP se revisaron en junio de 2012 en el marco del Comité Mixto, con el fin de incluir las regiones distantes que antes se excluían de la ZEE reivindicada. Esta modificación importante aumenta la superficie de la zona de pesca en un 11 %.

Las capturas de los buques de la UE en la zona de pesca de Mozambique y en el Océano Índico principalmente están formadas por atún listado, rabil y patudo (cerqueros), pez espada y especies comerciales de tiburones (palangreros). El estatus de las principales especies buscadas se evalúa en el marco del Comité científico del CAOI que proporciona dictámenes y, en caso necesario, propone la adopción en el marco multilateral del CAOI de medidas de gestión y conservación, incluidas medidas destinadas a reducir los impactos pesqueros en el medio ambiente. El estado de las reservas no suscita particular preocupación. No obstante, se considera que se está agotando localmente la población de pez espada del suroeste del Océano Índico. Además el estatus de las especies de tiburón comercial (tiburón azul y marrajo) se conoce mal, pero los datos disponibles indican un riesgo importante para el estado de las reservas a nivel de los actuales esfuerzos. Los conocimientos sobre el impacto de los cerqueros en el medio ambiente se dan por buenos con datos sobre las capturas accesorias que muestran una incidencia relativamente escasa (4,7 % de los desembarques, de los cuales el 2,8 % de especies son de atunes comerciales que en adelante deben descargarse de acuerdo con la normativa establecida por la CAOI en 2014). La flota de cerqueros de la UE aplica de manera unilateral medidas de reducción del impacto medioambiental pesquero en DCP a través del programa ISSF controlado por la industria. En cambio, los impactos medioambientales de la pesca al palangre son globalmente menos conocidos, sobre todo debido a las dificultades para obtener información cuantitativa de varios de las partes contratantes de la CAOI que tienen bajo su responsabilidad varios millares de palangreros activos. Según la información disponible, las actividades de la UE en la zona de pesca de Mozambique no generan amenazas potenciales suplementarias sobre las especies objetivo de pesca ni los ecosistemas.

Las disposiciones del protocolo se aplicaron satisfactoriamente para las dos partes. Subsisten no obstante varias cuestiones que requieren explicaciones y acciones de seguimiento. Una de ellas es la situación de los cuatro barcos que enarbolan pabellón de Portugal operativos en la pesca de camarones fuera del ámbito de aplicación del APP. Conviene precisar si esta situación está en conflicto con la cláusula de exclusividad contenida en el APP y en el protocolo, y tomar las medidas oportunas. Un segundo punto que merece ser seguido es la validación y la verificación de las capturas de las naves de la UE por los institutos científicos respetivos. Durante la Comisión Mixta de noviembre 2013, la UE ha designado un coordinador científico dentro de la DG MARE, el cual está encargado de seguir este punto con los Estados Miembros. Un proceso de consultación ha sido iniciado a fines de verificar si existe una metodología validada entre los Estados Miembros para la validación de las capturas. Esto permitirá fortalecer la cooperación entre las partes sobre el establecimiento de las estadísticas de capturas por el beneficio de la calidad de las relaciones bilaterales.

La evaluación a posteriori del protocolo en curso indica que la utilización de las posibilidades pesqueras negociadas por los buques de la UE fue escasa en 2012 (43 % del número máximo de buques) y aún más en 2013 (27 %). Se desprende que las capturas fueron relativamente escasas (1 156 toneladas en 2012) con relación al tonelaje de referencia de 8 000 toneladas utilizado para calcular el importe mínimo que la UE debe pagar para el derecho de acceso. El coste real de las posibilidades pesqueras negociadas fue 6 veces superior al coste evaluado ex ante (612 EUR por tonelada contra 100 EUR por tonelada negociado), con la UE sufragando un 73 % del coste del acceso y a los armadores el 27 % restante. Sin embargo, la inversión de la UE genera un rendimiento positivo con 2,08 EUR de valor añadido generado por cada euro invertido por el poder público. La escasa utilización de las posibilidades pesqueras negociadas por la UE puede explicarse i) por la divergencia entre el número máximo de buques autorizados y el tamaño real de la flota activa en el Océano Índico probablemente debido a la piratería, e ii) por una falta de interés, por parte de cerca de la mitad de la flota

activa, para obtener una licencia para acceder a las aguas de Mozambique. Esta última explicación sugiere que la zona de pesca de Mozambique no sea suficientemente atractiva para una parte de la flota de la UE cuya estrategia de despliegue se justifica por razones económicas. Esta escasa utilización reduce la eficiencia de la intervención de la UE.

En términos de eficacia, la evaluación a posteriori concluye que el APP llega de sobra a lograr sus objetivos de protección del interés de la flota pesquera alejada de la UE y de contribución a la explotación duradera de los recursos pesqueros de la zona de pesca de Mozambique. El protocolo ha sido menos eficaz en lo que se refiere al apoyo al desarrollo del sector pesquero en Mozambique, principalmente debido a la ausencia de interacciones económicas entre la flota de la UE y el sector privado pesquero de Mozambique (no hay empleo de marineros nacionales, no hay utilización de los puertos Mozambiqueños para operaciones comerciales). El importe limitado del apoyo sectorial (460 000 EUR al año), que representa por término medio un 2 % del presupuesto anual de inversión del Ministerio, mantiene líneas presupuestarias seleccionadas, utilizadas por el Ministerio, con otras de fuentes de financiación tanto internas como externas. El apoyo sectorial permite, en particular, alcanzar indicadores de resultados relativos al seguimiento del esfuerzo pesquero y de las capturas de los segmentos artesanales e industriales y con la capacitación de los recursos humanos del Ministerio. Aunque los resultados de los programas parecen satisfactorios, la eficacia del programa habría podido mejorarse con una mejor ejecución del presupuesto que se limitó al 52 % en 2012 y al 33 % en 2013.

En lo que se refiere a la economía del protocolo, la evaluación indica que el apoyo sectorial es compatible con la capacidad de absorción de Mozambique. Los retrasos en el pago de los tramos del apoyo sectorial se explican principalmente por dificultades técnicas de Mozambique para atenerse a las normas financieras internas de la Comisión en términos de programación y seguimiento de la utilización de estos fondos.

La evaluación considera que el protocolo es globalmente coherente a la vez con la PPC y con la política pesquera de Mozambique. Además existen sinergias potenciales entre el APP y las aspiraciones del Mozambique que debe desarrollar su propia flota nacional. Dos problemas técnicos pueden influir sobre la coherencia del APP con las orientaciones de la PPC: la no inclusión de una cláusula sobre los derechos humanos en el protocolo, pero eso no parece plantear problemas particulares, y la presencia de buques que enarbolan pabellón de un Estado miembro de la UE sobre las pesquerías de camarones fuera del marco del APP. Al considerar la importancia de las financiaciones externas, y en particular la financiación en el marco del 10º FED de un programa de desarrollo pesquero artesanal y la acuicultura, el apoyo sectorial bajo el acuerdo deberá concentrarse sobre actividades muy específicas de la administración y servicios conexos, definidas por sus sinergias y complementariedades potenciales con iniciativas existentes sobre la base de los documentos transparentes de programación redactados por Mozambique.

Por fin, la evaluación plantea dificultades en términos de aceptabilidad del protocolo por algunos armadores de la UE. En su opinión, la inspección obligatoria del 33 % de los buques de la UE antes de empezar sus operaciones disminuye el poder de atracción económico del acuerdo, hasta tal punto que algunos segmentos de la flota de la UE prefieran no utilizar las posibilidades pesqueras negociadas, con repercusiones sobre la eficiencia del protocolo.

La evaluación anterior concluye que la continuación del acuerdo es un compromiso de beneficio mutuo para las dos partes. Cualquier otra solución tendría efectos dañinos sobre ambas partes. La UE y Mozambique tienen que disponer de un marco para el diálogo político sectorial, en particular en el contexto de las reformas en profundidad de la estrategia de gestión del CAOI. Además la UE tiene que conservar un instrumento jurídico para controlar las actividades de los buques de la UE en la zona de pesca de Mozambique para mantener su credibilidad como protagonista principal en la aplicación prácticas pesqueras responsable en el Océano Índico de acuerdo con las orientaciones de la PPC revisada, incluida la lucha contra la pesca INDNR.

La evaluación formula varias recomendaciones que deben considerarse en la perspectiva del final del protocolo actual y para la preparación de la negociación del próximo.

#### **Sobre el próximo protocolo:**

- Renovar el protocolo por un período de tiempo prolongado de 4 ó 5 años con el fin de garantizar una determinada estabilidad.

- Introducir en el próximo protocolo una cláusula sobre los derechos humanos de acuerdo con la PPC reformada.
- Las posibilidades pesqueras para los atuneros pueden seguir siendo globalmente idénticas ya que se puede esperar que su utilización (licencias y capturas) aumente durante los próximos años.
- En caso necesario y si es posible, introducir en el próximo protocolo disposiciones para el acceso de los barcos camaroneros de la UE en cumplimiento de los principios de la PPC reformada.

**Sobre las cuestiones técnicas en relación con los protocolos actuales y futuros:**

- Aplicar la cooperación científica entre Mozambique y los Estados miembros sobre los procedimientos de validación de captura. En caso necesario, utilizar el artículo 4 del APP para crear oficialmente un Grupo de Trabajo científico conjunto con mandato de tratar sobre metodologías de validación de las capturas y de su aplicación a los datos en manos de las distintas partes.
- Considerar en el marco de un próximo apoyo sectorial la cuestión de la formación de los marineros Mozambiqueños con el fin de promover la disponibilidad de una mano de obra competitiva ante los armadores de la UE.
- Seguir las iniciativas multilaterales, o impulsadas por la industria, respecto a la aplicación de un programa regional de observadores y garantizar que Mozambique sea parte involucrada.
- Desarrollar en el marco de un próximo apoyo sectorial un plan de funcionamiento de los objetivos de Mozambique hacia el desarrollo de servicios en tierra en apoyo a la industria del atún, y apoyar los esfuerzos de Mozambique para definir fuentes de financiación externas para la ejecución del plan a medio plazo.

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## List of abbreviations

ADB	African Development Bank
ADNAP	Administração Nacional das Pescas
CFP	Common Fisheries Policy (as per Council / EP Regulation (EU) N° 1380/2013)
EAF	Ecosystem Approach of Fisheries
EDF	European Development Fund
EEZ	Exclusive Economic Zone
EPA	Economic Partnership Agreement
ERS	Electronic Reporting System
EU	European Union
FAD	Fish Aggregating Device
FDI	Foreign Direct Investment
FFP	Fundo de Fomento Pesqueiro
FMC	Fisheries Monitoring Center
FPA	Fisheries Partnership Agreement
FTE	Full-Time Equivalent
GDP	Gross Domestic Product
GSP / EBA	Generalised System of Preferences / Everything but Arms
IDPPE	Instituto de Desenvolvimento da Pesca de Pequena Escala
IIP	Instituto de Investigação Pesqueira
INAQUA	Instituto Nacional de Desenvolvimento da Aquacultura
INIP	Instituto Nacional de Inspeção do Pescado
IOTC	Indian Ocean Tuna Commission
JV	Joint Venture
MCS	Monitoring Control and Surveillance
MZN	Mozambican Metical
NIP	National Indicative Programme
PARP	Plano de Acção para Reducção da Pobreza
PDP	Plano Director das Pescas
PS	Purse Seine
RFMO	Regional Fisheries Management Organization
RIP	Regional Indicative Programme
SADC	Southern African Development Community
SFPA	Sustainable Fisheries Partnership Agreement
SLL	Surface Long Liner
STECF	Scientific and Technical and Economic Committee for Fisheries
TAC	Total Allowable Catch
TAE	Total Allowable Effort
VMS	Vessel Monitoring System

Average annual currency exchange rate used in this document (Source: fxpro.com)

1 EUR =	2008	2009	2010	2011	2012	2013
USD	1.47	1.39	1.33	1.39	1.29	1.33
MZN	35.12	38.18	45.26	40.14	36.09	39.72



## Introduction

This evaluation provides a retrospective ex post evaluation for the existing Protocol to the Fisheries Partnership Agreement (FPA) concluded between the EU and the Republic of Mozambique. The evaluation considers the Protocol in terms of its effectiveness, efficiency, coherence, economy and acceptability. It also provides a prospective analysis of impacts and an ex ante evaluation of a future Protocol, in order to provide sufficient data and information for the negotiation and implementation of a new Protocol.

According to the Article 27(4) of the Financial Regulation and Article 21 of its Implementing Rules, Commission Services have to ensure that the spending activities they manage are subject to an ex post and/or ex ante evaluation in order to verify consistency with the set objectives. The Commission requires the evaluation and analysis of impacts to support its focus on improving the quality and coherence of the policy development process.

The framework and scope of the evaluation are defined by the Terms of Reference provided to the consultants and are informed by the Commission communication of 19 July 2004 on FPAs (COM (2002) 637 final) and the Council conclusions of 19 March 2012. The conclusions in particular set out the principles and standards that apply in relation to FPAs, including long term fisheries sustainability, strengthening RFMOs and negotiating bilateral and multilateral agreements.

The current Protocol, initialed by the two parties in June 2011 was provisionally applied from 1<sup>st</sup> February 2012 before fully entering into force on the 13<sup>th</sup> June 2012. It will be valid until the 31<sup>st</sup> January 2015. The protocol subject to this evaluation concerns the access to the Mozambican fishing zone of a maximum of 43 purse seiners and 32 surface longliners flying the flag of an EU Member State for fishing of highly migratory species. This agreement is part of a regional network of FPAs in the Western Indian Ocean providing access to the waters under jurisdiction of Seychelles, Madagascar and Comoros for fishing highly migratory species. A Fisheries Partnership Agreement has been initialed between the EU and Mauritius, but it is not yet implemented pending the completion of the adoption process by the EU. The EU is also considering the opening of discussions with other third countries in the region, notably Kenya and Tanzania, regarding the possibility of concluding Sustainable Fisheries Partnership Agreements.

The total financial contribution considered under the current protocol of agreement with Mozambique includes annual payments by the EU of EUR 980 000 comprising an annual amount for the access to Mozambique fishing zone of EUR 520 000 (53%) for a reference tonnage of 8 000 tonnes and EUR 460 000 (47%) for the support and implementation of Mozambique's sectoral policy.

Before the negotiating a new Protocol with Mozambique, the Commission requires:

- Factual information and an analysis of the general situation in Mozambique and its fishing sector, covering the economic, financial, political, institutional, social and environmental aspects, and likely developments in the short and medium term;
- A cost–benefit analysis, for the European stakeholders, of the conditions of access to Mozambique waters and fishing opportunities allocated to the European distant-water fleet under the current FPA; and

- A cost–benefit analysis of the current FPA for the EU and Mozambique, assessing in particular its impacts on Mozambique, at the political, institutional, economic, financial, social and environmental level.

This final report presents the main findings of the evaluation based on information collected from various sources, including DG MARE, DG DEVCO, the EEAS, Delegation of the EU in Mozambique, EU Member State administrations, and the professional associations representing European Union (EU) shipowners concerned with the utilisation of fishing opportunities.

The final report draws also from the findings of a mission in Mozambique that took place between 10<sup>th</sup> and 15<sup>th</sup> February 2014 during which extensive discussions were held with the Mozambican authorities (see annex 4 for list of persons contacted).

# 1 General information on Mozambique

## 1.1 Geography

The Republic of Mozambique is located on the east coast of Southern Africa. It has an area of 801 537 km<sup>2</sup>. Mozambique is predominantly a flat, coastal plain, rising in the centre and north to a plateau of more than 500 metres and mountains of up to 2 600 metres in height. Rainfall in the south is scarce, outside of a narrow coastal strip, and the interior is generally a dry, drought-prone savannah in which animal husbandry is the main economic activity. Rainfall is higher and less erratic in the central and northern regions, which have a higher population density and are the main agricultural regions. The country is crossed by a number of large rivers, including the Limpopo, Lurio, Rovuma, Save and Zambezi.



Figure 1: Map showing the location of Mozambique. Source: Google Maps

The total population of Mozambique was estimated to be slightly in excess of 24 million (2013 estimate, source CIA Fact Book, 2013 ed.) with an average annual growth rate of 2%, with 31% of the population concentrating in urban areas.

Mozambique became independent from Portugal on 25 June 1975. Mozambique is a multi-party democracy under the 1990 constitution. The executive branch comprises a President, Prime Minister, and Council of Ministers. There is a National Assembly and municipal assemblies. The judiciary comprises a Supreme Court and provincial, district, and municipal courts.

The next general elections (presidential and legislative) are scheduled to take place in October 2014.

## 1.2 Macro-economic indicators

The current GDP of Mozambique is estimated to be close to USD 14.2 billion in 2012 with an average GDP per capita of USD 565 (source : World Bank), placing Mozambique in the category of Low Income economies. The boost in coal production from the first mega coal mining projects that came online in 2011, coupled with strong performance in the financial services sector, transport and communications, and construction, helped to push GDP real growth rate to 7.2% in 2011. The continuation of high foreign direct investment (FDI) inflows, mostly in extractive industries, together with strong agricultural growth and infrastructure investment will drive growth to 7.5% and 7.9% in 2012 and 2013 according to ADB forecasts. The contribution of the agriculture, forestry, fishing & hunting sectors to GDP was estimated in 2010 to be approximately 31% (source: ADB), with contribution of the fisheries sector alone close to 4% (FAO 2006 estimate).

Total domestic State income from tax and non-tax revenues was equivalent to EUR 1.36 billion in 2010 and is expected to grow to the equivalent of EUR 2.63 billion in 2012 (source: World Bank). State income from the fisheries sector (licenses, other fees) amounts to between EUR million 3.5 and EUR million 4 per year, *i.e.* 0.2% of State income<sup>1</sup>. The main pillars of Mozambique's fiscal policy continue to be the strengthening of revenue collection, reducing transfers, and supporting disinflation. The 2011 budget projected a 6.5% fiscal deficit to accommodate the government's medium-term growth and poverty reduction objectives. The excessive burden of fuel and other emergency subsidies introduced in 2010 to calm social unrest, led to a budgetary revision with a partial phasing out of these subsidies.

According to ADB, the export base remains narrow, with more than half of exports being aluminum. Only 15 products registered annual exports higher than USD 1 million, traditionally including cashew, shrimp, copra, sugar and cotton. Coal exports, which started in 2011, are expected to overtake aluminum as the main export. The prospect for a liquefied natural gas (LNG) plant to be ready in 2018 could make natural gas Mozambique's main export product. Mozambique still imports a considerable volume of machinery, vehicles, fuel and consumer durables, mainly from South Africa (35%), Asia (26%) and Europe (24%). The country's exports are mostly directed to Europe (54%). The volume of intraregional trade remains low at 19% of GDP, awaiting the consolidation of SADC free trade tariffs, which were initiated in 2008. Bilateral agreements were signed with Malawi and Zimbabwe to enforce the rules of origin based on a product's value. The country enjoys preferential access to EU markets under the GSP / EBA trade regime and prescriptions of Council Regulation (EC) 1528/2007. Mozambique signed in 2009 the European Union/SADC interim Economic Partnership Agreement, but has not ratified it as yet.

In 2011, total exports of fisheries products from Mozambique amounted to about EUR million 56 representing 2% of total exports of goods and services from the country. The EU is the main destination of Mozambican exports of fisheries products (close to 80% in 2011).

*Table 1: External trade of Mozambique. Source: World Bank*

(in EUR billion)	2010	2011	2012
Exports of goods and services	2.2	2.8	3.9
Imports of goods and services	3.4	5.5	7.9
Balance	-1.2	-2.7	-4.6

<sup>1</sup> The revenues for the FPA with the EU ( $\approx$  EUR 1 million / year) account for less than 0.1% of Mozambique domestic income

### 1.3 Relationships with the European Union

Mozambique is an ACP country and receives development aid from the EU disbursed from the European Development Fund.

The National Indicative Programme sets out the development cooperation strategy under the 10<sup>th</sup> EDF and was adopted by the parties for the period 2008 to 2013<sup>2</sup>. The programmable resources of the NIP amounted to EUR 622 million. The strategy chosen for EDF cooperation in Mozambique is to help to achieve the twofold objectives of PARP (Action Plan for The Reduction of Poverty) 2011-2014 *i.e.* to decrease the incidence of poverty and to promote fast, sustainable and broad-based growth.

The EDF envelope covers long-term programmable development operations under the strategy, and in particular provides for:

- a) General budget support: 46%-50% of the total amount;
- b) Transport infrastructure and regional economic integration : around 21% of the total, in the form of sector budget support and projects;
- c) Agriculture, rural development and regional economic integration: 12%-15% of the total, in the form of sector budget support and programmes;
- d) Other programmes: 14% of the total, in the form of sector budget support, SWAP programmes and projects, plus 3% for participation in the PALOP countries initiatives.

In 2012, the NIP envelope has been increased by EUR 67.3 million to support the MDG initiative for Mozambique. Out of this additional amount, EUR 26 million have been allocated to IFAD in 2013 to top up ongoing programmes on hunger and poverty reduction over a 5 year period. The financial support to IFAD includes EUR 12.39 million to support the PROPESCA programme on development of artisanal fisheries and EUR 2.250 million to support the PROAQUA programme on development of artisanal aquaculture, thus a total of EUR 14.64 million from the EDF supports these IFAD managed development programmes.

Mozambique is also a beneficiary of interventions supported under the 10<sup>th</sup> EDF Regional Indicative Programme (2008-2013) for Southern African Region represented by SADC. The priorities are set out in the Regional Strategy Paper and the Regional Indicative Programme, with an allocated financial envelope of EUR 116 million. The indicative allocation has been distributed as follows:

- Focal Area 1: Regional Economic Integration: approximately 80% of the total allocation;
- Focal Area 2: Regional Political Cooperation: approximately 15% of the total allocation;
- Other programmes: approximately 5% of the total allocation.

The largest focal sector - in financial terms - is Regional Economic Integration. This provides broad-based support to deepen SADC economic integration and trade policies, including investment promotion, regional infrastructure and food security. This also provides the EDF contribution to the EU package on Aid for Trade, in particular for the EU-SADC EPA.

EDF also supports the Mozambique fishing sector through the ACP-FISH II programme. Details of relevant projects are presented in annex 2 to this report.

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<sup>2</sup> Republic of Mozambique and the European Community Country Strategy Paper and National Indicative Programme for the period 2008 - 2013

Concerning EU instruments having a potential impact on trade of fisheries products with Mozambique, the current situation is that:

- Mozambique has signed the interim SADC EPA with the EU but has not ratified it as yet. However Mozambique can benefit from tariff exemptions on originating products on the basis of its Least Developed Country status (GSP / EBA).
- Mozambique is in Annex 1 of Decision 2006/766/EC as regards the list of third countries and territories from which imports of fishery products for human consumption are permitted (Council Regulation (EC) N°850/2004). The latest FVO inspection carried out between 22<sup>nd</sup> April 2013 and 3<sup>rd</sup> May 2013 identified some shortcomings in the official control system that will be addressed by Mozambique according to the action plan submitted to the European Commission on 31<sup>st</sup> May 2013. As shown in the following figures, the number of rapid alerts registered in the DG SANCO database for fisheries and aquaculture products originating from Mozambique has risen over the last three years. Most alerts relate to ruptures of the cold chain for shrimp products.

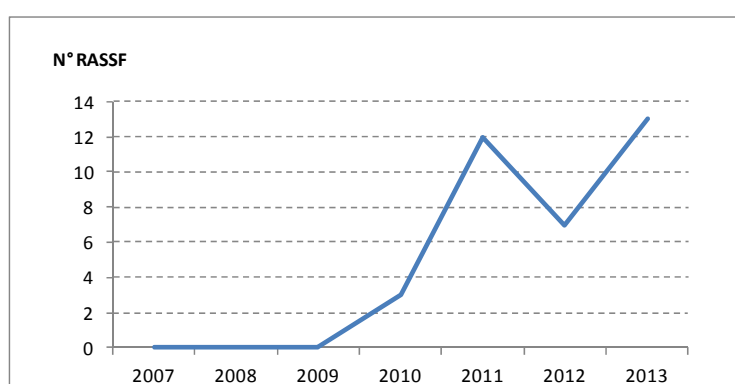


Figure 2: Number of records in the RASSF database for fisheries and aquaculture products originating from Mozambique. Source: RASSF portal

- Mozambique has notified to the Commission its competent authorities in accordance with Article 20 of the IUU Regulation (Council Regulation (EC) N°1005/2008) with effect as from 1<sup>st</sup> January 2010. There is no public indication suggesting that the catch certification scheme implemented by Mozambique, which concerns primarily export of shrimps, is not functioning up to the standards required by the IUU Council Regulation. Mozambique reports having received assistance from the EU in 2012 for support in the implementation the regulation<sup>3</sup>.

## 2 Analysis of the fishing sector and fishing policy in Mozambique

### 2.1 Analysis of the fishing activities in Mozambique

#### 2.1.1 Maritime zone and boundaries

The fisheries of Mozambique are conducted in two distinct zones; the coastal zones in which all artisanal fisheries are conducted, along with some important industrial and semi-industrial fisheries for shrimp and other mainly demersal resources. Secondly, Mozambique waters also host important

<sup>3</sup> Source: ADNAP Annual Report 2012. The mission in question is probably a short term technical assistance deployed under the EDF programme ref. EuropeAid/129609/C/SER/Multi

fisheries for highly migratory fish species such as tunas and swordfishes, which are conducted in deeper waters to the extent of the EEZ. These fisheries are mostly exploited by foreign fishing operators.

The EEZ of Mozambique borders with 5 countries. The countries are: Tanzania, Comoros, Madagascar, France and South Africa. Mozambique signed a Maritime Boundary agreement with Tanzania in 1988 in Maputo which entered into force in July 1993. However, the delimitation of Mozambique's boundary with Tanzania is not complete. In addition there are yet unresolved territorial claims between Mozambique and France concerning three of the five islands in the Mozambique Channel under French administration (Bassas da India, Europa, and Juan de Nova).

The lack of agreed sovereignty over these possessions prevents the establishment of the definitive Economic Exclusive Zone (EEZ) of Mozambique. As a result there are no agreed maritime borders established. The basis for the definition of maritime borders can be based on the UN Convention on the Law of the Sea (UNCLOS) but the land territorial disputes will need to be resolved first.

The Protocol of the Agreement defines a limit (red line in the figure below) which was supposed to represent the external boundary of the fishing zone in which FPA provisions apply. However, following consultations between the two Parties in June 2012 it was agreed that the limits should be revised to include areas recognised as falling under Mozambique sovereignty. These limits should be used by the FMC for fisheries law enforcement purposes for control of the EU fishing fleets operating under the FPA.

Before the revision of the limits of the fishing zone in 2012, the area covered was approximately 517 000 km<sup>2</sup>. The revised limits extend the area of the fishing zone to about 572 000 km<sup>2</sup>, an 11% increase (Consultant's calculations).

By comparison, the area covered by the EEZ of Madagascar is about 1.2 million km<sup>2</sup>, and the EEZ of Seychelles about 1.3 million km<sup>2</sup><sup>4</sup>.

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<sup>4</sup> Source: Sea Around Us Project <http://www.seaaroundus.org/>

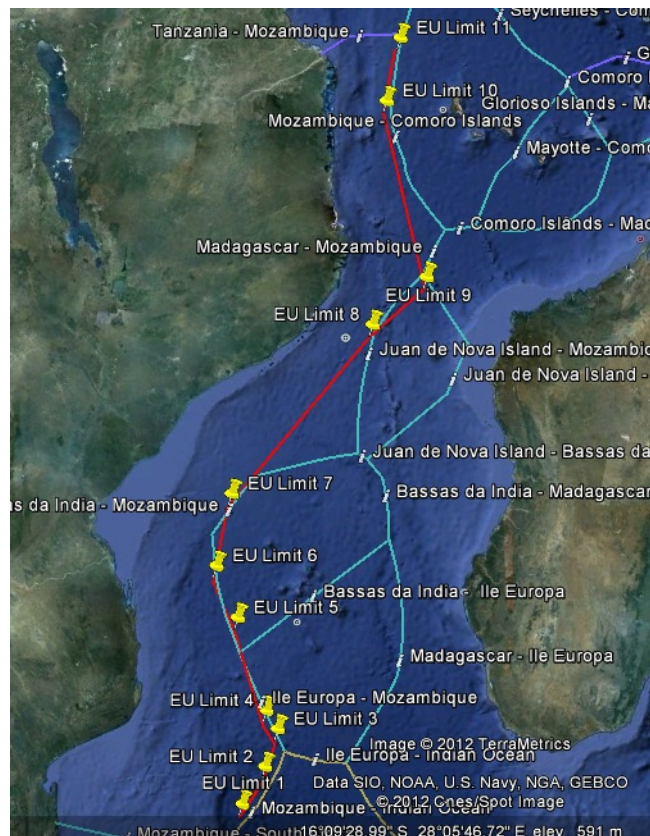


Figure 3: Limits of the Mozambique fishing zone applicable to the activities of EU vessels under the fishing agreement. Red line: external boundary agreed in the protocol of agreement. Adjacent blue line: revised external boundary. Source: Ministry of Fisheries

### 2.1.2 Fisheries resources

Marine fish resources include important stocks of shallow-water shrimp predominantly white shrimp (*Penaeus indicus*) and brown shrimp (*Metapenaeus monoceros*), while other species are caught in much lesser quantities (*P. japonicus*, *P. latisulcatus*, and *P. monodon*). Deep-water (>200m) shrimp resources are also found, the main species are *Haliporoides triarthrus vniroi* (gamba rosa) and *Aristaeomorpha foliacea* (gamba vermelha), as well as other species. There are also commercially important stocks of crayfish, crab and deep-water lobster.

Small pelagic resources include anchovy (*Engraulidae*, *Stylephorus spp*), barracuda (*Sphyraena spp*), driftfish (*Ariomma spp*), jack mackerels (*Alepes spp*, *Carangoides spp*, *Caranx spp*), mackerels (*Rastrelliger spp*, *Scomber spp*), ponyfish (*Leiognatidae*), sardines (*Sardinella spp*, *Dussumieria spp*, *Etrumeus*, *Hilsa keele*), and scads (*Decapterus spp*, *Trachurus spp*). These small pelagic fish are mainly confined to the shelf area (<200m).

On the continental shelf, the dominant demersal species are snappers (*Lutjanidae*), goatfish (*Mullidae*), threadfins (*Nemipteridae*), grunts (*Pomadasyidae*), croakers (*Sciaenidae*), and lizard fish (*Synodontidae*). These coastal species are also the dominant species caught by artisanal fisheries such as small pelagics, demersal fishes and sharks, and occasionally billfish.

There is also a wide variety of demersal fishes, sharks and rays in deeper waters, but the information concerning species abundance is limited.

In terms of the larger pelagic oceanic resources found in the EEZ, the more abundant tuna species are skipjack (*Katsuwonus pelamis*), yellowfin (*Thunnus albacares*), bigeye (*Thunnus obesus*), and



albacore tuna (*Thunnus alalunga*). Dominant billfish species appear to be swordfish (*Xiphias gladius*), black marlin (*Makaira indica*), and Indo-Pacific blue marlin (*Makaira mazara*). Other tuna related species that are known to be common are Spanish mackerel (*Scomberomorus commerson*), kawakawa (*Euthynnus affinis*), bonito (*Sarda orientalis*), wahoo (*Acanthocybium solandri*), and other seerfish (*Scomberomorus spp*) as well as other associated species such as rainbow runner (*E. bipinnulata*) and dolphinfish (*C. hippurus*). Oceanic resources also include pelagic shark species such as blue shark (*Prionace glauca*) and shortfin mako (*Isurus oxyrinchus*), which are commercially important species. Other shark species known to be common are thresher shark (*Alopias vulpinus*), and various requiem sharks (*Carcharhinus spp*).

### 2.1.3 Fish stocks

The Fisheries Master Plan 2010-2019<sup>5</sup> presents a maximum potential of catches in the range of 218,000 to 332,000 tonnes (lower than the 390,000 tonne estimate in the previous 1995 Master Plan). Some stocks are considered to be subject to excessive levels of exploitation (inshore shrimp, lobsters, crabs and demersal stocks on the continental shelf) whilst others are subject to lower levels of exploitation (deep-water shrimp and crabs, small pelagic fish). Formal stock assessment data is rather limited to a number of species, although the suggestion (and basis of the current Fisheries Master Plan) is that there is still scope for developing fisheries production in Mozambique.

According to the 2005-2012 Statistical Report<sup>6</sup>, the current estimates of annual marine production increased from 2010 to 2012 from 117,700 tonnes to 145,600 tonnes, which suggests that the potential envisaged under the Fisheries Master Plan is still not completely exploited. Among the marine catch production, the part of artisanal fisheries is relatively stable at about 90%.

In the same period, the fresh water production has been estimated between 45,000 and 67,000 tonnes, mainly from artisanal and semi-industrial fleets that target the Kapenta fish in large lakes.

### 2.1.4 The catching sector

There are three main segments of the Mozambique fishery sector; artisanal, semi-industrial and industrial fisheries. Of the current production (2012) about 90% comes from artisanal fisheries, 2% from semi-industrial and 7% from industrial fisheries.

Table 2 shows total production from Mozambique capture fisheries between 2010 and 2012. In 2012, total catches (excluding tuna) was estimated at about 212,000 tonnes, of which 145,000 tonnes (68%) are from marine and 67,000 tonnes (32%) from inland fisheries. The total catches (inland and marine) have increased significantly during the last 5 years, from 115,000 tonnes in 2007 to around 212,000 tonnes in 2012. Artisanal production of maritime fishery products is estimated around 133,000 tonnes (91%) of this total, whilst industrial and semi-industrial represented less than 12,000 tonnes. Catches of coastal shrimps by semi-industrial and industrial trawlers halved between 2011 and 2012.

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<sup>5</sup> Plano Director das Pescas 2010-2019, Ministerio das Pescas, Rep. de Moçambique, Março de 2010

<sup>6</sup> Boletim Estatístico 2005-2012, Ministério das Pescas, 2013

Table 2: Estimated fish production (tonnes) in Mozambique (2010-2012). Source: Ministry of Fisheries, 2013

Tonnes	2010	2011	2012
<b>Commercial fisheries</b>	<b>21 361</b>	<b>27 128</b>	<b>26 619</b>
Lobster	98	204	192
Crabs	208	82	50
Gamba	1 261	1 288	1 899
Fishes	1 528	1 238	6 066
Shrimps	5 675	4 622	2 518
Deepwater lobster	94	145	130
Cephalopodes	89	103	115
Kapenta	11 518	18 330	13 707
Sharks	3	1	54
By-catch	887	1 115	1 723
Tunas and other large pelagic fishes	0	0	165
<b>Artisanal fisheries</b>	<b>141 194</b>	<b>166 428</b>	<b>186 214</b>
Lobster	166	211	225
Crabs	734	1 270	1 350
Marine fishes	86 828	99 452	115 269
Fresh water fishes	33 318	55 094	53 515
Shrimps	4 320	1 858	3 360
<i>Acetes</i>	2 458	2 316	2 016
Cephalopodes	1 234	1 265	2 035
Sharks	369	431	489
Others	2 920	1 131	4 816
By-catch	8 847	3 400	3 139
<b>Total catches</b>	<b>162 555</b>	<b>193 556</b>	<b>212 833</b>

The following sections review the main fisheries in the maritime waters of Mozambique by segment (artisanal, semi-industrial, industrial). The Mozambique tuna fisheries are presented separately.

### Artisanal fisheries

The 2007 census on marine artisanal fishing estimated that the number of fishermen and others who depend directly or indirectly on artisanal fishing was in the region of 334,000 distributed across 1,217 fishing centres. Of these, 280,000 are artisanal fishermen, of whom 41% were using boats of various types, some 43% did not own or use any kind of boat. In addition to these fishermen, there are processors, artisanal naval carpenters, net-makers, naval mechanics and sellers of fishing gear and equipment. The artisanal fishermen use about 32,400 items of fishing gear, of which 18% were beach trawl nets, 23% hand lines and 42% surface gill nets. About 39,400 boats were used in artisanal fishing activities, of which about 77% were canoes made from tree trunks, 9% Moma type canoes<sup>7</sup>, 6% rafts and 6% skiffs. The percentage of motorised craft had not increased significantly since the previous census in 2002 (3%). About 1,100 community based organisations were operating, covering 315 fishermen's associations, 353 savings and rotating credit groups and 415 other forms of community organisation. In 2012, the Fisheries Ministry has provided licenses for 11 400 fishing gears, in maritime provinces only, among a total estimated 32 400 fishing gears (2007 census).

As a result of the implementation of many integrated artisanal fisheries development programmes, almost 2,500 economic and social bodies have established links to fishermen's communities, but these communities have significant shortcomings in terms of their social and economic capacity. Artisanal fishing remains of great importance in the country's food security, not only in the coastal districts, where two thirds of the country's population lives, but also in the interior regions, where, fresh, dried or smoked fish makes an important contribution to the diet.

<sup>7</sup> Open deck canoes typical from the Moma region

### **Semi-industrial fisheries**

In 2012 a fleet of about 80 vessels was involved in marine semi-industrial fisheries (defined as larger vessels without onboard freezing capacity). These operated in the shallow water shrimp fisheries of Sofala bank, Maputo Bay, Limpopo River and Angoche region (35 vessels) and also undertook line fishing on coastal rocky beds (41 vessels).

The southern Sofala shrimp trawling fishery occupies the area demarcated by the parallels of Machaze (19° 47' South), north of Beira, and that of the mouth of the Save river (21° South) and the meridian 35° 11' East, where the operation of industrial vessels is forbidden. The fishery is subject to a closed period of 2 months, from 1<sup>st</sup> January to 1<sup>st</sup> March<sup>8</sup>. Its target species are penaeid shrimp. The catches of this fishery are all processed on shore, and the end product is both sold locally and exported (to EU and South Africa). The significant by-catch is retained and later processed in salt or by drying in artisanal fishing centres along the coast, notably at Chiloane.

Prawn trawling fisheries take place in the Maputo Bay and Limpopo River estuaries up to a distance of 20 nautical miles from the coast. They are both subject to closed periods identical to that for the southern Sofala fishery and the areas are banned to industrial trawlers. The fisheries are subject to control over the fishing effort, not only through the number of boats but also through their technical characteristics and the fishing regime. By-catch is sold fresh in Maputo city. The Angoche shrimp trawling fishery extends between Angoche and the mouth of the Ligonha River. Apart from the closed season, no other specific management measure has been defined.

The line fishery extends along the entire coastal zone from parallel 21° to the far south, between the depths of 20 and 150 metres up to a distance of 30 nautical miles from the coast. The fishery is subject to a limitation on fishing effort with a maximum of 25 boats, but this maximum has never been reached in recent years. Its target species are essentially the same demersal fish as the industrial fishery. The catches have not exceeded 500 tonnes, and the catch is destined for export, regional or local markets.

### **Industrial fisheries**

In 2012, the industrial fishing fleet had 80 vessels distributed among the shrimp trawling fisheries on the Sofala Bank, deep water shrimp trawling on the continental slope, and line fishing on rocky beds, involving an estimated number of at least 4,500 fishermen.

The Sofala Bank shrimp trawling industrial fishery comprised of 67 vessels in 2012. The vessels target Penaeid shrimps, and there is a high bycatch (70-80%) and significant discarding of low value demersal species. Annual shrimp catches were around 5,000 tonnes on average, during the 2007-2011 period, but dramatically decreased in 2012 to less than 3,000 tonnes (catch per unit of effort decreased from 700 to 400 kg/day). Shrimps are packed and frozen on board, and mostly exported, mainly to Europe and Japan, with an annual value of around EUR 40-50 million. Two large international joint ventures with the Government of Mozambique as a shareholder dominate this shrimp fishery. One is a JV between the Government of Mozambique (51%) and the Maruha Corporation of Japan (49%). The other one is JV involving the Government of Mozambique and a Spanish fishing company. The fishery is subject to a closed period, initially of 2 months (January and February), and since 2011 for five months (from November to March). New management measures have been proposed by IIP in 2012 and are included in the Management Plan 2013-2017, such as implementation of TAE system to better regulate the fishing effort and an extension of the fishing

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<sup>8</sup> Diploma Ministerial n°184/06 de Dezembro 2006

closure from October to April (5 ½ months). The closure is a management measure aiming at regulating the fishing effort deployed on the stock.

The deep water shrimp (gamba) trawling fishery takes place on the continental slope at depths up to 600m. Up to 16 vessels were involved in 2012 (but most on a seasonal basis), but the exploitation is irregular due to the high cost of trawling at great depth and the financial sensitivity to variable catch rates. Catches were around 1 500 tonnes over a recent period, below the estimated potential which is estimated by IIP at 1 720 tonnes per year. In 2012, catches exceeded this potential with 1 850 tonnes landed according to ADNAP. The catches are processed and frozen on board, with some secondary processing on shore, and the product is exported to Europe and South Africa. Four trawlers flagged to Mozambique were licensed to fish gamba in Angola in 2012

The industrial line fishery extends along the entire coastal zone between the depths of 25 and 200 metres. Its target species are the demersal fish that inhabit rocky beds, notably bream, snappers, kingfish and Carangidae. Four domestic vessels were involved in 2012, and catches have been around 300 tonnes in recent years. The fish undergo an initial gutting and icing onboard and most are then export in fresh form to South Africa, with some to Europe, with lower value products sold on the local market.

The deepwater lobster industrial fishery extends along the continental slope adjacent to the Boa Paz Bank, between Vilanculo in the south and Inhaca in the north, in depths of between 200 and 500 metres. In the second half of the 1990s, the fishery was abandoned due to over fishing, and the resource is still recovering.

The fishing fleet licensed in the Mozambique fishing zone includes vessels flying the National flag and foreign vessels (Table 3). For fisheries other than tuna fisheries, foreign vessels operate through charter arrangements with national fishing companies, which are principally joint ventures associating Mozambican interests and foreign interests (incl. Spain).

The following Table 3 presents the number of vessels licensed by flag on the main fisheries, separating the vessels licensed on non-tuna fisheries (mainly coastal and deep-sea shrimps). The data are based on the list of licenses as of October 2012 published by the Ministry of Fisheries.

*Table 3: Number of licenses by flag on the different non-tuna fisheries in the fishing zone of Mozambique. Source: ADNAP, October 2012*

Licenses 2012	Flag	Nb of vessels
Coastal shrimps (67)	Mozambique	61
	China	4
	Portugal / Mozambique (?*)	1
	Portugal	1
Deep Sea Gamba (14)	Mozambique	6
	Portugal / Mozambique (?*)	1
	Portugal	2
	Russia	2
	South Africa	3
Fish / line (7)	Mozambique	6
	Comoros	1
Fish / gillnet (2)	Mozambique	2
Deep Lobster (2)	Mozambique	2

\*Reported as in the table by ADNAP

The table indicates that Mozambique flagged vessels are the most represented in the coastal shrimp fishery. The data identifies the presence of foreign vessels, including one Portuguese flagged trawler and one vessel identified in the Ministry table as being under Mozambique or Portuguese flag. On

the deep-sea shrimp fishery license list (which may also include vessels on the coastal license list), foreign flagged vessels dominate, with 2 vessels reported as flying the flag of Portugal and one as being under Mozambique or Portuguese flag. A cross check with the fleet registry of Portugal indicates that the vessels identified as flagged to Portugal or Mozambique are included in the current active fleet of Portugal. In total, 4 trawlers registered in the Portuguese fishing fleet are licensed to fish in the Mozambique fishing zone. This may be in contravention of the exclusivity clause contained in the fishing agreement.

## **Conservation and management of the shrimp fisheries**

### ***Coastal shrimp fishery***

The fishing rights for coastal shrimps are allocated to fishing companies registered in Mozambique on the basis of a percentage of a TAC approved by Ministerial decision.

The TAC is determined each year on the basis of recommendations from the scientific institute (IIP). To this end, IIP analyses fishery data (catches, effort, catch composition by species and size) and undertakes a scientific survey to estimate biomass and recruitment during the closed season (usually February - March) using a chartered commercial vessel. The results of the assessment are published in a scientific report which is made public.

Once the TAC is approved by Ministerial decision, the fishing companies adapt their fishing capacities to catch their allocated fishing opportunities using National and/or chartered vessels. Quotas can be exchanged / traded between fishing companies. Quota uptake is monitored every ten days.

The latest evaluations indicate that the coastal shrimps stocks are severely depleted. The dramatic drop in biomass is explained by abnormal environmental conditions, in particular, in 2012 (occurrence of two typhoons on the Sofala bank) compounded by a situation of overcapacity in the fisheries. The TAC which was of 5 000 tonnes in 2012 has been reduced to 4 000 in 2013, and will be probably decreased to 2 000 tonnes in 2014. Coincidence or not, the shrimp fisheries of Kenya and of Madagascar are also going through a period of low abundance of target species.

### ***Deep-sea shrimp fishery***

The deep-sea shrimp fishery is managed on an empirical basis. Based on catch and effort data, a TAC of 1 720 tonnes per year has been estimated in the past<sup>9</sup> and carried over since. These stocks are not evaluated through scientific surveys. Fishing vessels are licensed to exploit these stocks on the basis of an empirical perception of a balance between fishing capacities and stock potential. However, in 2012, catches of deep sea shrimps have exceeded the estimated potential. The main explanation is that the larger trawlers licensed to exploit the coastal shrimps tend to report their fishing effort on deep sea shrimps. Additional conservation measures are being considered.

## **Tuna fisheries**

Exploitation of tuna and related species in Mozambique concerns National and foreign interests.

The domestic tuna fishery currently involves the artisanal fleet and one industrial longliner authorised to fish in the IOTC zone. The catches of tunas and related species by the artisanal fleet

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<sup>9</sup> Year not known by consultants

stand at relatively low levels. According to estimates reported by IIP to IOTC<sup>10</sup>, 5 364 tonnes of tunas have been landed by the artisanal segment in 2012, including 41% Spanish mackerel (*Scomberomorus commerson*) and 38% bigeye. There is no possible comparison with past landings as the statistical system for collecting artisanal catch data has been implemented only recently. Catches of the industrial longliner flagged to Mozambique (the Wiron VI, 33 m, 444 GT, duly registered in IOTC list of authorised vessels) are reported in the same submission to have reached 239 tonnes in 2012, including 59% swordfish. In total, National catches of major IOTC species include about 2 140 tonnes of major tuna species (skipjack, yellowfin and bigeye) plus 142 tonnes of swordfish in 2012.

Concerning the foreign vessels licensed to fish for tuna and related species in the Mozambique fishing zone, 6 purse seiners flagged to Seychelles obtained a fishing license in 2012 and 2013 in addition to EU purse seiners operating under the fishing agreement. In 2013, 2 purse seiners flagged to Korea have also been licensed. In the longline segment, the foreign fleet is dominated by vessels flagged to Japan (about 20 units), with 2-3 vessels flagged to Korea in addition to the EU fleet.

*Table 4: Number of foreign vessels licensed by flag on the different tuna fisheries in the fishing zone of Mozambique in 2012 and 2013. Source: ADNAP for non-EU vessels, DG MARE for EU vessels.*

Flag	Purse Seine		Long Line		Total	
	2012	2013	2012	2013	2012	2013
EU	20	11	12	9	32	20
Korea		2	2	1	2	3
Japan			21	17	21	17
Seychelles	6	6			6	6
Total	26	18	35	27	61	45

Globally, 61 (2012) and 45 (2013) foreign vessels have been licensed to exploited tuna and related species in the Mozambique fishing zone. Compared to the recent past, the numbers are fairly low. According to information submitted by Mozambique to IOTC, , the number of fishing licences issued to purse seine vessels operating in Mozambique waters ranges from 34 to 47 vessels over the 2005-2010 period. For the longline vessels, the number of fishing licence ranges from 37 to 110 over the same period. The number of licence for the longline fleet has been decreasing since 2008. In total, between 71 (2012) and 161 (2007) foreign vessels have been operating in the Mozambique fishing zone under access agreements. Over the 2005-2010 period, this represents an average of 125 foreign tuna vessels (44 purse seiners, 81 longliners).

<sup>10</sup> Mozambique National report to Scientific Committee of IOTC for 2013 ref IOTC–2013–SC16–NR19

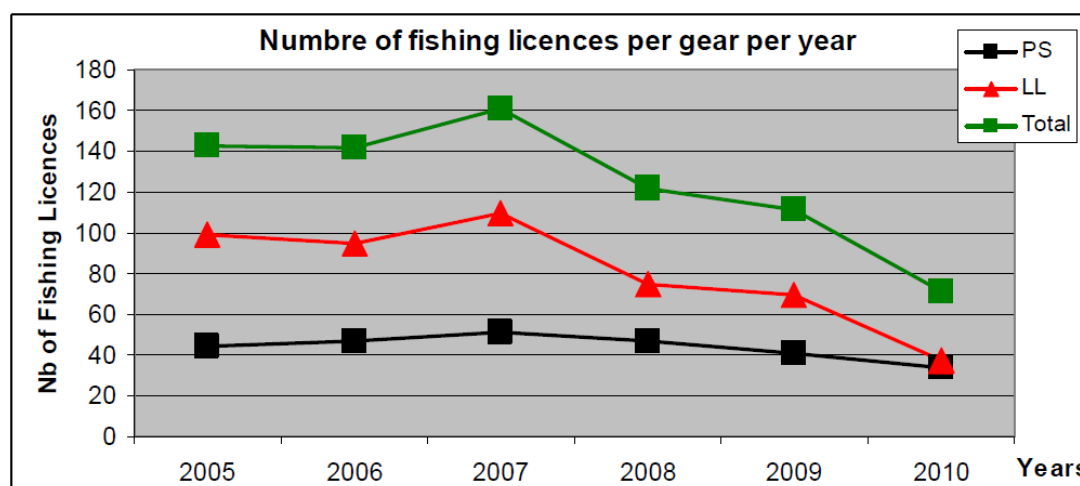


Figure 4: Number of fishing licences issued to foreign tuna fishing vessels for the Mozambican EEZ from 2005 to 2010 (incl. EU vessels). Source : Mozambique submission to IOTC ref IOTC-2011-S15-CoC03-Add2

The detailed breakdown of the foreign tuna fleet by flag is not available. The Mozambique report to IOTC mentions the licensing of various flag vessels, including Indonesia, Philippines or Taiwan up to 2007.

According to a Ministry report, catches of tuna and related species by foreign vessels, including EU tuna vessels, in the Mozambique fishing zone have varied between 2 436 tonnes (2012) and 8 509 tonnes (2008) as shown in the next Table 5.

Table 5: Total catches of tuna and related species by foreign tuna vessels in the Mozambique fishing zone, and percentage of catches attributable to EU vessels. Source : Boletim estatístico 2005-2012, Ministerio das Pescas, 2013 for total foreign catches and DG MARE for EU catches.

	2007	2008	2009	2010	2011	2012
Total foreign fleet (t)	5 591	8 509	4 419	5 384	6 556	2 436
Total EU fleet (t)	1 373	3 424	3 840	4 261	2 330	1 156
% EU fleet	25%	40%	87%	79%	36%	47%

The % catches of tuna and related species by EU tuna vessels relative to total foreign catches varies between 25% (2007) and 87% (2009). The catches taken into consideration for the EU fleet are those within the limits of the fishing zone defined by the FPA, whereas catches by other foreign fleet are those within the limits of the EEZ as claimed by Mozambique (see Figure 3 page 9).

The level of catches reported for the foreign fleet is not totally coherent with the number of foreign vessels licensed (Table 4 and Figure 4 ). Given the relatively high number of vessels licensed in particular during the 2007-2009 period, higher catches could be expected. This suggests that there could be a potential problem of reporting of catches by foreign vessels, all nationalities included. An estimate of the catches of foreign fleets in the Mozambique fishing zone using IOTC catch and effort data is not possible, as the rather coarse geo-referencing of catches in this database (1°x1° rectangle for purse seiners and 5°x5° rectangle for longliners) prevents any reliable allocation of catches to the Mozambique fishing zone when a statistical rectangle includes waters falling inside and outside the Mozambique fishing zone.

### The future: the development of a National tuna industry

Mozambique has a clear objective of developing a National tuna industry to obtain socio-economic benefits from the resource available in its fishing zone and adjacent waters. This ambition is

developed in particular under the Fisheries Master Plan 2010-2019 and detailed in the Strategic Plan for Tuna Fisheries Development adopted in 2013 (see section 2.3.4 page 24)

One of the components of the strategic plan is to develop a National tuna fleet. As required by IOTC resolution 09/02, Mozambique has submitted to IOTC in March 2013 an ambitious fleet development plan over the 2014-2028 period<sup>11</sup>. The strategy proposed by Mozambique is the replacement of the tuna foreign fishing fleet authorised to fish in the Mozambique fishing zone by vessels fishing directly for Mozambique beneficial interests, either under charter or under its National flag (new vessels, reflagging of existing vessels). The objective is to replace 130 vessels, this number corresponding to the average number of licensed foreign vessels over the 2005-2010 period (see Figure 4). During the discussions held during the fact-finding mission, Mozambique authorities considered that temporary reflagging of EU vessels operating under the FPA could be an option to contribute to the objectives of the plan. However, this raises considerable potential legal issues as a FPA is precisely a relevant instrument to discourage temporary re-flagging of EU vessels.

A project that could be related to the development of a National tuna fleet is the Ematum<sup>12</sup> project widely publicized in the International press<sup>13</sup>. In summary, the Ematum project has concluded a construction order of 6 patrol vessels and 24 fishing vessels in France for a reported estimated contract value of EUR 200 million. The 24 fishing vessels would include 21 surface longliners and 3 trawlers. Both types of vessels are built on the same hull model (23.5 meters) manned by 8 crew and have a 10 day autonomy.

Given their lengths, the longliners would probably operate on a model similar to the model of the Reunion longliners, targeting swordfish and associated species in the waters close to the country. According to La Réunion experience, one such vessel can reasonably expect annual catches around 130 tonnes<sup>14</sup>, composed in majority by swordfish (about 40% of catches). In total, this longline fleet could produce around 2 500 - 3 000 tonnes of fisheries products per year. The 3 trawlers would support the longline fleet by fishing for bait.

All information reported here could not be confirmed. During the mission in Mozambique the Ministry of Fisheries did not wish to comment or provide additional details on this particular project. During discussions with the private sector in Mozambique, other development of tuna projects could be identified, in particular as an objective to diversify production under a context of decreasing fishing opportunities for coastal shrimps.

This development of a National tuna fleet has been discussed during the November 2013 Joint Committee. The main conclusions reported in the records were that it will be a long term process and that the Mozambique strategy would not affect the bilateral relations or the continuation of the FPA.

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<sup>11</sup> Reported in IOTC document ref. IOTC-2013-CoC10-05 Add\_1 consolidating fleet development plans submitted by IOTC parties

<sup>12</sup> EMATUM stands for Empresa Mocambicana de Atum SA, a company owned by three Mozambique state organisations

<sup>13</sup> See for example <http://www.meretmarine.com/fr/content/cmn-decroche-une-commande-historique-de-30-navires>

<sup>14</sup> By comparison, the production of the 36 m longliner currently operating under the Mozambique flag was 239 tonnes in 2012.



### 2.1.5 The fish processing sector

In order to meet EU sanitary requirements, the export-oriented fish processing industry of Mozambique has been significantly modernised and upgraded in recent years. The number of approved processing plants (PP) for export to the European Union market has increased from five establishments (out of a total 20 exporters) in 2002 to 16 in 2006; the number has fallen to 9 in 2013 mainly as a consequence of restructuration through mergers.

Shrimp is the main product processed by the major processing establishments. Shallow water shrimp from the semi-industrial vessels which do not carry freezers are processed (sorted, packed and frozen) in facilities on land. However shrimp (both deepwater and shallow water) is mostly frozen and packed at sea in vessels equipped with horizontal plate freezers. Land based facilities may also produce peeled shrimp to special order. There is presently one processing company based in Angoche operating with shrimp catches from small open deck fibreglass 9m vessels, and also supplied by other artisanal fishers. There is an active trade in packing and export of fresh fish (to South Africa) from the semi-industrial sector. Packing and icing may be conducted on the vessel, or in some cases in shore based establishments. Line caught fish may be subject to some additional processing onshore such as filleting and freezing.

Processing plants supplying the domestic market are poorly developed with respect to hygiene and sanitary conditions. The numbers of operating establishments serving the local market is not available. The majority of artisanal scale processing is undertaken at landing sites.

### 2.1.6 Aquaculture

Mozambique is considered to have a high potential for aquaculture development, and much of the projected increase in fish production considered by the PDP II is expected to come from this source. Until now the development has been limited to three commercial farms of marine shrimp (*Penaeus* spp.) and a number of artisanal tilapia (*Tilapia* spp.) farms. The shrimp production has dramatically declined in 2012 (from 600 tonnes to less than 50 tonnes) as a consequence of a viral infection (white spot syndrome) affecting the industrial shrimp aquaculture units. The production is expected to resume in the forthcoming years now that ponds have been disinfected.

### 2.1.7 International trade in fisheries products

Mozambique engages in a significant level of international trade in fishery products, both export and import. Exports have not significantly changed from EUR 51 million per year during the period 2007 to 2009, to EUR 56.6 million in 2011 and EUR 47 million in 2012. These amounts correspond to 11 200 tonnes of fish products exported in 2009, 13 100 tonnes in 2011, and 12 400 tonnes in 2012. The part of crustacean decreased from 84% in 2009, to 74% in 2011 and 69% in 2012, essentially because of lower coastal shrimp catches. Also of interest is export of dried small pelagic fish from the two main freshwater lakes to the sub-region countries, mainly to Zimbabwe.

The EU is the main destination of exports of fishery products from Mozambique. As shown in the table below, most imports of fisheries products into the EU are (frozen) shrimps (representing about 90% of the value of imports). Other products are mainly whole unprocessed products. The value of imports halved between 2011 and 2012 as a consequence of the poor shrimp catches in 2012 by the trawler fleet licensed to fish in the Mozambique fishing zone. Quantities of shrimps imported into the EU have decreased from 5 862 tonnes in 2011 to 2 482 tonnes in 2012.

Table 6: Value of EU imports of fisheries products from Mozambique in value (kEUR) and in weight (tonnes).  
Source: COMEXT

	HS 4 of CN	Title (abridged)	2009	2010	2011	2012
In value (kEUR)	0301	Live fish	0	0	0	0
	0302	Fish, fresh or chilled	339	349	172	124
	0303	Frozen fish	161	210	681	1 723
	0304	Fish fillets	0	0	87	169
	0305	Dried, smoked or salted fish	0	0	0	0
	0306	Crustaceans	35 503	43 126	43 191	19 596
	0307	Molluscs	98	28	284	774
	0308	Aquatic invertebrates, smoked or salted	0	0	0	0
	1604	Prepared or preserved fish	0	0	0	0
	1605	Prepared or preserved aquatic invertebrates	0	0	0	0
		<b>TOTAL VALUE</b>	<b>36 101</b>	<b>43 713</b>	<b>44 415</b>	<b>22 386</b>
	HS 4 of CN	Title (abridged)	2009	2010	2011	2012
In weight (tonnes)	0301	Live fish	0	0	0	0
	0302	Fish, fresh or chilled	79	95	42	30
	0303	Frozen fish	75	106	248	530
	0304	Fish fillets	0	0	4	19
	0305	Dried, smoked or salted fish	0	0	0	0
	0306	Crustaceans	5 620	6 707	5 862	2 482
	0307	Molluscs	27	9	64	177
	0308	Aquatic invertebrates, smoked or salted	0	0	0	0
	1604	Prepared or preserved fish	0	0	0	0
	1605	Prepared or preserved aquatic invertebrates	0	0	0	0
		<b>TOTAL WEIGHT</b>	<b>5 800</b>	<b>6 916</b>	<b>6 220</b>	<b>3 237</b>

Imports of fishery products into Mozambique have risen significantly in recent years, as the domestic economy has improved, from EUR 19 million in 2007 for almost 14 500 tonnes of fish products, to EUR 32 million in 2012, which represented 44 500 tonnes of imported products. Imports appear to make up about 15-20% of domestic consumption, and the trend appears set to continue. The main import is frozen fish (99% frozen whole small pelagic fish such as horse mackerel). The main sources are Namibia and South Africa, but imports from China are also growing rapidly. Mozambique does not import tuna products (whole or processed).

## 2.2 Organisation of the Ministry in charge of fisheries

The Ministry of Fisheries was created under Presidential Decree 6/2000<sup>15</sup>. The duties of the Ministry include *inter alia* the power to coordinate, promote and develop monitoring and surveillance of the fisheries resources and the power to enact specific legislation to regulate the fisheries sector.

The Statutes of the Ministry were approved in 2001<sup>16</sup> under which the competences of the different bodies are defined. In 2012, the MoF was organised in three Directorates and five departments, and is responsible for various dependant institutions including four institutes, the Fisheries School and a

<sup>15</sup> Presidential Decree 1/2000 from 17.01 abolishes the Ministry of Agriculture and Fisheries and creates the Ministry of Fisheries.

<sup>16</sup> Ministerial Decision 75/2001 from 09.05.

financial body, the Fisheries Development Fund. The Directorates cover fisheries administration, fisheries economics and fisheries control and surveillance, while the departments cover human resources, fisheries technologies and equipment, international co-operation, finance and administration, and legal affairs. The complete structure includes a Ministry Cabinet and a General Inspector (auditor). Regional activities (of quality control, inspection and data collection) are covered by Provincial Directorates of Fisheries established in each of the coastal provinces and also in Niassa and Tete Provinces.

The current organisational structure reflects a separation between the legal and policy decision making by the Ministry and Secretary of Fisheries, and the implementation activities by the various Directorates (including Provincial Directorates) and subordinate technical institutes. The main divisions are described in the following paragraphs.

**National Fisheries Administration (Administração Nacional das Pescas - ADNAP)** is the body directly responsible for front line regulatory controls, including licensing, and MCS activities, and enforcement of fisheries legislation. It also supervises the Provincial Services of the Ministry, responsible for licencing, inspection and statistics.

**Fisheries Research Institute (Instituto de Investigação Pesqueira-IIP)** has a mission to evaluate and to report on the state of the fishery resources of Mozambique and to provide scientific advice regarding the levels of sustainable exploitation. The IIP provides the information on the biology and the ecology of the aquatic resources as a basis for responsible management.

**National Fish Inspection Institute (Instituto Nacional de Inspeção do Pescado - INIP)** is the Competent Authority responsible for sanitary certification and sanitary controls in the fishery sector and is represented in the Provincial Directorates of Maputo, Sofala and Zambézia. It possesses a functional duly certified fish inspection laboratory in Maputo with subsidiary non-certified laboratories in Beira and Quelimane.

**Fisheries Development Fund (Fundo de Fomento Pesqueiro - FFP)** was formed by Ministerial Decision in 2003 according to which: "*FFP is a public entity with legal personality and financial and administrative autonomy under the supervision of the Ministry of Fisheries*" (Art. 1º). The objective of the FFP is to give financial support to actions aiming at stimulating private investment, in particular national, in areas considered to be a priority within the context of the objectives of the fishing policy and the implementation strategy thereof. It is also charged with ensuring:

- the management and control of revenue from license fees and funds made available to the sector by international agencies as donations and external funding. Including the resources aimed at encouraging private investment.
- the distribution of part of the revenue generated, among the various fisheries public administration bodies to finance recurrent costs.
- the budgeting and financial execution of public investment programmes

In effect the FFP represents the financial agency within the Ministry of Fisheries responsible for financial management, including development activities. The FFP receives national and international funds for fisheries and undertakes payments to the different departments, institutions or public/private projects in fisheries, providing financial support for actions stimulating private investment, research programmes and projects, and experimental projects. FFP is governed by a Board of Administration and is presided over by a representative from the Ministry of Fisheries and derives income from implementation fees for donor funded projects, as well as an administrative fees (*e.g.* licenses)

**National Institute for Development of Aquaculture (Instituto Nacional de Desenvolvimento da Aquicultura - INAQUA)** aims to promote the development of the aquaculture sector in Mozambique through direct partnerships in investment in aquaculture production. It also aims to support the

development of the administrative framework for the aquaculture investment, and monitor progress, as well as develop research, demonstration, dissemination and extension methods for aquatic species and to adapt them to the environmental conditions of the country.

**Small scale Fisheries Development Institute (Instituto de Desenvolvimento da Pesca de Pequena Escala - IDPPE)** aims to establish and implement policies, strategic plans and programmes which support the development of small scale fishery production. It therefore seeks to identify and implement projects in the artisanal fishery sector, especially in relation to improved fishing technology, preservation and marketing of the catch, and in relation to activities complementary to capture (boat building, net repair, processing, etc.) It therefore directs investment in small scale fisheries infrastructure, and undertakes training, lectures, aimed at strengthening the professional qualification of the sector.

**School of Fisheries (Escola de Pesca – EP)** develops and implements vocational training courses in navigation and fishing technology, fisheries biology and fisheries extension, marine engineering.

## 2.3 Description and analysis of the fisheries policy

### 2.3.1 Objectives of the Ministry of Fisheries

The stated objectives of the Ministry of Fisheries are to<sup>17</sup>:

- Assure the responsible management, protection and conservation of fisheries resources, mobilising, amongst other means, participative management
- Assure the protection and conservation of the marine resources and sustainable exploitation of fisheries resources
- Promote the qualitative and quantitative development of fisheries activities and their outputs
- Promote and develop in waters within the national jurisdiction fishery production destined for the supply of the internal market and for exports
- Promote the development of sectoral capacity and contribute to the improvement of the quality of life of fisheries communities

### 2.3.2 Fisheries objectives in PARP 2011-2014

Fisheries objectives are also stated within the PARP 2011-2014, whose first general objective is to boost production and productivity in agriculture and fisheries. Under this objective, the four major objectives for the Government are as follow:

- Increase fisheries production for food security: Enhance the contribution of the fisheries sector to the population's food and nutritional security.
- Improve living conditions for fishing communities: Improve living conditions for small-scale fishing and aquaculture communities.
- Develop commercial fishing and aquaculture: Enhance the contribution of industrial fisheries and aquaculture to achieving national economic and social development objectives.

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<sup>17</sup> See <http://www.mozpesca.gov.mz/>

- Enhance the contribution of fisheries to the balance of payments: Increase the net contribution of the fisheries sector to the country's balance of payments.

Among the other strategic objectives of the PARP 2011-2014, the following are also of interest for the fisheries sector:

- Encourage fishing activity in areas with fishery potential by providing incentives to local merchants to transport and sell fishery inputs.
- Improve and monitor implementation of the program to develop low-cost deep-sea fishing vessels.
- Promote and disseminate construction of local artisanal fishing and storage infrastructure.
- Expand access to electric energy and promote use of alternative sources, with priority for areas with agricultural and fishery potential
- Consolidate and expand an efficient system for collecting and disseminating market and price information targeted at zones with productive potential.

The PARP 2011-2014 also sets a general priority concerning fisheries:

- Improve the sustainable management of natural resources (land, water, fisheries and forests).

### 2.3.3 Fisheries Master Plan 2010-2019

The Fisheries Master Plan 1995-2005 (PDP) was a sectoral policy document, developed during the early 1990s with the support of DANIDA. Between 2005 and 2010 no specific fisheries policy instrument was in place. A new Fisheries Master Plan (Plano Director das Pescas II 2010-2019) was approved by Government at the end of 2010. The PDP II is presented in seven main sections, corresponding to the logical framework approach to project life-cycle management. The plan is supported by a logical framework matrix which sets out the main content and some of the principal intervention projects expected:

- Context (providing a brief background to the sector)
- Situation of the sector describing the problems to be addressed, and 10 years vision for development
- Strategic objectives for 2010-2019
- PDP Components and expected results for each component
- Expected impacts and sustainability, with monitoring indicators at the level of objectives and for each component
- Organisation, programming and means of implementation setting out the institutional and time scheduling arrangements, including monitoring and evaluation

The overall objective of the PDPII is fully aligned with the objectives established by the PARPAII and the Five Year Plan 2010-14, namely that the fisheries sector delivers increased benefits through:

1. Strengthened the contribution of the fishery sector to food security of the population;
2. Improved the conditions of living in the artisanal fishing communities and small scale aquaculture;
3. Increased contribution from industrial fisheries and small scale aquaculture to national economic and social development; the plan considers the need to gradually replace foreign

licensed operators with operators with an economic linkage with Mozambique, and aims to strengthen national technical skills to this end.

4. Increased contribution of the sector to the balance of payments within the frame of a public administration enabled to meet these ends in general and to support of the sustainable exploitation of fisheries resources and aquatic ecosystems.

The plan aims to increase production from 151,430 tonnes in 2009 to 301,000 tonnes in 2019, with about 60% of the increase derived from aquaculture, and the balance from capture fisheries. The plan foresees supplies for internal consumption (which includes imports) rising from 170,000 tonnes/year to 298,000 tonnes, and export rising from a value of about EUR 52 million in 2009 to EUR 130 million in 2019.

The Plan sets out results and activities to be implemented under each of the above headings. It also sets out the role of Government in the provision of investment finance for public infrastructure and services, with priorities set out in terms of:

- Rehabilitation and construction of port infrastructure
- Construction of infrastructure to support development of aquaculture
- Promotion of development (extension, introduction of new technologies, etc.)

It recognises the need for a public administration of the fishery sector to be supported by the state budget, and in general aims to ensure that the cost of public administration does not exceed 5% of the value of sector production. Licence fees are considered to be the principal source of receipts from the sector, and the level of fees should take into account the sustainability of the public administration of fisheries, as well as serving as an instrument for fisheries management, taking into account the economic and developmental conditions.

International cooperation is expected to provide an important element of PDP II investment requirements with the following priorities for intervention activities with development projects in the domains of:

- artisanal fisheries
- aquaculture (especially small scale)
- expansion of the semi-industrial fleet
- construction of landing infrastructure and support installations of support (focus on production and distribution of ice)
- training in intermediate and advance fishing and aquaculture technologies
- increased levels of fisheries cooperation within SADC and the Indian Ocean regions

The Master Plan 2010-2019 clearly indicates that policy is to ensure full exploitation of EEZ by national operators. However the Plan does not address specifically the policy towards access rights for foreign vessels in the meanwhile, in respect of fish resources which cannot be exploited by Mozambican enterprises.

Whilst the PDP II has clear targets and all of the measures to be implemented are clearly set out, the plan is not costed (i.e. the cost of the interventions foreseen is not stated), and it is therefore not possible to assess the economic returns of the investments proposed. Clearly there will be significant investment requirements in infrastructure and development of institutional capacity if the ambitious targets are to be achieved, as well a significant level and quality of intervention management.

### 2.3.4 Fisheries management plans and strategic plans

A Shrimp Fisheries Management Plan of five years has been adopted in 2013<sup>18</sup>. The main objective is to sustainably manage the Sofala Bank shrimp fisheries taking into account the social and economic benefits of the three main fisheries (industrial, semi-industrial and artisanal). The Management Plan explicitly referred to the EAF principles and will be assessed in 2015. The closure period for industrial and semi-industrial fisheries is proposed to be extended to 5 ½ months per year.

A Line Fisheries Management Plan<sup>19</sup> has also been adopted in 2013, which is clearly based on EAF principles.

Furthermore, there is a Strategic Plan for Tuna Fisheries Development (PEDPA)<sup>20</sup> that has been conceived through a participatory approach in 2013 and in conformity with the Fisheries Regulation and the Fisheries Master Plan (PDPII). The objective of this Strategic Plan is to stimulate a greater contribution of the tuna fishery in the socio-economic development of the country through increased recovery and control of the fishery in the EEZ, and participation in strengthening the management of tuna in the Indian Ocean through IOTC, to maximize the benefits of this fishery for Mozambique.

The document also defines five strategic objectives, namely (i) promote a greater contribution of the tuna fishery for food and nutritional security, (ii) encouraging a greater contribution of the tuna fishery in the economic and social development, (iii) promote greater contribution of this fishery to the equilibrium of the balance of payments, and (iv) strengthen the effective control of the country on tuna fishing in its EEZ, and (v) promote their sustainable management.

To achieve the strategic objectives mentioned above specific priority actions structured into three pillars are defined, namely (i) general actions to promote tuna fishery, including the management of tuna fisheries, (ii) actions to promote small scale tuna fishery, and (iii) actions to promote industrial tuna fishery.

### 2.3.5 Fisheries budget

#### State budget

Fisheries activities are well defined in the national budget (*Orçamento Geral do Estado*). The evolution of the budgetary planned disbursements over the period 2011 to 2013 is shown in Table 7. Overall, the budget has varied between EUR 60.4 million in 2011 (due to an important external investment in the Propesca development project) and remained around EUR 30 million in 2012 and 2013, including EUR 20 million earmarked for investment. Over the period, the Governments expenditure on fisheries has accounted for some 1.1% of public expenditure. About 65% of the expenditure is in capital investment, and the balance on operational expenses (mainly salaries).

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<sup>18</sup> Proposta de Plano de Gestão das Pescarias de Camarão do Banco de Sofala, 2013-2017. Ministério das Pescas, Dezembro 2012.

<sup>19</sup> A Management Plan Proposal for the Marine Linefishery of Mozambique. ADNAP, May 2013

<sup>20</sup> Plano Estratégico de Desenvolvimento da Pescaria de Atum em Moçambique, ADNAP, 2013

Table 7: Evolution of the planned budgetary disbursements over the period 2011 to 2013. Source: Orçamento Geral do Estado, Direcção Nacional de Orçamento

		2011	2012	2013
Code	Operating budgets	EUROS		
<b>MAPA F Central</b>				
3701	Ministry of Fisheries	788 819	1 180 938	1 409 852
3702	Fisheries Administration (ADNAP)	527 160	425 624	439 617
3707	School of Fisheries	369 311	492 389	510 095
3781	Fisheries Development Fund (FFP)	1 254 484	1 711 110	913 638
3782	Fisheries Research Institute (IIP)	458 242	685 936	574 001
3783	Small Scale Fisheries Development Institute (IDPPE)	247 545	377 659	489 257
3784	Fish Inspection Institute (INIP)	700 979	982 057	1 197 857
3786	Aquaculture Development Institute (INAQUA)	271 948	336 157	372 662
<b>MAPA G Provincial</b>				
3721	Fisheries Provincial Directorates	1 501 177	1 506 842	1 612 474
3726	INAQUA Delegations	145 920	119 004	999 482
3782	IIP	681 493	821 789	535 434
3783	IDPPE	1 037 975	1 127 121	193 559
3784	INIP	405 624	420 297	1 223 060
	Sub-total	8 390 678	10 186 922	10 470 988
<b>Investment budgets</b>				
<b>MAPA I Central</b>				
3701	Ministry of Fisheries	33 316 119	3 054 900	4 134 541
3702	Fisheries Administration (ADNAP)	1 115 080	1 297 710	1 510 635
3707	School of Fisheries	189 842	0	264 124
3781	Fisheries Development Fund (FFP)	4 855 575	8 378 589	3 125 926
3782	Fisheries Research Institute (IIP)	235 828	870 643	1 593 258
3783	Small Scale Fisheries Development Institute (IDPPE)	8 036 660	3 359 975	4 627 754
3784	Fish Inspection Institute (INIP)	477 439	336 880	383 082
3786	Aquaculture Development Institute (INAQUA)	3 202 343	546 164	1 424 270
<b>MAPA J Provincial</b>				
3721	Fisheries Provincial Directorates	288 587	550 427	1 021 246
3726	INAQUA Delegations	46 006	193 598	279 799
3782	IIP	96 388	672 140	397 303
3783	IDPPE	356 645	700 733	699 121
3784	INIP	37 871	273 656	310 294
	Sub-total	52 254 385	20 235 415	19 771 353
<b>Total fisheries budget</b>		<b>60 645 063</b>	<b>30 422 337</b>	<b>30 242 341</b>

According to the financing law, external donor support represents the main contribution to the investment budget of the Ministry of Fisheries (about 60-70% depending on the year). As detailed in annex 1, total approved commitments from various Donors (including the EU through the 10<sup>th</sup> EDF) for next 3-7 years represents a total amount of USD 143.3 million or EUR 106 million (approximately EUR 20 million per year over an average period of 5 years). The main donors includes the Norwegian / Icelandic cooperation (grant of EUR 20 million), IFAD (loan of EUR 22 million) complemented by the 10<sup>th</sup> EDF grant of EUR 14 million, and the World Bank (loan of EUR 22 million on fisheries development). Bilateral cooperation of EU Member States is relatively less important with the French cooperation supporting the development of industrial aquaculture of shrimps and the Spanish cooperation supporting development of artisanal aquaculture.

The sectoral support paid by the EU under the fishing agreement is considered as internal source of funding.



Given the significant number of donor interventions, and the potential for overlaps with several semi-autonomous institutions launching and implementing development projects, all investment activities are subject to an annual single programming exercise, in which each of the main institutions with fiscal responsibility (Ministry of Fisheries, IDPPE, INIP, INAQUA, ADNAP, IIP, FFP and EP) establish their costed interventions by thematic programme, identifying the relevant project name and number, and the source of finance (General state budget, or external source). This planning tool, reduces the potential for overlap and guides implementation. The funds programmed from the FPA are treated in the same way.

### Other Ministry budget income

License fees paid by National and foreign fishing companies for access are recovered by ADNAP. Payments are made on the account of the Ministry of Fisheries, and transferred to the Fisheries Development Fund.

In 2012, the total amount of license fees recovered by ADNAP amounted to approximately EUR 2 million. License fees paid by foreign operators to catch tuna and related species in the Mozambique fishing zone represented 54% of this total, preceding license fees paid by industrial vessels (37%) operating on demersal fisheries (primarily the shrimp fisheries). The following Table 8 shows the details of payments of licenses for the different types of fisheries in 2012.

*Table 8: Receipts from payments for licenses in 2012. Source: ADNAP Relatório Anual 2012*

	2012	
	(1000 MZN)	(1000 EUR)*
<b>Industrial</b>	65 348	1 811
<i>Of which Tuna</i>	38 996	1 081
<i>Of which Other (e.g. shrimps)</i>	26 352	730
<b>Semi-industrial</b>	4 994	138
<b>Artisanal</b>	920	25
<b>Recreational</b>	731	20
<b>TOTAL</b>	<b>71 993</b>	<b>1 995</b>

\* based on 2012 average MZN / EUR exchange rate

The license fees paid by EU shipowners under the current protocol amounted to EUR 187 4763 in 2012 (about MZN 7 500 000). This represents around 17% of total license fees paid by foreign operators licensed to exploit tuna in the Mozambique fishing zone, all nationalities included, and 9% of total license fees receipts.

The total license fees paid by other foreign operators for access to tuna resources are as expected when multiplying the number of vessels by the official price schedule for licenses, indicating that other foreign vessels are not offered any different conditions than those officially applicable under National law (in particular *Diploma Ministerial n° 270/2009*) as detailed in Table 9.

### 2.3.6 Fisheries regulations

The current Fisheries Legislation is composed mainly of the new Fisheries Law that has been published in November 2013 and entered into force on 1<sup>st</sup> February 2014<sup>21</sup>. This law introduces several principles including EAF, the precautionary principle, the participatory approach extended to all the stakeholders, the safety of consumers and the protection of the rights of national fishers and fish farmers. It also confirms the role of the Fisheries Administration Commission (Comissão da Administração Pesqueira - CAP), which is the principal advisory structure at national level and whose mandate was revised in 2012<sup>22</sup>. The new law clearly defines the fishing right concept, the rules of attribution of fishing licenses and the various functions of the fisheries administrations. Finally, it defines precisely the various types of infringements and the corresponding fines.

Of course, the current Law will be accompanied by new implementing regulations, but meanwhile, the General Regulation for Marine Fisheries of 2003 is still in force<sup>23</sup>. This document stipulates *inter alia* the obligation of an Automatic Location Device (Dispositivo de Localização Automatica) for any industrial and semi-industrial vessel, whether National or foreign.

#### Access Fees for foreign vessels

Access fees for private licences for foreign tuna vessels were revised in 2009, and are now set under Diploma Ministerial No. 270/2009, issued on 29 December 2009 (*Boletim da Republica* No.51/2009, 29 December 2009). These are summarised in Table 9. Note that private tuna licence fees are discounted for vessels landing within Mozambique. According to the regulation, foreign tuna vessels are eligible to a 10% discount on license fees if they employ at least three Mozambican seamen.

*Table 9: Summary of foreign fisheries access fees schedule applicable to tuna vessels according to Mozambique regulations. PS : purse seiners. LL : longliners : . Source : Boletim da Republica No.51/2009, 29 December 2009*

Flag	Landing port	Licence fee (MZN)		Licence fee (EUR)*	
		PS	LL	PS	LL
Mozambique	Mozambique	412 500	275 300	10 385	6 931
Mozambique	Foreign	777 000	715 100	19 562	18 004
Third country	Mozambique	777 000	715 100	19 562	18 004
Third country	Foreign	960 000	877 760	24 169	22 099

In addition, the regulation foresees that the access fees applicable to support vessels is 770 000 MZN (EUR 19 386) if the support vessels operates from Mozambique ports, or 1 000 300 MZN (EUR 25 184) if the support vessels operate from foreign ports.

### 2.3.7 Science and research capacity

Within the umbrella of the Ministry of Fisheries, the Instituto Nacional de Investigação Pesqueira (IIP) is responsible for research in relation to fisheries resources and biological aspects, aquaculture and the marine environment. The annual budget of the IIP Increased significantly from less than EUR 1.5 million in 2011 to more than 3.0 million in 2012 and 2013 (see Table 7). This evolution is essentially attributable to an increase in the investment budget from EUR 0.3 million in 2011 to EUR 1.5 and EUR

<sup>21</sup> Law 22/2013 from 01.11.2013

<sup>22</sup> Diploma Ministerial 63/2012 sobre Regulamento de funcionamento da Comissão da Administração Pesqueira

<sup>23</sup> Decree 43/2003 from 10 December 2003

1.4 million in 2012 and 2013. In 2013, IIP staff including 55 post-graduate researchers (MSc and PhD levels).

Formal stock assessments and related advice are produced regularly for the shallow-water shrimp with assistance from external consultants (Norway and Australia for the last assessment). The advice provided is based largely on stock indicators such as trends in CPUE and on the results of an annual research cruise to estimate biomasses and recruitment. IIP does not own a research vessel and use chartered commercial boats to conduct the surveys during the shrimp closed season (cost of about EUR 100 000 for a 30 day survey). The results of stock assessment and associated recommendations are presented in an annual report placed in the public domain.

IIP also has the responsibility for running a data sampling scheme for artisanal fisheries, which presently cover all coastal provinces. Improvements are still needed in terms of coverage of artisanal fisheries, but the methodologies applied are considered of good quality and developed with external assistance.

Note that the responsibility for collecting, compiling and processing of statistics from the industrial and semi-industrial fisheries lies with the Fisheries Administration (ADNAP). IIP also carries out monitoring of industrial and semi-industrial fisheries by sampling in ports or through IIP observers. This includes information on the species composition of the catches, by-catch and discards. IIP also collaborates in some important international research initiatives such as the South West Indian Ocean Fisheries Project (SWIOFP) and the Agulhas and Somali Current Large Marine Ecosystems (ASCLME), which are two GEF-funded complementary projects with the overall goals of achieving sustainable fisheries and introduce the ecosystem-based approach in management of marine resources.

Information on catches, fishing effort and biological data required by IOTC are collected by IIP observers aboard the national long liner that operated in 2012 in the EEZ of Mozambique. These data were submitted to the IOTC, along with a scientific report.

### 2.3.8 MCS capacities

MCS functions were formerly implemented by ADNAP but are now implemented by DNFP (Direcção Nacional da Fiscalização das Pescas), a new direction of the Ministry of Fisheries created in 2012. Within the DNFP, the operational structure is composed of the Surveillance Operations Department and the Procedural Instruction Department, assisted by the VMS Unit and the Intelligence Unit.

According to the DNFP and ADNAP annual reports<sup>24</sup>, the staff is composed of 8 technicians and 50 inspectors, including 36 based in the coastal provinces. At the ministerial level, the Norwegian and Icelandic cooperation finance an MCS advisor position. The DNFP staff has received specific training in legal aspects, control procedures, ERS and data processing through several projects. It has also participated in various working group at the regional level, including working groups implemented under regional ACP FISH II projects funded under the 10<sup>th</sup> EDF. In 2010, Mozambique has adopted official procedures for inspection of fishing vessels<sup>25</sup> based on international law.

The DNFP utilises different technical platforms: aerial/satellite, maritime and coastal.

The maritime platform is composed of two main patrol vessels:

- The “Kuswag I” is a 30 m length former supply vessel, reconditioned for maritime patrol functions. This vessel is chartered and operated by Blue Water Marine Services. In 2012 it is

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<sup>24</sup> Relatório anual das actividades de fiscalização da pesca 2012, Ministério das Pescas and Relatório anual 2012, Administração Nacional das Pescas, Janeiro 2013.

<sup>25</sup> Procedimento de Inspeção de Embarcação de Pesca: Monitorização, controlo e Fiscalização das Actividades de Pesca, ADNAP 2010

reported that “Kuswag I” has undertaken 9 patrol missions for a total of 70 days in the Mozambique zone. During these patrols, 98 vessels have been inspected with no offences detected

- The “Antillas Reefer” is a 53 m length confiscated long liner, reconditioned for patrol missions in 2012 with support of the Norwegian cooperation. In 2012, it has undertaken 5 patrol missions for a total of 118 days during which 51 vessels have been inspected but no offences detected.

The maritime platform also includes two small patrol boats of 9 m for coastal operations.

The Ministry of Fisheries has no established protocols with the Mozambican Navy nor the air force for joint surveillance patrols. The Ministry of Fisheries did not wish to comment on the possible involvement of the new patrol vessels ordered under the Ematum project for fisheries enforcement purposes.

All the industrial fishing vessels operating in Mozambique zone, whether National or foreign-flagged, are now monitored through a Vessel Monitoring System (VMS) mandatory since 2010. The VMS system developed under the EDF funded SADC MCS project has been abandoned and replaced by a new VMS equipment in 2012. Five technicians have been trained on the software in 2012, including training on Electronic Reporting System (ERS) progressively implemented in cooperation with the EU. Fishing vessels are monitored through a Fisheries Monitoring Centre (FMC) based in Maputo. The Mozambique FMC has been designated as potential regional FMC for joint operations involving other SADC Coastal States. An in-depth feasibility study has been conducted in 2012 through the EU program ACP Fish II, and a Hosting Agreement has been drafted by the SADC secretariat and submitted to its Legal Department in 2013. Transmission of logbook data through an ERS has been implemented on EU tuna vessels operating under the FPA in cooperation with DG MARE services. Mozambique is considering expanding the ERS coverage on other foreign-flagged tuna vessels authorised to fish in its fishing zone, and at a later stage, on industrial trawlers licensed to exploit the domestic shrimp fisheries.

The new Fisheries Act<sup>26</sup> is more detailed than the previous regarding the control of foreign vessels, and indicates that in case of infringement, the Department of Foreign Affairs is required to inform the flag State. This National regulation also revises the level of fines applicable to each type of infringement. Fines are calculated as a multiplier of the minimum wage of civil servants. For instance, the minimum fine for very serious infringements is set at 1 150 times the minimum wage, which is currently of MZN 2 699, *i.e.* around EUR 78 000. In addition, the Ministry can seize the vessel and/or its cargo depending on the seriousness of the infringement.

Mozambique has participated in one regional patrol mission organised by IOC in 2012 under the MCS programme funded by the EU. During this mission one of the two patrol vessels owned by Mozambique patrolled the National fishing zone jointly with the French P/V “Osiris” based in la Reunion. Mozambique also signed in 2012 a MoU with the international NGO Greenpeace in order to organise a patrol operation utilising the vessels “Rainbow Warrior” and “Antillas Reefer”. During this 15 day mission, which covered one third of the whole Mozambican EEZ, seven long liners have been inspected, including on EU longliner, but no infringement was found. The partnership experience with Greenpeace has not been renewed in 2013 and after.

Mozambique adopted in 2008 a National Plan of Action against IUU fishing<sup>27</sup> in response to the IPOA on IUU fishing adopted by FAO in 2001. Mozambique wishes to take a proactive role in the international cooperation against IUU fishing. In 2012, Mozambique suspended a license application submitted by an EU longliner pending verification of its real ownership. A license granted to a

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<sup>26</sup> Lei N° 22/2013 de 1 de Novembro 2013

<sup>27</sup> Plano Nacional de Acção para Prevenir, Impedir e Eliminar a Pesca Ilegal, Não Reportada e Não Regulamentada, Ministério das Pescas, 2008.

Spanish purse seiner has also been suspended in 2012 on the grounds it was allegedly involved in IUU incidents off Liberia. Mozambique is also chairing the compliance committee of IOTC.

Records of infringements by EU vessels operating under the current protocol of agreement include:

- In 2012, the Txori Argi case for fishing without a license in the Mozambique fishing zone (which was at that time different from the fishing zone defined by the protocol in which FPA provisions apply). The case is now settled.
- In 2013, no infringements reported

The Mozambican authorities reported 85 infringements detected in 2013 on National vessels.

## 3 Analysis of the EU fishing activities in Mozambique

### 3.1 Presentation of EU fishing activities in the Indian Ocean

The activities of the EU fleet targeting highly migratory species in the Indian Ocean is described in details in a separate report<sup>28</sup>. The following sections summarise the main features of EU fishing activities.

#### 3.1.1 Number of vessels and catches

Concerning the purse seine segments, only Spain and France have active vessels. Until 2009, there was one purse seiner flying the Italian flag, but it has been reflagged to France. As Table 10 shows, the number of EU purse seiners operating in the whole Indian Ocean has dramatically decreased since 2008, mainly as a consequence of the piracy problems off Somalia with some purse seiners leaving the Indian Ocean to exploit highly migratory resources in the Atlantic Ocean. Catches of the EU purse seine segment are slightly in excess of 170 000 tonnes per year on average over the past five years, with a decreasing trend explained in part by the fleet reduction. The catches of purse seiners are composed by skipjack (*Kastuwonus pelamis*), yellowfin (*Thunnus albacares*) and bigeye (*Thunnus obesus*) with some small catches (less than 1%) of albacore (*Thunnus alalunga*).

Concerning the surface longline segment, there were about 50 EU longliners active in 2012. The EU longline segment includes a fleet of 23 large scale longliners with freezing capacity onboard (vessels from Spain, Portugal and the United Kingdom). Spain represents the main fleet with 18 vessels active in 2012. The number of longliners flying the flag of Portugal or United Kingdom varies between 3 and 4 each year. As for the purse seine segment, the number of longliners has decreased over the 2008-2012 period, also as a consequence of piracy. However, the vessels of this segment are less exposed as they are operating mainly in the southern latitudes. Catches of EU large scale surface longliners include principally swordfish *Xiphias gladius* (about 50% of total catches) and sharks species (mainly blue shark *Prionace glauca* and shortfin mako *Isurus oxyrinchus*) representing about 40% of total catches. France also has a longline fleet made up of small longliners based in the outermost region of La Réunion. The number of French longliners of more than 10 m was 25 in 2012, with catches of about 2 000 tonnes. Catches of these small scale longliners<sup>29</sup> comprise swordfish (about 40% of the catches) and tuna species (another 40% of the catches). The activities of the French fleet are concentrated around La Réunion and in the Eastern waters of Madagascar.

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<sup>28</sup> Overview of Indian Ocean Tuna Fisheries – to be published on the DG MARE website

<sup>29</sup> Small scale refers to vessels with no freezing capacity onboard and staying between 7 and 10 days at sea, as opposed to large scale vessels with freezing capacity and staying several weeks at sea on a same fishing trip.

Table 10 : Number of active EU vessels and associated catches of highly migratory species in the whole Indian Ocean. Source : EU National report to the Scientific Committee of IOTC (and IOTC nominal catches database for data until 2012. Own estimates for the number of vessels active in 2013

		2008	2009	2010	2011	2012	2013
<b>Purse seine</b>							
EU-France	Number	17	15	8	8	8	8
	Catches (t)	74 919	56 944	47 103	42 894	37 155	
EU-Spain	Number	17	15	13	13	14	14
	Catches (t)	124 004	111 951	130 519	130 349	108 608	
Sub-total	Number	34	30	21	21	22	22
	Catches (t)	198 923	168 895	177 622	173 243	145 763	
<b>Longline</b>							
EU-Spain	Number	19	15	12	14	18	17
	Catches (t)	7 747	7 067	6 440	7 458	9 356	
EU-Portugal	Number	4	3	4	4	3	5
	Catches (t)	1 086	1 133	2 090	1 988	1 489	
EU-Un. Kingdom	Number	n.a.*	n.a.*	n.a.*	4	3	3
	Catches (t)	2 027	1 517	441	499	1 225	
EU-France	Number	33	31	29	28	25	20
	Catches (t)	2 468	2 181	2 267	2 522	1 906	
Sub-total	Number	> 56	> 49	> 45	50	49	45
	Catches (t)	13 328	11 898	11 237	12 467	13 976	

\* Although not available, the total number of UK longliners operating in the Indian Ocean is believed to have varied between 3 and 4 between 2008 and 2010.

The number of EU vessels targeting highly migratory species in 2012 and 2013 in the Indian Ocean is well below the maximum capacity agreed under IOTC relevant resolutions (capacity limitation for the EU of 49 vessels targeting tropical tunas cumulating 96 595 GT based on the number of active vessels in 2006 and 72 vessels cumulating 25 297 GT targeting swordfish and albacore based on the number of active vessels in 2007<sup>30</sup> plus, as from 2014, capacity limitations agreed for Mayotte under the fleet development plan submitted by French Authorities under the relevant fleet development plan<sup>31</sup>).

### 3.1.2 Fishing strategy

#### Purse seiners

The following maps (Figure 5) show the distribution of catches of the EU purse seiners for 2011 and 2012 in the Indian Ocean with a detailed view on the distribution of catches in the Mozambique Channel. Fishing in the Mozambique Channel typically takes place during March and May (peaking in April) when the resource is abundant and catchable. The rest of the year, EU purse seiners find the resource in the equatorial areas North of Seychelles. When fishing in the Mozambique Channel, EU purse seiners access the waters of Coastal States under EU fishing agreements (Mozambique, Comoros and Madagascar) or under private agreements (Kenya, Tanzania, French Overseas Territories for the Spanish purse seine fleet).

<sup>30</sup> In both cases, the number of active vessels considered includes vessels over 24 meters overall length, and under 24 meters if they fished outside their Exclusive Economic Zone (EEZ)

<sup>31</sup> The Fleet Development submitted for Mayotte considers introduction of 6 purse seiners (13 914 GT and 25 longliners (2 143 GT) at the 2020 horizon.

Fishing activities in the Mozambique fishing zone concentrate in the Northern part of the area, with higher catches obtained in the offshore parts of the EEZ. Since the minimum level of spatial disaggregation of catch data is a 1° x 1° rectangle (about 108 km in height), the maps cannot be used to estimate catches inside the Mozambique fishing zone vs catches outside.

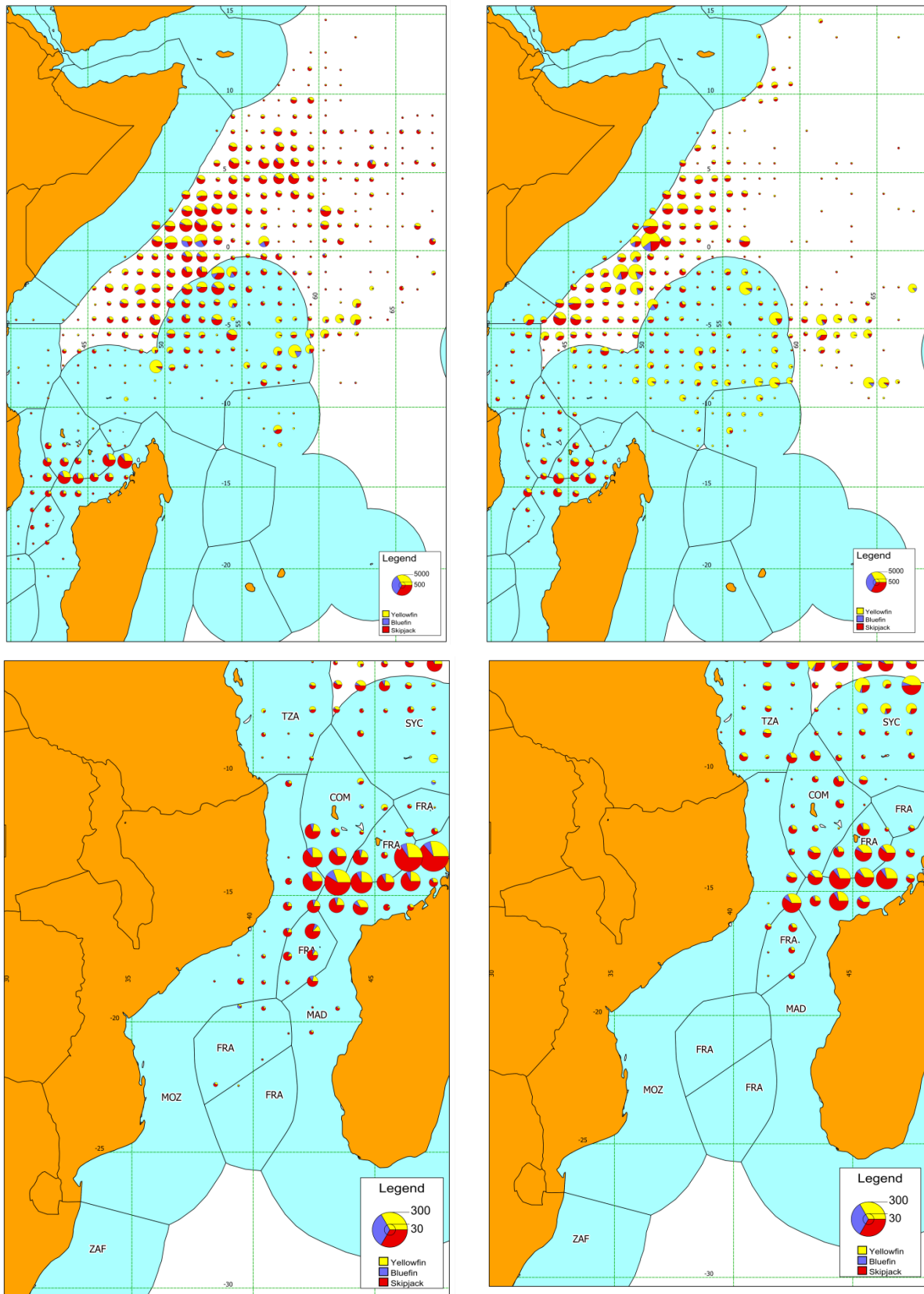


Figure 5: Distribution of catches of EU purse seiners by 1°x1° square overlaid with limits of EEZ for 2011 (left) and 2012 (right) in the whole Western Indian Ocean region (up) with close-up view on Mozambique Channel (down). Source: IOTC catch and effort database for catch data and Flanders Marine Institute for limits of EEZ.

The EU purse seine fleet has its main logistic base in Victoria, Seychelles. Most catches are unloaded in this port directly to the local processing factory or onto reefers for further distribution to other



processing sites in the region (Mauritius, Madagascar and Kenya) or beyond. When the fishing fleet exploits the fishing areas in the Mozambique Channel, the EU purse seine fleet may also use Antsiranana, Madagascar, as a secondary seasonal logistic base. The EU purse seine fleet rarely call in ports located on the African continent. The Spanish and French purse seine fleet have comparable fishing strategies as far as fishing grounds are concerned. The main difference in catching strategies is that the Spanish purse seine fleet uses a number of supply vessels to assist the purse seine vessels mostly in the deployment and monitoring of FADs, whereas the French purse seine fleet does not have any supporting vessels. As a result, the Spanish purse seine fleet uses more FADs than the French purse seine fleet.

### **Longliners**

The following maps (Figure 6) show the distribution of catches of the EU large scale longliners flying the flags of Spain and Portugal for 2010 and 2011. EU large scale longliners typically exploit an area between 25° S and 35° S. Fishing takes place mostly in the high seas, and occasionally in the waters of Coastal States under EU fishing agreements (Madagascar, Mozambique).

As the close-up view of the Mozambique Channel shows, EU large scale longliners declare some catches in the southern area of the Mozambique fishing zone. However, since the level of spatial disaggregation of catch data is a 5° x 5° rectangle (about 580 km in height), the data cannot be used to identify catches within the Mozambique fishing zone.

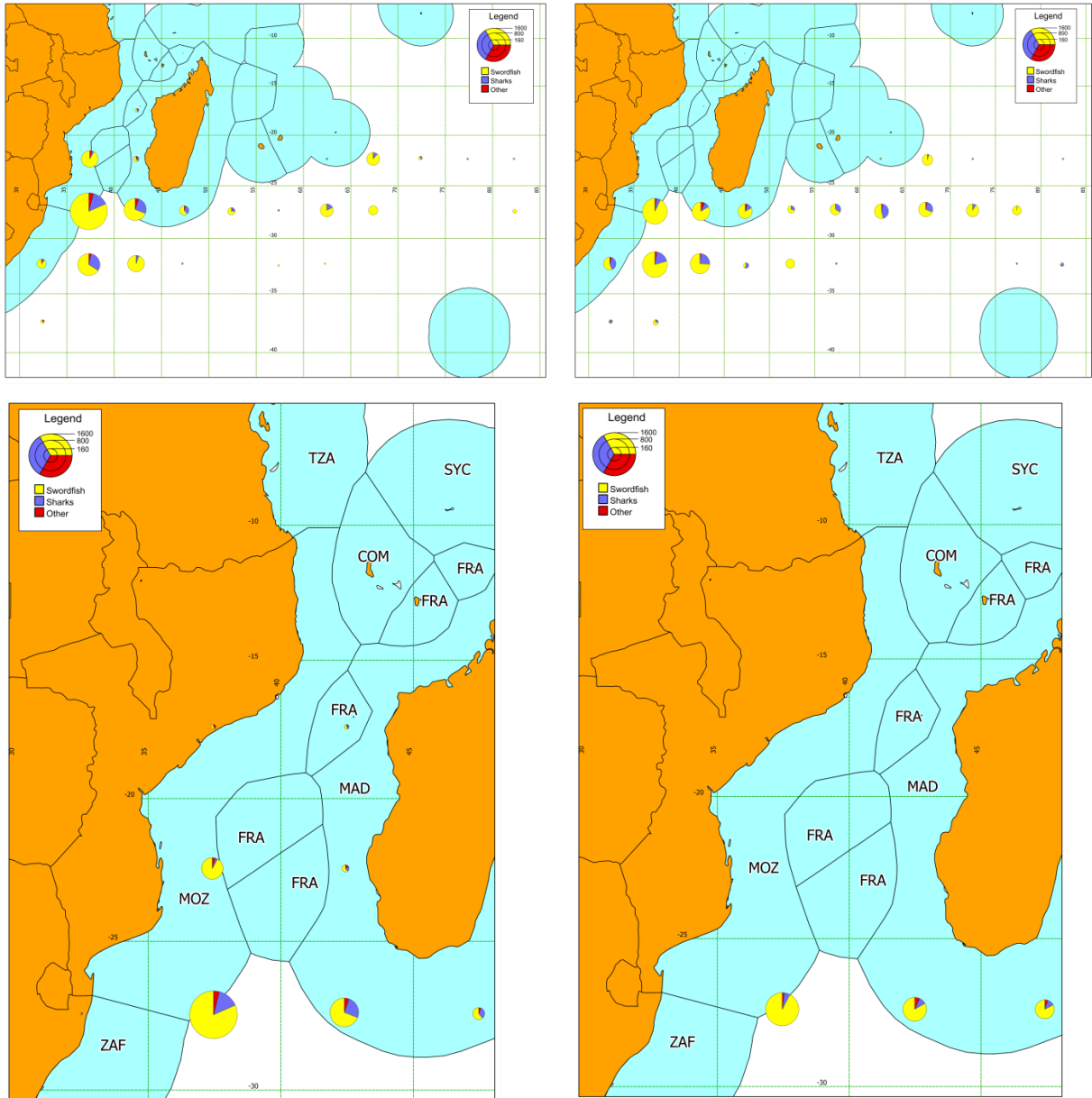


Figure 6: Distribution of catches of EU large scale longliners (ESP and PRT) by 5° x 5° square overlaid with limits of EEZ for 2010 (left) and 2011 (right) in the Indian Ocean (up) with close-up view on the Mozambique Channel (down). Source: IOTC catch and effort database for catch data and Flanders Marine Institute for limits of EEZ.

Durban, South Africa, is the main logistic base of EU longliners flagged to Spain, Portugal or the United-Kingdom. Vessels call there generally every two months, and unload their catches onto reefer vessels for shipping to the EU, primarily Galicia, Spain and further distribution to the EU market.

As shown in the following map (Figure 7), the French fleet of longliners based in La Réunion exploits predominantly the waters around the Island and adjacent waters off the Eastern coast of Madagascar under the EU fishing agreement concluded with this Coastal State. A few longliners exploited the waters in the South West of Madagascar and in the northern part of the Mozambique Channel in the waters under French jurisdiction, but their operations ceased.

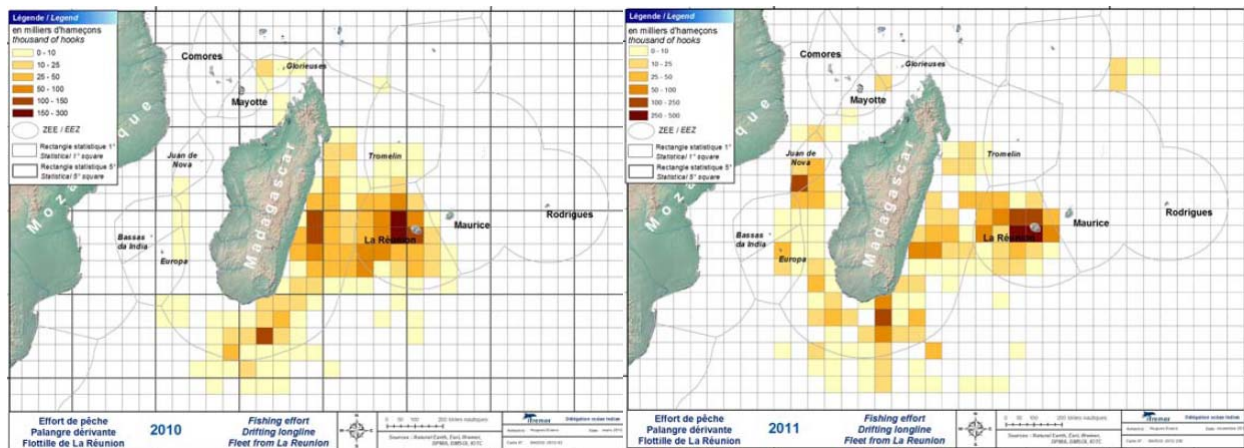


Figure 7: Distribution of catches of EU small scale longliners by 1° x 1° square overlaid with limits of EEZ for 2010 (left) and 2011 (right). Source: EU National report to IOTC (IOTC-2013-SC16-NR06)

Most vessels unload their catches in La Réunion for commercialisation on the domestic market or on the EU mainland market. The fleet has also a secondary logistic base in Tamatave, Madagascar.

### 3.2 Status of the resource

The resource of highly migratory species is managed by the IOTC, a RFMO to which both the EU and Mozambique are contracting parties<sup>32</sup>. IOTC has an advisory Scientific Committee which analyses the status of the resource and proposes recommendations to the Commission for the adoption of binding management and conservation measures applicable to all fleets in the Indian Ocean as a whole.

The following table presents the latest scientific advice for some key species. The purse seine segment concentrates its activities on skipjack and yellowfin with some catches of bigeye, while the Spanish, Portuguese and British longline segment targets primarily swordfish and pelagic oceanic sharks. Due to lack of data on shark fisheries, the scientific committee of IOTC could not produce any evaluation of the stock situation, noting however that available evidence indicates considerable risk to the stock status at current effort levels.

The stocks under IOTC management mandate extend over all the Indian Ocean as unique populations, meaning that there are no discrete regional sub-stocks that could have a different status motivating a sub-regional management strategy. Until relatively recently, it has been considered that there could be a discrete South-West Indian Ocean swordfish sub-stock. The first results of genetic research confirmed that swordfish is a single Indian Ocean stock, but the findings have to be confirmed by results of additional research using other genetic markers. Nonetheless, swordfish being less gregarious than tuna species, it is potentially more subject to localised depletion and therefore liable to a specific sub-regional management and conservation measure.

<sup>32</sup> Mozambique became a cooperating non-contracting party to IOTC in 2009, and a contracting party in Feb. 2012

Table 11: Summary of the status of the key species. Source: IOTC Scientific Committee Report 2013 (IOTC-2013-SC16)

Species	Recent average catch	MSY in tonnes	Summary
Albacore <i>Thunnus alalunga</i>	37 082 (2008-2012)	33 300	Stock status is not overfished (5 % above optimum) but subject to overfishing (33 % above MSY level) and close to limit reference point. Affected by the displacement caused by piracy
Bigeye tuna <i>Thunnus obesus</i>	107 603 (2008-2012)	132 000	Not overfished (44 % above optimum) and not subject to overfishing (58 % below target level). The tropical longline fishery was displaced by piracy but was returning by 2012
Skipjack tuna <i>Katsuwonus pelamis</i>	400 980 (2008-2012)	478 000	Not overfished (20 % above optimum) and not subject to overfishing (20 % below target level). Recent catch declines due to less fishing effort and lower catch rates
Yellowfin tuna <i>Thunnus albacares</i>	317 505 (2008-2012)	344 000	Not overfished (24 % above optimum) and not subject to overfishing (30 % below target level). Reductions in fishing effort, especially in longline effort, might reverse if the piracy threat continues to decline.
Swordfish (whole IO) <i>Xiphias gladius</i>	24 545 (2008-2012)	29 900-34 200	Not overfished (7-60 % above optimum) and not subject to overfishing (50-63 % of target level).
Swordfish (South-West IO) <i>Xiphias gladius</i>	6 808 (2008-2012)	7 100 - 9 400	Although this sub-stock is not a separate genetic stock, it has been subject to localised depletion. Recent declines in catch and effort have brought fishing mortality rates to levels below $F_{MSY}$ . The catches of swordfish in the southwest Indian Ocean increased in 2010 to 8,099 t, which equals 121.3% of the recommended maximum catch of 6,678 t

Colour key	Stock overfished ( $SB_{YEAR} < SB_{MSY}$ )	Stock not overfished ( $SB_{YEAR} > SB_{MSY}$ )
Stock subject to overfishing ( $F_{YEAR} > F_{MSY}$ )		
Stock not subject to overfishing ( $F_{YEAR} < F_{MSY}$ )		

The management and conservation framework applying to fisheries for highly migratory species is described in details in the Regional Indian Ocean study. In summary, most of the current conservation measures are based on the management of fishing capacities, with no limits on catches through a TAC & quota system. However, since most developing States of the Indian Ocean have declared plans to IOTC to legitimately increase their domestic tuna fleets with possible negative impacts on stocks sustainability under the current management scheme, discussions are underway between the IOTC contracting parties to identify an alternative conservation and management strategy based on allocations of shares of a TAC (*i.e.* quotas) to the different fishing entities. A specific IOTC Technical Committee on Allocation Criteria has been created to make proposals to the IOTC Commission for the definition of allocation criteria. The Committee met for the second time in February 2013<sup>33</sup>. Further meetings are needed before an allocation mechanism is agreed upon by the IOTC contracting parties, including the EU and Mozambique.

### 3.3 Ecosystem impacts of tuna fisheries

The following sections summarise the main findings on ecosystem impacts of tuna fisheries in the Indian Ocean. More developments on this topic can be found in the Regional Indian Ocean study. The ecosystem impacts summarised below are attributable to all fleets targeting highly migratory species in the Indian Ocean and not only to the EU fleet.

<sup>33</sup> Report of the meeting ref. IOTC-2013-TCAC02 available from the IOTC website

### 3.3.1 Purse seine fishery impacts

There is a clear difference in the impact of the two predominant fishing modes in the fishery. Free-swimming schools tend to have a much lower percentage of discards. The main by-catch of non-target species comprises an assortment of bony (non-shark) fish species, with low-value species such as triggerfish comprising a significant percentage of the catch. Discards also include tuna species not retained onboard because of their unsuitable quality for the markets (small individuals, damaged fish).

As shown in the following figure, total discards of the purse seine fishery are estimated close to 47.3 tonnes per 1 000 tonnes landed (4.7%). Discards are lower when fishing free schools (16.9 tonnes per 1000 tonnes landed) compared to fishing operations around FADs (65.8 tonnes per 1000 tonnes landed).

Table 12: Discard volumes of EU purse seiners in the Indian Ocean over the 2003-2009 period. Source: Amandé & al. (2012)<sup>34</sup>

(in tonnes / 1000 tonnes landed)	Free schools	FAD	Total
Tunas	10.8	38.4	28.0
Bony fishes	3.6	20.6	14.2
Sharks	1.5	5.4	3.9
Billfish	0.7	1.2	1.0
Rays	0.4	0.2	0.2
Turtles	0.0	0.0	0.01
<b>TOTAL</b>	<b>16.9</b>	<b>65.8</b>	<b>47.3</b>

As mentioned, tuna species represent the largest group of species discarded with an average of 28 tonnes discarded per 1 000 tonnes landed. Skipjack (38%) and frigate or bullet tuna (about 20%) being the predominant species whatever is the fishing mode considered. Discards of other major tuna species are fairly low in comparison (about 8% of tuna discards for yellowfin and about 3% for bigeye).

According to landings in 2012 (145 763 tonnes, Table 10), the EU purse seine fleet can be estimated to have discarded about 6 900 tonnes of fish species, including 4 000 tonnes of tuna species. Discards of skipjack (principally), yellowfin and bigeye would have amounted to about 2 000 tonnes. According to IOTC resolution 13/11, discarding these three major tuna species caught by purse seiners is now prohibited (landing obligation). Retention onboard of other species is encouraged.

According to a recent study, there could be a significant mortality of silky sharks entangled in FADs designed with long underwater hanging netting<sup>35</sup>. However, the EU fleet is currently developing environmentally-friendly FADs adapted to minimise accidental mortality of sharks and other species

<sup>34</sup> Amandé, M.J., Chassot, E., Chavance, P., Murua, H., de Molina, A.D., Bez, N. (2012) Precision in bycatch estimates: the case of tuna purse-seine fisheries in the Indian Ocean. *ICES Journal of Marine Science: Journal du Conseil*.

<sup>35</sup> Filmatler, J.D., Capello, M., Deneubourg, J.-L., Cowley, P.D., Dagorn, L. (2013) Looking behind the curtain: quantifying massive shark mortality in fish aggregating devices. *Frontiers in Ecology and the Environment* **11**, 291-296.

of the pelagic ecosystem<sup>36</sup> as required by the ISSF programme on sustainability of tuna fisheries and IOTC resolution 13/08. In addition, purse seiners operators have developed handling practices to increase survival rates of vulnerable species (sharks, turtles, rays) accidentally caught during fishing operations.

There are virtually no impacts on seabirds in purse-seine operations, and there is a very low observed mortality of marine turtles on FAD sets.

### 3.3.2 Longline fishery impacts

Environmental impacts of longline fisheries are poorly documented on a comprehensive basis.

As discussed earlier, sharks comprise an important proportion of the catches of longline fleets, representing the majority of the catch in some fleets – such as the Spanish, UK and Portuguese longline fleets, for which some shark species are the intended catch. However, some longline fleets do catch sharks as unintentional bycatch and try to minimise catches by using nylon branchlines (e.g. La Réunion).

With regard to seabirds, in the absence of seabird bycatch data from observer programmes, risk of bycatch has been identified through analysis of the overlap between albatross and petrel distribution and IOTC longline fishing effort, which has indicated that albatrosses breeding on southern Indian Ocean islands spent 70–100 % of their foraging time within areas with IOTC longline fishing effort. The analysis identified the proximity of the critically endangered Amsterdam albatross and endangered Indian yellow-nosed albatross to high levels of pelagic longline effort. Wandering, shy, grey-headed and sooty albatrosses and white-chinned petrels showed a high overlap with IOTC longline effort. Data on distribution during the non-breeding season was lacking for many species, including black-browed albatrosses and white-capped albatrosses (known from bycatch data to be amongst the species most frequently caught).

In 2009 and 2010, new tracking data were presented to the IOTC Working Party on Ecosystems and Bycatch. This filled a number of gaps in the 2007 analysis, particularly for sooty albatross, and for distributions of juveniles of wandering, sooty and Amsterdam albatrosses, and white-chinned and northern giant petrels. This analysis indicated overlap with IOTC longline fisheries in the Southern latitudes (30°S and greater).

With regard to turtles, information on most of the major longline fleets in the IOTC is currently not available and it is not known if this fishing activity represents a serious threat to marine turtles, as is the case in most other regions of the world. The South African longline fleets have reported that marine turtle bycatch mainly comprises leatherback turtles, with fewer loggerhead, hawksbill and green turtles. Estimated average catch rates of marine turtles ranged from 0.005 to 0.3 marine turtles per 1 000 hooks and varied by location, season and year. The highest catch rate reported in one trip was 1.7 marine turtles per 1 000 hooks in oceanic waters. In the period 1997 to 2000, the Programme Palangre Réunionnais examined marine turtle bycatch in the vicinity of Réunion Island (19-25° south, 48-54° east). The fishery caught an average catch rate of less than 0.02 marine turtles per 1 000 hooks over the four-year study period.

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<sup>36</sup> See <http://orthongel.fr/index.php?content=cat&page=selectivite> and <http://www.atuna.com/index.php/2-uncategorised/620-albacora-introduces-fad-with-practically-zero-bycatch-mortality#.UwYrMs4vw68>

## 3.4 EU fishing activities in the Mozambique fisheries zone

### 3.4.1 Utilisation of fishing opportunities negotiated

The current 2012-2015 protocol of agreement includes fishing opportunities for a maximum of 43 purse seiners and 32 surface longliners. Fishing opportunities are allocated among the Member States through Council Regulation (EU) 134/2012. The following Table 13 shows the distribution of fishing opportunities negotiated, with a comparison with fishing opportunities agreed under the previous 2007-2011 protocol of agreement between the EU and Mozambique. Figures show that fishing opportunities negotiated have been reduced between the two protocols, in particular for the longline segment, to take into account the low rate of utilisation during the 2007-2011 protocol (about 43% between 2007 and 2010) by the operators of this segment. Fishing opportunities for purse seiners have remained comparable between the two protocols.

*Table 13: Fishing opportunities allocated to Member States under the current and previous protocols of agreement between the EU and Mozambique. Source: relevant Council Regulations allocating fishing opportunities between Member States*

	2007-2011	2012-2015	
Purse seine (PS)	Spain	23	22
	France	20	20
	Italy	1	1
	<b>Total PS</b>	<b>44</b>	<b>43</b>
Longline (LL)	Spain	23	16
	France	11	8
	Portugal	9	7
	Un. Kingdom	2	1
	<b>Total LL</b>	<b>45</b>	<b>32</b>
<b>TOTAL</b>	<b>89</b>	<b>75</b>	

The reference tonnage, which is not a quota, but a basis for the calculation of the access costs to be paid by the EU has been set at 8 000 tonnes under the current protocol (art. 2, § a), 20% less than the reference tonnage agreed under the previous 2007-2011 protocol (10 000 tonnes).

The rate of utilisation of fishing opportunities negotiated under the current protocol has been low in 2012 and 2013. In total, only 32 EU tuna vessels out of a maximum of 75 (43%) have drawn a licence to fish in the Mozambique fishing zone in 2012. In 2013, the rate further deteriorated with 20 licences drawn (27% of maximum number of licence).

Table 14: Utilisation of fishing opportunities negotiated under the current protocol of agreement between the EU and Mozambique. Source: DG MARE

Segment	Member State	Max.	2012		2013	
			Number	% Maximum	Number	% Maximum
Purse seine (PS)	Spain	22	14	64%	11	50%
	France	20	6	30%	0	0%
	Italy	1	0	0%	0	0%
	<b>Total PS</b>	<b>43</b>	<b>20</b>	<b>47%</b>	<b>11</b>	<b>26%</b>
Longline (LL)	Spain	16	11	69%	7	44%
	France	8	0	0%	0	0%
	Portugal	7	1	14%	2	29%
	Un. Kingdom	1	0	0%	0	0%
	<b>Total LL</b>	<b>32</b>	<b>12</b>	<b>38%</b>	<b>9</b>	<b>28%</b>
<b>TOTAL</b>	<b>75</b>	<b>32</b>	<b>43%</b>	<b>20</b>	<b>27%</b>	

The following sections provide an analysis of utilisation pattern of fishing opportunities by the EU fleet. The analysis draws on discussions with the shipowners and put the numbers of vessels having used the fishing opportunities in perspective with the number of vessels active in the Indian Ocean during the same years (Table 10).

- Spain purse seine segment** : the number of vessels having drawn a license in 2012 is equal to the number of vessels active in the Indian Ocean (Table 10), indicating that 100% of the active Spanish purse seine fleet had an interest in the agreement. In 2013, 11 vessels out of a total of 14 (79%) drew a license. The number could have been 14 but three purse seiners owned by the fishing company involved in the *Txori Argi* dispute have been denied access pending the full resolution of the different. The difference between maximum fishing opportunities negotiated (22) and actual rate of uptake is explained by the departure of a number of Spanish purse seiners from the Indian Ocean as a consequence of piracy.
- French purse seine segment** : in 2012, 6 French purse seiners out of a total of 8 active in the Indian Ocean have utilised the fishing opportunities allocated by the Council (75%), suggesting an interest for access to the Mozambique fishing zone. In 2013, none of the 8 active purse seiners applied for a license in Mozambique waters. According to the professional association representing the interests of the fleet, the compulsory inspection agreed to in the current Protocol, of 33% of the number of authorised vessels in a Mozambican port before engaging in fishing activities<sup>37</sup> diminishes the potential economic return of the agreement. The maximum number of licenses allocated by the Council to this fleet segment (20) exceeds the number of French purse seiners currently active in the Indian Ocean (13 if the 5 purse seiners previously flagged to Mayotte are taken into consideration, but as a result of the change of status of Mayotte, these are now EU vessels).
- Italian purse seine segment**: the only Italian purse seiner active in the Indian Ocean has reflagged to France in 2009 to benefit from the Military protection deployed by French Authorities.
- Spain longline segment**: 11 (2012) and 7 (2013) Spanish longliners drew a license to access the Mozambique fishing zone. For 2012, this represents 61% of 18 Spanish longliners active

<sup>37</sup> Annex to the Protocol, Chapter VI, paragraph 4



in the Indian Ocean, and less (41%) for 2013. The maximum number of licenses foreseen for the Spanish longline fleet (23) is far greater than the number of active vessels in the Indian Ocean, with a result, a low rate of utilisation of fishing opportunities (48% in 2012 and 30% in 2013).

- **France longline segment:** no French longliners utilised the fishing opportunities negotiated (maximum 8 vessels) in 2012 and 2013. The activities of the Réunion fleet, which includes mostly vessels of less than 24 m, remained concentrated around La Réunion and in the East and the South-East waters of Madagascar, *i.e.* too far away from the Mozambique fishing zone to make the investment in a fishing license worthwhile. The Réunion longline vessels<sup>38</sup> which were supposed to utilise these fishing opportunities could never develop full scale commercial activities and are now tied up quayside with little perspectives of being put in operation again.
- **Portugal longliners:** the number of Portuguese longliners having drawn a license under the current protocol is low: 1 (out of 4 active) in 2012 and 2 (out of 5 active) in 2013, suggesting that the access to the Mozambique fishing zone presents an interest for only a portion of the segment. The maximum number of licenses (9) is greater than the number of active vessels.
- **United Kingdom longliners:** None of the three active UK longliners utilised the fishing opportunities provided for in the fishing opportunities Council Regulation in either 2012 or 2013. For this segment, the maximum number of licenses is commensurate with the actual size of the fleet. The zero uptake of license reveals a lack of interest for fishing in the Mozambique area.

In conclusion, the relatively low average utilisation of fishing opportunities provided for under the current Protocol can be explained by the conjunction of two factors:

- A discrepancy between the maximum number of fishing licenses available and the actual size of the EU fleet active in the Indian Ocean in 2012 and 2013 (in particular the French and Spanish purse seine segments, and the Spanish and Portugal longline segments)
- A lack of interest from some segments of the active EU vessels for an access to the Mozambique fishing zone (in particular the French purse seine and longline segments, and the Spanish longline segment).

### 3.4.2 EU tuna catches in the Mozambique fishing zone

EU catch data validated by the scientific institutes under the current protocol are only available for 2012. Since catches were obtained mostly before the June 2012 modifications of the limits of the fishing zone to which FPA provisions apply, the geographical reference for catch validation remained the line defined in the annex to the protocol. Catch data for 2013 will be communicated by the EU in July 2014 at the latest according to the protocol dispositions<sup>39</sup>. They will take into account the new limits of the fishing zone.

In 2012, the EU tuna fleet has caught a total of 1 156 tonnes, including 951 tonnes (82%) by purse seiners and 205 tonnes (18%) by longliners. The catches represent only 14% of the reference tonnage of 8 000 tonnes agreed to calculate the part of the access fees to be paid by the EU. Compared to catches of the EU tuna vessels in the IOTC area, the catches of purse seiners in the Mozambique

<sup>38</sup> In 2007, six 25 m brand new longliners built in China arrived in La Réunion for exploitation from the Island. by local fishing companies.

<sup>39</sup> Protocol annex, Chapter IV, art. 4

fishing zone represented only 0.6% of total catches in 2012 and 1.5% for EU longliners. By Member State, the ratio catches in the Mozambique fishing zone / total catches in the Indian Ocean are the highest for the French purse seine fleet and the Spanish longline fleet (2.2% for both segments).

*Table 15: Catches of the EU tuna fleet in the Mozambique fishing zone under the current protocol of agreement. Source: DG MARE*

(tonnes)		2012
Purse seine	Spain	100
	France	851
	Italy	0
	<b>Sub-total</b>	<b>951</b>
Longline	Spain	205
	France	0
	Portugal	0
	Un. Kingdom	0
	<b>Sub-total</b>	<b>205</b>
<b>TOTAL</b>		<b>1 156</b>

*Table 16: Catches of the EU tuna fleet in the Mozambique fishing zone under the past 2007-2011 protocol of agreement. Source: DG MARE*

(tonnes)	2007	2008	2009	2010	2011
Purse seine	852	2 727	2 319	2 231	1 685
Longline	521	697	1 521	2 030	645
<b>TOTAL</b>	<b>1 373</b>	<b>3 424</b>	<b>3 840</b>	<b>4 261</b>	<b>2 330</b>

Compared to catches realised by the EU tuna fleet under the previous 2007-2011 protocol, the relatively low level of 2012 catches is not exceptional. As shown in Table 16 and Figure 8, the level of catches of EU tuna vessels in the Mozambique fishing zone has varied dramatically between 2007 and 2012, with a maximum of about 4 200 tonnes in 2010, and an average across all years of about 2 300 tonnes. Catches in 2012 are the lowest of the time-series, and are similar to the level of catches in 2007 (1 300 tonnes) when twice as many vessels were licensed compared to 2012. The comparison of catches obtained in the Mozambique fishing zone and the reference tonnage agreed under the past (10 000 tonnes) and current (8 000 tonnes) protocols indicate that the best performance has been obtained in 2010 (catches equivalent to 43% of the reference tonnage), with an average rate of 23% across the 2007-2012 period. Performances in 2012 are similar to performances in 2007 (14% of reference tonnage caught).

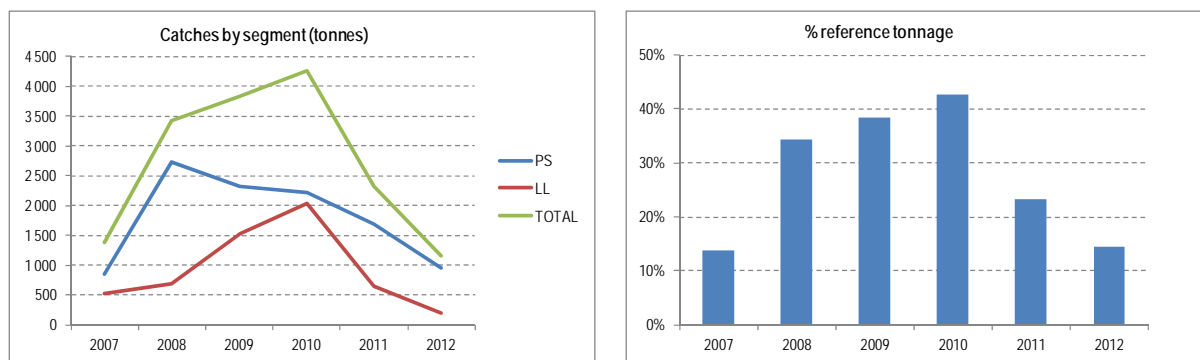


Figure 8: Catches of the EU fleet in the Mozambique fishing zone (left) and percentage of the reference tonnage (right) under the previous (2007-2011 - ref. tonnage of 10 000 t) and current (2012-2014 - ref. tonnage of 8 000 t) protocols of agreement. Source: from DG MARE data

As the figures above suggest, there is no clear relationship between the number of EU vessels with a license to fish in the Mozambique fishing zone and the catch performances of the EU fleet. Figure 9 following presents the number of vessels licensed each year between 2007 and 2012 and an indicator of catch performance constructed as the total catches of each the two fleet segments divided by the number of vessels licensed by segment.

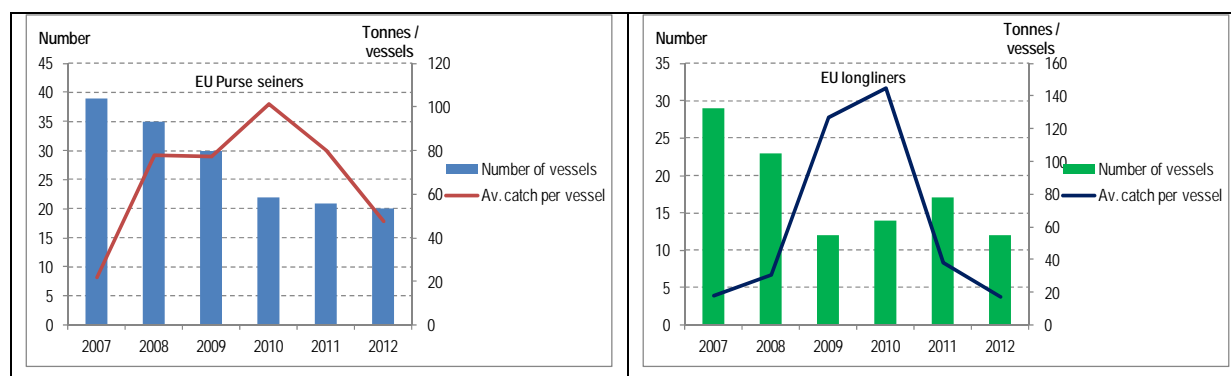


Figure 9 : Number of vessels licensed to fish in the Mozambique fishing zone under the previous and current protocols of agreement (bars) and catch performance indicator (line - total catches divided by the number of vessels licensed). Left: purse seine segment, right, longline segment. From data provided by DG MARE

For purse seiners, similar catch performance indicators have been obtained in 2008, 2009 and 2011 with an average 78 tonnes per vessel licensed. The highest catch performance indicator has been obtained in 2010 with an average 101 tonnes per vessel licensed. Catch performance in 2012 (47 tonnes per vessel licensed) is higher than catch performance in 2007 (22 tonnes per vessel licensed), the lowest point of the time series.

For longliners, the catch performance is relatively low in 2007 and 2012 (17 tonnes per vessel licensed), higher in 2008 and 2011 (about 35 tonnes per vessel licensed), and reach maximum in 2009 (127 t per vessel licensed) and 2010 (145 t per vessel licensed). 2009 and 2010 were also among the best year for the purse seine segment.

In summary, the catch level of EU tuna vessels in the Mozambique fishing zone shows no clear relationships with the number of vessels licensed each year for both segments. The main factor underpinning the catch level by the EU fleet appears to be related to the abundance and catchability of highly migratory species in the area, which cannot be predicted in advance. The high catch levels in 2009 and 2010 can also be related to higher effort deployed by the fleet segments in the Mozambique fishing zone either as a result of greater abundance or as a result of the piracy threat in

waters in the North of the zone. Since effort data are not available, this assumption cannot be verified.

EU catches by species are presented in Table 17 below. For EU purse seiners, the catch composition presented reflects data validated by the EU scientific institutes for the 2012 fishing campaign. For EU longliners flagged to Spain, Portugal and the United Kingdom, the catch composition presented is an average of catches reported over the 2009-2011 period as detailed data for 2012 are not yet available.

*Table 17: Catch composition of EU tuna vessels in the Mozambique fishing zone in % of total catches. Source: catch data from DG MARE for 2012 (purse seine segment) and average 2009-2011 (longline segment)*

Purse seine		Longline	
Species	% total catches	Species	% total catches
Skipjack	59%	Swordfish	55%
Yellowfin	34%	Blue shark	24%
Bigeye	7%	Shortfin mako	6%
Albacore	0%	Tunas*	13%
		Other	3%

\* Tuna species not detailed

For EU purse seiners, the balance of catch composition in the Mozambique fishing zone between skipjack and yellowfin for 2012 indicates a higher proportion of skipjack compared to total catches in the whole Indian Ocean (59% skipjack - 34% yellowfin for EU purse seine in the Mozambique fishing zone compared to 37% skipjack - 55% yellowfin for total EU purse seiners catches in the Indian Ocean). Concerning the EU longline segment, catches of swordfish in the Mozambique fishing zone represent 55% of total catches, with shark species representing another 30%. The proportion is slightly different from the catch composition of the same fleet in the whole Indian Ocean for the same period, with 43% swordfish and 44% sharks in the catches reported to IOTC.

Finally, the comparison between catches of EU vessels in the Mozambique fishing zone under the FPA and total catches in the Indian Ocean provides a good indicator of the relative dependency of the EU tuna fleet on an access to the Mozambican zone. According to data available displayed in Table 18, catches of EU purse seiners under the FPA with Mozambique represent about 1% of total catches, which is low. For Spanish and Portuguese longliners, the ratio is higher, reaching 19% (2009) and 24% (2010) on aggregate for both Member States, but lower the other years. This suggests that for the Spanish and Portuguese longline fleets, an access to the Mozambique fishing zone can be pivotal under certain conditions. For the other EU longline fleets (France and United Kingdom), no catches have been taken in the Mozambique fishing zone in a recent past.

Table 18: Comparison between catches of the different EU tuna fleet segments in the whole Indian Ocean (Whole IO) and catches in the Mozambique fishing zone (Moz. FZ) as defined by the protocols of agreement. Source: IOTC database for catches in the whole IO, DG MARE for catches in the Mozambique fishing zone

(tonnes)		2007	2008	2009	2010	2011	2012
<b>EU PURSE SEINE FLEET</b>							
France	Whole IO	69 535	74 919	56 944	47 103	42 894	37 155
	Moz. FZ	533	2 305	450	1 097	461	851
	%	0.8%	2.7%	0.8%	2.3%	1.1%	2.3%
Spain	Whole IO	112 849	124 004	111 951	130 519	130 349	108 608
	Moz. FZ	319	422	1 870	1 134	1 223	100
	%	0.3%	0.3%	1.7%	0.9%	0.9%	0.1%
Sub-total	<i>Whole IO</i>	<b>182 384</b>	<b>198 923</b>	<b>168 895</b>	<b>177 622</b>	<b>173 243</b>	<b>145 763</b>
	<i>Moz. FZ</i>	<b>852</b>	<b>2 727</b>	<b>2 319</b>	<b>2 231</b>	<b>1 685</b>	<b>951</b>
	<i>%</i>	<b>0.5%</b>	<b>1.4%</b>	<b>1.4%</b>	<b>1.3%</b>	<b>1.0%</b>	<b>0.7%</b>
<b>EU LONGLINE FLEET</b>							
Spain	Whole IO	10 445	7 747	7 067	6 440	7 458	9 356
	Moz. FZ	556	697	1 341	1 816	642	205
	%	5.3%	9.0%	19.0%	28.2%	8.6%	2.2%
Portugal	Whole IO	3 984	1 086	1 133	2 090	1 988	1 489
	Moz. FZ	0	0	180	214	3	0
	%	0.0%	0.0%	15.9%	10.2%	0.1%	0.0%
France	Whole IO	3 494	2 468	2 181	2 267	2 522	1 906
	Moz. FZ	0	0	0	0	0	0
	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Un. Kingdom	Whole IO	1 671	2 027	1 517	441	499	1 225
	Moz. FZ	0	0	0	0	0	0
	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sub-total	<i>Whole IO</i>	<b>19 594</b>	<b>13 328</b>	<b>11 898</b>	<b>11 238</b>	<b>12 467</b>	<b>13 976</b>
	<i>Moz. FZ</i>	<b>556</b>	<b>697</b>	<b>1 521</b>	<b>2 030</b>	<b>645</b>	<b>205</b>
	<i>%</i>	<b>2.8%</b>	<b>5.2%</b>	<b>12.8%</b>	<b>18.1%</b>	<b>5.2%</b>	<b>1.5%</b>

### 3.4.3 Utilisation of catches caught in the Mozambique fishing zone

None of the EU vessels unloaded their catches in the ports of Mozambique. Purse seine catches have been unloaded in Victoria, Seychelles, the principal logistical base of the fleet, with some quantities being unloaded in Diego Garcia, Madagascar. According to the professional associations, unloading in the ports of Mozambique does not provide any advantage as the vessels have no logistical organisation to distribute the catches to the processing plants of the region, and for support operations during port calls (minor repairs, supply of consumables, crew rotations). There are no dedicated fishing harbours with sufficient infrastructures to handle EU purse seine vessels. In addition, Mozambique does not have any tuna processing facility dedicated to the treatment of purse seine catches. Similarly, longliners catches have unloaded in Durban, South Africa, for subsequent shipment to the EU market by reefer vessels.

### 3.4.4 Economic and social impacts of EU fishing activities

## Prices of target species

### Purse seine segment

Prices of tuna placed on the market by purse seiners are largely influenced by prices paid by Thailand processors to global suppliers as Thailand is the main tuna processing country. The following figures show that skipjack prices have followed an increasing trend over 2011 and 2012, reaching an all time high in 2012. Over the 2012 year as a whole, the Bangkok benchmark averaged USD 2 074/ tonne, a 20 per cent increase over 2011 which in turn was 42 per cent higher than in 2010. Yellowfin prices have also increased markedly in 2012 compared to prices in 2010 and 2011, although relatively less than skipjack.

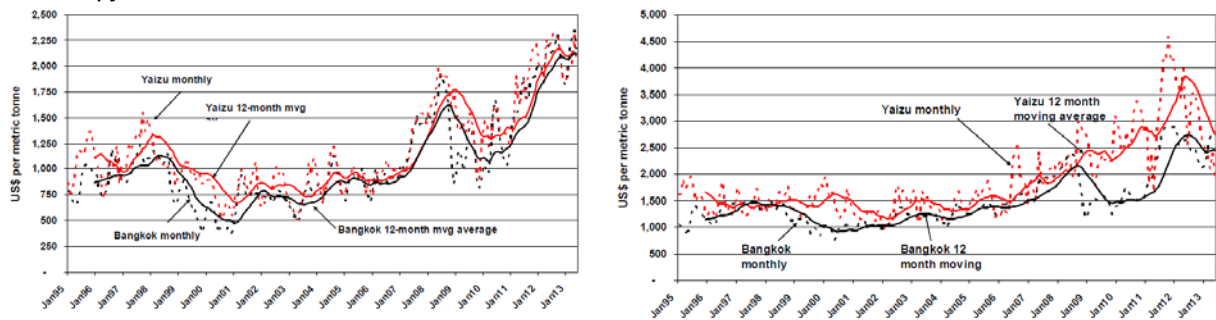


Figure 10: Skipjack (left) and yellowfin prices (right) in Bangkok - Thailand (c&f) and in Yaizu - Japan (ex-vessel) monthly and 12 month moving average. Source: WCPFC-SC9-2013/GN WP-1

According to various professional sources, prices of tunas are down in 2013 and 2014 compared to their levels of 2012. In December 2013, average Bangkok price of skipjack was around USD 1 600 / tonne, with a decreasing trend continuing through the first months of 2014 (USD 1 400 / tonne). The evolution of tuna prices are largely the result of the supply-demand situation on the global market. 2011 and 2012 were in favor of producers with supply not meeting the demand. From 2013 through 2014, the situation reversed with oversupply compared to demand.



Figure 11 : Evolution of skipjack prices paid by Thai processors. Source : Spend Matters<sup>40</sup>

Prices paid to EU vessels follow these benchmarks. The following table indicates the average prices by species paid to purse seiners fishing in the Western Central Pacific Ocean. Since tuna for canning is a globalised commodity, it will be assumed that these prices reflect prices paid to European purse

<sup>40</sup> <http://spendmatters.com/2014/03/24/skipjack-tuna-prices-plummet/> accessed 26 March 2014

seiners operating in the Indian Ocean. EU purse seiners reportedly obtain slightly higher prices due to the quality and regularity of supply, and due to the originating status conferred to the products processed in ACP countries using EU raw material, but this cannot be quantified.

*Table 19: Average market prices of tuna species caught by purse seiners. Source : FFA*

(in € / tonne)	2010	2011	2012
Yellowfin	1 163	1 547	1 878
Bigeye	934	1 209	1 641
Skipjack	934	1 209	1 641
Albacore	2 011	2 190	2 740

The average prices per tonne of tuna species applied to catch compositions of French and Spanish purse seiners as declared to IOTC are used to estimate an average composite price of catches. As shown in the table below, the composite price obtained by the French purse seine fleet is higher than the composite price obtained by the Spanish purse seine fleet as a result of a greater proportion of yellowfin in the catches. However, the difference is minimal (about 3%).

*Table 20 : Composite prices of catches of EU purse seiners as a result of the proportion of the major tuna species in the catches. Source : FFA for prices by species and IOTC for composition of catches per species.*

(in € / tonne)	2010	2011	2012
French purse seiners	1 045	1 382	1 806
Spanish purse seiners	1 014	1 346	1 771
Aggregate (both fleets)	1 022	1 354	1 780

### Longline segment

Catches of EU longliners flying the flags of Spain, Portugal or the United Kingdom operating in the Indian Ocean are sold frozen on the Spanish market. The following table shows the average prices recorded in Vigo for frozen swordfish, Bluefin shark and shortfin mako, the three main species caught by the EU logline fleet. EU longliners also report a mix of other species (tunas, miscellaneous species) for which an average price of EUR 2 000 per tonne is assumed. A composite price is estimated on the basis of the catch composition of EU longliners in the Indian Ocean (55% swordfish, 24% blue shark, 6% shortfin mako, 16% various species according to catch declarations submitted to IOTC for Spanish and Portuguese longliners on average over the 2009-2011 period as reported in Table 17).

*Table 21: Composite price for EU longliners estimated from prices at first sale in Vigo. Source: Puerto de Vigo for average species prices in frozen form (except various species, own estimate), IOTC catch database for % of each species.*

(EUR / tonne)	2010	2011	2012
Swordfish	5 100	5 660	4 800
Blue shark	1 000	1 000	700
Shortfin mako	2 500	2 300	1 950
Various species	2 000	2 000	2 000
Composite price	3 487	3 780	3 218

The prices quoted in the table are prices upon first sale in Vigo. They may not reflect the prices actually paid to shipowners as they include in particular transport costs from Durban to Spain.

However, the difference is thought to be small as transport of frozen products by sea usually costs in the region of EUR 150 / tonne.

Prices of fishery products paid to longliners based in La Réunion are higher. This fleet lands fresh products which fetch higher prices on the domestic and EU mainland markets than frozen products. For example, for fresh swordfish a price of around EUR 7 / kg is paid to the vessels, and for fresh tuna the price is around EUR 6 / kg. However, since La Réunion longliners did not utilise fishing opportunities allocated to this segment, the composite price of catches will not be estimated further.

## **Economic performances of the EU fleet**

### ***Income from catches in the Mozambique fishing zone***

For 2012, the multiplication of volume of catches by the different fleet segments by the composite prices estimated in Table 19 and Table 21 gives an estimated total income of the EU fleet in the Mozambique fishing zone close to EUR 2.4 million, with the purse seine segment representing 72% of the total income.

*Table 22: Estimates of 2012 income derived from EU fishing operations under the FPA in the Mozambique fishing zone. Source: DG MARE for catch data, own estimates for composite price*

	Catches (tonnes)	Composite price (EUR / tonne)	Income (EUR)
<b>Purse seiners</b>			
FR	851	1 806	1 536 906
ES	100	1 771	177 100
IT	0		
Subtotal	951		1 714 006
<b>Longliners</b>			
ES	205	3 218	659 690
FR	0		0
PT	0		0
UK	0		0
Subtotal	205		659 690
<b>TOTAL</b>	<b>1 156</b>		<b>2 373 696</b>

### ***Value added and gross cash flow from catches in the Mozambique fishing zone***

The percentages value added / turnover and gross cash flow / turnover for 2012 have been estimated on the basis of the methodology developed in annex 3 which uses the economic data collected under the EU Data Collection Framework<sup>41</sup> and follows closely the methodology used by STECF to analyse EU fleet economic indicators. Due to uncertainties in estimating depreciation in particular, it is not possible to estimate profits obtained from the operations of the EU fleet in the Mozambique EEZ. As shown in the following table, the value added generated from fishing operations in the Mozambique fishing zone in 2012 is slightly less than EUR 1.1 million. The corresponding gross cash flow is close to EUR 510 000.

<sup>41</sup> Published in the 2013 Annual Economic Report on the EU Fishing Fleet (STECF 13-15)



Table 23: Estimates of 2012 value added (VA) and gross cash flow (GCF) derived from EU fishing operations under the FPA in the Mozambique fishing zone. Source: refer to annex 3

	Income (EUR)	VA / income (%)	VA (EUR)	GCF / income (%)	GCF (EUR)
<b>Purse seine</b>					
FR	1 536 906	52%	799 191	22%	338 119
ES	177 100	37%	65 527	22%	38 962
IT	0		0		0
<i>Subtotal</i>	<i>1 714 006</i>		<i>864 718</i>		<i>377 081</i>
<b>Longline</b>					
ES	659 690	33%	217 698	20%	131 938
FR	0		0		0
PT	0		0		0
UK	0		0		0
<i>Subtotal</i>	<i>659 690</i>		<i>217 698</i>		<i>131 938</i>
<b>TOTAL</b>	<b>2 373 696</b>		<b>1 082 416</b>		<b>509 019</b>

As EU vessels do not use any goods or services in Mozambique and do not employ National seamen onboard. The share of the estimated direct value-added accruing to Mozambique is therefore equal to zero.

Mozambique financial benefits from shipowners are restricted to payments for license fees and other financial contributions considered in the protocol). Direct payments from shipowners were about EUR 200 000 in total in 2012 (see next section).

#### **Balance of payments to Mozambique under the FPA**

The payments to Mozambique under the FPA include:

- the amounts considered under article 2 of the protocol, *i.e.* the cost of access (EUR 520 000 per year), the sectoral support (*i.e.* EUR 460 000 per year) plus, if any, additional access costs for catches above the reference tonnage of 8 000 tonnes. These amounts are paid to Mozambique on the single central treasury account.
- the amounts paid by shipowners, including the license fees, additional license fees if individual vessel catches are above the catch level used to calculate the cost of the license, cost of access for supply vessels and other contributions considered in the annex to the protocol (contribution to observers programme, penalties for not embarking national seamen). Payments from shipowners are recovered by ADNAP and paid on the bank account of Ministry of Fisheries.

Table 24 provides an estimate of total financial transfers to Mozambique under the current 2012-2015 protocol of agreement. For 2013, catch data are not yet available. The final amounts presented for 2013 in the table may be higher depending on catches performances. However, given the relatively low 2013 rate of utilisation of fishing opportunities, this situation is unlikely. For 2012 and 2013, details of penalties to be paid for not embarking seamen are not available. The table includes an own estimate EUR 8 000 assuming that purse seiners spent in 2012 an average 5 days each in the Mozambique fishing zone, and longliners, an average of 6 days each.

Table 24: Details of payments to Mozambique under the current protocol of agreement. Source: own calculations on the basis of DG MARE data on utilisation and catches

(EUR)	2012	2013
<b>Shipowners payments</b>		
<b>License fees</b>		
Purse seine segment	102 000	56 100
Additional fees	18 373	n.a.
<i>Subtotal purse seiners</i>	<i>120 373</i>	<i>56 100</i>
Longline segment	49 200	36 900
Additional fees	0	n.a.
Support vessels	17 900	17 900
<i>Total license fees</i>	<i>187 473</i>	<i>110 900</i>
Contributions observers programme	9 600	6 000
Compensation for seamen*	8 000	8 000
<i>Total shipowners payments</i>	<i>205 073</i>	<i>124 900</i>
<b>EU payments</b>		
Payments for access	520 000	520 000
Additional access payments	0	n.a.
Payments for sectoral support	460 000	460 000
<i>Total EU payments</i>	<i>980 000</i>	<i>980 000</i>
<b>TOTAL PAYMENTS</b>	<b>1 185 073</b>	<b>1 104 900</b>

\*Estimate

In total, Mozambique received between EUR 1.1 million and EUR 1.2 million per year under the current protocol. EU public funding represented 83% (2012) and 89% (2013) of total payments, while the private sector beneficiary of this agreement contributes up to 17% (2012) and 11% (2013) of total payments.

### Direct employment

The number of crew onboard the different vessels composing the EU fleet is assumed to be as follows on the basis of a previous study<sup>42</sup>:

- Purse seiners: on French purse seiners, there is 24 crew onboard, including 8 EU Nationals and 16 ACP Nationals (mainly West African countries, Madagascar, Seychelles). On Spanish purse seiners, the average number of crew is 30 per vessel, including 10 EU Nationals and 20 ACP Nationals (same origins).
- Longliners: crew composition onboard the Spanish and Portuguese longliners is assumed to include 6 EU Nationals and 10 ACP Nationals.

The number of FTE onboard the EU vessels is estimated to be the number of crew onboard increased by 33% to take into account crew rotations (approximately 1/3 of the total manpower of the vessels is on leave).

<sup>42</sup> Oceanic Développement (2009) - Overall evaluation of FPAs - SC 17 under Framework Contract FISH/2006/20.

The next Table 25 displays the estimates of the number of FTEs on each fleet segment. The number of FTEs is calculated as the number of vessels of each segment having used the fishing opportunities negotiated multiplied by the number of FTEs per vessel.

*Table 25: Estimates of the number of FTEs onboard the EU vessels having used the fishing opportunities under the current 2012-2015 protocol of agreement. Source: DG MARE data on utilisation own estimates for FTEs per vessel*

	2012			2013		
	FTE EU Nationals	FTE ACP Nationals	Total FTE	FTE EU Nationals	FTE ACP Nationals	Total FTE
<b>Purse seine</b>						
Spain	187	373	560	147	293	440
France	36	128	164	0	0	0
<b>Longline</b>						
Spain	88	147	235	56	93	149
Portugal	8	13	21	16	27	43
<b>Total</b>	<b>319</b>	<b>661</b>	<b>980</b>	<b>219</b>	<b>413</b>	<b>632</b>

In total, the number of FTEs generated by the vessels having used the fishing opportunities is close to 1 000 in 2012 and 630 in 2013, composed by approximately 1/3 FTEs for EU Nationals and 2/3 ACP Nationals. Employment of ACP Nationals concerns primarily Nationals from West African countries (Ivory Coast, Senegal, and Ghana) and from Western Indian Ocean countries (Madagascar, Seychelles). No Mozambican Nationals are employed on the EU vessels.

The extent to which this number of FTEs depends on access to the Mozambique fishing zone varies according to the segments considered. Based on the dependency indicators presented in Table 18 page 46, it can be inferred that employment onboard EU purse seiners is not dependent on an access to the Mozambique fishing zone. The deliberate choice of French purse seiners of not using the fishing opportunities in 2013 illustrates this low level of dependency. For the EU longline segment, the 200 / 250 FTEs supported are probably more dependent on an access to the Mozambique fishing zone.

### **Benchmarking the agreement**

The following tables present some indicators which are useful as indicators of the performance of the current protocol in terms of efficiency.

#### ***Cost of fishing opportunities***

Ex-ante, the cost of fishing opportunities was set at EUR 100 / tonne with the EU paying EUR 65 / tonne and shipowners the remaining EUR 35 / tonne. Given the catch performances of the EU fleet in 2012 in the Mozambique fishing zone, the real cost of fishing opportunities is EUR 612 EUR / tonne, with a cost of EUR 450 / tonne paid by the EU and EUR 162 / tonne paid by EU shipowners. This is about 6 times higher than the cost of fishing opportunities expected ex-ante.

In terms of access costs as % of the price of target species, and on the basis of the composite prices of tuna and related species estimated for 2012 (Table 20 and Table 21), the cost of fishing opportunities negotiated by the EU ex-ante (EUR 100 per tonne) was in the region of 5% of prices of target species for purse seiners and 3% for longliners in total (EU payments plus shipowners

payments). Ex-ante costs of fishing opportunities for EU shipowners represent less than 2% of the cost of fishing opportunities for both segments. Real catch performances in 2012 indicate an ex-post cost of fishing opportunities equivalent to 34% of the value of the catches for purse seiners (25% by the EU and 9% for EU shipowners) and 19% for longliners (14% and 5% respectively). The ex-ante and ex-post access costs in proportion of the value of the catches are shown in the Table 26 below.

*Table 26: Ex-ante and ex-post indicators for the costs of fishing opportunities negotiated under the 2012-2015 protocol. Source: own elaboration*

	Ex-ante	Ex-post	Ex-post / Ex-ante
EU (€ / tonne)	65	450	x 6.9
Shipowners* (€ / tonne)	35	162	x 4.6
Total (€ / tonne)	100	612	x 6.1
% catch value purse seiners			
EU	3.7%	25%	x 6.9
Shipowners*	2.0%	9%	x 4.6
Total	5.6%	34%	x 6.1
% catch value longliners			
EU	2.0%	14%	x 6.9
Shipowners*	1.1%	5%	x 4.6
Total	3.1%	19%	x 6.1

\* Not including shipowners payments to the observers programme and penalties for not hiring National seamen

The relative costs per tonne paid by shipowners (respectively 9% of catch value for purse seiners and 5% of catch value for longliners) are in line with the 8-10% acceptable benchmark estimated by vessels owners for the tuna fisheries in the Western Central Pacific. Therefore, it can be assumed that the agreement remains economically interesting for EU shipowners on average despite the low catch levels obtained in 2012.

### **Cost benefit ratio of EU investment**

On the basis of estimates of the value-added generated by EU fishing activities under the current protocol as detailed in Table 23 and by comparison with the amount paid by the EU for access of EU vessels in the Mozambique fishing zone, it can be estimated that every EUR 1 invested by the EU generated EUR 2.08 value-added in 2012 by the fishing industry.

*Table 27: Cost-benefit ratio of EU investment for access of EU fishing vessels in the Mozambique fishing zone in 2012. Source: own elaboration*

	2012
(1) EU access payment	520 000
(2) Value added generated by the EU fleet	1 082 416
Ratio (2) / (1)	2.08

It is not possible to evaluate the cost-benefit ratio of the EU investment in the sectoral support (EUR 460 000 per year) under the agreement. The main reason is that the impacts measured through performances indicators are qualitative and related to the capacities and output of the services of the Ministry in monitoring foreign fishing activities and assessing fishing resources exploited by their domestic fleets

## 4 Implementation of the current protocol

### 4.1 Overall cooperation

Article 9 of the Fisheries Partnership agreement provides that a Joint Committee shall be set up to monitor the implementation of the agreement. The Joint Committee shall meet at least once a year and hold a special meeting at the request of either party. Beside the official framework of the Joint Committees, the EU and Mozambique can consult each other on matters relevant for the FPA in the framework of ad-hoc technical meetings.

In addition to the meetings of the Joint Committee, the FPA and its associated protocol foresees scientific cooperation on responsible fishing between the two parties either under the framework of a bilateral joint scientific working group or under the multilateral framework of the competent RFMO (IOTC).

The Joint Committee set up under the agreement met in accordance with the FPA and associated protocol clauses.

A first meeting of the Joint Committee took place in Maputo in April 2012, approximately 2 months after the provisional date of application of the 2012-2015 protocol. This first Joint Committee reviewed several points in relation with the past and current protocols, and discussed the rules of implementation of the sectoral support for the 2012-2015 period as expected by the protocol.

An extraordinary meeting of the Joint Committee was held two months after in June 2012 in Maputo. In particular, this meeting considered *i)* a revision of the coordinates of the Mozambique fishing zone, and *ii)* the modalities for a full implementation of an Electronic Reporting System.

Concerning point *i)* the two parties agreed to apply as from June 2012 revised limits of the Mozambique fishing zone to be used by the FMC for fisheries law enforcement purposes for the control of the EU fishing fleets operating under the FPA EU/ Mozambique. These new coordinates are without prejudice to any future formal boundary delimitation of the Mozambican EEZ. As discussed in 2.1.1 page 7, the new coordinates increase by 11% the maritime area in which provisions of the FPA apply, and include some offshore areas in the Canal of Mozambique that were previously excluded by the initial limits agreed under the protocol.

Concerning point *ii)* the two parties agreed to fully implement from September 2012 an ERS to be trialed between June and September 2012. Applicable under Council Regulation (EC) N° 1224/2009 to any EU vessel of length greater than 12 m wherever it operates, the ERS provides for electronic transmission of logbook data to their respective FMC, and in particular of catch data and for transmission of entry and exit notifications at least on a daily basis. Under this scheme, the FMCs of the Member States concerned transmit ERS events to the Mozambique FMC when EU vessels are within the limits of the fishing zone agreed under the FPA. The FPA with Mozambique is the first EU fishing agreement under which ERS data are transmitted to the Coastal State. ERS is now being implemented under other EU agreements (*e.g.* Seychelles).

A third meeting of the Joint Committee was convened in November 2013 in Brussels. This Joint Committee was preceded by a technical meeting held in Brussels in April 2013. The third Joint Committee reviewed the implementation of technical clauses of the protocol in relation with the monitoring of EU vessels under the FPA. It also reviewed the implementation of the sectoral support (results achieved in 2012, 2013 implementation, 2014 programme). During this meeting of the Joint Committee, the parties also discussed the possibility to review historical 2007-2011 catches of EU vessels according to the coordinates of the Mozambique fishing zone implemented as from June

2012, and the prospects for development of a National tuna fleet in light of recent announcements in the international press.

Concerning scientific cooperation on responsible fishing, the two parties have been involved in the relevant international scientific groups of the IOTC. Given that the FPA concerns highly migratory species managed under a multilateral framework, a specific bilateral scientific cooperation framework has not been established. However, in light of the difficulties of IIP to obtain cooperation from Member States research institutes on the issue of catch validation (see section 4.3.2 page 57), it could be appropriate to convene the Joint Scientific Committee as foreseen under art. 4 of the Fisheries Partnership Agreement to provide expertise on methodologies to be used for catch validation and their applications to catch data held by the different parties.

## **4.2 Implementation of the sectoral support**

The current protocol foresees that a specific amount of EUR 460 000 per year shall be transferred to Mozambique for the support and implementation of the Mozambique sectoral fisheries and maritime policy (At. 2, § 2 (b)). The programme of utilisation of the sectoral support is designed and agreed by both parties under the Joint Committee taking into account the priorities expressed by Mozambique in the dedicated policy documents. The sectoral support is paid on the single central treasury account. The funds are then allocated to the Ministry following National budget procedures.

During the Joint Committee organised in April 2012, the two parties reviewed the implementation of the sectoral support foreseen under the 2007-2011 protocol and prepared the programme to be supported under the 2012-2014 period. The Mozambique Authorities indicated that the utilisation of the sectoral support would address four specific objectives (ensure the sustainable exploitation of fishery resources; harmonise the process of planning, management and monitoring of fisheries ; participation to regional and international meetings ; capacity building in planning, monitoring and management of fisheries). The Mozambique authorities indicated which programmes registered in the National budget planning will be supported by the EU sectoral support, and the complementarities / synergies with other sources of funding, internal or external.

In 2012, Mozambique authorities utilised mostly a carry-over from the previous protocol amounting to about EUR 750 000 to support a list of activities identified in the budgeted programme of the Ministry. Approximately 46% of the carry-over has been used for the construction of a new Ministry building, 38% for construction around the fishery school, and 5% for participation to international meetings.

The same year, Mozambique authorities indicated having used the equivalent of 52% of the 2012 sectoral support (about EUR 218 150). The sectoral support has been used mostly in support to IIP (research survey, data collection) and ADNAP (upgrade of VMS software and network). The remaining amount of EUR 240 850 paid under the 2012 sectoral support was carried over to the 2013 programme.

For 2013, the joint committee held in November 2013 identified that only 7% of the sectoral support had been used with a percentage of the 2012 carry-over. The low level of utilisation was explained by relatively late payment by the EU (August 2013) with additional delays (2 months) attributable to the National procedures for transferring the amounts received from the single treasury account to the account of the Ministry of fisheries. According to the Commission, the payment was delayed as the accounts expected for the 2012 utilisation were only provided by Mozambique in July 2013.

During the evaluation mission, the Ministry of Fisheries provided an indicative utilisation of the sectoral support, as budget procedures were not finalised. In essence, part of the sectoral support

has been utilised for the same actions as reported in 2012, *i.e.* support to IIP for scientific research and support to ADNAP for the upgrading of the VMS and development of ERS on foreign vessels licensed to fish in the Mozambique fishing zone. According to information received, all carry-over from 2012 and 10% of 2013 sectoral support have been utilised as of end 2013.

For 2014, the plans are to support research and MCS programmes of the Ministry according to a programme submitted to the Commission during the November 2013 Joint Committee.

In conclusion, it can be considered that the utilisation of the sectoral support by Mozambique Authorities is fully transparent. The programmes supported are clearly identified in the financing laws with details on the origin of funds (internal / external). Mozambique reports on the utilisation of this source of funding can be verified using budget sources. Note that Mozambique is evaluated by the Commission as satisfying the eligibility criteria for allocation of budget support<sup>43</sup> under the 10<sup>th</sup> EDF (50% of envelope A allocation). Other Donors in the fisheries sector, including Norway, use a similar budget support approach to implement their cooperation programmes. This offers some guarantees on the transparency of utilisation of EU budget support under the FPA.

However, the implementation of the sectoral support has been delayed compared to the initial schedule. This can be attributed to a general low capacity of budget execution as reported by the fisheries administration's annual report which also impacts to some extents the EU sectoral support funds utilized according national applicable rules. According to the 2012 annual report of the Ministry, the disbursement capacities of the Ministry of fisheries was limited to 55 % of the common funds (Norway & Iceland sectoral budget support) and 40 % of the investment budget while the functioning expenses were executed up to 67 % in the central services and 65 % in the provincial services

### 4.3 Implementation of the main provisions of the protocol

The following points develop some provisions of the protocol which have not been implemented up to the satisfaction of the two parties according to the various stakeholders met. Other specific provisions of the protocol that are not discussed here are not estimated to raise any particular issues deserving specific attention in the evaluation (*e.g.* VMS, licensing, technical measures)

#### 4.3.1 The exclusivity clause<sup>44</sup>

The exclusivity clause of art. 7 of the protocol indicates that *“EU vessels may fish in Mozambique waters only if they are in possession of a valid fishing authorisation issued by Mozambique under this protocol”*.

In 2012, licenses information published by ADNAP reveals that 4 fishing vessels flying the flag of Portugal have been licensed to fish for coastal and deep-sea shrimps. These vessels are listed in the EU fleet register established under Council Regulation (EC) N°26/2004. The four vessels are industrial trawlers measuring between 30 and 33 m, and relatively recent (3 have been constructed between 2000 and 2003).

The licensing by Mozambique of these four vessels may be in contravention of the exclusivity clause contained in the fishing agreement.

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<sup>43</sup> [http://ec.europa.eu/europeaid/how/delivering-aid/budget-support/index\\_en.htm](http://ec.europa.eu/europeaid/how/delivering-aid/budget-support/index_en.htm)

<sup>44</sup> Article 6 of the Fisheries Partnership Agreement and article 7 of the protocol

According to information available, these four vessels have been fishing in Mozambique for some years now. They are chartered by local fishing companies to exploit the fishing opportunities under the current management system implemented by Mozambique authorities. Catches are all landed in the ports of Mozambique and commercialised by the National fishing company predominantly on the EU market. The financial benefits of the activities of these 4 vessels accrue to the local fishing company, and indirectly to foreign interests as most industrial fishing companies in Mozambique are joint-ventures.

This situation is not new. In September 2010 under the previous protocol, a meeting of the Joint Committee raised this issue. According to the records of discussions<sup>45</sup>, the European Commission indicated that the presence of Portuguese flagged trawlers represented a breach of the exclusivity clause, confirmed at that time by DG MARE legal unit. On this basis, the Commission invited the Member State concerned and the Mozambican authorities to take immediate measures to ensure compliance with the exclusivity clause, apparently with no follow-up at least until 2012.

If the Portuguese trawlers are still currently active in Mozambique waters (which could not be ascertained during the mission), this situation needs to be clarified for the remaining period of the current protocol and in the perspective of the preparation of the next one.

#### 4.3.2 Catch reporting and validation<sup>46</sup>

According to the protocol, scientific institutes of the Member States validate catch data in the Mozambique fishing zone on the basis of logbooks submitted by skippers of fishing vessels cross checked with other information, including VMS and sales notes. Validated catch data are submitted to the Mozambique authorities who have the right to contest on the basis of information available (logbooks, entry-exit notifications, VMS). Validated catch data are the basis for calculating the final annual value of access paid by the EU (actual catches versus reference tonnage) and by EU shipowners (actual catches versus reference catch levels used to establish the initial value of the license).

For the sake of greater transparency and to resolve any problem that may arise, it was agreed that there should be a cooperation between IIP and the designated scientific institutes in the Member States (IRD in France, IEO in Spain and IPIMAR in Portugal). According to information received from Mozambique, only IRD has responded positively in 2012 to IIP request for cooperation. IEO and IPIMAR have not responded as yet. According to an IRD representative interviewed, the cooperation is relatively easy to implement, and could explain discrepancies between estimates by the two sources ahead of official submission. The main source of discrepancies is that catch data used by IIP are rough estimates of catches onboard from the entry-exit notifications and logbooks, while IRD uses catch data from sales declarations which reflect the real weight and catch composition of catches unloaded by the purse seiners.

Cooperation could also clarify what limits of the fishing zone have been taken into account for catch validation purpose (*i.e.* the initial limits as per protocol or the revised limits as per Joint Committee of June 2012). On this particular point, it should be precised that the catch data validated by IRD for 2012 take into account the initial limits. The reasons are *i)* that catch data validated for 2012 are catches that have been obtained between March and May 2012 during the Mozambique Channel fishing campaign, and *ii)* that IRD reported that they have been unofficially informed of the revised limits only recently in December 2012 in the margins of an IOTC meeting, and that at the time of

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<sup>45</sup> Joint Committee Meeting - agreed records - Brussels 16/17 September 2010.

<sup>46</sup> Annex to the protocol, Chapter IV



writing of this evaluation, they were still expecting the official notification of the revised coordinates from the French Authorities. Concerning IEO and IPIMAR, a response to the request for cooperation was still expected. Aware of this problem, the European Commission in agreement with Mozambique Authorities mandated a focal point in DG MARE to promote and streamline the cooperation between IIP and the Member States scientific institutes (Joint Committee, November 2013).

Note that for other foreign flagged vessels licensed to fish in the Mozambique fishing zone, this issue of catch validation is not relevant. Other foreign flagged vessels pay a flat rate for access fee independent from the catches they obtain or the time they are present in the Mozambique fishing zone. Nonetheless, reporting of catches while fishing in the Mozambique fishing zone is mandatory as part of the licensing conditions.

#### 4.3.3 Pre-fishing briefing and pre-fishing inspections<sup>47</sup>

According to the protocol, 33% of EU fishing vessels authorised to fish in the Mozambique fishing zone shall come to a designated port for a pre-briefing and a pre-fishing inspection. According to the Mozambican authorities, this pre-inspection, carried out by inspectors from the Ministry of Fisheries, is imposed to make sure that the master of the vessel is well informed of its obligations while in the Mozambique fishing zone, to control that all mandatory documentation listed in chapter II of the annex to the protocol is valid, and to check that electronic reporting devices (VMS) is not tampered with and is functioning properly. This pre-inspection is also seen by Mozambique as a way to establish a physical link between the EU tuna fleet and the Mozambican territory. The pre-inspection procedures are based on the guidelines set out by the FAO Agreement on Port State Measures. According to the protocol, the pre-inspection shall not last more than 24 hours.

For Spanish purse seiners and EU longliners, this pre-inspection is not seen as a major problem. In 2012, 33% of the Spanish purse seine fleet called in the port of Nacala in the North of the country; and 33% of the EU longline fleet called in the commercial port of Maputo for the pre-inspections. For the French purse seine fleet, the opportunity cost of the pre-inspection is estimated as too high. According to the representatives of this fleet, the pre-inspection costs three operational days (one day for steaming to port from fishing grounds, one day in port for pre-inspection and one day for steaming from port to fishing grounds). At current catch rates (20 tonnes per day fishing<sup>48</sup>) and catch value (around EUR 1 500 per tonne on average according to Table 20), this may represent a potential loss of income of EUR 90 000 plus the direct cost of the license (EUR 4 200). The French industry considers this cost as too high for what remains essentially a precautionary license<sup>49</sup> from its perspective. This reasoning is the main explanation for the non-utilisation in 2013 of fishing opportunities allocated by the Council to this segment.

In 2013, these pre-inspections have not been required. The explanation given by the Ministry is that funding was not available to fly the inspectors to Nacala. Other sources indicate that the presence of weapons onboard the vessels would have required the presence of military personnel, generating a risk of extended duration of immobilisation of the vessels in the port beyond the commitment of no more than 24 hours reported in the protocol of agreement.

For other foreign flagged vessels authorised to fish in the Mozambique fishing zone, pre-inspections in ports are mandatory.

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<sup>47</sup> Annex to the Protocol, Chapter VI, point 4

<sup>48</sup> Average CPUE of French purse seiners as reported in the EU national report to IOTC ref IOTC-2013-SC-16-NR06

<sup>49</sup> In fact, in 2012, only 2 of the 6 French purse seiners licensed declared catches in the Mozambique fishing zone.

#### 4.3.4 Signing-on of seamen<sup>50</sup>

According to the protocol, EU purse seiners shall sign-on at least 2 Mozambican qualified seamen per vessels, and EU longliners at least 1. None of the EU vessels complied with this rule, and paid the penalty of EUR 30 per seaman per vessel and per day of operation in the Mozambique fishing zone.

On the basis of fishing opportunities set out in the protocol, this clause could have generated part-time employment for a minimum of 118 seamen. On the basis of the real utilisation of fishing opportunities, the level of employment could have been at a minimum of 52 in 2012 and 31 in 2013. According to the Ministry of Fisheries, placing National seamen onboard EU vessels is particularly relevant in terms of training under the perspective of the future development of a National fleet, to complement basic training received in the National fishing school.

From EU shipowners side, it has been mentioned that vessels are already manned by well trained seamen from other ACP countries recruited in the region (Madagascar, Seychelles) and in West Africa (Senegal, Ivory Coast). Signing-on National seamen would not provide any advantages, forcing the vessels to disembark some of their qualified crew to embark untrained Mozambique seamen, who would have to be flown to the usual ports of landing / transshipment (EU vessels do not use the ports of Mozambique). Their preference is to pay the penalty, which stands at relatively modest levels compared to the revenues of the vessels.

This situation causes some frustration on the Mozambican side, compounded by the fact that the payment of the penalties by some EU fishing companies for 2012 is still outstanding.

For other foreign flagged vessels, hiring National seamen is not mandatory. However, the official license fee schedule provides an incentive to hire Mozambican seamen by offering a 10% discount on the nominal value of the license to any vessel embarking at least 3 local crew. The extent to which this incentive has been taken up is not known.

#### 4.3.5 Observers<sup>51</sup>

The observers programme considered in the protocol has not been implemented by both parties, albeit the EU shipowners paid the EUR 300 contribution per vessel. During discussions, Mozambican authorities stressed that enforcement-based observations of fishing activities would be more relevant in the context of a regional programme, complementing as possible the science-based regional observer scheme mandatory under Resolution 11/04 of IOTC.

Such regional observer programme is considered under the umbrella of the IOC regional MCS programme currently funded by DG MARE, and as from April 2014 under the EDF funded Smartfish project, but is still under development.

Another initiative of interest in this respect could be the single observer programme<sup>52</sup> unilaterally implemented by the French purse seine in the Atlantic Ocean and which could be extended to cover the Indian Ocean purse seine fishery and other components of the EU tuna fleet.

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<sup>50</sup> Annex to the Protocol, Chapter IX

<sup>51</sup> Annex to the Protocol Chapter X

<sup>52</sup> Programme OCUP <http://orthongel.fr/index.php?content=cat&page=ocup>

## 5 Ex-post evaluation of the current protocol

The following sections provide the answers to the evaluation questions listed in the terms of reference of the study. The text in the boxes (objectives, success criteria and suggested indicators) are extracted from the terms of reference.

### 5.1 Effectiveness – The extent to which the specific FPA objectives were achieved

#### 5.1.1 Objective 1: To contribute towards resource conservation and environmental sustainability through rational and sustainable exploitation of living marine resources of the coastal state

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>1.1 To direct fisheries exclusively at surplus resources and prevent the overfishing of stocks, on the basis of the best scientific advice and improved transparency on the global fishing efforts in the third countries waters</i>	<i>Stocks targeted by the EU fleet are not overexploited at the regional level and the EU fishing capacity is within the limits established by the relevant RFMO. The FPA takes into account the management strategies expressed by the third state. The third country takes part to the relevant RFMO and provides data on activities carried on by vessels flying its flag.</i>	<i>State of the stocks targeted under the protocol (last scientific advice provided by the relevant RFMO); EU catches / fishing effort in the region compared to the allocation decided at the RFMO level; possible impact on the environment / other fleets.</i>

#### **Answer**

In the context of EU tuna agreements, the access arrangements negotiated by the EU with Coastal States, including Mozambique, do not relate to the exploitation of a surplus in the Coastal State waters, but to an access agreement to allow the EU fleet to exploit in the waters of the partner country its fishing opportunities for highly migratory species granted by IOTC.

The maximum number of EU fishing vessels authorised to access the Mozambique fishing zone under the protocol is aligned with the limits on fishing capacity allocated to the EU by IOTC for fishing in the whole Indian Ocean<sup>53</sup>, and in fact are lower (maximum 43 purse seiners in the Mozambique fishing zone vs maximum capacity allowed under IOTC of 49 purse seiners, and maximum 32 longliners authorised vs a maximum of 72 under IOTC).

The fishery for highly migratory species in the Indian Ocean is managed under the multilateral context of IOTC. Resolutions adopted are binding upon all contracting parties, including the EU and Mozambique since its accession in 2012. The latest scientific advices available for the main target species (Table 11 page 37) indicate that main species targeted by the purse seine segment are harvested sustainably. For the longline segment, there are some concerns over the status of the swordfish stock in the South West of the Indian Ocean. However, catches of swordfish by EU vessels in the Mozambique fishing zone in 2012 have been low (about 100 tonnes compared to total catches of 6 500 tonnes). The status of stocks of commercial shark species targeted by longliners remains largely unknown, but there are indications of excessive depletion. However, data on catches of EU longliners in the Mozambique fishing zone tend to indicate that the proportion of sharks caught in the Mozambique fishing zone relative to total catches is lower than the proportion of sharks caught

<sup>53</sup> Prior to the inclusion of Mayotte in the EU as outermost region. Capacity limitations in the Indian Ocean are now higher, and includes the Mayotte Fleet Development Plan.

in the Indian Ocean by this fleet (see page 45). This suggests that allowing EU longliners in the Mozambique fishing zone does not generate any particular additional threats to the swordfish and commercial sharks stocks.

Finally, Mozambique as a party of IOTC fully complies with its reporting obligations, in particular those related to the details of the activities of its National fleet (artisanal and industrial) as demonstrated by the Mozambique National report submitted to IOTC Scientific Committee in 2013. Mozambique also provided information on foreign tuna fleets licensed to fish in its fishing zone as required by IOTC resolution 13/07. Note also that Mozambique is taking a proactive role in IOTC by chairing the Compliance Committee for the next few years.

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>1.2 To follow the same principle and promote the same standards for fisheries management as applied in EU waters</i>	<i>Management measures are adopted to reduce by-catches and reduce the possible impacts on the ecosystem</i>	<i>State of the stocks by-caught by EU vessels; management measures adopted at the regional / national /EU level or in the framework of the protocol</i>

### **Answer**

Concerning the reduction of impacts on the environment, the EU fleet follows the mitigation measures adopted under IOTC. Additional to these measures, the EU purse seine fleet (France and Spain) is currently developing unilateral measures to reduce mortality of vulnerable species caught during fishing operations and to minimise environmental impacts of FADs by using non-entangling material, mostly under a market-driven incentive (ISSF sustainability programme). The purse seine fleet is now subject to a landing obligation of all skipjack, yellowfin and bigeye caught as per IOTC resolution 13/11. This will provide an incentive for skippers to reduce further catches of small tunas in the first place, although discards rate of target species are known to be relatively low (28 tonnes per 1 000 tonnes landed, see Table 12).

Mozambique is currently in the process of developing its own tuna fishing fleet. During the current protocol, there was little point trying to transfer good practices developed beyond the scope of IOTC in the context of the industry-driven ISSF initiative concerning in particular mitigation of impacts of fishing on the environment and full observer coverage.

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>1.3 To improve the scientific and technical evaluation of the fisheries concerned</i>	<i>EU fishing activities are subject to an appropriate data collection framework (logbook, VMS, observers etc). These data are transmitted to the relevant RFMO. EU scientists and scientists from the third country actively participate in RFMO scientific committees. Cooperation between scientific institutes is encouraged. Joint scientific meetings are organised when needed.</i>	<i>Implementation of provisions on data collection; reporting to RFMO; participation in RFMO scientific committees; results achieved with sectoral support; number of joint scientific meetings.</i>

### **Answer**

EU compliance with CFP reporting requirements and specific additional IOTC reporting requirements is good, as mentioned in the latest report of the IOTC compliance Committee. Overall, it can be considered that the fishing activities of the EU fleet are transparent. The information provided by the EU fleet contributes to the stock assessment work of the IOTC Scientific Committee.

The implementation in 2012 under the current protocol of an Electronic Reporting System for EU vessels to provide data automatically to the Mozambique FMC through the Member States FMC can be seen as a major advance. Electronic transmission of logbook data on an almost real-time basis improves the quality and the timeliness of the information and also increases monitoring possibilities for the Coastal State. On the basis of this experience, Mozambique is now considering enforcing a similar ERS to other foreign fleets authorised to fish in its fishing zone, and to possibly extend the application of ERS to its own National tuna fleet when this will become active. Seychelles would appear to be inclined to follow a similar path. Other Coastal States may follow.

Bilateral scientific cooperation between the Mozambique fisheries research institute IIP and Member States research institutes have been encouraged by the two parties to exchange information on the methodologies used to validate catch data of EU vessels while fishing in the Mozambique fishing zone. The cooperation has not been implemented as expected, as only one Member State (France with IRD) has answered positively to Mozambique requests. The lack of response from other EU institutes has generated some frustration on the Mozambique side. Aware of this situation, the European Commission has nominated in November 2013 a focal point and coordinator between Mozambique and the EU scientific institutes in order to assure the involvement of the institutions from the Member States active under the agreement. Until now, the decision to create a formal joint scientific technical committee as per art. 4 of the FPA has not been taken.

Outside the bilateral framework focused on catch validation methodologies, the two parties to the agreement cooperate under the multilateral framework of the IOTC Scientific Committee on research on highly migratory species and mitigation of the environmental impacts of the tuna fishery.

A part of the sectoral support funded by the EU under the protocol of agreement has been used to support IIP scientific work on domestic shrimps stocks, in particular through the co-funding of the annual research cruises organised to assess recruitment and biomasses of key target shrimp species. The shrimp fishery is currently one of the main economic pillars of the Mozambique fishing industry.

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>1.4 To ensure compliance and combat IUU fishing</i>	<i>The activity of the EU fleet is properly monitored (VMS, AIS etc) and possible infractions are sanctioned. Sectoral support is used to improve control in the EEZ of the third countries.</i>	<i>Implementation of provisions on control; results achieved with sectoral support; number of inspections; list of infractions / sanctions.</i>

**Answer**

The activities of the EU fleet within the Mozambique fishing zone can be considered to be correctly monitored.

Mozambique has developed an effective FMC, which has been identified as suitable to become the regional FMC during joint control operations developed with other SADC countries. As mentioned earlier, the monitoring capacities of the Mozambique FMC will benefit from the development of an ERS applicable for the moment to EU fleet, and potentially applicable to other fleets in a near future.

The strengthening of Mozambique MCS capacities has been the main focal action of the Norwegian and Icelandic development cooperation over the past few years. An additional investment of USD 27 million in MCS capacities is being implemented over the 2014-2018 period. The EU sectoral support has also contributed to this objective, in particular for the improvement of VMS software and

network and for the implementation of the ERS. Experience has demonstrated that Mozambique has the capacity to detect offenses up to the external limit of its fishing zone and to sanction infringements.

**5.1.2 Objective 2: To protect the interests of the EU long distance fleet and the employment linked to the fleet operating within FPAs**

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
2.1 To seek appropriate share of the surplus resources, fully commensurate with the EU fleets interests	The protocol provides for access to fishing zones that are important for the EU fleet. Species / quantities covered by the protocol correspond to the fishing patterns of the EU fleet.	Utilisation of fishing licences; catches in the EEZ compared to overall catches; employment (direct and indirect jobs); evolution of the number of boats in the region; contribution to the supply of the EU market / EU processing sector (volume and value).

The EU tuna fleet active in the Western Indian Ocean exploits its fishing opportunities in the high seas and in the waters under jurisdiction of Coastal States. As shown in Figure 5 and Figure 6, the Mozambique fishing zone is within the geographical distribution of catches of the EU tuna fleet. An access to this area is therefore relevant to support the activities of the EU fishing fleet in the region.

According to indicators reported in Table 18 page 46, the EU purse seine fleet obtains a relatively low percentage of its total catches in the Mozambique fishing zone (about 1% on average). Fishing activities in this area take place only during a limited period of time (March-May) when the fleet exploits the waters in the Mozambique Channel. Nonetheless, access to the fishing zone is seen as being important in a precautionary role, in case the resource is abundant and catchable in Mozambique waters. The analysis of utilisation of fishing opportunities negotiated (page 41) indicates that in 2012, almost all EU purse seiners active in the Indian Ocean at that time chose to apply for a license to access the Mozambique fishing zone even though catches have been at a low level. In 2013, the French purse seine segment decided not to apply for a license for technical reasons, demonstrating that an access to the Mozambique fishing zone is not pivotal, but potentially useful only on a precautionary basis.

Concerning the EU longline segment, the importance of access to the Mozambique fishing zone is more difficult to identify. The indicators displayed in Table 18 suggest that during some years (e.g. 2009 and 2010), the EU longline fleet can catch in the Mozambique fishing zone a significant percentage of its total catches in the Indian Ocean. For other years, the percentages are lower. During the first year of the current protocol, the relative contribution of the Mozambique fishing zone to total catches has been the lowest since 2007 (about 2%). Analysis of utilisation of fishing opportunities (page 41) indicates that roughly only half of the EU longliners active in the Indian Ocean in 2012 have utilised the fishing opportunities. The other half deliberately chose not to apply for a license although its cost can be regarded as affordable.

As a consequence of the relatively low level of activities of the EU tuna fleet in the Mozambique area in 2012 and presumably in 2013, it cannot be considered that the current protocol of agreement contributed significantly to employment and supply of the EU market.

Globally, it can be evaluated that an access to the Mozambique fishing zone is relevant for the EU tuna fleet that needs to be able to catch highly migratory species throughout their distribution areas.

The access to the Mozambique waters is relevant mostly on a precautionary basis in case the resource targeted is abundant in the fishing zone. This did not happen in a recent past with catches below 4 000 tonnes per year on average (Table 16 page 43). However, the distribution patterns of target species are largely unpredictable, and the possibility of exceptional abundance of highly migratory species in the Mozambique fishing zone cannot be discounted<sup>54</sup>.

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<p>2.2 To ensure that the level of fees payable by Union shipowners for their fishing activities is fair, non-discriminatory and commensurate to the benefits provided through the access conditions while avoiding any discriminatory treatment towards EU vessels and promoting a level playing field among the different fleets</p>	<p>EU shipowners prefer fishing within the framework of the FPA rather than reflagging and using private licences. Fishing by other foreign countries is subject to similar conditions.</p>	<p>Utilisation of fishing licences; conditions applying to vessels from other flag states fishing in the EEZ</p>

**Answer**

The common baseline to establish fees payable by EU shipowners for their fishing activities has been applicable under all EU fishing agreements incorporating fishing opportunities for highly migratory species (EUR 35 per tonne)<sup>55</sup>. For 2012, the level of catches taken into consideration to calculate the nominal license fee value has been exceeded only by two French purse seiners, suggesting that the reference level of catches used to calculate the cost of the license is commensurate with the expected benefits.

Tuna vessels from other countries are subject to different conditions which, *prima facie*, appear to be less advantageous than those applied to EU vessels under the FPA with Mozambique. As detailed in Table 9 page 27, an EU purse seiner would pay a nominal license fee of EUR 5 100, while a foreign purse seiner (other than EU), landings in ports outside Mozambique would pay a license fee of about EUR 24 169 (almost 5 times greater). For longliners, the difference is EUR 4 100 for an EU longliner compared to about EUR 22 100 for a foreign longliner (more than 5 times greater). The difference is even larger for support vessel with EU flagged support vessels paying EUR 3 580, while foreign flagged support vessels paying EUR 25 324 (7 times greater). Another major difference is that foreign vessels pay a flat fee for access independent from their actual catches in the Mozambique fishing zone. For EU vessels, the license fee schedule incorporates a variable component based on actual catches, which contributes to minimise the risk for the shipowners.

In conclusion, it can be estimated that EU shipowners have no incentives to reflag or use private licenses. Understandably, the most obvious choice for EU shipowners is to use the protocol conditions to access the Mozambique fishing zone.

<sup>54</sup> For example, EU purse seiners found an exceptional abundance of tuna species in the neighboring waters off Tanzania in 2003 and 2004 which had never been seen before and never happened again after.

<sup>55</sup> Following the adoption of the new CFP, industry will have to pay more under the the SFPAs.

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>2.3 To ensure supply for the EU and for the markets of certain developing countries</i>	<i>Part of the fish caught in the framework of the FPA supplies EU market / processing industry as well as the local market (i.e. region / third country)</i>	<i>Commercial flows; supplies (value and volume) landed / market / processed locally / in the EU.</i>

### **Answer**

Catches of EU tuna vessels contribute to the supply of the EU market. Catches of EU purse seiners are processed into tuna can or loins principally in Seychelles, Mauritius and Madagascar and are sold on the EU market. Catches of EU longliners are sold frozen unprocessed on the EU market.

Catches of EU vessels in the Mozambique fishing zone are relatively low and represent only a small percentage of total EU imports of fisheries products (almost 5 million tonnes in 2012, source COMEXT). The protocol has therefore a negligible impact on supply.

No catches from EU tuna vessels are sold on the domestic market of Mozambique. Concerning EU purse seiners, there are limited landing facilities and no processing facilities in Mozambique (canning or loining plants) that could absorb part of the catches. To land in Mozambique would also introduce additional operational costs and loss of fishing time for the EU fleets under their current deployment strategies.

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>2.4 To encourage the creation of a secure environment that is favourable to private investment and economic activities</i>	<i>EU shipowners fishing within the framework of the protocol benefit from increased visibility on licence delivery. Possible difficulties linked to other activities (landings, implementation of the IUU regulation etc) are discussed in the Joint Committee meeting. Investment projects are facilitated.</i>	<i>Landings; EU investments in the fisheries sector in the 3rd country; feedback from shipowners.</i>

### **Answer**

The presence of EU fishing companies (mostly from Spain) in the shrimp sector through joint-ventures with Mozambican companies is important. This demonstrates that the investment climate in the fisheries sector of Mozambique for activities which are mostly export-oriented is acceptable.

No investment project concerning the EU tuna fleet operating under the frame of the agreement has been identified during this evaluation. According to EU shipowners, there are no incentives to develop private partnerships in Mozambique in the tuna sector. Main reasons are that the Mozambique fishing zone remains a secondary zone in the overall strategy of the vessels and that the conditions for developing a logistic base in Mozambique that would offer comparative advantages with current EU logistic bases are not present (*e.g.* fishing ports, supply of consumables, organisation of crew rotations). As a consequence, promotion of cooperation among economic operators and civil society included under art. 8 of the agreement has not been considered by both parties as shown by the records of discussions of the joint committees.



<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>2.5 To take into account the specific interests of the Union's outermost regions located in the vicinity (if relevant)</i>	<i>FPA covers the specific needs of the EU fleet based in outermost region by ensuring the continuity of their fishing grounds (if relevant).</i>	<i>Number of vessels originated from the outermost regions (if relevant).</i>

### **Answer**

The fishing opportunities negotiated include 8 longline licenses earmarked for the fleet based in La Réunion. The FPA covers the specific needs of this particular fleet as established by French authorities when the current protocol was negotiated in 2011. However, the La Réunion fleet that was expected to utilise these fishing opportunities did not develop according to plans. The fishing opportunities can be in turn utilised by the Mayotte longline fleet if it develops according to the Fleet Development Plan submitted to IOTC (15 vessels in 2015 and up to 25 vessels in 2020). However, as of early 2014, there was no such vessel active.

As of 1 January 2014, the purse seine fleet registered in Mayotte (5 vessels) forms part of the EU fleet, as result of Mayotte changing its status, so that Mayotte vessels are now considered as EU vessels. The fishing opportunities allocated to the French purse seine fleet segment (20 vessels) are commensurate with the number of French vessels active in the Indian Ocean (13 including 8 vessels previously part of the EU fleet register and 5 vessels registered in Mayotte and now part of the EU fleet register).

In conclusion, the FPA covers the specific needs of the EU fleet based in the outermost regions of the Indian Ocean.

### **5.1.3 Objective 3: To support the development of a sustainable fisheries sector in partner countries**

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>3.1 To contribute to the capacity building in the third countries</i>	<i>The sectoral support contributes to the improved functioning of the fisheries administration in third countries. It provides for adequate training and equipment.</i>	<i>Results achieved with sectoral support; % of the EU contribution in the budget of the Ministry for fisheries.</i>

### **Answer**

The sectoral support of EUR 460 000 per year represents only a small percentage of the budget granted to the Ministry from internal and external sources. As discussed in section 2.3.5, Mozambique receives considerable financial support for external sources for the development of the fisheries sector. Assuming external support represents an annualised amount of about EUR 20 million per year (see page 25), the sectoral support considered under the protocol represents only about 2 % of the investment budget of the Ministry in charge of fisheries.

The 2012-2013 resources of the sectoral support have been used to contribute to the funding of Ministry's programmes identified in the financing law. The majority of the sectoral support has been allocated to the National programme referenced MDP 1996-015 of the Ministry on scientific research, programme MDP 2011-0007 of monitoring of fishing fleets, programme 2010-0012 on

control, and programme MDP 2011-0008 on institutional development. The allocation of funds corresponds to the objectives of the sectoral support under EU fishing agreements, with emphasis put on the quality of scientific advice and development of MCS capacities of Coastal States to fight IUU fishing.

In practice, the sectoral support has been utilised in 2012 and 2013 principally, *i)* to support the Mozambican scientific institute (data collection, scientific surveys at sea), *ii)* to improve the monitoring capacities of the fishing fleets operating in the Mozambique fishing zone (VMS, ERS), and *iii)* to support institutional development (Ministry facilities, attendance to international meetings). This contribution can be estimated as being effective as *i)* Mozambique is now in the capacity of submitting to IOTC detailed data on catches of tunas by its artisanal fleet, and scientific advice of shrimp fisheries could be provided as expected, *ii)* VMS has been significantly upgraded, and ERS data are now utilised by the Mozambique FMC, and *iii)* Representatives of Mozambique authorities attend international meetings, in particular those organised under the umbrella of IOTC.

Provisions for 2014 are along the same lines of actions, with in addition, part of the sectoral support earmarked to upgrade the fishing school as part of the capacity building objective of the sectoral support.

Although the designs and the results of the programmes implemented seemed satisfactory as evidenced by the records of the joint committees, the effectiveness of the programme implementation could have certainly been improved with better budget execution performances limited to 52 % in 2012 and 33 % in 2013 according to DG MARE information.

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>3.2 To promote the employment of seamen, landings, fishing processing industry</i>	<i>EU vessels recruit part of their staff locally: they benefit from good working conditions and appropriate training. Part of the catches is land and processed locally (i.e. region/ third country).</i>	<i>ACP staff employed by the fleet; respect of the minimal number of local seamen; supplies (value and volume) landed, processed / marketed locally; impact on the down-stream port services and activities in the partner countries; results achieved with sectoral support.</i>

### **Answer**

There has been no economic interaction by way of employment of seamen or use of Mozambican services, between the EU fleet operating under the FPA and Mozambique. Consequently, the FPA had no direct socio-economic impacts on the fisheries sector in Mozambique. As mentioned in the previous evaluation question, the benefits of the sectoral support are qualitative and cannot be valued.

## 5.2 Efficiency – The extent the desired effects are achieved at a reasonable costs

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>To what extent is the cost of the fishing opportunities negotiated under the FPA advantageous for the EU?</i>	<i>The EU contribution for access is commensurate to real catches</i>	<i>Utilisation of the reference tonnage</i>

### **Answer**

According to catch data presented in Figure 8, the EU tuna fleet caught only 14% of the reference tonnage of 8 000 tonnes used to calculate the EU contribution for access. Consequently, the access cost paid by the EU represented a value of EUR 450 / tonne caught, almost 7 times more than the EUR 65 / tonne considered ex-ante.

This low percentage of the reference tonnage is related to the low utilisation of fishing opportunities negotiated. As reported Table 14, the average rate of utilisation of fishing opportunities has been 43% of the maximum number of licenses in 2012. For 2013, the average rate of utilisation further deteriorated to 27%. It is therefore unlikely that the catches for 2013 will perform better compared to the reference tonnage.

As Figure 8 shows, the EU fleet has never caught more than 50% the reference tonnage in the recent past. The reference tonnage, which was set at 10 000 tonnes under the 2007-2011 protocol has been logically reduced to 8 000 tonnes for the 2012-2015 protocol. Nonetheless, the 8 000 tonnes reference appears to be high compared to the potential of the fishing zone. As an illustration, catches of all foreign vessels (EU plus other foreign flagged vessels) in the Mozambique fishing zone only exceeded 8 000 tonnes once in 2008 (Table 5) when there was about 120 foreign tuna vessels licensed, including 60 EU tuna vessels.

As a consequence of the relatively high final cost of fishing opportunities for 2012, the EU investment generates a level of value added of EUR 2.08 for any 1 EUR invested (Table 27). The EU investment remains positive but the ratio is clearly below the benchmark for EU tuna agreements (*i.e.* between EUR 4 and 5 value added generated for any 1 EUR invested by the EU).

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>To what extent have the actions agreed in the initial programming been achieved at reasonable cost?</i>	<i>Sectoral support has been properly used by the third country (results achieved, initial budget respected), in conformity with the decoupling / conditionality clause.</i>	<i>Degree of completion of the initial programming; % of sectoral support compared to overall EU contribution, to the national budget for fisheries / to other donors.</i>

### **Answer**

The expected benefits of the sectoral support are mostly qualitative and cannot be evaluated in terms of value for money (efficiency). The main reason is that the impacts of the sectoral support, measured through performances indicators, are qualitative and related to the capacities and output of the services of the Ministry in monitoring foreign fishing activities, assessing fishing resources exploited by their domestic fleets and strengthening institutional capacities.

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>To what extent is the cost of the fishing opportunities negotiated under the FPA advantageous for EU shipowners?</i>	<i>The shipowners contribution is proportionate to their real catches and profits.</i>	<i>Catches; evolution of first sale price; evolution of operating costs for each segment of the fleet; estimation of the profitability of the fleet (regional level), price per ton</i>

### **Answer**

The costs of access negotiated for shipowners (*i.e.* EUR 35 / tonne) was equivalent to 1.8% of the value of the catches for purse seiners and 1.1% for longliners (Table 26). This cost can be qualified as advantageous for EU shipowners if it compared to the international benchmark of 8-10% of catch value<sup>56</sup>. As a result of the low level of catches in the Mozambique fishing zone compared to levels of catches considered ex-ante to calculate the costs of the licenses, the real access costs borne by EU shipowners in 2012 is estimated to be equivalent to 8% of the value of the catches for EU purse seiners and 5% of the value of the catches for EU longliners. This final cost remains below or close to the international benchmark of 8-10%. On this basis, the agreement remains economically interesting for the EU fleet.

The percentages presented are based on 2012 tuna prices which were exceptionally higher than average prices for previous years. According to latest price information, average tuna prices have been decreasing through 2013 and early 2014. Therefore, access costs paid in 2012 in proportion to catch value may appear to have been advantageous for EU shipowners this year, but may be less advantageous in 2013 and after.

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<sup>56</sup> Various economic studies on the Pacific tuna fishery estimated that a balanced contribution for access from a shipowner perspective is between 8-10% of the value of the catches. See for example Campling, L., Havice, E. and Ram-Bidesi (V.) – 2008 – Pacific Island Countries, the global tuna industry and the international trade regime. FFA

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>To what extent is the cost of the fishing opportunities negotiated under the FPA advantageous for the third country?</i>	<i>The third country beneficiate from a fair part of the added value.</i>	<i>ratio overall EU contribution /added value generated by the activity of the EU fleet in the EEZ</i>

### **Answer**

Under the current protocol, Mozambique received between EUR 1.1 million and EUR 1.2 million per year (Table 24) in the form of direct payments. Not including the sectoral support that is clearly decoupled from payments for access, Mozambique received an average amount of EUR 612 / tonne paid by the EU and shipowners, representing 32% of the catch value of purse seiners and 19% of longliners (Table 26).

Compared to the international benchmark of 8-10% of catch value, real costs of fishing opportunities are advantageous for Mozambique.

It is not possible to make a direct comparison between EU payments for access and payments for access by other foreign operators of tuna vessels licensed to fish in the Mozambique fishing zone as percentage of catch value. Other foreign operators pay a flat access fee independent from their catches (Table 9 page 27). Since the details of catches of other foreign operators are not available, a comparison of the relative value of access costs compared to catch value cannot be established. However, a comparison can be made in terms of receipts by vessel licensed. Based on the number of EU vessels licensed in 2012 and 2013 (Table 14 page 41) and the payments obtained for access by Mozambique (Table 24 page 51<sup>57</sup>), the average receipt for Mozambique by EU vessel licensed was about EUR 22 700 in 2012 and EUR 32 200 in 2013. Average receipt by EU vessel licensed in 2012 is equivalent to the official access fees schedule presented in Table 9. For 2013, average receipt by EU vessel is 20% greater than the official access fees applicable to foreign tuna vessels.

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

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>To what extent is the EU contribution for sectoral support commensurate to the needs and absorption capacity of the partner country?</i>	<i>The EU contribution for sectoral support is in line with the needs and the absorption capacity of the third country. The total amount of sectoral support is used according to the foreseen calendar.</i>	<i>Consumption of the EU contribution for sectoral support.</i>

According to information received in Mozambique, the Ministry of Fisheries could be in capacity to absorb a about EUR 20 million investment budget per year, with external contributions from Donors making an important share of the investment budget. It can be inferred that in principle, Mozambique has not difficulties to absorb the sectoral support contribution of EUR 460 000 per year.

<sup>57</sup> Without including payments for sectoral support

However, it appears that the sectoral support is not used according to the foreseen calendar. Records from joint committees held in 2012 and 2013 indicate that the delays are mostly attributable to technical details, rather than by difficulties to utilise the amounts granted under the protocol. In 2012 and 2013, the sectoral support has been paid late in the year by the EU in relation with difficulties from Mozambique to present documentation in conformity with Commission's internal financial regulations. The utilisation of sectoral support was further delayed by the National procedures used to transfer the sectoral support payments made on the single central treasury account onto the Ministry account.

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>To what extent have payments been made in due time?</i>	<i>Contributions have been paid in due time, in consistency with the protocol and so that they could be allocated to the fisheries budget of the partner country without delay.</i>	<i>Calendar of payments and transfers</i>

### **Answer**

The Mozambican authorities did not mention any specific problems related to late payments for access.

As detailed in the previous section, payments of the EU contribution for sectoral support have been late compared to the initial schedule, essentially for procedural reasons (late submission of sectoral support documentation to the Commission further delayed by procedures to transfer the payments from the single central treasury account onto the Ministry bank account).

Contributions paid by EU shipowners for license fees are paid on schedule. However, Mozambique expressed disappointment for the late payment of penalties associated with the non-embarkation of Mozambique seamen. According to the Ministry, certain amounts due for 2012 are still outstanding. The amounts in question are relatively modest compared to the total financial transfers included under the protocol (Table 24), but this creates points of friction between the two parties that could be easily avoided. Concerning these late payments, the Commission required the Member States concerned to contact the fishing companies.

## **5.4 Coherence – The extent to which the intervention logic is non-contradictory / the intervention does not contradict other interventions with similar objectives**

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>How coherent is the protocol with CFP in general and with the regional fisheries policy (RFMO and network of FPAs)?</i>	<i>The protocol is in line with the CFP in general, contributes to achieving EU objectives at regional level and is consistent with other FPAs in the region.</i>	<i>Comparison between the main strategies / policy orientations</i>

### **Answer**

The EU is a Member of the IOTC, and the Protocol is coherent with the CFP and IOTC resolutions and management measures. For example, the Protocol contains provisions for use of VMS that are being followed, and all vessels must be duly authorised and registered as per the requirements of the CFP and IOTC. The introduction of an electronic reporting system is included in the Protocol provisions and this is coherent with an IOTC pilot project and CFP obligations. In other aspects, there is coherence of the Protocol, and in cases stronger provisions, than in the IOTC measures, such as the

banning of transshipment at sea. Because of the strong emphasis in the CFP on responsible fisheries and working within RFMOs, the Protocol is thus also coherent with the CFP in this respect.

On a regional scale, the agreement with Mozambique complements a coherent geographical coverage of fishing zone under the jurisdiction of Coastal States the EU fleet can access. The EU is considering expanding the current regional network of agreement to include the waters of Kenya and Tanzania. Each agreement provides a framework for sectoral dialogue between the EU and Coastal States concerned.

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>In what ways is the protocol coherent with the other EU policies and cross-cutting issues (i.e. development and cooperation policy, trade policy – notably the Economic Partnership Agreement between the EU and the ACP states in the Indian Ocean and inter alia, the provisions on rules of origin, market access, environmental policy, sanitary policy, human rights and gender mainstreaming)?</i>	<i>The protocol contributes to priorities identified in the Agenda for change and provides synergies to make a more effective contribution to other EU policies The protocol can be suspended in case of violation of human rights and democratic principles. The protocol contributes to the promotion of fair conditions of employment by referring to relevant international conventions.</i>	<i>Comparison between the main EU strategies / policy orientations.  Inclusion of a "human rights clause".  Implementation of the "social clause".</i>

**Answer**

The protocol negotiated in 2011 does not include a “human rights clause”. This did not raise any particular issue during the period of implementation of the current protocol as the political situation of Mozambique remained stable and in any case, did not trigger the application of art. 96 of the Cotonou agreement.

The “social clause” is included in the protocol of agreement with reference to the basic working rights laid down in the declaration of the International Labour Organisation. Since no Mozambican seamen have been hired by EU tuna vessels, there is no particular issue to report on the application of the clause.

There are no particular issues of coherence with other EU policies and cross-cutting issues. The allocation under the 10<sup>th</sup> EDF of an envelope of EUR 14.6 million over the next five years (i.e. about EUR 3 million per year on average) to support IFAD managed development programmes on the development of artisanal fisheries and aquaculture may however be further considered for potential synergies and complementarities of both EU financial instruments. The EDF support is 6.3 times greater than the sectoral support paid to Mozambique under the FPA, but the same principles for sustainability and management apply for industrial and artisanal fisheries supported through the EDF. There does not seem to be any conflicting objectives between Propesca and the FPA and the right- based and co-management approach of Mozambique should apply for all the different fisheries value chains.

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>In what ways are these FPA coherent with the fisheries and developing policy of both partner coastal States?</i>	<i>The protocol contributes to achieving the priorities identified by the partner country.</i>	<i>Comparison between the main strategies / policy orientations</i>

### **Answer**

Mozambique has developed ambitious plans to develop its own tuna fisheries as confirmed by the the Strategic Plan for Tuna Fisheries Development adopted in 2013, the National fleet development plan submitted to IOTC in 2012, and the emergence of development projects such as the Ematum project largely publicised in the international press. As confirmed by Mozambique in the records of discussions held under the November 2013 joint committee, the development of a National tuna fleet will be a long term process and will not affect the bilateral relations or the continuation of the FPA. The FPA with the EU can be seen as an opportunity to gain experience on the management of tuna fleets. In the context of the ongoing IOTC negotiations on allocation of fishing opportunities, following the approach adopted by certain coastal states, the catches of EU tuna vessels in the Mozambique fishing zone could contribute to add to the possible future historical rights of the country, and therefore supports the development of the National strategy in this respect.

The sectoral support is also in coherence with the development policy of Mozambique. Funding is allocated to priority areas identified in the *Plano Director das Pescas II 2010-2019*, in particular its MCS and fisheries research components.

## **5.5 Acceptability - The extent to which stakeholders accept the policy in general and the particular instrument proposed or employed**

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>To what extent are the EU shipowners satisfied with the protocol?</i>	<i>The EU shipowners are satisfied with the conditions set up by the protocol and support its renewal (with possible adaptations).</i>	<i>Interviews</i>

### **Answer**

Associations representative of the fleet segments active in the Mozambique fishing zone have been interviewed to have their views on the conditions set up by the protocol of agreement.

The French purse seine segment is in the view that the mandatory pre-fishing briefing and pre-fishing inspections mandatory for 33% of the EU fleet authorised to fish in the Mozambique fishing zone (annex to the protocol, chapter IV, point 4) diminishes the attractiveness of the agreement. As detailed in section 4.3.3 of this report, the French purse seine segment estimates that the loss of fishing days for steaming to a designated port, organizing the inspection and steaming back to the fishing grounds (3 days in total) generates a financial loss that is not covered by the net benefits (*i.e.* income from catches minus access costs) that are anticipated to be obtained while fishing in the Mozambique fishing zone. As a consequence, in 2013, the French purse seine segment deliberately chose not to apply for a license, and is likely to do so for the 2014 fishing campaign.

Other segments of the EU fleet did not raise the same issue of concern in relation with the mandatory pre-fishing and pre-briefing inspections. However, the Spanish purse seine segment



indicated that the procedure could be adapted to have each vessel inspected once over the duration of the protocol. As the clause is written, a same vessel can be inspected each year.

The Mozambique position is that the EU fleet benefits from a favorable treatment compared to other foreign fleet with pre-fishing inspection mandatory for 100% of the fleet. In addition to their added-value in terms of control, the pre-fishing inspections are also considered useful to create a physical link between the foreign vessels and the Mozambique territory, which can create the conditions for better integration of the activities of the foreign fleets in the National economy (e.g. signing-on seamen, use of ports, local landings).

Other conditions set up in the protocol are seen as acceptable by the representatives of the EU fleet segments active in the Mozambique fishing zone.

The Authorities of Portugal mentioned that it would be desirable to include access provisions for shrimp trawlers in the current protocol or in a next protocol. As detailed in section 4.3.1 page 56 of this report, 4 trawlers flagged to Portugal were active in 2012<sup>58</sup> on the domestic shrimp fisheries, possibly in contradiction with the exclusivity clause included in the FPA and in the current protocol. The Commission legal services are currently investigating this issue.

<b>Objectives</b>	<b>Success criteria</b>	<b>Suggested indicators</b>
<i>To what extent is the protocol supported by the civil society in the EU and in the third country?</i>	<i>Representatives of the civil society are satisfied with the conditions set up by the protocol and support its renewal (with possible adaptations).</i>	<i>Interviews, articles</i>

### **Answer**

The representatives of EU NGO did not report any specific issue in relation with the current protocol. No structured NGO could be met in Mozambique. The main focus of NGOs is currently on the development of the Ematum project which according to them, may raise several questions on the governance of the National fishing sector<sup>59</sup>, and on the compatibility of the EU FPA with Mozambique plans to develop a tuna fleet.

<sup>58</sup> Information not available for 2013

<sup>59</sup> See for example communication from the NGO Transparent sea at [http://transparentsea.co/index.php?title=Mozambique Tuna Company](http://transparentsea.co/index.php?title=Mozambique_Tuna_Company)

## 6 Ex-ante evaluation

The ex-ante evaluation considers 2 scenarios: protocol renewed in 2015 and protocol not renewed.

### 6.1 Problem analysis and needs assessment

The distribution of stocks of highly migratory species targeted by the EU fleet encompasses the limits of the Mozambique fishing zone. EU tuna vessels need to access the area when the resource is present, *i.e.* mostly between March and May when the purse seine fleet is active in the Mozambique Channel. It is therefore the interest of the EU to maintain a presence.

Short term

EU needs:

- To achieve continuity in maintaining fishing opportunities for the European tuna fleet in the western Indian Ocean region through a geographically coherent network of fishing agreements.
- To clarify the situation of EU trawlers exploiting the domestic shrimp fisheries outside the scope of the agreement (if they are still active)
- Maintain the supply of fish and fish products to the EU market.
- Maintain the conditions of a sectoral political dialogue with a WIO Coastal States firmly engaged in the fight against IUU fishing.

Mozambique needs:

- To maintain the revenue stream provided by the EU financial contribution for access under the terms of the Protocol and the license fees from vessel owners.
- To maintain the presence of foreign flagged vessels in its fishing zone to build up a possible historic track record in the context of the current IOTC negotiations on allocation criteria if the criteria adopted by IOTC is on the basis of historical catches in the EEZ<sup>60</sup>.
- To benefit from the sectoral dialogue to transfer best practices to fight against IUU fishing

Long term

EU needs:

- To secure and/or maintain fishing opportunities for the EU fleet.
- To ensure reliable supplies of fish and fish products for the EU market.
- To contribute to the sustainable management of fish stocks in the WIO through the FPA with Mozambique, and the other FPAs involving the EU, and as members of the IOTC.
- To conserve a legal instrument to monitor the activities of EU vessels while fishing in the Mozambique fishing zone.

Mozambique needs:

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<sup>60</sup> Other criteria are considered, such as the historical catches declared to IOTC by the Flag State

- To maximise the benefits accruing to the country from the operations of the EU fleet (employment, value addition)
- To develop experience of the management of industrial tuna fleets that can be transferred to the management of the National tuna fleet the country wishes to develop (monitoring, training)

## 6.2 Objective settings

Compared to the baseline situation, more emphasis could be put on the following objectives for a next protocol under the current FPA:

- Increase the socio-economic benefits accruing to Mozambique from the activities of EU tuna vessels in its fishing zone. Under the past and current protocols, the benefits of the agreement for Mozambique have been restricted to direct financial transfers from the EU budget and from shipowners for payment of license fees and other contributions. Mozambique clearly expects more benefits, in particular through employment of National seamen and increased economic interactions between the Mozambique private sector and the EU fishing sector user of the agreement
- Regularise the situation of EU-flagged trawlers currently operating in Mozambique on the shrimps fisheries (providing they are still active and interested to stay in Mozambique). The presence of these four vessels may be in contradiction with the exclusivity clause contained in the agreement and its protocol.

The level of the costs of access (EUR 100 / tonne) may be seen as too low compared to the value of the fishery products being exploited. However, a revision of the product value in the context of the SFPAs, as in the recent negotiations with the Seychelles and other agreements, may be considered in the context of the forthcoming negotiations. This should be applied coherently and across all EU fishing agreements concerning access to tuna resources in Coastal States jurisdiction, and not only to the agreement with Mozambique. It should be also noted that prices of tunas and related species have been exceptionally high in 2012, and that the prices are now decreasing to 2010 levels.

## 6.3 Alternative mechanisms and risk assessment

### 6.3.1 FPA / Protocol continued

If the protocol is renewed in 2015, the EU and Mozambique will maintain a dedicated forum for political sectoral dialogue. This political dialogue is considered as important particularly as regards the support in the fight against IUU fishing in this region of the Indian Ocean. Political dialogue and co-operation is also important in view of the need to strengthen the conservation and management framework of highly migratory species under IOTC, as well as the functioning of the IOTC in itself.

The EU tuna fleet will continue to benefit from an agreement that offers legal security and visibility over the duration of the protocol. These two benefits support the economic viability of the EU tuna fleet active in the Indian Ocean, and secure economic and social impact of the activities of the fleet and of the EU fishing sector.

According to recent experience, access to the Mozambique fishing zone is not pivotal for the EU tuna fleet from an economic perspective. However, migration routes of tuna species are largely unpredictable and precautionary access rights to the Mozambique fishing zone can be important for

the EU tuna fleet if the resource is abundant in the area. In addition, catches taken into consideration until 2012 for the EU tuna fleet have been those within the limits of the fishing zone established when the protocol was signed in 2011. The revision of the limits, applicable as from June 2012, with the inclusion of remote areas that were previously excluded, may increase the relative importance of an access to the fishing zone. Also, if a longline fleet registered to Mayotte develops according to the relevant Fleet Development Plan, an access to the Mozambique fishing zone can be important. No particular short-term or long-term risks on stock sustainability are identified in relation with access of EU tuna vessels to the Mozambique fishing zone.

If the Commission's legal services conclude that the 2011 and 2012 situations of Portuguese vessels operating on the domestic shrimp fisheries are in violation of the exclusivity clause contained in the agreement, a new protocol could also consider access for these trawlers flagged to an EU Member State providing they intend to maintain their current activities on domestic shrimp fisheries over the next few years under a Member State flag. As mentioned in the CFP adopted end 2013, the fishing opportunities attributed to the EU shrimp vessels will have to be based on best available scientific advice and relevant exchange of information, ensuring a sustainable exploitation of the marine resources, transparency as regards the determination of the surplus, and consequently, a management of the resources that is consistent with the objectives of the CFP.

This option of introducing EU fishing opportunities on the domestic shrimp fisheries generates a risk. Scientific advice on the status of coastal shrimp stocks can be estimated to be reasonably robust with IIP producing each year detailed estimates of the situation of the stocks on the basis of catch & effort data and scientific *in situ* surveys to estimate biomasses and recruitment. The latest stock evaluation by Mozambique indicates that the coastal shrimp stocks are severely depleted. The quality of advice is however undermined by the impacts of shrimp artisanal fisheries which remain uncertain and difficult to regulate. For the deep-sea shrimp stocks, the knowledge of the status of the stocks can be estimated to be relatively poor in particular in the absence of dedicated annual scientific surveys. Should a surplus be identified, a pragmatic countermeasure to minimise this risk could be to allocate to EU shrimp vessel a percentage of the approved TAC supposed to reflect the surplus, with annual adjustments of fishing opportunities allowed. A mechanism to adjust the financial compensation in proportions commensurate with the fishing opportunities may be established accordingly.

Under the 2003-2006 protocol of agreement with Mozambique<sup>61</sup>, fishing opportunities for deep-sea shrimps stocks (and not coastal shrimps stocks) were agreed on the basis of a quota (1000 tonnes deep-sea shrimps per year plus 535 tonnes by-catches of various fish and crustacean species). The 2003-2006 protocol did not include limits on fishing capacities allowed to catch these quota. The 2007-2011 protocol did not retain the deep-sea shrimp fishing opportunities, as no EU vessels utilised them over the 2003-2006 period. The main explanation given in the evaluation of the 2003-2006 protocol<sup>62</sup> was that the deep-sea shrimp fishery was not economically viable for EU trawlers and that its inclusion in the protocol undermined the efficiency of the EU intervention.

### 6.3.2 No FPA / protocol

In the absence of a protocol, both parties would lose a framework for sectoral political dialogue. This would have impacts on the opportunities for the EU to promote CFP principles in Mozambique,

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<sup>62</sup> Evaluation the Fisheries Agreement and a Protocol between the European Union (EU) and the Republic of Mozambique, and forward analysis of the impacts of future protocol, including ex-ante evaluation. FISH/2003/02 Specific convention 31 - April 2006

and cooperate with the country to combat IUU fishing in the region through the implementation of measures coherent across the current network of fishing partnership agreements. Mozambique and the EU would still have the opportunity to cooperate under the multilateral framework of IOTC but the governance mechanisms of the RFMO may not be the most appropriate to adopt stringent measures.

The EU will still have the responsibility to manage its tuna fleet according to international standards and IOTC standards. In the absence of FPA, the EU will lose the legal possibilities to ensure that EU vessels comply with specific dispositions of private arrangements and to intervene on behalf of EU interests in cases where these conditions are not complied with. These responsibilities will fall on the flag states of the vessels, but with no legal mandate for the EU to intervene.

In the absence of an FPA, the EU tuna fleet would still have the possibility to access the Mozambique fishing zone under private arrangements. The official cost of access is however higher compared to current conditions under the FPA, and may undermine the attractiveness of a zone which is likely to remain a secondary zone considering the abundance of targeted highly migratory species. It is therefore likely that some EU vessels would not choose to apply for a private license on the basis of its perceived low cost - benefit return ratio. The decision taken by the French purse seine fleet segment in 2013 and 2014 of not applying for licenses under the protocol supports this view. In addition, private licenses would not provide the same advantages in terms of legal security and visibility to support long term logistical or strategic operational planning by the sector.

Concerning access of the EU shrimp trawlers, the situation would be clearer as no exclusivity clause could prevent the vessels from operating legally in the Mozambique fishing zone, should the current situation be found to be in breach of the clause.

Mozambique would lose the financial benefits provided through the FPA from the EU institutions and shipowners (between EUR 1.1 and EUR 1.2 million per year). The net loss would depend on the number of EU vessels deciding to apply for private licenses in the absence of an EU agreement. At current private license fee rates, if about 48 EU tuna vessels in total chose to apply for access under private conditions, Mozambique would not lose any financial income from the activities of EU vessels in its fisheries zone. However, in 2012, only 32 EU vessels applied for a license under the conditions of the protocol of agreement, and 20 in 2013. This being said, financial transfers under the current protocol cannot be estimated to be pivotal for the Mozambique fishing sector. The Ministry of Fisheries has already at its disposal a total amount of USD 143 million over the next 3-7 years from Donors activities to complement its internal budget sources. In addition, the forthcoming offshore exploitation of gas in the Mozambique EEZ will probably increase dramatically National budget income, with positive impacts on the National budget allocated to the fisheries sector.

If the number of EU vessels active in the Mozambique fishing zone further decreases as anticipated under a non-FPA situation, and if EU vessels are not replaced by other foreign fishing vessels of comparable catching capacity, total catches of highly migratory species in the waters of Mozambique would decrease. In the context of the current IOTC negotiations on allocations of fishing rights, this might undermine the negotiating position of Mozambique with possible prejudices on the future fishing opportunities available for its National tuna fleet if historical records of catches in the EEZ are retained by IOTC as a basis for allocating fishing opportunities.

In conclusion, the continuation of the relations between EU and Mozambique under a renewed protocol appears to be clearly advantageous and desirable to both Parties. Any other solution would have negative impacts for both sides. One of the main difficulties in renewing the current protocol could be to identify a suitable solution to include in the fishing opportunities access for the EU

shrimp trawlers, should this be needed and if at all possible given the current situation of the resource.

## 6.4 Added value of EU involvement

The EU involvement is clearly beneficial for the following reasons :

- The continuation of the agreement provides an official forum for sectoral political dialogue between the EU and Mozambique, ensuring that CFP objectives are promoted in synergy both at National level and at IOTC level.
- An EU agreement gives to the EU a legal responsibility over the activities of the fleet. This provides to the EU a legal instrument to ensure that Member States comply with the dispositions of the access arrangement and to intervene if it is not the case. This strengthens the credibility of the EU as a leading force in the implementation of responsible fishing practices in the Indian Ocean.
- An EU agreement ensures that conditions applied to the EU fleet are coherent across the network of fishing agreements and promote a level playing field for tuna fisheries in the region.

The added value of EU involvement in the development of sustainable fisheries in Mozambique waters through an FPA is less evident. The financial amounts considered under the sectoral support represent currently less than 2% of the total investment budget of the Ministry of Fisheries. This relative modest percentage prevents an influential role of the EU on the implementation of the National fisheries policy. Other Donors activities (*i.e.* Norway / Iceland, IFAD or the World Bank) can be estimated to be more influential on the basis of the amounts of funds invested in the development of the sector. Donors interventions are guided by the same principles of implementing sustainable fishing practices in conformity with international instruments (*inter alia* FAO IPOA, FAO code of conduct for responsible fisheries, UNCLOS and related instruments). In addition, the EU, through the 10<sup>th</sup> EDF envelope has allocated significant funding to the development of the fishing sector (about 6 times greater than the sectoral support on an annual basis). This can preserve a role for the EU in the implementation of the National fisheries policy in coherence with the objectives of the CFP.

## 6.5 Lessons from the past

The evaluation of the 2007-2011 protocol<sup>63</sup> provided several recommendations. The following sections review these recommendations, evaluate to what extent they have been taken into consideration under the current protocol, and evaluate their relevance for a next protocol.

**Duration** : the recommendation was to conclude a protocol of a minimum duration of 4 years to ensure a degree of stability. The current protocol has been concluded for a shorter period of 3 years. This is attributable to the fact that in 2011 when the current protocol was negotiated, the CFP reform was starting. It was therefore considered as appropriate to wait for the formal outcome of the reform, and be in a position to include reformed CFP external policy orientations when officially

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<sup>63</sup> Ex-post evaluation of the current protocol to the FPA between the EU and Mozambique and analysis of the impact of the future protocol on sustainability, including ex-ante evaluation. Framework contract FISH/2006/20. Specific Convention N°32.

adopted. This will be the case for a protocol starting in 2015, and the 2011 recommendation on an extended validity period of a protocol can now be taken into consideration.

**Financial aspects** : the 2011 recommendation was to increase the catch levels taken into consideration to calculate the nominal value of the licenses fees payable by EU shipowners. This recommendation has been taken up with purse seine licenses now calculated on the basis of a reference catch level of 146 tonnes as opposed to 120 tonnes under the previous protocol for purse seiners, and 118 tonnes as opposed to 100 tonnes for longliners > 250 GT. According to the findings of this ex-post evaluation, the current catch levels retained to calculate the license fees applicable the EU tuna fleet appear to be commensurate with expected benefits, and should not be increased significantly further. The risk of doing so would be to decrease the attractiveness of the Mozambique fishing zone for EU tuna vessels. The 2011 evaluation also noted the disparity between the license fees applicable under the protocol and those applicable to private licenses for foreign operators. The gap has been slightly reduced but remained considerable. However, as noted by the previous evaluation and the current one, this is an horizontal issue for all current EU fishing agreements considering fishing opportunities for highly migratory species.

**Catch reporting and validation** : the 2011 evaluation identified some issues in relation with the catch validation procedures, and recommended introduction of electronic reporting and a greater commitment of Mozambique scientific institute and Member States institutes for cooperation in catch validation. According to information gathered during this evaluation, most of the recommendations have been implemented, but the situation has still to be improved. IIP could only implement cooperation for catch validation with IRD (France). Other Member States institutes did not respond. This has created some frustration on the part of Mozambique, that could impact negatively on the good spirit of the partnership. The EU has requested that the Member States concerned to cooperate, and has designated a focal point within DG MARE to drive the cooperation forward. Follow-up actions are still being undertaken. A positive note has been the implementation of electronic transmission of logbook data through an ERS applicable under Council Regulation (EC) N° 1224/2009 to any EU vessel of length greater than 12 m wherever it operates. The Mozambique FMC now receives from Member States almost real-time logbook information that will support greater transparency. Mozambique is now considering to extend a mandatory ERS to all foreign vessels licensed to fish in the Mozambique waters.

**Embarkation of Mozambique seamen** : the 2011 recommendation was to introduce in the protocol a requirement to pay a fee to be directed towards training in the fishery sector. This recommendation has been taken up with a payment of EUR 30 per day of presence in the fishing zone in case non-binding requirement to sign-on seamen were not complied with by EU shipowners. During the current evaluation, Mozambique Authorities reaffirmed their desire to have National seamen embarked onboard EU vessels, not so much for the number of jobs this may provide, but under a perspective of training seamen to man the future National tuna fleet.

**Observers** : the 2011 evaluation recommended more precise protocol clauses on provision of facilities and arrangements for embarkation and disembarkation of observers, and for payment of observer fees. This recommendation has been incorporated in the current protocol. However, these provisions did not contribute to increase observer coverage, which remains at nil under the current protocol. The reason is that neither party launched any initiative in this respect, conscious that embarkation of observers raises several logistic issues in relation with the short period of time spent by the EU vessels in the zone (a few days per year). The most relevant approach would be to implement a regional observer programme under IOTC or through unilateral initiative of EU fishing companies concerned. Under the ISSF resolution 12-03, the EU purse seine fleet is currently developing a 100% coverage single observer programme (human or electronic) that could

accommodate the needs of Mozambique and the EU. Mozambique and the EU could try to encourage the shipowners to ensure that Mozambican nationals are part of the programme.

**Port inspection of vessels** : the 2011 evaluation recommended consideration of mandatory port visits according to Mozambique legislation. This recommendation has been incorporated in the current protocol and applied for 33% of the EU fleet submitting license applications (*i.e.* about 10 vessels per year). This clause creates technical difficulties and explains in part the relative low utilisation of fishing opportunities in 2013 and probably for 2014. While this clause, also applied to 100% of other foreign vessels should not be eliminated in a next protocol, it could be arranged *i)* to have vessels inspected only one time over the duration of the protocol, or *ii)* to allow for inspections in other ports in the region at the expenses of shipowners. This latter suggestion is not supported by Mozambican authorities who would like to retain a physical link between the EU fleet and the Mozambique territory, with possible positive effects on a better integration of the activities of the EU vessels in the National economy.

**Partnership approach** : The previous evaluation recommended that the parties should adopt a more rigorous approach and clearly link the sectoral support to the Fisheries Masterplan (PDP II). During this evaluation, it has been verified that the recommendation has been taken up. The sectoral support under the protocol of agreement is clearly linked to the PDP II and its implementing programmes detailed in the financing Laws, with full transparency on financial sources used to complement EU funding. Most programmes supported by international donors are also implemented through a similar budget support approach (*i.e.* funds paid on a single treasury account).

**Participation of Mozambique in EDF programmes**: The 2011 evaluation noted that Mozambique had been prevented to participate as beneficiary in two important EU funded regional programme directed at the fisheries sector (ACP FISH II and the IOC regional surveillance programme). It could be verified that Mozambique has since benefited from some ACP FISH II interventions, mostly at regional level (see annex 2). Mozambique has also been involved as cooperating party in the IOC regional surveillance programme with organisation of joint deployment plans covering the fishing zone of the country. In addition to these EDF regional programmes, Mozambique is a participating country (but not beneficiary country) of the SmartFish project. Finally, Mozambique has received a financial support of EUR 14.3 million from the EU under the MDG 2020 initiative to top up IFAD activities on the development of artisanal fisheries and aquaculture over the next five years. This demonstrates that the EU supports the development of the fisheries and aquaculture sectors in Mozambique with different instruments, and not only with the sectoral support considered under the protocol. Although there does not seem to be any major issues of coherence between all EU supported programmes, it transpired during interviews that there has been little exchange of information within EU institutions beforehand to identify potential overlaps and synergies between the various programmes.

**IOTC and management measures**: at the time of the finalisation of the previous evaluation, Mozambique was not a contracting party of IOTC. As this is now the case, it should be noted that Mozambique complies with all IOTC binding resolutions. In addition, Mozambique is the current Chair of the IOTC compliance committee.

## 6.6 Planning and future monitoring and evaluation

The current monitoring and evaluation mechanisms can be considered as being satisfactory and appropriate, and should be carried over into the next Protocol. This includes the continuation of at least annual meetings of the joint committee, plus ad-hoc technical meetings as and when needed by one of the two parties. The joint committees and the technical committees have proved to be particularly useful to monitor the implementation of the sectoral support programme, and to openly



discuss any matter in relation with the bilateral relationships in the field of fisheries, including *inter alia* development of ERS, revision of the limits of the fishing zone or Mozambique aspirations to develop a National tuna fleet.

The quality of the main monitoring indicators of EU fishing activities in the Mozambique fishing zone (licensing, catches) will be probably be improved through the introduction of the ERS and by an increased cooperation between IIP and the scientific institutes in the Member States.

An ex-post evaluation of a next protocol should be mandated approximately one year before the term of the protocol according to EU requirements.

## 6.7 Helping to achieve cost-effectiveness

One major negative aspect of the current protocol is that it is not as efficient as other protocols of agreements with coastal states for exploitation of tuna resources. As a consequence of the low utilisation of fishing opportunities negotiated, the cost per tonne of fishing opportunities obtained has been relatively high (EUR 612 per tonne) compared to the cost estimated ex-ante (EUR 100 per tonne). However, the cost-benefit ratio of the agreement remains positive with EUR 2.08 value-added generated for every EUR 1 invested by the EU. The low utilisation is attributable to :

- A discrepancy between the maximum number of fishing licenses available and the actual size of the EU fleet active in the Indian Ocean in 2012 and 2013 (in particular the French and Spanish purse seine segments, and the Spanish and Portuguese longline segments)
- A lack of interest from some segments of the active EU vessels for an access to the Mozambique fishing zone (in particular the French purse seine and longline segments, and the Spanish longline segment)

Some external factors, such as the development of piracy in the Indian Ocean can explain in part the low utilisation of fishing opportunities with some vessels of the EU tuna fleet having migrated to the Atlantic Ocean. Other explanations include disproportionate requests from Member States for fishing opportunities and a lack of economic attractiveness of the Mozambique fishing zone for some vessels active in the region.

However, the situation may be different under a new protocol. Firstly, the size of the EU fleet currently active in the Indian Ocean may increase again as piracy is apparently reducing. In addition, the next protocol will have to include fishing opportunities for the 5 purse seiners registered in Mayotte and which are now included in the EU fleet register since 1<sup>st</sup> January 2014 and the longline fleet registered in Mayotte as and when it develops within the limits set out by the Fleet Development Plan. Secondly, the revision of the limits of the fishing zone may also contribute to increase the amount of catches attributable to the Mozambique waters. The revised limits increase the area of Mozambique waters subject to the dispositions of the protocol by 11%, and include areas where EU tuna vessels are likely to operate. All things being equal (*e.g.* similar reference tonnage and maximum number of vessels), the efficiency of the next protocol should be improved.

As mentioned in the evaluation report, the cost-effectiveness of the sectoral support is evaluated as a limited contribution to priorities also addressed by other donor interventions focusing on similar areas of the fisheries sector (MCS, research). Increasing the sectoral support under a new protocol will probably have no visible effects on the development of the Mozambique fishing sector as Mozambique has already secured USD 143 million external aid focused on the fisheries and aquaculture sectors. Mozambique has an ambition to construct and/or rehabilitate the fishing ports of Maputo, Beira and Nacala, and is seeking external funding. However, these actions are clearly beyond the financial capacities of the sectoral support under a new FPA.

In terms of impacts of financial transfers, a renewed protocol incorporating only tuna fishing opportunities would have probably similar impacts on the EU budget.

If the introduction of shrimp fishing opportunities is considered, this will probably increase the EU contribution paid to Mozambique for access and for sectoral support as new needs in relation with the evaluation of stock status, reduction of impacts on the environment and the monitoring of shrimp fisheries will arise. It is difficult to estimate the impacts on the EU budget ex-ante. The cost of fishing opportunities will depend on the fishing opportunities negotiated (e.g. number of vessels / allowable catches / prices of target species)

## Conclusions and recommendations

For the EU tuna fleet active in the Indian Ocean, an access to the Mozambique fishing zone to catch highly migratory species complements access conditions negotiated with other Coastal States of the Indian Ocean (i.e. Comoros, Madagascar, Seychelles, Mauritius; and possibly Kenya and Tanzania if the EU succeeds in negotiating new FPAs). The Mozambique fishing zone is not as pivotal for the EU tuna fleet as the fishing zones of Seychelles or Madagascar, but precautionary access possibilities certainly support the deployment strategies of EU tuna vessels in case of when the resource is abundant in the Mozambique Channel.

For the EU, a Fisheries Partnership Agreement with Mozambique is relevant to ensure that EU tuna vessels comply with access provisions supporting CFP objectives and to sustain a sectoral political dialogue with a Coastal State of the Indian Ocean firmly engaged in the fight against IUU fishing in coherence with international and CFP standards.

For Mozambique, a Fisheries Partnership Agreement with the EU allows the country to derive economic benefits from tuna resources present in its waters in the absence of developed National tuna fleet. The sectoral political dialogue is also a valuable opportunity to cooperate on the implementation of responsible fishing practices in Mozambique waters, and to act against IUU fishing with the support of the EU.

In terms of effectiveness, the ex-post evaluation of the 2012-2015 protocol shows that the protocol broadly succeeded to achieve its main objectives. The fishing opportunities negotiated do not generate specific threats on the stocks of highly migratory species under the management mandate of the relevant RFMO (IOTC), nor on ecosystems. The activities of the EU tuna fleet in the fishing zone are properly monitored with the implementation of an electronic reporting system to provide logbook data to the Mozambican FMC. This is based on the mandatory provisions of Council Regulation (EC) N° 1224/2009 applicable to the EU fishing fleet, in addition to mandatory VMS monitoring. The sectoral support under the agreement has been used to upgrade the VMS monitoring system used by the Mozambique FMC and to implement the ERS that will possibly be applicable to other foreign tuna vessels licensed to fish in Mozambique waters.

Therefore, the protocol can be considered to contribute towards the sustainable exploitation of tuna resources in Mozambique waters. The protocol has also positive effects on sustainable exploitation of coastal resources with part of the EU sectoral support used for scientific data collection and stock assessment. Concerning the protocol objective of protecting the EU long distance fleet and the employment linked to its operation, the evaluation reveals that the protocol effectiveness has been relatively low. In 2012, the only year for which full information is available, catches of the EU tuna fleet in the Mozambique waters have represented only 1% to 2% of total catches in the Indian Ocean. Consequently, the protocol cannot be estimated to have been pivotal in protecting the activities of

the EU fleet and related employment. The low catches, equivalent in 2012 to 14% of the reference tonnage of 8 000 tonnes, also provide a negligible contribution to the supply of the EU market. Data on utilisation, with only 32 (2012) and 20 (2013) licenses utilised out of a maximum of 75 also show that less than half of the number of EU tuna vessel active in the Indian Ocean took advantage of the agreed fishing opportunities. However, tuna migrations are unpredictable and it is of interest for the EU tuna fleet to retain access possibilities in case the abundance of highly migratory species in the Mozambique fishing zone is high.

The access conditions negotiated under the protocol appear to be commensurate with potential economic benefits derived while fishing in the zone, and certainly more advantageous than access conditions applicable under other types of access arrangements in financial terms.

As agreed by the two parties under the Joint Committees, the sectoral support delivered under the protocol has been used to support two key governance functions, namely MCS and research, contributing to other sources of funding focusing on the fisheries sector, including external aid. The protocol failed to have positive impacts on the development of the Mozambique private fishing sector with no creation of value-added or employment. EU tuna vessels did not employ National seamen and did not have economic interactions with Mozambique enterprises (upstream and downstream industries). One of the main reasons is that EU shipowners have no economic incentives whatsoever to use Mozambican ports which do not have the appropriate infrastructure or market available to justify the loss of operational time and additional costs that visiting Mozambique ports would entail.

The evaluation of the efficiency of the protocol indicates that similar results could have been achieved at lower costs for the EU party. As a consequence of the low utilisation of fishing opportunities negotiated, the cost of access paid by the EU in 2012 has averaged EUR 450 per tonne, compared to the EUR 65 per tonne considered ex-ante. With EU shipowners payments, real costs of fishing opportunities are in the region of EUR 612 per tonne, representing 32% of the value of purse seine catches and 19% of the value of longline catches. Nonetheless, the EU investment in the agreement generates positive returns with EUR 2.08 value added created for every EUR 1 invested from the EU budget. This cost-benefit ratio remains below the average for EU tuna agreement (between EUR 4 and 5 value added generated for every EUR 1 invested).

Concerning the economy of the protocol, the evaluation indicates that sectoral support is compatible with the absorption capacity of Mozambique. Delays in payments of the EU sectoral support financial contribution are mostly explained by technical difficulties from Mozambique to comply with internal rules to be addressed and measured through higher budget execution rates.

The protocol is evaluated as being broadly coherent with both the CFP and Mozambique fisheries policy. As reported by Mozambique authorities, the development of a National tuna fleet, that will take time, will not affect bilateral relations. There are some synergies between the FPA and Mozambique aspirations in particular on the monitoring of tuna fleets and transfer of experience, including training of a local workforce. Two technical issues may impact the coherence of the FPA with the CFP orientations : the non-inclusion of a human rights clause in the protocol, but this did not raise any particular problems, and more importantly, the activities of 4 trawlers flagged to Portugal on the domestic shrimp fisheries. Pending advice of Commission legal services, this may be in violation of the exclusivity clause contained in the FPA and the protocol. Considering the 10<sup>th</sup> EDF grant to support a development programme of artisanal fisheries and aquaculture, with annual funding about 6 times greater than the sectoral support allocated under the agreement, further investigations in anticipation of the negotiation of a next protocol within Commission services could identify potential synergies and complementarities and to ensure coherence of the objectives.

Finally, the evaluation raises some difficulties in terms of acceptability by some EU shipowners. The mandatory inspection of 33% of the EU vessels prior to their operations decreases the economic attractiveness of the agreement up to a point where some EU fleet segments prefer not to use the fishing opportunities negotiated, with knock on effects on the efficiency of the protocol. However, from the Mozambique perspective, this clause is not negotiable as pre-inspections are mandatory for any foreign fishing vessels applying for a license and are considered as essential to establish a physical link between the Mozambique territory and the foreign fishing fleets.

The ex-ante evaluation concludes that the continuation of the agreement is desirable and necessary for both parties. The objectives of the current protocol are still relevant for a future protocol. However, a specific attention will have to be focused on *i)* the maximisation of socio-economic benefits for Mozambique stemming from the activities of the EU fleet in its waters, and *ii)* the clarification of the situation of the EU trawlers active on the domestic shrimp fisheries outside the scope of the agreement. Lessons from the ex-post evaluation and results from the ex-ante evaluation lead to suggest the following recommendations for the future:

#### **A future protocol:**

- ***Renew the protocol of agreement:*** continuation of the agreement is clearly beneficial for the two parties. Any other solution would have detrimental impacts. If at all possible, the next protocol should have a duration of 4 or 5 years to ensure stability and visibility.
- ***Introduce in the protocol a human rights clause:*** according to the reformed CFP, a new protocol should include a legal instrument to suspend the application of the protocol in case of violation of human rights.
- ***Fishing opportunities for EU tuna vessels*** may remain broadly as per the current protocol. With the decrease of piracy in the Western Indian Ocean, a return of some EU tuna vessels in the Indian Ocean can be expected. In addition, the fishing opportunities will have to cater for the 5 purse seiners flagged to Mayotte and now included in the EU fleet register, and the possible development of a longline fleet registered in Mayotte according the Fleet Development Plan submitted to IOTC by the French Authorities. Concerning the level of catches in the Mozambique fishing zone, it can be expected to increase compared to the historical low of 2012 with increased number of EU vessels utilising the agreement and inclusion in the protocol of areas of the fishing zone claimed by Mozambique that were previously excluded.
- ***If needed*** (*i.e.* if the current situation is in breach with the exclusivity clause and if Portugal is still interested), ***include in a new protocol access provisions for EU trawlers*** on the shrimps stock in compliance with CFP orientations, noting that fishing opportunities negotiated will have to be flexible to be able to swiftly react to the situation of stocks as established periodically by scientific advice. This will not be the easiest part of the negotiation as coastal shrimps stocks in Mozambique appear to be severely depleted, and the potential offered by deep-sea shrimps stocks largely unknown.

On some technical issues in relation with the current and future protocol

- ***Cooperation in catch validation*** : exchanges of information between IIP and Member States research institutes have not been up to the legitimate expectations of Mozambique. The non-response of some Member States research institutes creates some frustration on the part of Mozambique, and undermines the transparency of EU tuna vessels activities in

Mozambique waters. With the aim to encourage a better cooperation between all research institutes, the two parties may consider the formal creation of a joint scientific working group as provided by article 4 of the agreement with a mandate focusing on comparisons of methodologies for validation and their application to catch data available. The introduction of ERS is a positive step contributing to better transparency, but catch data submitted electronically remains the same as logbook data (*i.e.* estimates of catches as opposed to real weight) that need to be further cross-checked with other sources of information (*i.e.* sales notes, port sampling).

- **Promoting embarkation of National seamen:** introducing a mandatory embarkment of Mozambican seamen onboard EU vessels in a next protocol will be probably counterproductive and not in coherence with free circulation of workers principle promoted under the Cotonou agreement. It can be expected that EU shipowners will employ Mozambican seamen if they estimate the opportunity interesting for their activities primarily driven by economic considerations. A recommendation in this respect would be to address the issue of National training under a next protocol. According to information received during the mission, the Maputo fishing school which received part of EU sectoral support funding does not appear to be up to international standards<sup>64</sup>. The facilities would need to be improved and training curriculum should be adapted to international standards (*e.g.* STCW standards). A first initiative would be to develop a plan of action of improve training conditions of National seamen, and when realised and implemented, promote the quality of the Mozambique workforce in the EU long distance fishing sector. The sectoral support can be the relevant instrument to develop this initiative. Note that employment of Mozambican seamen is not necessarily linked to the frequentation of Mozambique ports by EU tuna vessels, although this creates more favourable conditions. Experience shows that EU shipowners do not hesitate to fly the workforce to the vessels if they find an interest (*e.g.* West African Nationals flown to Seychelles to embark on EU purse seiners).
- **Observers :** organising an observer coverage by Mozambican nationals when the EU vessels are present in the zone is not feasible, efficient or practical. A recommendation could be to follow up and encourage the current industry-driven initiative of the EU purse seine fleet to implement a 100% regional observer coverage as required by ISSF resolutions<sup>65</sup>, or further re-inforce the relevant IOTC Resolution. Both Mozambique and the EU could ensure that Mozambican nationals are trained and recruited as observers under this framework when implemented. Concerning EU longliners, there is no industry-driven observer programme in place as yet.
- **Increasing the economic benefits of the agreement for Mozambique:** Until now, there has been no economic interaction between the EU fishing fleet and the Mozambique private fishing sector (upstream and downstream industries). As a result, Mozambique direct benefits from the agreement are restricted to the financial transfers from the EU institutions and private sector, although the development programme funded under the sectoral support may generate positive impacts on the fisheries administration effectiveness but these cannot be valued. The activities of the EU tuna fleet are driven by economic considerations. The EU fishing industry will use Mozambique ports and related services if they offer a competitive advantage compared to the ports of Seychelles, Madagascar or Durban currently used by the EU fleet. Introducing mandatory provisions for landing in Mozambique under a next protocol would be counterproductive since this will increase operational costs. Increasing the

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<sup>64</sup> This could not be verified *in situ* during the mission

<sup>65</sup> IOTC resolution 11/04 requires a minimum 5% coverage.

attractiveness of Mozambique territory for tuna vessels will need *inter alia* construction / rehabilitation of existing fishing ports of Maputo, Nacala and Beira, the development of services to the fleet (*e.g.* repairs, provision of consumables, crew services) and the development of market outlets for catches (*e.g.* processing industries). This will be certainly a long-term process requiring substantial levels of investments largely beyond the financial possibilities of a protocol of agreement. The National tuna fleet to be developed in Mozambique will also need attractive and efficient shore-based services. These development actions are considered in broad terms by the Strategic Plan for Tuna Fisheries Development (PEDPA) adopted in 2013 by Mozambique. Under the sectoral support of a next protocol, the EU and Mozambique could cooperate to develop an operational plan to implement the orientations of the PEDPA (actions, objectives, costing) in a form that can be utilised by National authorities to secure funding from internal or external sources. At the EU level, an involvement of the EIB and EDF could be considered to support the investment programme.

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**Annex 1: list of fisheries and aquaculture development programmes funded by external donors in Mozambique**

Table 28: : International donor assistance in the fisheries sector (Source: Direction of international co-operation, Ministry of Fisheries, 2014)

Project	Donor	Type of Funding	Currency amount*	Duration	Area of Intervention
Support to Fisheries Sector in Mozambique (ASPM2)	Norway / Iceland	Grant	USD 27M	2014-2018	<ul style="list-style-type: none"> <li>• Small scale Fisheries and Aquaculture</li> <li>• Research and resources management</li> <li>• Planning and Monitoring</li> <li>• Coastal MCS</li> </ul>
Promoção da Pesca Artesanal (ProPESCA)	IFAD / OFID	Loan	USD 20M	2013-2020	<ul style="list-style-type: none"> <li>• Production of higher commercial value</li> <li>• Economic infrastructures</li> <li>• Financial services</li> <li>• Institutional development</li> </ul>
Accelerating progress towards eradicating hunger and extreme poverty (MDG 1c)	EU – 10 <sup>th</sup> EDF	Grant	EUR 14M	2013-2018	<ul style="list-style-type: none"> <li>• Artisanal Fisheries (ProPESCA)</li> <li>• Financial services</li> <li>• Aquaculture (ProAQUA)</li> </ul>
AgriFish (Socio-economic development of the Zambezi Valley)	WB	Loan	USD 30M		<ul style="list-style-type: none"> <li>• Artisanal Fisheries (USD 30M)</li> <li>• Financial services</li> <li>• Infrastructures</li> <li>• Part of a USD 150 M loan</li> </ul>
Strengthening Access Rights to Fisheries (PRODIRPA)	IFAD	Grant	USD 1,5M		<ul style="list-style-type: none"> <li>• Investigation, capitalization</li> <li>• Community empowerment</li> <li>• Integrated management plans</li> </ul>
Artisanal Fisheries	Nordic Development Fund	Grant	n.a.		<ul style="list-style-type: none"> <li>• Community based management</li> </ul>
Support to shrimp aquaculture	France	Grant	n.a.		<ul style="list-style-type: none"> <li>• Commercial strategy</li> <li>• Sectorial management</li> </ul>
Technical assistance to fisheries sector	WWF	Grant	n.a.		<ul style="list-style-type: none"> <li>• Fisheries certification</li> <li>• Management plans</li> </ul>
Angoche fishing port	BADEA	Grant	n.a.		<ul style="list-style-type: none"> <li>• Feasibility study</li> </ul>
Maputo fish market	JICA	Grant	n.a.		<ul style="list-style-type: none"> <li>• Infrastructures</li> </ul>
Total commitments for approved ongoing projects			USD 143.3M	3-7 years	

\* Financial amounts committed reported in the table are only indicative



**Annex 2: list of ACP FISH II projects with Mozambique as beneficiary**

## ACP Fish II: Strengthening Fisheries Management in ACP Countries

Mozambique has been a beneficiary from the “Strengthening Fisheries Management in ACP countries” programme funded under the 9<sup>th</sup> EDF (EUR 30 million over 4.5 years). This Programme, which started in June 2009 and concluded in December 2013, was primarily designed to improve fisheries management capacities in ACP countries and to reinforce regional cooperation for the management of shared stocks and the fight against IUU fishing. The aim of the programme was to improve fisheries management in ACP countries so as to ensure that fisheries resources occurring in the waters under the jurisdiction of these countries are exploited in a sustainable manner. ACP Fish II has been conceived as a decentralized programme, made up of a Coordination Unit in Brussels and 6 Regional Facilitation Units based in the 6 ACP regions, namely Western Africa, Eastern Africa, Central Africa, Southern Africa, the Caribbean and the Pacific. The Regional facilitation Unit for Southern Africa was based in Maputo. The four main components of the programme were:

- Support to Sectorial Policy and fisheries management plans
- Strengthening of MCS capacities
- Regional research strategies
- Support to private sector.

ACP Fish II has supported a feasibility study on behalf of SADC regarding the creation of a Regional Fisheries MCS centre in Mozambique. The mission was launched in February 2011 and aimed to “provide SADC and member states with guidelines for the establishment of the Regional MCS Centre in order to prevent and combat IUU fishing in the region, facilitating cost-effective cooperation and coordination of MCS activities”. The mission prepared an operational and financial plan identifying and outlining steps to be performed for the installation and start-up of the SADC regional MCS Centre.

Table 29: Projects under ACP Fish II Programme that benefited the Mozambique (Source: <http://acpfish2-eu.org/>)

7	Project	Beneficiary	duration	Amount (€)
SA-1.1-B0	ACP FISH II Regional Monitoring Workshops for Southern Africa	Regional	From 09/2011 to 11/2013	200 000
	ACP FISH II Regional Workshops for Southern Africa	Regional	From 07/2010 to 03/2011	81 900
SA-1.3-B6	Support to the Identification Phase of the SADC Programme "Strengthening Co-Management and Value Chains of Shared Fisheries Resources in the Zambezi Basin"	SADC Countries	From 05/2012 to 10/2012	116 250
SA-2.1-B10	Regional and National Workshops Supporting the Implementation of IOTC Resolutions (combined with RFU EA)	IOTC	From 07/2013 to 10/2013	106 000
	Assessment Study for the installing and start-up of the SADC MCS Regional Center	SADC Countries	From 02/2011 to 05/2011	136 264

7	Project	Beneficiary	duration	Amount (€)
SA-2.2-B11	Follow up action to feasibility / assessment study for the SADC MCS Regional Centre: a) assessment of implementation of the SADC statement of commitment on IUU fishing, and b) elaboration of a sustainability plan for the Regional MCS Centre	SADC Countries	From 07/2012 to 11/2012	141 720
	Study on Improvement of Feeding Rations for Aquaculture Development in Gorongosa District - Mozambique	Mozambique	From 02/2011 to 05/2011	62 496
SA-3.2-B17	Support for the Devising of the Aquaculture Development Strategy in Caia and Gorongosa Districts - Mozambique	Mozambique	From 06/2013 to 11/2013	85 546
SA-4.3-B21	Market study on bycatch from the tuna fishery industry in the Indian Ocean Region	Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles and Tanzania	From 04-2013 to 09-2013	49 500
SA-4.1-B20	Regional Training on Value Chain Analysis	Angola, Botswana, Comoros, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland and Zambia	From 05/2012 to 10/2012	76 097

**Annex 3: Details of the methodology used to estimate economic performances of the EU tuna fleet**

Under the Data Collection Framework (DCF)<sup>6667</sup>, all EU Member States have to collect data describing the economic performance of their fishing fleets and to provide aggregated information to a centralised system held by the European Commission services. Economic data are then analysed by STECF and published in an annual economic report. We used the most recent STECF data available describing four segments<sup>68</sup>: French and Spanish Purse Seiners over 40m (FRA PS 40+ and ESP PS 40+), Portuguese and Spanish longliners 24 to 40m (PRT HOK 24-40 and ESP HOK 24-40). The most recent cost structure available relates to 2011. The data available are not disaggregated by ocean. The minimum level of geographic disaggregation is EU waters (subdivided by FAO areas)- non EU waters (not subdivided by FAO areas).

For each fleet, data are available on three types of income defined by the DCF:

- income from landings (totlandginc),
- direct income subsidies (totdirsub),
- and other income (tototherinc).

The sum of all these income generates the turnover.

Costs are reported along several headings defined by the DCF :

- wages and salaries of crew (totcrew wage) and unpaid labour value (totunpaidlab);
- energy costs (totenergcost);
- rights costs (totrightscost);
- other variable costs (totvarcost);
- repair & maintenance costs (totrepcost);
- non-variable costs (totno varcost);
- annual depreciation costs (totdepcost).

**Note that the license costs are included either under the rights costs item or under the non-variable costs item depending on Member States methodologies.**

Gross value added (GVA) is calculated by subtracting all costs except labour and depreciation from the turnover:

$$\text{GVA} = \text{Turnover} - (\text{energy} + \text{right} + \text{other variable} + \text{repair \& maintenance} + \text{non-variable})$$

Gross cash flow is calculated by subtracting labour costs from the GVA:

$$\text{Gross cash flow} = \text{GVA} - (\text{wage and salaries} + \text{unpaid labour})$$

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<sup>66</sup> Council Regulation (EC) No 199/2008 dated 25 February 2008 concerning the establishment of a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy.

<sup>67</sup> See also <http://datacollection.jrc.ec.europa.eu/dcf-legislation>

<sup>68</sup> Data available in excel format:  
[http://stecf.jrc.ec.europa.eu/documents/43805/581354/2013\\_EU+Fleet+Econom+and+Transversal+data\\_fleet+segment+level.xlsx](http://stecf.jrc.ec.europa.eu/documents/43805/581354/2013_EU+Fleet+Econom+and+Transversal+data_fleet+segment+level.xlsx)

In order to estimate economic indicators for 2012 on the basis of 2011 published data, the cost structure has been updated using several indexes:

- Fuel : Average international prices of fuel have been extracted from the French Ministry of Industry database. In 2011, average price of fuel was EUR 0.64 / l. It increased to EUR 0.69 / l in 2012, a 7.8% increase.
- The Harmonized Indices of Consumer Prices (HICP) has been used to reflect the variations in costs of repair and maintenance, as well as non variable costs. Between 2011 and 2012, HICP increased by 2.6%
- CPUE : 2011/2012 variations in CPUE have been measured using the CPUEs reported in the 2013 EU report to the scientific committee of IOTC. According to this report, CPUEs of purse seiners have decreased by 15% in 2012 compared to 2011. CPUEs of longliners have increased by 21% between 2011 and 2012
- Price of fish : average composite prices of target species used in the report have been used. In 2012, composite price of purse seine species have increased by 40% compared to 2011. Average composite prices of longline species have decreased by 15%

Several assumptions have been made to determine the likely cost structures for 2012:

In terms of income:

- Income from landings in 2012 are calculated based on the assumption that effort level were similar than in 2011. Landings are therefore adjusted from the variation in CPUE. Fish prices are adjusted based on the general evolution of prices. The evolution of income is estimated by multiplying the two indicators. Example, for purse seiner, income 2012 = 0.85 (cpue index) x 1.40 (price index) x income 2011
- Subsidies received by fishing fleet are assumed to be identical between 2011 and 2012.
- Other incomes, which are relatively minor, are estimated to be linearly dependant of the income from landings. For example, if other incomes were representing 3% of the income from landing in 2011, we assume that it will represent 3% of the income from landings in 2012.

In terms of costs:

- Other variable costs are estimated to follow the same behaviour than "other incomes", ie linearly dependant of the income from landings.
- We assume that the four fleets will burn the same volume of fuel in 2012 than 2011. Therefore, the evolution of energy costs is supposed to follow the evolution of the fuel price;
- The repair & maintenance costs and the non-variable costs are supposed to follow inflation, in our case the harmonised price index.
- Fisheries businesses usually use a share system to calculate fishermen wages. We use that approach to estimate wages in 2012. For each fleet segment, we first calculate a gross income which is equivalent to the turnover minus the variable costs except wages (energy, right costs, other variable). The share system implies that the ratio between labour costs (wages, salaries and unpaid labour) and gross income remains stable year after year. We therefore calculate this ratio for each segment in 2011 and apply it to estimate labour costs in 2012, based on estimated turnover and estimated variable costs (energy, right costs, other variable).
- Depreciation costs are not estimated for 2012 as they are not related to fishing activities but to business decisions in terms of investment.

The following tables report the 2011 data published by STECF for the relevant fleet segments (all vessels aggregated) and the estimated 2012 data on the basis of the adjustments described above.

French tuna purse seine segment. 2011 data as reported by STECF, 2012 data are estimates based on STECF 2011 published data

(in €)	FRA PS 40+	2011 (STECF)	2012 (Estimate)
Direct income subsidies	totdirsub	0	0
Income from landings	totlandginc	121 836 103	144 573 135
Other income	tototherinc	0	0
Wages and salaries of crew	totcrewwage	35 686 946	43 556 691
Unpaid labour value	totunpaidlab	0	
Energy costs	totenergcost	28 482 692	30 707 902
Non-variable costs	totnovarcost	16 618 478	17 058 349
Repair & maintenance costs	totrepcost	18 518 525	19 008 688
Rights costs	totrightscost		
Other variable costs	totvarcost	2 201 344	2 612 158
Annual depreciation costs	totdepcost	0	
<b>Value-added</b>		56 015 064	75 186 036
<b>Gross Cash flow</b>		20 328 118	31 629 345
<b>VA / Total income</b>		<b>46%</b>	<b>52%</b>
<b>GCF / Total income</b>		<b>17%</b>	<b>22%</b>

Spanish tuna purse seine segment. 2011 data as reported by STECF, 2012 data are estimates based on STECF 2011 published data

(in €)	ESP PS 40+	2011 (STECF)	2012 (Estimate)
Direct income subsidies	totdirsub	4 540 448	4 540 448
Income from landings	totlandginc	330 530 668	392 214 241
Other income	tototherinc	3 410 188	4 046 597
Wages and salaries of crew	totcrewwage	48 852 607	60 292 892
Unpaid labour value	totunpaidlab	426 685	526 606
Energy costs	totenergcost	77 764 031	83 839 346
Non-variable costs	totnovarcost	26 287 546	26 983 346
Repair & maintenance costs	totrepcost	21 368 055	21 933 642
Rights costs	totrightscost	21 371	21 371
Other variable costs	totvarcost	101 135 962	120 009 937
Annual depreciation costs	totdepcost	20 448 350	
<b>Value-added</b>		111 904 339	148 013 644
<b>Gross Cash flow</b>		62 625 047	87 194 146
<b>VA / Total income</b>		<b>33%</b>	<b>37%</b>
<b>GCF / Total income</b>		<b>19%</b>	<b>22%</b>

Spanish longline segment 2011 data as reported by STECF, 2012 data are estimates based on STECF 2011 published data

(in €)	ESP HOK 24-40	2011 (STECF)	2012 (Estimate)
Direct income subsidies	totdirsub	16 788	16 788
Income from landings	totlandginc	69 954 317	72 444 680
Other income	tototherinc	3 577 990	3 705 366
Wages and salaries of crew	totcrewwage	9 979 016	10 167 387
Energy costs	totenergcost	13 457 133	14 508 472
Non-variable costs	totnovarcost	3 132 759	3 215 680
Repair & maintenance costs	totrepcost	6 427 824	6 597 960
Other variable costs	totvarcost	25 836 254	26 756 020
Annual depreciation costs	totdepcost	10 115 840	
<b>Value-added</b>		24 695 125	25 088 702
<b>Gross Cash flow</b>		14 716 109	14 921 315
<b>VA / Total income</b>		<b>34%</b>	<b>33%</b>
<b>GCF / Total income</b>		<b>20%</b>	<b>20%</b>

Portuguese longline segment. 2011 data as reported by STECF, 2012 data are estimates based on STECF 2011 published data

(in €)	PRT HOK 24-40	2011 (STECF)	2012 (Estimate)
Direct income subsidies	totdirsub	0	0
Income from landings	totlandginc	11 603 372	12 016 450
Other income	tototherinc	27 665	28 650
Wages and salaries of crew	totcrewwage	1 336 545	1 363 733
Energy costs	totenergcost	2 958 511	3 189 645
Non-variable costs	totnovarcost	308 068	316 222
Repair & maintenance costs	totrepcost	1 127 157	1 156 991
Other variable costs	totvarcost	426 723	441 914
Annual depreciation costs	totdepcost	1 201 671	
<b>Value-added</b>		6 810 578	6 940 328
<b>Gross Cash flow</b>		5 474 033	5 576 594
<b>VA / Total income</b>		<b>59%</b>	<b>58%</b>
<b>GCF / Total income</b>		<b>47%</b>	<b>46%</b>

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## **Annex 4: List of persons contacted**

Name and Title	Title	Organisation
<b>EU INSTITUTIONS</b>		
M. Alan Gray	Desk officer	Unit B3, Bilateral agreements and Fisheries control in International Waters, DG MARE European Commission
Mr.Denis Reiss	Fisheries attaché	European Union Delegation, Mauritius
Mr.Yann Davalo	Catch and License management	Unit B2, B/2 - Integrated Fisheries Data Management, DG MARE
Mr Orlando Fachada	Desk officer IOTC	Unit B1 - DG MARE
Sra. Maria Imelda Fernandes	Fisheries Sector Specialist	European Union Delegation, Maputo
Mr Matthew Brooke	Head of Rural Development Section	European Union Delegation, Maputo
<b>MOZAMBIQUE AUTHORITIES</b>		
Sr Victor Borges	Ministro	Ministerio das Pescas
Sra Angélica Dengo	Chefe do Departamento de Cooperação	Ministerio das Pescas
Sra Ivone Lichucha	Directora Nacional	Direcção Nacional da Economia e Políticas Pesqueiras
Sra Maria Ascensão Pinto	Directora Nacional	Direcção Nacional de Fiscalização das Pescas
Sra Maria Eulalia Vales	Directora Nacional Adjunta	Direcção Nacional de Fiscalização das Pescas
Sr. Atanasio Brito	Director Nacional Adjunto	Instituto de Investigação Pesqueira
Sr Antonio Mandlate	Director	Fundo de Fomento Pesqueiro
Sr Simeão Lopes	Director Nacional	Administração Nacional das Pescas
Sr Celso Lopes	Chefe do Departamento Recursos Humanos	Ministerio das Pescas
Mr Peter Flewwelling	MCS adviser	Ministerio das Pescas
Mr Runar Hartvigsen	Advisor	Ministerio das Pescas
Sra Olga Onamalve	Chefe Depto Administrativo e Financeiro	Ministerio das Pescas
Sr Abilio Muchanga	Chefe Administração e Finanças	Fundo de Fomento Pesqueiro
Sr Selso Cuarra	Chefe dos Recursos Humanos	Fundo de Fomento Pesqueiro
Sr Alexandre Duce	Planificador	Instituto de Investigação Pesqueira
Sra Estela Mause	Directora dos Serviços de Monitorização da Pesca	Administração Nacional das Pescas
Sr Galhardo Naene	VMS Coordinator	
Sr Argelio Cuamba	Inspector	Instituto Nacional de Inspeção do Pescado
Sra Sonia Silva	Chefe Processamento	Empresa PRESTIGE
Sr Silvano Macaneta	Director	Porto de Pesca de Maputo
Sr Larsen Vales	Chefe do projecto Museu das Pescas	Fundo de Fomento Pesqueiro
Sr Claudia Tomas	Directora Adjunta	Administração Nacional das Pescas
Sr Rui Falcão	Coordenador Executivo do Projecto ProPesca	Instituto de Desenvolvimento da Pesca de Pequena Escala
<b>EU MEMBER STATES INSTITUTIONS</b>		
M. Thomas Roche*	Chargé de mission	DPMA / France
Mrs Mar Prieto Herguet*	Head of Unit	MAGRAMA / Spain
M. Luis Lopes	Tecnico Superior	DGRN / Portugal
Emmanuel Chassot	Tuna scientist	IRD
<b>EU SHIPOWNERS ASSOCIATIONS</b>		
M. Juan Pablo Rodriguez Sahagun*	Gerante	ANABAC
M. Julio Moron	Gerante	OPAGAC
M. Edelmiro Ulloa*	Gerante	ANAPA
Michel Goujon	Directeur	Orthongel

\* Contacted but did not respond