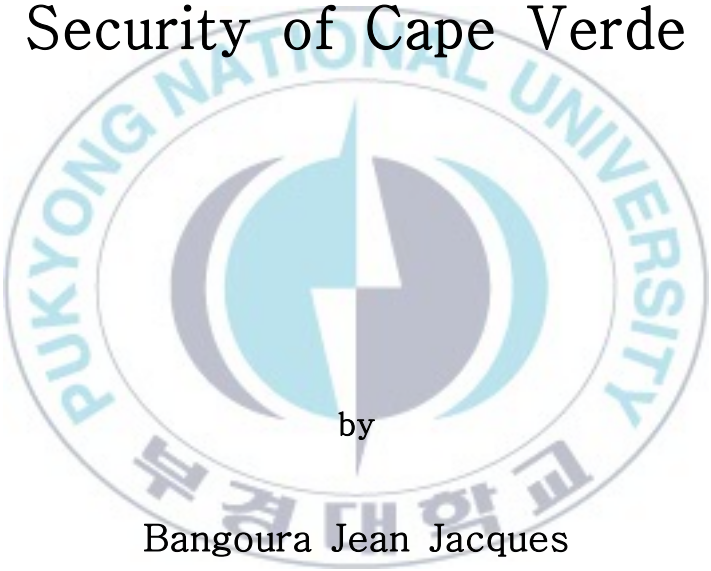
Thesis for the Degree of Master of Business Administration

# The Impacts of EU Fishing Agreements on Economic and Food Security of Cape Verde



by

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February 2015

# The Impacts of EU Fishing Agreements on Economic and Food Security of Cape Verde
# (카보 베르데의 경제와 식량 안보에 대한 EU 수산 협정의 영향 연구)

Advisor: Prof. Young Soo Jang

by

Bangoura Jean Jacques

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A Dissertation

by

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February 2015

# Bangoura Jean Jacques의 경영학석사 학위논문을 인준함.

2014년 2월


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# List of acronyms

AFDB: African Development Bank
CPI: Consumer Price Index
CSRP: Sub Regional Fisheries Commission
CITES: Convention on International Trade Endangered Species
DGA: Directorate General for Environmental
DGP: Direction General de la Pesca
EEZ: Exclusive Economic Zone
EIU: Economist Intelligence Unit
EU: European Union
EPA: Economic partnership Agreement
ERA: Ecological Risk Assessment
FMP: Fisheries Management Plan
FADs: Fish Aggregating Devices
FPA: Fisheries Partnership Agreement
FDP: Fisheries Development Fund
GDP: Gross Domestic Product
GTZ: German Organization for Technical Cooperation
GEF: Global Environment Facility
ICCAT: International Commission for the Conservation of Atlantic Tunas
IFD: Institute of Fisheries Development
INDP: National Institute of Fisheries Development
INE: National Statistic Institute
INIDA: National Institute for Research and Agricultural Development
LOPP: Laboratoire Official de Produtos da Pesca
LDC: Least Developed Countries
MDGS: Millennium development Goals
MSY: Maximum Sustainable Yield
NFD: Nordic Development Funds
NGOs: Non Governmental organization
NBSAP: National Biodiversity Strategy and Action Plan

PGRP: Plan de Gestao dos resoursos da Pesca
PANA: National Environmental Action Plan
UNDP: United Nations Development Programme
SST: Sea Surface Temperature
SFP: Strengthening Fisheries Products Health Condition
SCRS: Standing Committee on Research and Statistics
SME: Small and Medium Scale Enterprise
VMS: Vessel Monitoring System
WHO: World Health Organization
WWF: World Wildlife Fund

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# The Impacts of EU Fishing Agreements on Economic and Food Security of Cape Verde

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## Abstract

In the present study an overview of fisheries agreement between EU and Cape Verde was elucidated using three approaches. First a general background of fisheries sector in Cape Verde, second an overview of exploitation of fishery resource and policy framework and the third an overview of an implementation of the protocol of agreement partnership between the EU and Cape Verde and economic impact of the agreement. My research analysis has revealed that like many other developing countries the fishing sector is not only a vital part of the country's goal to engage in world trade, but foremost serves as a crucial and inseparable segment of the Cape Verdean community. Agriculture, hunting, forestry, fishing are estimated to account for about 9.9% in 2007 and 9.2% in 2010 of Cape Verde GDP. According to the Fisheries Management Plan, there is a total estimated resource potential of between 35,000 and 43,000 tons. Based on these estimates of potential resources, it would appear that there is considerable room for expanding and developing fisheries in Cape Verde. The diagnosis of my research revealed also that the 3 main stocks concerned by EPA (Economic partnership Agreement) between Cape Verde and EU are: 1) **Yellowfin tuna (*Thunnus albacares*)** which the reduction of the volume of catches to 110,000 tons (108,000 tons in 2010) would restore the reproducer stock biomass at the level of maximum sustainable yield (MSY) in 2016 with a probability of 60%, 2) **Skipjack tuna (*Katsuwonus pelamis*)** which the

evaluation of stock in 2008 concluded that the biomass is probably higher at the level of SMEs and that the effort of fishery is lower at the level of efforts producing the SMEs and it seem to be likely that skipjack is still underexploited at level of Atlantic Ocean, but local overexploitation are possible in some areas heavily exploited as Picolo zone (south-west of Cape Palmas), and the areas of Ghana and the Cape Lopez and, 3) **Bigeye tuna (*Thunnus obesus*)** which the evaluation realized in 2010 indicates biomass and fishing effort to be close to the level of MSY. The captures of tuna seiners in the Cape Verde EEZ were mainly shared between those of yellowfin tuna (33%) and skipjack (51%). Those of bigeye represent only 8% whereas those of swordfish (assimilated to the category of others) were particularly important for the French fleet in 2012.

An overview on the implementation of the protocol of agreement partnership between the EU and Cape Verde and its economic impact on Cape Verde revealed that the income that Cape Verde obtained under the current protocol in 2011 and 2012 related to fishing authorizations that Cape Verde has obtained under the current protocol have been respectively of the order of 180,000 Euro and 520,000 Euro. These revenues are relatively close to those that country can collect in 2012 when the utilization of fishing opportunities was full (562,700 tons). The budget assigns for sectorial support by FPA (fisheries Partnership Agreement) provided 215,000 Euro and 630,000 Euro respectively in 2011 and 2012, close to annual revenue in Cape Verde. Now, if the additional payments related to exceeding tonnage in 2011 and 2012 were taken in account, the amount which has benefited Cape Verde for 2011 and 2012 respectively was in the order of 220,000 Euro and 736,000 Euro or about 22,000 and 106,000 Euro more than that realized before the liquidation account of catches.

The impact on employment on Cape Verde related to the activity of EU vessels in 2011 and 2012 was about 1,900 jobs and about 1,150 was filled by the citizens of the EU against only about 70 for Cape Verde and 700 sailors from other ACP countries.

The impact on illegal fishing was related to the entries and departures from the EEZ and delays or non-declaration of catches by vessels, which

was facilitated by the vast extension of the Cape Verdean EEZ and the fact that landing was not made in the country.

The impact of the agreement on the local fisheries sector was influenced by the violation of some foreign vessels on the fishing operation zone beyond 12 nautical miles by systematically entering in the zone reserved to artisanal fishermen and worsened the fact that resources are increasingly scare forcing artisanal and semi-industrial fishermen to travel greater distances to get less results according to the perception of fishermen.

The impact of the agreement with EU on food security had not contributed to food security because no fishery products caught under the agreement have been landed in Cape Verde.

# I. Introduction

The Cape Verde archipelago takes its name from the Cape Verde, the westernmost point of the African continent. Cape Verde is located approximately 600 km off the coast of Senegal. The Republic of Cape Verde gained its independent since 1975 and is part of the ACP Group of States[1] and thus benefits of the advantages under the Cotonou Agreement[2]. Since 2008 Cape Verde has not been classified as a Least Developed Country (LDC) and thus no longer benefits from the same level of public support to development and of a preferential regime linked to the LDC status. Their Human Development Index (HDI)[3] in 2012 was 0.586, placing the country at 131$^{st}$ in the world (UNDP, 2013). The economy of Cape Verde is poorly diversified but is increasingly enjoying more tourism development.

The archipelago is on the way of migration of big pelagic fish. The frequentation of the surrounding waters is prized by the tuna vessels of the European Union (EU) which operate in the Atlantic Ocean. It is in this sense that the first fishing agreement was concluded in 1990 between the European Economic Community (now become EU) and the Government of the Republic of Cape Verde. A new agreement as a partnership in the sector of the fishing (FPA) was negotiated in July 2006 (entered into force March 30$^{th}$ 2007), for a period of 5 years, renewable. The protocol, entered into force on September 1$^{st}$ 2006, expired on August 31$^{st}$, 2011. It was replaced by a new protocol for duration of 3 years, signed on July 27$^{th}$, 2011 and coming into effect from September 1$^{st}$, 2011 (Official Journal L 269/17 of October 14$^{th}$, 2010). The current protocol covers the period going from September 1$^{st}$, 2011 to August 31$^{st}$, 2014 (with a coming into force on January 17$^{th}$, 2012 and a temporary application from September 1$^{st}$, 2011).

Fisheries agreements between the European Union (EU) and third countries have, like much of the European common fisheries policy

(CFP), been a recurrent topic of debate. The policy itself has been repeatedly criticized for its failure to adequately address issues of ecological and to a lesser degree, socioeconomic sustainability in European fisheries. Critics of the policy's international dimension add to these concerns a moral judgment of the righteousness of rich and powerful Europe buying fishery resources from poor and vulnerable countries (Kaczynski and Fluharty, 2002).

Largely in response to this criticism, EU fisheries agreements have been subject to successive modifications in order to better account for issues of sustainability and responsibility in fishing, and to enhance their potential contribution to broader socioeconomic development in those partner countries. Regarding the ecological sustainability of the agreements, there are concerns about the level of knowledge about the status of many of the negotiated stocks, and the generally insufficient levels of monitoring and control of EU fleet activities. In general, EU fisheries agreements have been and continue to be implemented in contexts of insufficient information and control.

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1. The African, Caribbean and Pacific Group of States (ACP) is a group of countries in Africa, the Caribbean, and the Pacific that was created by the Georgetown Agreement in 1975. The group's main objectives are sustainable development and poverty reduction within its member states, as well as their greater integration into the world's economy.

2. The Cotonou Agreement (signed in Cotonou, Benin in June 2000) is the successor to the Lome Conventions. One of the major differences from the Lomé Convention is that the partnership is extended to new actors such as civil society, private sector, trade unions and local authorities.

3. The Human Development Index (HDI) is a composite statistic of life expectancy, education, and income indices used to rank countries into four tiers of human development. HDI is a unitless index between 0 (awful) and 1 (excellent).

The objective of this thesis is to examine the impacts of the agreements signed between Cape Verde and the EU within the framework of exploitation of fishery resources in its EEZ on its economy and food security.

I will tried to answer the following questions:

1- What is the impacts of economic fisheries agreements signed between Cape Verde and the EU on its economy and on food security?

2- What are the direct and indirect economic benefits through job creation?

3- And finally what is the impacts of this agreement on sustainable development of the fisheries sector in Cape Verde?

## II. Fisheries relevant states

### 1. General background

The Cape Verde archipelago is situated in the Eastern Atlantic, between 14°50′-17°20′ N latitude and 22°44′-25°30’ W longitudes, 375 miles to the west of Senegal and Mauritania. As shown in Figure 1 it is made up of 10 islands and 5 islets which were originally formed by volcanic activity. The archipelago covers an area of 4,033 $km^2$. The Exclusive Economic Zone (EEZ) is relatively large, about 785,000 $km^2$, but the insular shelf which is around 200m in depth only around 5,394 $km^2$, 0.8% of the whole area. The climate is dry and tropical, and there are two well defined seasons: a cold and dry season, from December to June with an average sea surface temperature (SST) between 21 - 22°C, and a warm and wet season, from July to November, where the SST is between 26-27°C.

From the surface to 50m in depth, the seawater is at its warmest in the south-east of the archipelago, but the highest temperatures are found at lower depths in the northern part, between 100-200m, especially in the well known fishing grounds around Santo Antão, São Vicente, Santa Luzia and São Nicolau. There are also seasonal variations in the thermocline, which is located between 40-70m of depth throughout the year.


<Figure 1> Location of Cape Verde

Source: DGP 2009

Cape Verde is a former Portuguese colony peopled with slaves from the African continent, having derived a mixed-race population as a result of 500 years of interaction with different European nationals. The dominant religion is Roman Catholic. During most of Cape Verde's history the population has grown only slowly, held back by devastating famines and severe droughts which have lead to high levels of emigration in the past. However, the population has grown rapidly since independence and is now around 465,000 persons although there is an uneven distribution due to a high internal migration, primarily towards the island of Santiago where the capital, Praia, is located, to Mindelo at S. Vicente and to the islands devoted to tourism. About 55% of the population lives on Santiago Island and nearly 25% on Praia.

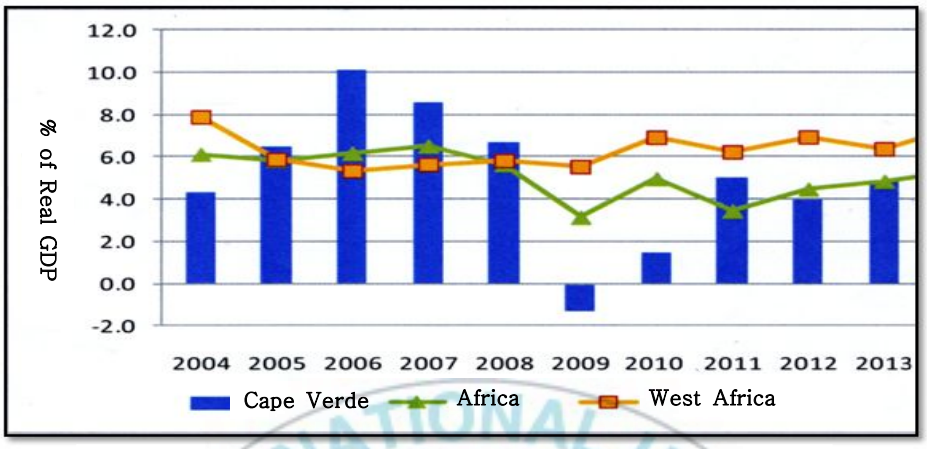
The slowdown observed since the end of 2011 persisted in 2012, due to economic stagnation around the globe, and in the euro area in particular. Reduced foreign aid and sluggish foreign investment resulted in gross domestic product (GDP) growth dropping from 5.0% in 2011 to a projected 4.0% in 2012. Remittances inflows held up, however, and tourism did well. Tourism and ancillary activities

remained the driving force of the economy in 2012, accounting for around 30% of GDP and 90% of total exports. Yet the deteriorating global economic outlook and the euro area sovereign debt crisis is likely to continue to weigh on Cape Verde's economic performance. However large new public investments are expected to provide support to domestic demand and raise the GDP growth up to 4.8% in 2013 ("Boletim de Estatísticas 20 anos," Cape Verde Central Bank, accessed in 13 September 2012 and GDP 2007-2012 data). Over the medium term, the resumption of structural reforms will be critical if Cape Verde is to sustain the high growth rates of the past decade.

Macroeconomic and fiscal management remained sound in 2012. Tighter fiscal policy and prudent monetary policy resulted in low inflation (2.5% in 2012 against 4.5% in 2011), an improvement in the external position and a recovery of international reserves to 3.8 months of imports in September 2012. Credit growth slowed considerably, however, reflecting sluggish demand and increased credit risks. The budget deficit equaled -7.3% of GDP. The government has already adopted corrective measures to improve revenue collection and scale back public investment in 2013. Cape Verde is still on track to achieve all the Millennium Development Goals (MDGs) by 2015, and remains a regional model of good governance, political rights and civil liberties. In spite of its past success, Cape Verde is facing challenges to keep growing at a sustainable and inclusive way.

The country's lack of non-renewable natural resources and poor conditions for agriculture keep it highly vulnerable to external shocks. Tourism, the main driver for economic growth, has successfully tapped into natural resources such as biodiversity, landscape and the environment. Agriculture, hunting, forestry, fishing are estimated to account for about 9.9% in 2007 and 9.2% in 2010 of GDP. Hotels and restaurants, for instance, grew almost six times faster than the national economy between 2000 and 2010, accounting for almost 16% of GDP in 2010. Yet it supplied only 4.6% of all jobs in 2010,

compared to 2.5% in 2000 (PEMFAR 2011)




<Figure 2> Cape Verde Real GDP growth 2013

Source: African Development Bank 2013

## 2. Fisheries sectors

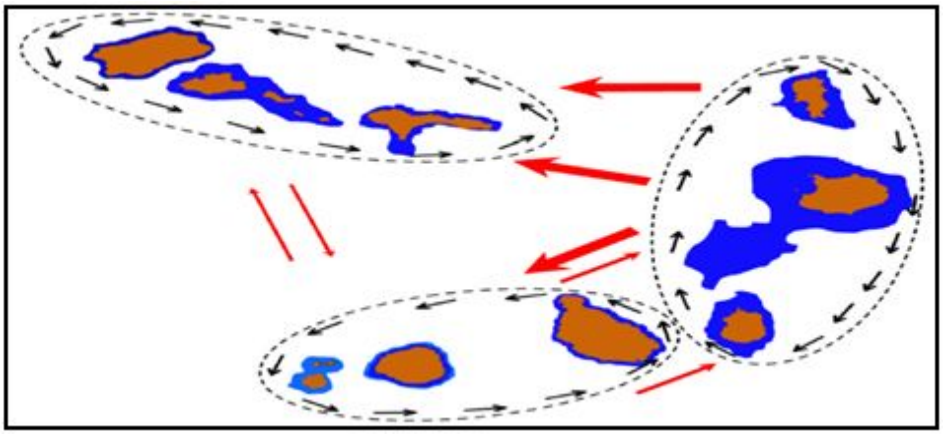
Fishing is a sector of substantial importance to most African coastal states and Cape Verde is not an exception to that rule. Similar to many other developing countries the fishing sector is not only a vital part of the country's goal to engage in world trade, but foremost serves as a crucial and inseparable segment of the Cape Verdean community. Fishing is a source of food, employment and income and contributes to poverty alleviation and food security. Decades back, missing equipment and no conservation methods lead to shortages of fish as a food. After independence (1975), a first cooperative of fishermen was founded on the island of São Vicente and the idea later also spread to other parts of Cape Verde.

According to the FAO (2010) the per capita food supply from fish and fishery products in Cape Verde peaked in the year 1981 and then slowly declined until the end of that decade and after a second peak in the year 2000 declined again until now. Even though the precision of

these findings is questionable, a declined trend of fish consumption is imaginable, firstly, due to the availability of other protein sources during the last decade and, secondly, due to the slowly declining tuna stocks in Cape Verdean waters in recent years. With regard to fish and seafood consumption as a percentage of total calorie supply per day, a similar decline can be observed. Overall protein consumption on the other hand increased quite significantly during the last years (FAO 2010).

## 2.1. Coastal and marine environment

The insular shelf is particularly narrow around the islands of the north wind and the two islands under the wind more at west (Fogo and Brava). It extends therefore between the islands of Sal, Boavista and Maio allowing strong biological productivity (in particular eggs and larvae of fish and crustaceans) and some diversity. The insular shelf of these three islands plays, moreover, an important role in the marine dynamics of populating of the archipelago because it acts as a producer and exporter of biomass towards the nearby zones. The marine ecosystem of the archipelago is a fragmented ecosystem and ecological links between the islands are conditioned by the ocean currents.



<Figure 3> Dispersion of biomass between the islands

Source: Medina (2011)

The contours drawn delimitate the areas inside which trade is established (black arrows) between the different population units. The arrows red, more thickest and by continuous line represent the dominant trade between metapopulation East, North and South of the archipelago (the thickness gives an order of magnitude on the intensity of trade).

The volcanic nature of the islands induces a great variably of seabed. So find themselves of the sandy bottoms (Boavista and Maio islands), rocky (islands of Santo Antao, São Nicolau, Santiago, Fogo and Brava) or sandy-rocky (islands of São Vicente, Santa Luzia and Sal), in relation with different Coralline formations and underwater peak. The whole of subtract has an ichthyofauna around 650 species. The marine biodiversity is also represented by iconic species as turtle and humpback whales which come to feed and reproduce in the Cape Verde territorial water. About 20 species of whales and dolphin as five species of the sea turtles have been inventoried.

## 2.2. Fisheries Resources

According to the Fisheries Management Plan, there is a total estimated resource potential of between 35,000 tons and 43,000 tons. This plan entered into force in 2005 for a ten-year period and it is further specified that implementation should be made through executive biennial plans. Currently, the biennial plan for 2009-2010 is in force.

The following table (1) presents estimated resource potential based on the Fisheries Management Plan as well as the recent revision, based on the current biennial plan. The only change concerns the potential for small pelagics resources, which has been reduced by 1,000 tons.

<Table 1> Current status of relevant stocks and ICCAT management measures in place (Tons)

| Stock | Estimated MSY 2012 | Current Yield status 2013 | Management measures in place |
|---|---|---|---|
| Yellowfin Tuna | 124,000-152,500 | 108,000<br><br>Exploited sustainable | - Effective fishing effort not to exceed 2008 level; according to stock assessment results this level, measured in fishing mortality, may have now been reached due to movement of vessels into the Atlantic from the Indian Ocean.<br>- Season/area closure of surface fishing in 0°-10° N, 10°-20° W.<br>- Effective from 2005; measure intented to protect bigeye juveniles primarily |
| Skipjack Tuna | 68,000-99,00 | 69,821<br><br>Fully exploited | - Season/area closure of surface fishing in 0°-5° N, 10°-20° W.<br>- Effective from 2005; measure intented to protect bigeye juveniles primarily |
| Bigeye Tuna | 143,000-170,000 | 127,000<br><br>Exploited sustainable | - TAC of 85,000 tons in 2014, EU : 31,200 tons ( for Spain, France, Portugal).<br>- Limits on numbers of fishing vessels less than the average of 2008 and 2009 ( larger than 24m)<br>- Specific limits on number of longline vessels; China (45), Specific limits on number Tuna seine from EU.<br>- No tuna seiners and pole and line vessels during November in the area encompassed by 0°-5° N, 10°-20° W. |

Source: ICCAT 2013

Based on these estimates of potential resources, it would appear that there is considerable room for expanding and developing fisheries in Cape Verde. This has generally been the aim of successive fisheries strategies since independence, but with limited success and catches by domestic fisheries remain around or below 10,000 tons annually in spite of investments and efforts. A major component of resource potential concerns tuna, but this is based on outdated estimates and thus uncertain (Van Santen, G., Stobberup, K. 2011).

There is a need for these estimates to be revised by the IFD, taking into account advances in access to data and information as well as methodologies.

There is also growing recognition that another major resource, the small pelagic mackerel scad, is close to full exploitation. Mackerel scad[4] constitutes roughly 75% (INE 2011) of all small pelagic catches (artisanal and industrial) and dominates almost completely the catches of the industrial fishery. The recent introduction of a closed season for this fishery (August 1$^{st}$ - September 30$^{th}$) is a response to this realization. The estimated resource potential for demersal also appears to be too high and concerns mostly rock-bottom species[5], suggesting that potential for significant increases in catches is unlikely. The estimated suggesting that potential for significant increases in catches is unlikely. Lobster resources[6] appear to be over-exploited, and other resources (i.e. deep-sea resources) are also limited.

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4. Mackerel scad (*Decapterus macarellus*), is a species of fish of the family, Carangidae. Its constitutes the major part of small pelagic catches (about 75%).

5. Rock-bottom species, are the demersal fish that live and feed on or near the bottom of seas or lakes (the demersal zone).They occupy the sea floors and lake beds, which usually consist of mud, sand, gravel or rocks.

6. Lobsters resources are invertebrates with a hard protective exoskeleton. Like most arthropods, lobsters must moult in order to grow, which leaves them vulnerable.

## 2.3. Status of stocks targeted by the EU vessels

October 2012 is the last actualization of the stock of tuna presented in the scientific report of ICCAT committee. The following 3 main concerned stocks of fisheries between Cape Verde and EPA are:

**Yellowfin tuna (*Thunnus albacares*):** A slight overfishing was revealed by 2011 evaluation of fishing and SCRS (Standing committee on research and statistics) has recommended fishing mortality of small yellowfin tuna. The reduction of fishing rater to 110,00 tons (10,800 tons in 2010) may bring to reach the 60% of maximum sustainable yield (MSY) in 2016.

**Skipjack tuna (*Katsunwonus pelamis*):** The conclusion of the 2010 fishing activities has revealed that the fishing effort is superior to the SMEs. The species like skipjack is under fishing in Atlantic Ocean. This species is overfished in the Picolo zone (South-West of Cap Palmes) and Ghana and Cap Lopez zone.

**Bigeye tuna (*Thunnus obesus*):** According to 2010 fishing evaluation, the biomass of the species was nearest to MSY. The establishment of total fishing rate to 85,000 tons could stabilize the species stock (average capture of bigeye tuna in 2005-2010 being 720,000 tons. The current increasing of fishing effort of seiner has increased the worry of CSRF (Sub Regional Fishery Commission). The annual fishing rate of bigeye tuna for European vessel was 22,667 tons and, the 11 years total fishing rate was under 20,000 tons (an average of 16,200t/year).

For sharks, none of 17 species of sharks and rays caught by longliners in the EEZ of Cape Verde is registered in the Appendix 1 of the CITES (as species endangered or at risk).

The stocks of blue shark (*Prionace glauca*) and mako sharks (*Isurus oxyrinchus*), main-caught species by EU vessels, are not, after available data, the overfished (Anonymous, 2013a). If the average size of catches by the Portuguese longline since 2006 is reduces, the overall fishing effort remains for the moment of below that would

endanger stocks (Anonymous 2013a ).

However, some species, fished by the same ships have certain level of risk of overfishing (even at very low levels of fishing mortality): silky sharks, hammerhead sharks, oceanic sharks.

2008 is the last assessment of ICCAT on sharks of the Atlantic Ocean. The assessments of ecological risks (Ecological Risk Assessment (ERA)) for the 11 priority of catches species of shark in ICCAT fisheries (eg oceanic shark, hammerhead shark, silky shark) have demonstrated that <<most pelagic Atlantic sharks have exceptionally limited biological productivity and therefore can be overfishing, even at very low levels of fishing mortality>> analyzes indicates that the big eyes fox (Bigeye thresher), the small mole (Longfin mako shark) and the shark mako (Isurus oxyrinchus) are the most greatest vulnerable (and the lowest biological productivity) among the studied species of sharks.

The species for which there was almost no data (fox has big eyes, oceanic shark and hammerhead shark) in 2010, ICCAT has taken precautionary measures in conformity with the recommendations of its scientific committee. Management measures and conservation also apply to silky shark (Carcharhinnus), due to its ranking in ERA among the most vulnerable species (Executive summary of the report: ICCAT, 2009). 2008 Report session on stock assessment of sharks Collect Sci Pap. ICCAT Vol 65 (5): 1343-1491 (2009) has taken conservation and management measures applied since 2010 / 2011 to fishing related to these species.

More recently, in the framework of the joint Committee meeting monitoring of EPA between the EU and Cape Verde, several possible management measures have been identified to bring items of response to the growing concern of both parties regarding the regular increase of shark catches and their growing importance in the total longline catches of the EU.

## 2.4. Export and international agreements

The FPA (Fisheries Partnership Agreement) between the EU and Cape Verde is a tuna agreement. The EU arranges licenses for the European tuna fleet with coastal states around the world, so that the fishing vessels can follow the migratory tuna both in international waters and in Exclusive Economic Zone (EEZ) of coastal states.

Cape Verde lies in the rich West African upwelling. The FPA allows 28 purse seiners in the Cape Verde EEZ, 11 pole and line vessels and 35 surface longliners. Spanish vessels benefitted by as much as 90% (MAAP 2011) from the previous agreement, but it is expected that French purse seiners will take a larger share in the coming years.

This FPA between the EU and Cape Verde establishes the principles, rules and procedures governing: (i) economic, financial technical and scientific cooperation in the fisheries sector with a view to promoting responsible fishing in Cape Verde waters to ensure the conservation and sustainable exploitation of fisheries resources and develop the Cape Verde fisheries sector; (ii) the conditions governing by community fishing vessels to Cape Verde waters and the cooperation on the arrangements for policing fisheries in Cape Verde waters with a view to ensuring that the rules and conditions are complied with, that the measures for the conservation and management of fish stocks are effective and that illegal undeclared and unregulated fishing is prevented.

The average level of catches is still well below the estimated potential of fishing resources available (table 2). However, it must be noted that these figure, as other data on this sector, is outdated and may no longer reflect the current situation. Indeed, this is one of the most pressing problems of the sector, since domestic policies or external negotiations are conducted based on data that often date back to the first half of the last decade e.g. on existing fish stocks or on

the subsector of artisanal fisheries which undermines a properly informed decision making. In particular, we may consider that the Management Plan of Fisheries Resources is based on an unrealistic analysis of the fishery potential available, which is possibly much more limited, in particular in respect to mackerel and lobster.

<Table 2> Potential and Captures of fisheries resources in the EEZ of Cape Verde, based on revised estimates give in the FMP

| Resources | Estimated Potential (Tons) | Mean Catch (2009-2011) (Tons) | Further Potential/availability (Tons) |
|---|---|---|---|
| Tuna | 25,000 | 2,719 | 22,000 |
| Small pelagic | 6,500-8,300 | 4,529 | 2,000-3,800 |
| Demersal | 3,700-9,300 | 1,095 | Unknown |
| Lobsters | 90-120 | 7 | Unknown |
| Others | Unknown | 691 | Unknown |
| **Approx Totals** | **35,000-43,000** | **9,000** | **26,000** |

**Source:** Oceanic Developpement, megapesca Lda, 2011

The export of fisheries products represents an important source of foreign exchange, contributing to the balance of payments. By 1993, fishery products accounted for a considerable part of the country's total exports 63% (Cofrepeche, NFDS, poseidon et MRAG, 2013), but their contribution in volume and value of the country's total exports has been decreasing over the 1990 years, compared with the increase in other industries. In that decade, the enforcement of stricter rules on the production and the placement of fishery products in international markets particularly Europe revealed the difficulties of fish processing industries existing in Cape Verde, which were already struggling with financial problems and problems with the supply of raw material. In 2000, the EU embargo for non compliance with sanitation rules has contributed to his decrease, so that fish exports

represented only an average of 8% (Fisheries Resources Management plan 2004-2014) of the country's total exports between 2000-2004. Although some alternative markets have been expanded in the United States, Senegal and South Africa, the embargo represented a big reduction.

In recent years, this situation has been reversed with both the end of the EU embargo (2003) and the entry of two seiners in the Cape Verdean registration of ships, belonging to the Spanish company Calva Pesca Atlantico (operating since 2005), and also the operation of the FRESCOMAR processing plant 2009 (FRESCOMAR Lda. Is a tax free company with office and facilities based in the industrial area of Mindelo). In 2009, the export of fishery products already represented 66% of total exports, with about 50% of such export being prepared or preserved (canned) fish.

It should be noted, in this case, that Cape Verde enjoys special conditions of access to the European market for fisheries products not originating in the country and origin statements show that quotas have been almost fully used in the last two years (mainly for mackerel and frigate tuna). In 2011, the European Commission decided to extend this exemption to the rules of origin, on the grounds that, without such an extension, the ability of the Cape Verdean processing fish industry to continue exporting to the EU would be considerably affected. The exception allows Cape Verde to prepare, meanwhile, compliance with the rules on obtaining preferential origin and revitalize the local fishing fleet, to be able to supply the local processing industry, although it is uncertain how long this exemption may continue to be renewed.

Artisanal and industrial fishing in Cape Verde has remained at similar volumes over the last few years, between 8,000 tons and 10,000 tons (Oceanic Development MegaPesca Lda, 2011), which means that the investments and efforts announced have not been reflected in a greater national fishing capacity. Most of these catches is of small

pelagic species (mostly mackerel), followed by tuna. While artisanal fishing production is intended primarily for direct consumption of fresh fish, industrial fishing is comprised mostly by outdated, small size and low power vessels.

Few Cape Verdean vessels are able to operate far from the shore, therefore the fisheries policy promotes the access of foreign operators to the exploitation of fishery resources that migrate in the Cape Verde EEZ, such as tuna. In addition to the tuna fishing agreement with the EU (since 1990), there are agreements with the Japanese Manufactures Association "Japan tuna" (since 1997) and reciprocal access agreements with Senegal (since 1985), with Guinea-Bissau (since 1995) and Guinea-Conakry (since 1989). Cape Verde has also signed a maritime agreement with Mauritania, in November 1995. The EU represented the majority of fishing licenses issued, as shown in table 3.

<Table 3> Evolution of fishing licenses issued 2005-2011

Unit : No

| | Longliners | | Pole and line vessels | | Tuna seiners | |
|---|---|---|---|---|---|---|
| | 2005 | 2011 | 2005 | 2011 | 2005 | 2011 |
| Spain | 41 | 26 | 7 | 7 | 12 | 16 |
| Portugal | 7 | 9 | | | | |
| France | | | 4 | 4 | 13 | 12 |
| **EU Total** | **48** | **35** | **11** | **11** | **25** | **28** |
| Japan (tuna) | 11 | 18 | - | - | - | - |
| Senegal | | | 4 | 7 | - | - |
| **Total** | **59** | **53** | **15** | **18** | **25** | **28** |

Source: DNP 2011

Internationally, Cape Verde is a member of the International Commission for the Conservation of Atlantic Tunas (ICCAT), an intergovernmental organization responsible for the conservation of these species in the Atlantic Ocean and adjacent seas, and ratified some

international conventions relating to the sector, in particular the United Nations Convention on the law of the sea, the 1973 International Convention for the prevention of pollution from Ships, the Basel Convention on the control of crossborder Movements of Hazardous Wastes and their Disposal, and the Convention on Biological Diversity. Cape Verde also joined the Regional programme for Marine conservation and its strategy of integrated management of marine protected areas and coastal of countries in the West African sub region, with a perspectives on the sustainable use of resources of these areas in the long term. Within the West African sub region, Cape Verde also belongs to the Sub Regional Fisheries Commission (SRFC), since its formation in 1985, and the Conference on Fisheries Cooperation between African States Bordering the Atlantic Ocean since 1991. The main objectives of these instruments are to promote an active and organized cooperation in the field of management and development of fisheries in these regions, to promote food self-sufficiency through a rational use of fisheries resources in the context of an integrated approach encompassing all parts of the fisheries sector.

## 2.5. Performance of the fisheries

Although the Cape Verde EEZ covers an area of approximately 785,000 $km^2$ (equivalent to 9.4% of all sub Saharan Africa), the continental shelf around the islands is narrow, limiting density and productivity of fisheries. Even with sparse fishery resources these include commercially attractive species, including species of seasonal migration such as tuna, pelagic and demersal species, and lobsters.

The direct contribution of fisheries to the GDP of Cape Verde is well below other countries in the region, ranging between 1% and 3% (OECD 2011), as opposed to 7-10% in guinea Bissau, 4.9% in Senegal

or 9.4% in Sierra Leone. However, if we consider not only the capture and production, but also employment, exports, industry and customs, the fisheries sector is central to the cape Verdean economy, reaching values of about 8% of GDP. If we add the indirect effects on related activities, such as tourism, and the role of providing know-how relevant to the development of a cluster of the sea-including logistics, research, energy, fishing, ship repair and tourism its relevance is even greater (BES, 2011).

In terms of employment, the sector directly employs about 5,000 peoples, but estimates suggest another 10,000 (INDP 2011) jobs indirectly, which is 5% of the total workforce. It seems that certain segments of the population alternate between fishing and agriculture, as weather conditions favor one or the other activity, so fishing works as a buffer for the economic impact of bad agricultural years for a part of the population. In terms of food security, fisheries resources have an important role in the people's diet, being the main source of animal protein consumed in the islands, with an estimated consumption of 18.8 kg per capita per year, which exceeds the world average of 16 kg.

In terms of policy and development strategy, the importance of fisheries is properly framed in the growth and poverty reduction strategic paper (GPRSP), stating that their development can make an important contribution to poverty reduction. Accordingly, "the measures that contribute to the reorganization and development of the sector, particularily the growth of the production base, the construction of new infrastructure, the sustainable exploitation of resources, supervision of the EEZ, research and evaluation of key resources, they all contribute to minimize the poverty of men and women who have fishing as their main activity or as a complementary activity." The priority measures in the sector were set in 2004, in this document, as follows:

- Promoting the rational and sustainable management and

exploitation of fisheries resources in order to preserve the durable balance of the ecosystem;

- Modernization of production infrastructure by introducing new technologies;

- Diversification of production, strengthening of trading channels and value of seafood products, targeting domestic and overseas markets, specially through the promotion of processing industries, for an enhanced contribution of the sector in terms of employment and exports;

- Strengthening the technical and professional capacity of different actors in the sector for participatory monitoring and control, including sanitary and quality control of fishery products;

- Adequacy of arrangements for financing the development of the fisheries sector to the need and the specific characteristics of the sector;

- Development of aquaculture, contributing to productivity growth in the sector

- Strengthening regional, sub regional and international cooperation, aiming at: i) a rational exploitation and conservation of fisheries resources, ii) the expansion of fishing activities beyond the country's EEZ (GPRSP I)

These priorities were also developed in the framework of the national strategy for the development of agriculture and fisheries, towards 2015, and the fisheries resources management plan 2004-2014, prepared under the second plan of action for the environment.

The GPRSP II 2008-2011 advocates a more updated approach to the sector. Unlike the first strategic document (GPRSP I), it does not emphasize so much the contribution of fisheries to poverty reduction and the fact that the population working in this sector is mostly poor, but instead the role of fisheries as a driver for Cape Verde's vision of development, along with other areas such as tourism and information technology.

It is therefore referred to as a sector with comparative and competitive advantages in Cape Verde, and an array of expertise that has contributed significantly to economic growth in recent year (GPRSP II). It is stated that strengthening of the country as a trading and industrial depository (including storage and trading of fisheries based on national and international merchant navy and foreign fishing (GPRSP II).

The GPRSP II follow-up report, prepared by the IMF with the Cape Verdean authorities in 2010, stresses that the main efforts have been made in the areas of monitoring (beginning of the implementation system of satellite monitoring of vessels), construction of cold and unloading infrastructures (including the supply of ice), increasing the health security through the implementation of a system of monitoring and inspection of fisheries products, and some initiatives in the framework of research and awareness. In addition to specific measures such as the regeneration of the fishing complex cova da inglesa in sao Vicente, and the improvement of the fishing pier of praia other measures, such as the expansion and modernization of major ports in order to promote the sea cluster, will certainly impact on the sector.

Among the projects designed for the future is the construction of a shipyard in Santiago for semi-industrial vessels, the introduction of a system of fish trading in a fish market, the installation of ice plants on other islands, the allocation of Coast Guard and the Institute port and Maritime (IPM) with additional means of support for coastal surveillance, as well as the creation of a regional center to support industrial fisheries and an oceanographic and environmental research center that can add logistic  an research values to an improved fishery production.

However, there is a widespread feeling that there is a long way to run until the sector's potential is fully fulfilled. The allocation of resources from the state budget for investment in the fisheries sector has been low, representing about 1% in 2009 and 2010. The industry's

problems are well-known, including: the need for improvement in surveillance; the urgent modernization of the local fleet (DGP 2009) (the majority of the artisanal fishing fleet is old, does not have navigation, communication or canning equipments), the path to go in terms of fish handling practices, as well as a stronger capacity for conservation and storage (which originates, e.g. considerable decreases in the local market price of fish), among others. A well known problem of attitude and mentality is the lack of professionalism and entrepreneurial vision of artisanal fishermen, a group of the population still quite poor and largely devoted to subsistence activities and small business.

<Table 4> The evaluation of the socio-economic contribution of fisheries to GDP

Unit : Usd

| | 2009 | 2010 | 2011 |
|---|---|---|---|
| Artisanal | 6, 280,006 | 5,746,420 | 6,512,644 |
| Industrial fishing | 3,306,248 | 2,271,485 | 3,761,908 |
| Canning | 620,301 | 1,205,468 | 1,352,792 |
| GDP | 561,674,478 | 620,458,969 | 813,184,203 |
| Total fishing | 10,206,555 | 9,223,373 | 11,627,344 |
| % GDP | 1.82 | 1.49 | 1.43 |

Source: INE 2011

## III. Fisheries policy

### 1. Exploitation of fisheries resources

#### 1.1. Fisheries activities in the EEZ of Cape Verde islands

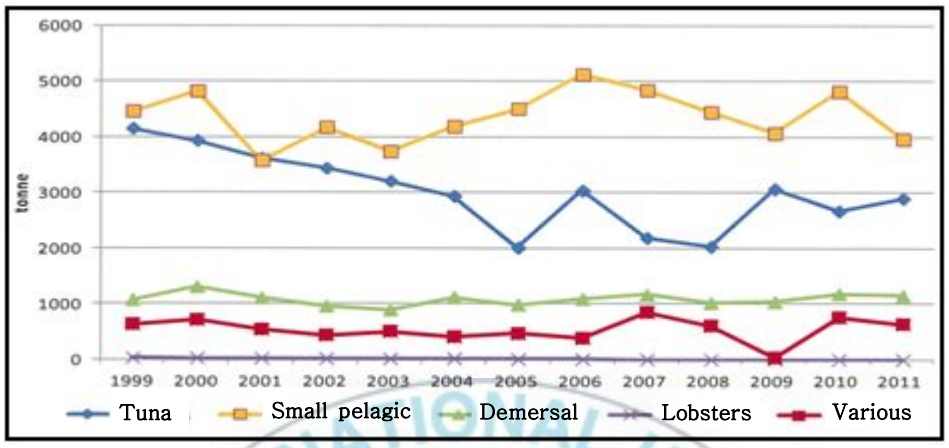
The activities of all the units of fishing are governed by the policy of the fishing of the Cape Verde and the concerned measures of management and for those who target big pelagic ocean by the International Commission for the Conservation of Atlantic Tunas.

Two purse seiners under flag of Cape Verde but belonging to Spanish company, operated in the waters of the Atlantic Ocean. They are the only big industrial fishing vessels or fishing vessels of Cape Verde. They are not included in the statement of the fishing activities in Cape Verde water, because having no tangible link with Cape Verde.

The main fishing species captured by the Cape Verdean fishermen are small pelagics (48% during the past decade), tuna (33%), demersal (12%) and various fish (7%). Molluscs, crustaceans and sharks (targeted in the early 2000 years) are the very few presents in the captures. Lobsters, whose catches exceeded many dozen of tones in the 1990 years, now represent only 3 tons in 2011 due to an excessive exploitation.

Among tunas, the landing of yellowfin and skipjack represents, in 2011, 11 and 8% the catches of Cape Verde fishermen and 32% and 23% of the group of large pelagic respectively. The other fishes such aswahoo (*Acanthocybium solandri*), Spanish mackerel (*Scomberomorus tritor*), bonito (*Sarda sarda*) and dolphin fish (*Mahi mahi*) completed the landing of large pelagic (19, 18, 4 and 4% respectively). The annual captures are concentrated in the last three months of yearly calendar. They are uniformly distributed during the rest of year (table 5). Skipjacks are captured in a significant way

particularly.




<Figure 4> Catches of the fishing units of Cape Verde

Source: INDP 2013

<Table 5> Annual distributions of catches of yellowfin tuna and skipjack

Unit: Tons

| | | Jan | Fed | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Small scale Fishing | Yellow fin | 16 | 20 | 15 | 36 | 39 | 67 | 69 | 85 | 78 | 90 | 106 | 92 | 713 |
| | Skip jack | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 13 | 7 | 58 | 9 | 5 | 98 |
| Semi-industrial fishing | Yellow fin | 9 | 4 | 14 | 6 | 16 | 17 | 16 | 14 | 14 | 23 | 60 | 19 | 212 |
| | Skip jack | 2 | 0 | 1 | 4 | 0 | 12 | 10 | 17 | 86 | 362 | 77 | 2 | 573 |
| Total | | 27 | 24 | 30 | 46 | 56 | 97 | 99 | 129 | 185 | 533 | 252 | 118 | 1,596 |

Source: INDP 2013

## 1.2. Small scale fishing and Semi-industrial fishing

The Small scale fishing concerns about 3,400 peoples (FAOSTAT 2011) (table 6). It has two types of fishing: a) subsistence fishing and b) the commercial fishing. The first includes mostly people whose main activity is the agriculture, so they exert the fishing as secondary activity, often use not motorized canoes, and the second includes the full-time fishermen use motorized canoes (TP Baros Lopes, 2012). Santiago Island is concentrates of third party of fishermen, many of whom practice fisheries as secondary activity.

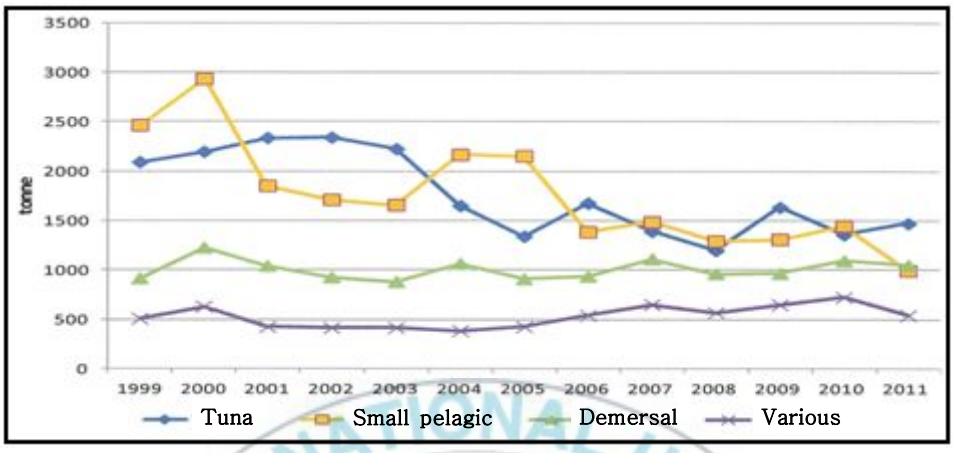
<Table 6> Distribution of the fishermen and canoes by islands in 2011

| Islands | Fishermen (Person) | Canoes (No) | Motorization rate (%) |
|---|---|---|---|
| S.Antao | 472 | 121 | 78 |
| S.Vicente | 336 | 92 | 85 |
| S.Nicolau | 210 | 78 | 75 |
| Sal | 280 | 120 | 84 |
| Boavista | 183 | 61 | 95 |
| Maio | 156 | 67 | 89 |
| Santiago | 1,312 | 479 | 58 |
| Fago | 344 | 109 | 81 |
| Brava | 91 | 91 | 62 |
| **Total** | **3,384** | **1,218** | **71** |

Source: FAOSTAT 2011

The number of canoes in 2011 is substantially the same as that of 1999 (about 1,260) against 1,040 in 2005. By contrast, that of the fishermen did not increased in the same proportion between 2005 and 2011. about 4,300 in 1999, 3,110 in 2005 and 3,390 in 2011, a decrease of the order of 20%. The volume of captures also follows a downward trend during the last decade, particularly with regard to the small pelagic species like horse mackerel and mackerel and tunas like wahoo

(figure 5).




<Figure 5> Catches of Small scale fishing units of Cape Verde

Source: INDP 2013

The small scale fishermen practice many professions such as:

- **Handline for tuna and demersal:** this profession practiced throughout the year, has been the oldest one around the islands. The most target species of tuna yellowfin tuna (*Thunnus albacares*), wahoo (*Acanthocybium solandri*), skipjack (*Katsuwonus pelamis*), dolphinfish (*Coryphaena hippurus*) and skipjack (Euthynus alletterattus) whereas the most popular demersal species are grouper with blue-dot (*Cephalopholis taeniops*), morays (Muraenidae), red-mullet (*Pseudupeneus prayensis*), amberjack (Seriola sp.) and Sparidae. The captures are about 3,000 tons per year. Practically, all fishermen use a handline, notably canned food with the seine of beach, gillnet and purse seine nets which serve to catch the bait which is then used on the lines. This gear is mainly steered towards (PGRP, 2003) on board wooden canoes from 3 to 9m of length, endowed with engines speedboat of 5 in 8 cv and provided with a crew of 2 to 5 fishermen.

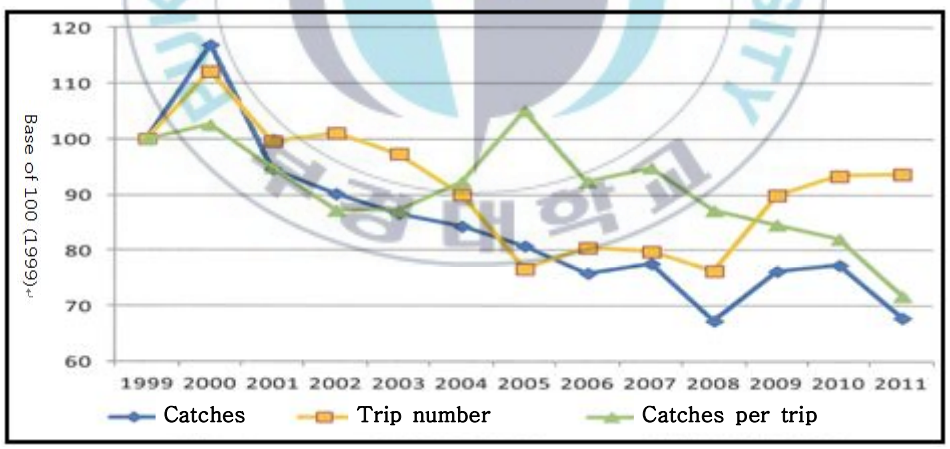
The duration of fishing activities constantly increased passing from 7 hours in 1995 (Tavares, 1999), to 10 hours in 2000 (INDP, 2000) till 15 hours in 2012 (T.P Lopes Baros, 2012).
The extension of fishing time compare to that of the traveled distances shows well the gradual difficulty of artisanal fishing to maintain a certain yield per trip and updates the increasing problem of security at sea for the small canoes, poorly equipped in terms of safety and navigation.

- **Purse seine for small pelagics:** originally used by artisanal fishermen for the capture of small pelagic species (to serve as bait, among others) was gradually became at the end of the 90s, the privilege of the industrial fishing due of a better handiness conferred by the decked vessels with lifting arm (only 11 seines are identified in 2011 against 53 in 1995). Both targeted species are black mackerel (*Decapterus macarellus*) and mackerel (*Selar crumenophthalmus*); the secondary captures are other small pelagic species such as Atlantic picarel and small tunas such as skipjack. The annual captures fluctuated around 800 tons.

- **Scuba diving for the capture coastal lobster, conch and demersal:** initially realized in apnea, with the help of a nargileh, fishing diving is now made with compressed air bottles. The introduction of the first embarked compressors and nargilehs in Sal and Boavista in the 70s has increased fishing effort around these islands. The fishers can stay under water for many hours without been at the surface. Their prohibition in 1998, due to accidents becoming more and more increasing has coincided with the increase of number of the clubs of plunged by leisure and, adoption by the fishers to autonomous technical of scuba diving. The lobster stocks were soon depleted at Sal, then in Boavista, Fogo and Maio. The fishers have then redirected their efforts to conch and to a certain extent towards

demersal fish (Oliveira, 2011). The stocks of conch currently undergoing the same fate as lobsters: The capture collapse and individual collecting becoming also smaller. The total captures of the plungers are around 20 tons in 2011 against 100 tons during the early 2000.

The effort of artisanal fishing has steadily decreased between 2000 and 2005 to be stabilized until 2008 and then rise to its level of 2003-2004 in 2010 and 2011. The insertion of anchored FADs in 2007 and 2008 strongly contributed to the increase of fishing effort because of the favorable variation cost ratio /benefit compare with other trades practiced. The degradation of FADs and no renewal of those which disappeared for lack of maintenance, however, provoke a collapse of fishing effort. The captures by trip are plummeting since 2005, indicating a strong presumption of overexploitation of most of the targeted stocks.




<Figure 6> Catches, number and catches by trips of the units of small scale fishing

Source: FAOSTAT 2011

Thus, the small scale fishing seems to have reached a scale in terms of development. The perspectives are not more for the expansion or the insertion of new fishing gear but rather the implementation of management measures to conserve what is and restored what is disappearing.

The semi Industrial fishing of Cape Verde is constituted of 3 specialized segments of vessels for the capture of tunas, small pelagics and pink lobsters. About 100 vessels were listed and, half or the third of them, did not have a fishing license. In 2012, the direction of the fishing delivered in total 81 licenses among which 31 for tuna fishing, 25 for the small pelagics, 21 for the demersal fish and 4 for the lobsters.

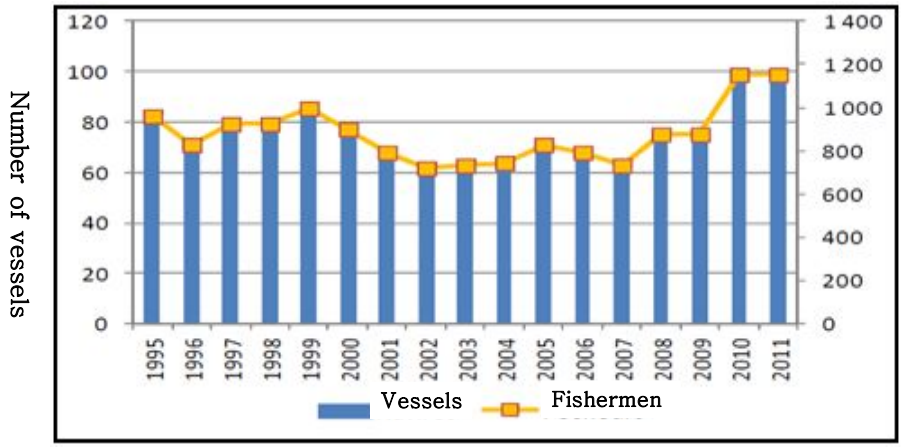
<Table 7> Fishing licenses issued to Cape Verdean vessels semi-industrial fishing

Unit: No

| Fish | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|
| Tuna | 20 | 12 | 17 | 25 | 22 | 31 |
| Coastal pelagic | 18 | 9 | 12 | 20 | 18 | 25 |
| Demersal | 8 | 4 | 5 | 11 | 5 | 21 |
| Lobsters | 4 | 4 | 2 | 2 | 2 | 4 |
| **Total** | **50** | **29** | **36** | **58** | **47** | **81** |

Source: ICCAT 2013

The number of fishers have reached the scale of 1,200 over the past two years. The recruitment of new vessels (vessels with a length between 11 and 14 m) in 2008 has significantly contributed to an increase of the number of landing rate.

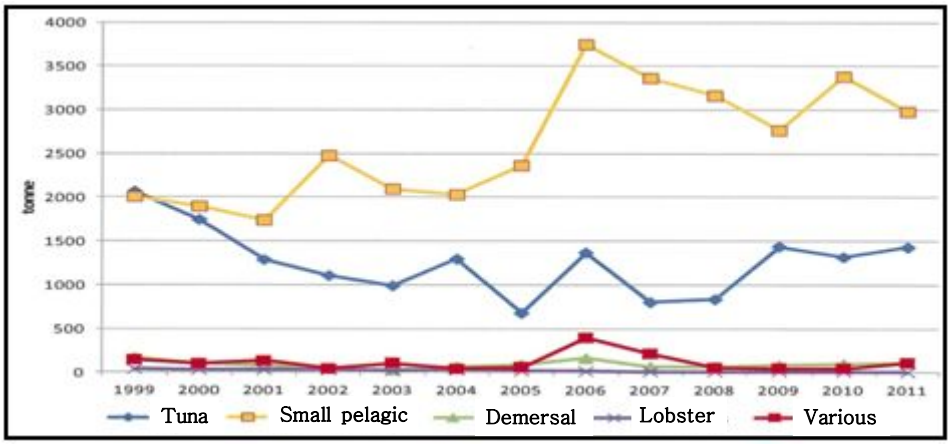



<Figure 7> Number of vessels and seamen of the industrial fishing

Source: INDP 2013

The total captures were in the order of 4,500 tons, about the same or more or less level as at the beginning of the last decade. They are mostly constituted by small pelagic (two thirds) and tuna for the rest, the captures of demersal fish and other fish being low (except in 2006) and, those of lobsters being marginal in term of volume (8 tons only in 2011).

The industrial fishing seems so, with regard to the profile of little diversified captures. The ban on fishing in the area of 3 nautical miles around the islands (except for the practice of seine, however, should not be deployed in bays and practice of pot that can be carried everywhere) has limited, fishing opportunities for pelagic species.




<Figure 8> Captures of industrial fishing units

Source: INDP 2013

### 1.3. Foreign fishing and Foreign fishing vessels from the European Union

In addition to the national fishing vessels, many foreign vessels fished in Cape Verdean waters under the flags of many countries, they operated on terms of access that are specific to the nature of fishing and type of the vessel. So, three categories of vessels/ access can be identified:

- The tuna fishing vessels from the **European Union** which operated within the framework of the FPA between the EU and Cape Verde;
- Tuna fishing vessels **under the flag of a third country** which pay a license to access the Cape Verde EEZ (Japanese and Chinese longliners and tuna seiners in the Netherlands Antilles);
- **Senegalese** pole and line which evolve in Cape Verde waters within the framework of the agreement of reciprocity which links Cape Verde in Senegal.

The National institute of fisheries development did not proceed the monitoring of fishing activities of foreigners in the Cape Verde EEZ.

The direction of Fishing, from his side, holds an accounting of licenses and captures which are directly declared by the captains of vessels. Because of the low percentage of declaration of certain vessels (22% for example, for EU vessels in 2011 and 2012 and 0% for Senegalese pole and line), such an accounting can be only incomplete.

Moreover, for the vessels of the EU, the DGP noticed the differences between the data which are transmitted and those that are registered with ICCAT by the same vessels (table 8). The numbers in this table shows, furthermore, the level of under-declaration by EU vessel as the total volume of captures between 2009 and 2011 was more than 17,000 tons against 5,600 tons which were the object of a declaration.

<Table 8> Difference between catches declared to the ICCAT and DGP (tons)

| | 2009 | | 2010 | | 2011 | | 2012 | |
|---|---|---|---|---|---|---|---|---|
| | ICCAT | DGP | ICCAT | DGP | ICCAT | DGP | ICCAT | DGP |
| Tunas | 51 | 9 | 590 | 54 | 24 | 76 | 11 | 86 |
| Swordfish | 80 | 92 | 27 | 138 | 101 | 9 | 132 | 108 |
| Sharks | 792 | 455 | 1,498 | 472 | 529 | 442 | 1,088 | 751 |
| Fin | 0 | 15 | 21 | 16 | 3 | 11 | 5 | 29 |
| Others | 73 | 136 | 144 | 130 | 42 | 0 | 43 | 0 |
| **Total** | **996** | **707** | **2,280** | **810** | **699** | **538** | **1,279** | **974** |

Source: DGP 2013

The low declaration rate and the chronic under declaration make it difficult to follow up, by the national authorities, EU fisheries and foreign fishing in the Cape Verde EEZ. The declaration of captures is nevertheless an obligation within the framework of fishing Partnership Agreement.

Within the framework of the FPA (Fishing Partnership Agreement) between the EU and the Cape Verde, three categories of vessels operated in the Cape Verdean ZEE: 28 tuna seiners (among which 16 Spanish and 12 French), 35 longliners (including 26 Spanish and 9

Portuguese) and 11 pole and lines (among which 7 Spanish and French 4). Within the framework of the application of the previous protocol (in March 30th 2007-31st August 2011) and of that enforced since September 1st 2011, the captures realized by these three categories of vessels fluctuated between 1,900 tons and 5,700 tons. The year 2012 was particularly significant in terms of captures because the reference tonnage (5,000 tons) was exceeded for the first time since the implementation of the Fishing Partnership Agreement.

<Table 9> Captures of the EU vessels, 2007-2012 (tons)

| | Member State | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|
| Seiners | Spain | 750 | 178 | 577 | 481 | 328 | 1,999 |
| | French | 0 | 0 | 0 | 0 | 0 | 254 |
| Total Seiners | | 750 | 178 | 577 | 481 | 328 | 2,253 |
| Longliners | Spain | 1,727 | 1,698 | 2,154 | 3,272 | 2,351 | 3,240 |
| | Portugal | 60 | 0 | 647 | 529 | 568 | 133 |
| Total Longliners | | 1,787 | 1,698 | 2,801 | 3,801 | 2,919 | 3,373 |
| Pole and line | Spain | 33 | 0 | 0 | 5 | 382 | 64 |
| | French | 5 | 0 | 0 | 0 | 47 | 13 |
| Total Pole and line | | 38 | 0 | 0 | 5 | 429 | 77 |
| Total all vessels | | 2,575 | 1,876 | 3,379 | 4,287 | 3,676 | 5,703 |

Source: INDP 2013

During the last years, the captures of tuna seiners in the Cape Verde EEZ are mainly shared between those of yellowfin tuna (33%) and skipjack (51%). Those of bigeye represented only 8% whereas those of swordfish (assimilated to the category of others) were particularly important for the French fleet in 2012. The important growing of skipjack in captures result from the more and more intensive use of the FADs.

The captures of longliners are more diversified than those of tuna seiners. Nevertheless, two species count for about 90% of captures in

2011 and 2012: the blue shark (79%) and swordfish (9%). The tunas are practically absent in the captures (only some bigeye are captured) while in the 90s, they constituted about 95% of captures (EU 2012). Between 2007 and 2012, the percentage of blue sharks in the total volume of captures has strongly increased whereas that of the swordfishes has followed the opposite course (respectively 79% in 2012 against 61% in 2007 for the first ones and 9% in 2012 against 28% in 2007 for the second). The longliners fishing effort of the EU is more and more concentrated on shark fishing due to the increasing rarefaction of swordfishes.

<Table 10> Captures of EU tuna seiners, 2007-2012 (tons)

| Years | Yellowfin | Skipjack | bigeye | others | Total | Fishing days |
|---|---|---|---|---|---|---|
| 2007 | 368 | 315 | 53 | 15 | 751 | 20 |
| 2008 | 93 | 70 | 14 | 2 | 179 | 12 |
| 2009 | 277 | 248 | 40 | 12 | 577 | 43 |
| 2010 | 221 | 212 | 34 | 14 | 481 | 37 |
| 2011 | 51 | 185 | 86 | 7 | 329 | 27 |
| 2012 | 502 | 1,289 | 155 | 307 | 2,253 | 89 |
| Total and % | 33 | 51 | 8 | 8 | 4,570 | 228 |
| volume of average catch per day of fishing | | | | | | 20 tons |

Source: ICCAT 2012

<Table 11> EU longliners catches, 2007-2012 (tons)

| Years | Yellow fin | Skip jack | Big eye | Blue shark | Mark shark | Sword fish | Others | Total |
|---|---|---|---|---|---|---|---|---|
| 2007 | 18 | 0 | 35 | 1,086 | 57 | 500 | 90 | 1,786 |
| 2008 | 0 | 0 | 51 | 1,070 | 119 | 374 | 85 | 1,699 |
| 2009 | 19 | 0 | 28 | 1,857 | 336 | 504 | 56 | 2,800 |
| 2010 | 43 | 0 | 65 | 2,622 | 304 | 462 | 304 | 3,800 |
| 2011 | 5 | 0 | 28 | 2,102 | 99 | 280 | 406 | 2,920 |
| 2012 | 1 | 0 | 26 | 2,893 | 128 | 282 | 43 | 3,373 |
| Total and % | 1 | 0 | 1 | 71 | 6 | 15 | 6 | 100 |
| % average 2011-12 | 0 | 0 | 1 | 79 | 4 | 9 | 7 | 100 |

Source: ICCAT 2012

The frequentation of the Cape Verdean ZEE is generally made in the movement of accompaniment of the mattes of tuna which move since the North of the Senegalese ZEE and the South of that of Mauritania towards the seaward. It's not thus systematic, which demonstrates the absence of catches in 2008 and 2009 and the very low level observed in 2007 and 2010 where the tunas were mainly captured in the Mauritanian ZEE, Senegalese and Guinea-Bissau, in a lesser extent (4,700 tons, 2,200 tons and 250 tons annual average between 2007 and 2010, data of Eurostat 2013 respectively). The consequent increase of the captures of the pole and line in 2011 and 2012 along the African coast (more than 50% of profits of volume compared with the previous years) has concerned the Cape Verdean ZEE because the level of captures realized in 2011 was never reached previously. In total, the EEZ of Cape Verde, frequented by seiners between August and December (and April and May), by the longliners from October to April and the pole and line at the same time, is very important variable according to fleets and years: very strong in 2011 for all

fleets, it wasn't been in previous years (2007-2010) important only for the longline fleet. Overall, the frequentation of the ZEE of Cape Verde seems to be correlated to abundance of tuna's resources along the West-African coast: the strong captures of tunas registered in Cape Verdean ZEE were always realized during the years when the strong captures were realized in the neighboring ZEE.

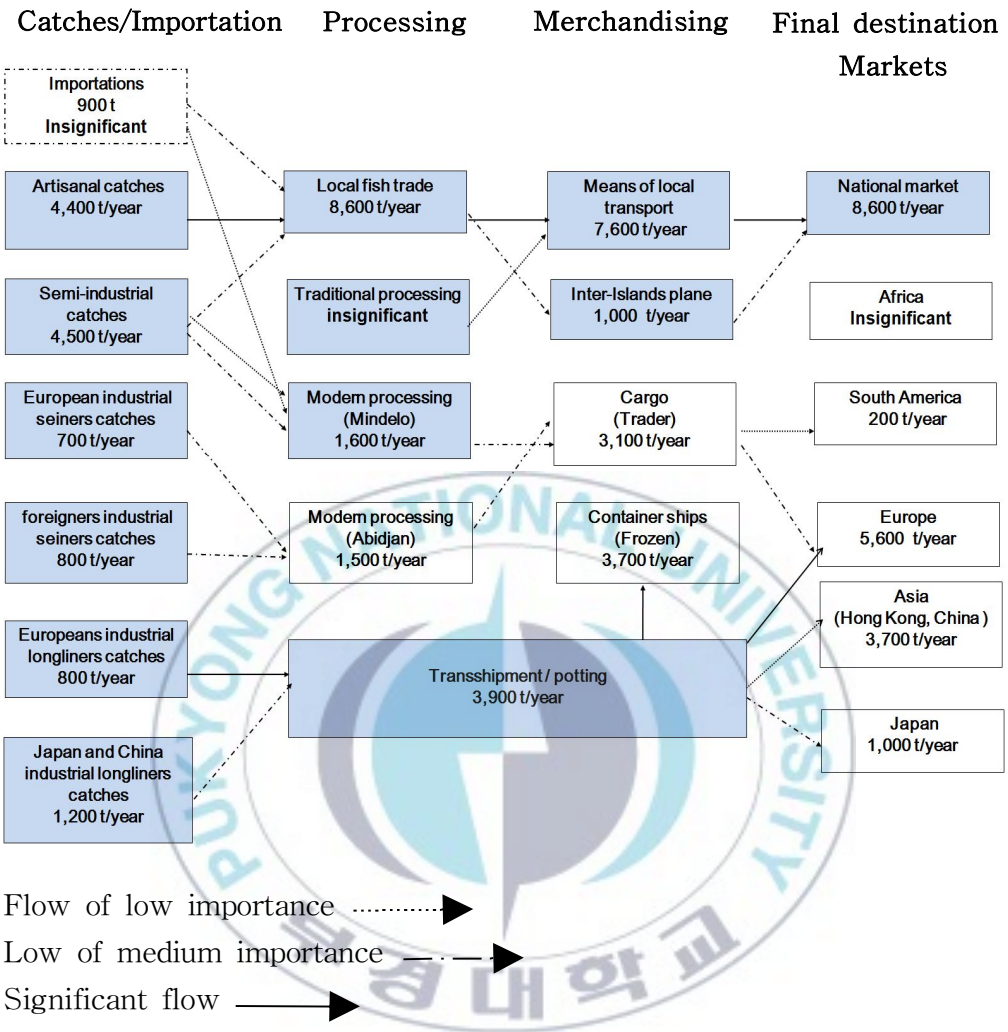
### 1.4. Halieutics sectors

Many halieutics sectors coexist in Cape Verde, the main ones are: those organized since small scale fishing and semi-industrial national which the products are for domestic consumption; those of the semi-industrial fishing of tunas intended for canning and export towards European and South American markets mainly. The one which takes place of Japanese longliners until Nippon market; the one which supplies the European market in tunas products starting from the production of seiners and finally the one dedicated to sharks with the European longliners.

Another sector (channel), of which the captures are not realized in Cape Verdean waters, must be also mentioned because it contributes significantly to the economic well being of the port of Mindelo: The sector of frozen fish transshipped by Asian countries fishing vessels (China and Korea mainly) aboard ships container (in freezer containers). The port of Mindelo is currently in full phase of extension with the objective to be a hub of first regional importance before the end of decade by being capable of handling a million containers.

Since 2007, the port has realized regular operations of transshipments of a regular line of freight from Europe and bound for the ports of Praia, Dakar (Senegal) and Bissau (Guinea Bissau). In the more specific field of the fishing, the new wharfs are currently being developed to facilitate the operations of unloading and refueling. A new factory is planning new chains for treatment of fish so as to diversify

the production. It should condition in near the future the fish landed by foreign vessels. At each component of the sector (production, processing, marketing and final consumption), the average volumes of fish during the period 2007-2012 are mentioned as well as those of tuna (in brackets in each of the rectangles). The light blue in rectangles indicates that the process takes place in Cape Verde. The importance of flow between the components of the sector is represented as follows: represented as follows:




<Figure 9> Flows of fish caught in the EEZ of Cape Verde (average 2007-2012)

Source: OECD 2012

## 2. Policy framework

### 2.1. Cape Verde maritime and fisheries policy

The legislative framework for fisheries is constituted of Decree-Law No. 53/2005 which replaces that presented in the Decree-Law No. 17/1987. This new Decree-Law defined the general principles of the management of the sector, the main ones are:

- The taking into account of the principles and concepts of the responsible fishing, the precautionary approach, intergenerational equity and non-decimation between the segments of fishing and between flags of convenience;
- The definition of the different types of fishing (artisanal, semi-industrial and industrial national and foreign);
- The necessity of a supervision of the activities of fishing according to a specific management plan to each fishing category accompanied with means of implementation;
- The establishment of a National Council for the fishing;
- The definition of prerequisites, conditions and procedures for the attribution and suspension of fishing licenses;
- The establishment of fishing agreements with foreign operators;
- The realization of technical and scientific research works;
- The protection of resources by the establishment of protected areas and constraints on fishing of threatened species;
- The effectiveness of a control and monitoring of the Cape Verdean space;
- The definition of responsibilities of everyone, offenses and sanctions.

Decree-Law of 2005 is accompanied by a substantial number of the other laws and decrees for its application, in particular those stating maritime limits, the characteristics of the different fisheries, the technical cooperation in the field of the fishing (in particular with São Tomé and Principe, Decree No. 21/2010), the modalities of access of

the foreign vessels in Cape Verde waters.

The geographical coordinates of lines archipelagic bases and the external maritime limits of the exclusive economic zone of Cape Verde are specified in Law No. 60/IV/92 of December 21st 2012. The territorial sea is located within 12 nautical miles from the archipelagic base lines. If the EEZ extends 200 nautical miles westward, its limits are defined according to the principle of equidistance due to the concomitant with the EEZ of Mauritania and Senegal. The common limits were jointly recognized by Cape Verde and Senegal on February 17th 1993 and Mauritania September 19th 2003.

The access of foreign fishing vessels to the Cape Verdean halieutic resources is authorized:

- Within the framework of a bilateral fishing agreement (agreement with another state or political entity such as the EU);
- Within the framework of an agreement between the authorities representing the Republic of Cape Verde and the organization which represents the foreign fishing vessels;
- Within the framework of private licenses of fishing obtained by a fishing vessel directly from the Cape Verdean authorities;
- Within the framework of an agreement of reciprocity or an agreement concluded between two West African States (reciprocity agreement with Senegal and agreement with the Mauritania).

## 2.2 Agriculture and fisheries policy

In 2004, the FAO supported the Ministry of Environment, Agriculture and Fisheries (MAAP) to develop a combined agriculture and fisheries policy. This was adopted by Government in 2005 (Agriculture and fisheries: strategy of development in 2015 and Action Plan 2005-2008). Following a detailed study of the agriculture and fisheries sectors, the main strategic vision 2025 adopted for the agriculture and fishery sectors was the “improvement of sustainable

living conditions for rural populations (human, social, and economic) to bring about the reduction of reduction of rural poverty by 50%, with a simultaneous reduction in food and nutritional insecurity, both structural and seasonal."

A 10 years action plan (2005 to 2015) was proposed and adopted, with the objective of:

- Sustainable management of natural resources;
- Increase, diversify and add value to agricultural and fisheries production, and;
- Promote diversification of rural activities.

At the sectoral level, in fisheries, the plan foresees a priority target of the modernization of artisanal fishing with research, promotion and dissemination of new technologies, and the strengthening of distribution chains and fish handling conditions. The plan also proposes the promotion of industrial fishing to allow Cape Verdean exploitation of the EEZ, with the introduction of new technology and investment to be supported by international institutions, in order to promote exports.

Specific implementation measures within the action plan are:

- Inventory of the status of fishing resources;
- Promotion of the sustainable and participative management of coastal and oceanic stocks;
- Promotion of responsible fishing;
- Integration of the activities of fishing, processing and tourism;
- Modernization of fisheries infrastructures and facilities for conservation; processing and marketing and quality control of fishery products;
- Adaptation of sanitary standards and establishment of a quality control system;
- Promotion of marine aquaculture;
- Protection of the threatened species, such as the turtles and lobsters,
- Limitation/control of the taking away of sand in coastal area.

## 2.3. Maritime policy

Being a remote archipelago, maritime communications and security are central to the national strategic interests. For centuries Cape Verde has been a major maritime hub, providing provisioning and fuelling services to trans-oceanic vessels, and more recently, aircraft. These services are still reflected strongly in the balance of payments.

There are seven operational airports, three of which are international and four national. Good marine port facilities are available in Santiago (Praia) and Mindelo (São Vicente) but the infrastructure is aging and suffers from lack of capacity. There is a shortage of deepwater wharves and space/equipment for handling for containerized cargo, operational shortcomings and excessive red tape, resulting in increased transport costs. One of the main priorities in the transport sector is to maintain and develop Cape Verde's role as a shipping support platform and a regional air transportation hub. In addition there is a need to strengthen the inter-island transport of goods and passengers. Some of the planned developments (many underway) are:

- Modernization of port and airport facilities on the islands of Sal, Santiago, S.Vicent, particularly the harbours of Praia and Palmeiras;
- Improved maritime port services shall be supplied in coherent packages including other port products such as ship repair, supply of specialized labour, refrigerated warehousing, international vessel registry and passenger transport and international air cargo;
- Restructuring and strengthening of nautical training, in all levels, to be coupled with the training provided in the fishing sector;
- Increasing the number of marinas, fostering dynamism in the field of nautical sports activities;
- Promoting the construction and operation of the control system of coastal maritime traffic, modernization of a maritime rescue and safety system, maritime communications and a navigation support network, all of which will increase navigation as well as maritime safety.

## 2.4. Protection of the Environment

Cape Verde is one of the top 10 coral hotspots in the world, the most important breeding site in the Western Atlantic for the endangered Loggerhead Turtles, and a breeding ground for Humpback whales.

Although the economy of the country is based primarily on the exploitation of natural resources and agriculture, concerns over environmental management have only recently gained national attention. The government has drafted a new National Environmental Action Plan (2003) and the country's 17 municipalities are being given expanded responsibilities and authority for environmental management.

There is also a growing interest in international conventions (e.g. Ramsar, Migratory Species, CITES etc.). Furthermore, over the coming years, municipalities will be drafting environmental action plans based on local priorities and with considerable input from local communities. Most of the technical skills related to environmental issues however are linked to central government institutions. Municipalities and civic institutions like NGOs have had little experience in the sector.

### Conservation Policies and Programmes

During the last decade, the government of Cape Verde has taken various legislative and institutional measures to promote the conservation and sustainable use of the country's biodiversity. The first National Environmental Action Plan was produced in 1994 (PANA I), and is currently being revised with support from the Netherlands (PANA II). Similarly, each of the country's 17 municipalities will soon begin drafting local environmental strategies and action plans. New legislation has been passed establishing 47 protected areas including 3 with important marine elements (Baia da Murdeira (Sal),

Parque Natural do Norte (Boavista) and Parque Natural das Terras Salgadas (Maio), this includes a classification system ranging from fully protected integral reserves to multiple use zones, and plans to identify protected species. Cape Verde has also ratified several international treaties and agreements related to, or affecting, biodiversity such as the Convention on Combating Desertification, Convention on Climate Change and the Convention on Biological Diversity.

With regard to the latter, and in consultation with different stakeholders, Cape Verde developed a National Biodiversity Strategy and Action Plan (NBSAP). The main objectives of the NBSAP are to control environmental degradation and to conserve natural resources. The ecosystem approach was identified as the most appropriate way to achieve these objectives, and several critical habitats, including marine, coastal and wetlands were identified for in-situ conservation as protected areas. Various programmes and projects were also outlined in the areas of legislation, research and monitoring, reinforcement of existing institutions, (eco-) tourism, capacity building, and environmental awareness.

Though the need for conservation and sustainable use of biological diversity is recognized in various government and sectoral policies and plans, in reality there are still several major gaps. Cape Verde has only found the resources to undertake very few of their priority projects.

## Opportunities for biodiversity conservation

Cape Verde has a unique biological diversity. Several national and municipal institutions (Directorate General for Environmental (DGA), National Institute for Research and Agricultural Development (INIDA), and the National Institute for Fisheries Development (INDP), Directorate General of Marine and Ports) have clearly articulated the

threats and conservation needs.

However implementation of environmental conservation and management programmes has been limited by a lack of funds, inadequate technical support and, perhaps most importantly, a severe lack of information and awareness at all levels. Fortunately, this situation is changing. Many different Cape Verdean conservation institutions and organizations are seeking support to enhance their capacity to implement programmes and carry out activities themselves. At the invitation of the government of Cape Verde, WWF, with support from the Royal Netherlands Embassy in Dakar, set out to assess the possibility of developing a collaborative project for marine, coastal, and wetlands biodiversity management. Such a project would respond to local and national needs and dovetail with activities undertaken by other organizations, (GTZ, GEF, UNDP, and Netherlands Cooperation). One such activity, implemented under UNDP with GEF support addresses the policy and legal and institutional framework for environmental conservation and participatory management of protected areas, the establishment of marine protected areas, the development of alternative income generation activities, and providing public awareness and education support.

## 2.5. Fisheries Management Plan

The preparation of a FMP for the period 2004 to 2014 is the first such attempt in Cape Verde and an essential step towards improving the management of fisheries resources. Fisheries in Cape Verde are classified as industrial or artisanal, but it is important to note that small wooden or fiberglass vessels, ranging from 3 to 11m, dominate the whole fleet. The primary distinction is that artisanal vessels are typically open-decked and usually use outboard engines (3-9m), while industrial vessels (7-26m) use inboard engines and usually have some sort of shelter on board. The FMP distinguishes between 8 main

industrial and artisanal fisheries (not including foreign and sports fisheries):

**Industrial** - (i) pole and line fishery for tuna, (ii) purse seine fishery for small pelagics, and (iii) trap fishery for deep-sea lobster.

**Artisanal** - (i) handline fisheries for demersal, tunas and related species, (ii) purse seine fishery for small pelagics, (iii) gillnet fishery for small pelagics, (iv) beach seine fishery for small pelagics, and (v) diving for demersals, coastal lobsters and conch shells.

A number of problems are discussed in the FMP, which are relevant to the management of fisheries resources in Cape Verde in general. Most importantly, there is a lack of information on the state of exploration of resources and there is a need to strengthen the coordination amongst key functions dealing with fisheries research, administration and control. Notwithstanding, the management measures proposed by the FMP are based on the best available information and have been approved by the Government, covering the period 2007-2008. These are:

<Table 12> Measures specific to each fishery management

| Industrial Fisheries | Management Measure |
|---|---|
| Pole and Line Fishery for Tuna | Minimum size of 3.2kg for yellowfin and bigeye tuna. |
| Purse Seine Fishery for Small Pelagic | Fishery reserved for national vessels. |
| **Artisanal Fisheries** | **Management Measure** |
| Handline Fisheries for demersal, tunas and related | Minimum size of 3.2kg for yellowfin and bigeye tuna; Coastal waters out to 3 nautical miles are reserved for this fishery. |
| Purse Seine Fishery for Small Pelagic | Cautious expansion of the fishery through the issuing of licenses. |
| Gillnet Fishery for Small Pelagic | Cautious expansion of the fishery through the issuing of licenses. |
| Beach Seine Fishery for Small Pelagic | Maintain the number of beach seines at 50, until their impact can be studied; Minimum size of 6cm for bait. |
| **Other fisheries** | **Management Measure** |
| Foreign Fisheries | Minimum size if 3.0kg for yellowfin and bigeye tuna and 125 for swordfish; Fishing within 12 nautical miles of the coast is prohibited; Fishing demersals is prohibited; Shark-fishing is prohibited: Maintain the current number of licenses in future fisheries agreements. |

Source: DGP 2009

## 2.6. Monitoring, Control and Surveillance (MCS)

The large size of the Cape Verdean EEZ makes it very hard to provide surveillance. Despite this, the government of Cape Verde is increasing its efforts in order to make available the minimum means to the national coastal guard needs to fulfil the job.
At present the National Coast Guard, a body incorporated into the National Army, is responsible for the surveillance of Cape Verdean EEZ. The Coast Guard have the following patrol vessels.

<Table 13> Coastguard vessels available in 2009

| Name | Crew | Meters | Max Speed | Commissioned |
|---|---|---|---|---|
| Espadarte | 6 | 15.5 | 24 knots | 2000 |
| Vigilante | 17 | 52.0 | 18 knots | 2004 |
| Smaco | 9 | 26.8 | 18 knots | 2006 |
| Taĩnha | 9 | 26.8 | 18 knots | 2007 |

Source: DGP 2009

These vessels have been given to Cape Verde by the governments of Germany, USA and China. Only the vessel Vigilante has the capacity to navigate in all the EEZ waters. The coast guard also has two aeroplanes, one German Dornier and one Brazilian Bandeirante. Problems with the maintenance, procurement of spare parts and number of crew members for these aeroplane are experienced regularly. The Dornier is currently operational.

Surveillance missions usually target three goals: illegal fishing, drugs trafficking and illegal immigration. The missions always combine the vessel Vigilante (with a company of marines on board) and the Dornier aeroplane. The coast guard planned to undertake monthly patrol missions lasting 12 days. Due to the lack of financial support, during 2008 they made only two missions. Both of these missions were financed with revenue from the financial contribution the FA

involving an amount around 50,000 Euro. The DGP and INDP sent one inspector in each of these two missions. There were no missions made in either 2007 or to date in 2009.

In the past the government has made available the coast guard aircraft for regional surveillance operations under project AFR/013 of the CSRP. However cooperation with the project was reported as short lived as Cape Verde felt that contributions to the project from other members of the commission (The Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal) were lacking and there were few benefits for Cape Verde.

With regard to observers, only two observers were placed aboard vessels during 2007. Although a training program was carried out in 2005 where 20 observers were trained, trainees were not civil servants or under any other contract to the government. This has resulted in difficulties in locating observers who are available when necessary, as they invariably have another job. The protocol indicates that part of the license fee for longline vessels shall be set aside for the implementation of an observer programme. The protocol is considered to make adequate provision for onboard observers and vessels call frequently and consistently into Cape Verde ports, but in spite of this there has been very limited implementation of an observer programme.

In 2000 an EEZ Surveillance Fund was created to finance maritime and air control and surveillance activities with the aim of preventing illegal activities and ensuring the safety of the maritime communities. Although the fund still has legal statutes, there are no corresponding regulations and the fund has never been operational.

Cape Verde has no satellite based VMS system for monitoring fishing activities of the industrial fleet, but the Commission has agreed to co-finance up to 75% (max 100,000 Euro) of the cost of the implementation of a system based on existing satellites & transponders and a local operations room. It should be noted that this project is outside of the provisions of the current protocol.

# IV- Economic impacts of EU Agreements

## 1. Implementation of the protocol of Agreement Fishing Partnership between the EU and Cape Verde

### 1.1. Evolution of the protocols and fishing opportunities

Cape Verde is included in the European list of developing countries with great dependence on national or regional trade of fish products where small scale fisheries contribute significantly to exports. A bilateral fisheries agreement between the EU and Cape Verde has been established in 1990. The Partnership agreement between the two countries has been signed for 5 years from September 2011-2014 and, it concerns tuna fishing like the other agreement signed with the sub region countries (Gabon, Ivory Coast, and Sao Tome and Principe).

The agreement allows the access to fisheries resources to Spain, France and Portugal with 28 tuna seiners, 35 longliners and 11 tuna line vessels. The annual fishing compensation for the access of EEZ of Cape Verde is 385,000 Euro. In the frame work of the agreement, the allocate fund to Cape Verde for research and training programme is 110,000 Euro.

<Table 14> Recent protocols (2000-2014)

| | | 2000-2006 | 2006-2011 | 2011-2014 |
|---|---|---|---|---|
| Annual financial compensation (EUR) | | 40,0000 | 325,000 | 325,000 |
| Support to the fisheries sector (EUR) | | 28,0000 | 60,000 | 110,000 |
| Reference tonnage | | 7,000 | 5,000 | 5,000 |
| Reference price of the EU contribution (EUR/t) | | 50 | 65 | 65 |
| Flat free of shipowner (EUR/t) | | 25 | 35-25* | 35 |
| Tuna seiners | Fishing possibilities | 37 | 25 | 28 |
| | fixed tonnage | 110 | 110 | 125 |
| | Payments advance | 2,850 | 3,950 | 4,375 |
| Surface longliners | Fishing possibilities | 62 | 48 | 35 |
| | Fixed tonnage | 80 | 80 | 90 |
| | Payments advance | 2,100 | 2,900 | 3,150 |
| Pole and line vessels | Fishing possibilities | 18 | 11 | 11 |
| | Fixed tonnage | 16 | 16 | 18 |
| | Payments advance | 400 | 500 | 450 |

35-25*: 35 for seiners and surface longliners and 25 for tuna pole

Source: Eurostat 2013

## 1.2. Utilization of fishing authorizations, the reference tonnage and fixed tonnage

During the 4 years of application of the previous protocol, the use of fishing authorizations was globally satisfactory for pole and line tuna vessels (84%) but relatively low for longliners and purse seiners (56% and 51%). For the protocol in force, the average rate of utilization for the first three years of the Protocol was 70% for the three vessels.

If it remains high for longliners during the period 2011-2012, the rate of use is very low on the other hand for tuna seiners in particular because of the absence of the French vessels around the archipelago in 2011. Their presence in Cape Verde waters in 2012 is due, largely, to the modification of their strategy of consecutive fishing not renewal for the protocol with Gabon (a new Protocol in temporary application since July 2013, cf regional report).

Despite the very high volume of capture realized by the longliners vessels in 2012 (about 3,500 tons), the ship-owners seem to be disinterested in Cape Verde area in 2013, the rate of fishing possibilities having fallen to 30%. The decrease of the price of shark carcasses and fins since the end of year 2012 incited them to redeploy their efforts to the swordfish (even if the price is was decreasing in the first semester of 2013, from 1.6 to 1.1/kg) and bigeye tuna whose the price on the Japanese market is still very remunerative (over 80 Euro/kg). Due to the low abundance of the resources in swordfish and in bigeye tuna in Cape Verdean EEZ, the vessels currently operate much more to the west and northwest in the international waters. Also, unless an unexpected return of the vessel at the end of the year, it is unlikely that the utilization rate is revised upwards for the third year of application of the Protocol (2013).

The high rate of fishing possibilities in 2012 was accompanied by the level of captures over the reference tonnage (5,700 tons against 5,000 tons), never still reached since the application of the first protocol in 1990. It is also high for the current protocol (94%) and, despite a very bad year in 2008 where the captures represented only 38% of the tonnage of reference, globally satisfactory since 2007 (72%). The contribution of longliners for achievement of this tonnage was 63% (67% of total captures) on average for the current protocol and 55% since 2007 (76% of total capture). The exceeding tonnage in 2012 has increased financial compensation equivalent to 65 Euro for every tone captured beyond 5,000 tons or 45,733 tons.

<Table 15> Utilization of fishing authorizations

Unit: No

| | | Protocol in force (1st September 2011- 2014) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Authori-zation | Use 2011 | %use 2011 | Use 2012 | %use 2012 | Use 2013 | %use 2013 | % use average 2011/2013 |
| Tuna seiners | Spain | 16 | 14 | 88 | 14 | 88 | 13 | 81 | 85 |
| | France | 12 | 0 | 0 | 9 | 75 | 9 | 75 | 50 |
| | **Total** | **28** | **14** | **50** | **23** | **82** | **22** | **79** | **70** |
| Longliners | Spain | 26 | 21 | 81 | 20 | 77 | 10 | 38 | 65 |
| | Portugal | 9 | 9 | 100 | 9 | 100 | 1 | 11 | 70 |
| | **Total** | **35** | **30** | **86** | **29** | **83** | **11** | **31** | **67** |
| Pole and Line vessels | Spain | 7 | 7 | 100 | 7 | 100 | 7 | 100 | 100 |
| | France | 4 | 0 | 0 | 1 | 25 | 1 | 25 | 17 |
| | **Total** | **11** | **7** | **64** | **8** | **73** | **8** | **73** | **70** |

Source: Eurostat 2013

## 1.3. Promoting responsible fishing

The promotion of responsible fishing is inherent to the application of the Protocol:

- The guiding principles of the Code of Conduct for a responsible fishing of FAO, "The right to fish implies the obligation to do so in a responsible manner so as to ensure the conservation and rational management of the living aquatic resources", are found in the text of the Protocol in particular Article 3 of the Protocol, entitled "Promotion of sustainable and responsible fishing in Cape Verdean waters" and Article 4 concerning the "scientific cooperation in responsible fishing".
- The vessels of the EU have to be conformed to management rules promulgated by the ICCAT and capture only species which stocks does not present risks of biological break and within the limits of the

quota assigned for every country (Regional Report 2009).
- The sectorial support promotes, through its actions, the development of intervention capacities for management of better fisheries which operated Cape Verde EEZ.

In the practice, the tuna seiners comply with rules adopted by ICCAT. The longliners, for their part, does not operated in management framework for main species of captured sharks such as blue and mako sharks.

The systematic targeting species is recent so that no management (except as by-catch) has yet been made. The temporal persistence of a targeting species should however be accompanied by safeguards order to preserve the sustainability of the species but also of the fishery.

## 1.4. Exports of fishery products from Cape Verde to the EU 2008-2010

Between 2000 and 2003 fishery product exports had declined to just a few hundred tones, mainly because of a ban imposed by the European Union in 2000, due to non-compliance with EU sanitary conditions. After Cape Verde re-entered the list of countries authorized to export to the European Union in October 2003, exports increased sharply. In 2006 they rose to 6,943 tons and in 2007 to 9,470 tons (Marking Annika 2010).

There is a notable huge increase in export of fishery products since 2006. This is primarily due to the entry onto the Cape Verde vessel register of two large tuna purse seine vessels belonging to a Spanish firm (Calvo Pesca Atlantico). These vessels fish in the Eastern tropical atlanic, in international waters as well as the EEZ of some other coastal states (including Guinea Bissau).

In addition in 2010, foreign investment from Spain helped to renovate a fish cannery, which also recommenced production (Frescomar), using

raw material caught by the national small scale and semi-industrial fishery. Therefore in 2010, exports of prepared or preserved fish (canned fish) increased significantly to about 50% of fishery product exports by value (as shown in the Table). Among industrial goods exported in the first quarter of 2011, canned fish is the main one and represent 38.3% of total exports.

<Table 16> Fish and fish products exports to the EU 2008 to 2010

| | 2008 | | 2009 | | 2010 | |
|---|---|---|---|---|---|---|
| | Tons | Euro | Tons | Euro | Tons | Euro |
| Fish, Fresh or Chilled | 1 | 3,017 | 3 | 20,707 | 2 | 10,626 |
| Frozen Fish | 5,714 | 6,966,576 | 8,302 | 12,238,482 | 6,398 | 6,869,126 |
| Crustaceans | 9 | 305,895 | 8 | 335,140 | 8 | 360,005 |
| Total Fish Excluding Prepared or Preserved | 5,724 | 7,275,488 | 8,313 | 12,594,329 | 6,408 | 7,239,757 |
| Prepared or Preserved Fish | 32 | 127,192 | 74 | 230,484 | 1,893 | 8,302,876 |
| **Total All Fishery Products** | **5,756** | **7,402,680** | **8,387** | **12,824,813** | **8,301** | **15,542,633** |

Source: FAOSTAT 2011

## 1.5. Imports of fishery products into Cape Verde from the EU 2009 to 2010

Imports of fish and fish products have increased marginally during last few years from 593 tons in 2009 to 699 tons in 2010 (Oceanic Developpement MegaPesca Lda 2010). Until 2009 the products supplied the local market. However, from 2010, Frescomar has commenced the import of raw material for canning and re-export. Imports of fishery products by Cape Verde are shown in Table 17. Most of the imports are from Spain, in the form of frozen fish. A significant proportion of this appears to be frozen mackerels, which provide raw material for

the FRESCOMAR canning operation. Some mackerel from other sources is also imported (Senegal, Argentina, Peru, as well as some significant quantities where the origin is not declared eg. 84 tons in 2010). All of the other imports (of fresh, frozen and canned products) are destined for consumption by the domestic market. All imports are derived from formal imports by containers. There is no record of landings into Cape Verde by foreign flagged fishing vessels.

According to DGP between September and December 2009 the Frescomar, located at S. Vicente island imported 1,122 tons of chub mackerel (Scomber japonicus) and 260 tons of frigate mackerel (Auxis rochel) from China and directly from two Russian vessels. It should be noted that Cape Verde has been granted special conditions regarding access arrangements to the EU market for non-originating fishery products, and the declarations of origins indicate that the tariff quotas have been fully utilised in the last 2 years (Keijzer, Niels 2011; Fishing in troubled waters).

<Table 17> Imports of fishery products by origin 2009 to 2010

| | 2009 | | | | | | 2010 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fresh | | Frozen | | Canned | | Fresh | | Frozen | | Canned | |
| | Value Euro | Tons | Value Euro | Tons | Value Euro | Tons | Value Euro | Tons | Value Euro | Tons | Value Euro | Tons |
| **EU** | 5,158 | 2 | 1,437,109 | 319 | 321,240 | 128 | 42,437 | 21 | 1,478,712 | 358 | 416,827 | 218 |
| Senegal | 2,393 | 1 | 82,609 | 33 | 20,104 | 18 | 0 | 0 | 14,123 | 7 | 404 | 1 |
| Other not EU | 404 | 1 | 130,218 | 72 | 22,626 | 19 | 5,024 | 2 | 105,663 | 91 | 285 | 1 |
| **Total** | 7,955 | 4 | 1,649,936 | 424 | 363,970 | 165 | 47,461 | 23 | 1,598,498 | 456 | 417,516 | 220 |

**Source:** Oceanic Developpement MegaPesca Lda 2010

## 2. Economic impacts of EU agreements on Cape Verde

### 2.1. Cape Verde income obtained under the current protocol

The income that Cape Verde obtained under the current protocol in 2011 and 2012, related to fishing authorizations that Cape Verde has obtained under the current protocol have been respectively of the order of 180,000 and 520,000 Euro (table 19). These revenues are relatively close to those that the country can collect in 2012 when the utilization of fishing opportunities was full (562,700 tons). The contribution of amendments of obtaining fishing permit was 39% in 2011 and 38% in 2012 against 42% in case of full utilization (TP Baros Lopes 2012, Estudo de impacto de um Acordo de parceria Economica, Cabo Verde 2012). The contribution of the longliners is almost equivalent to that of tuna seiners in 2011 and 2012 due to the high number of licenses (30 and 29). The contribution of the canners is generally low due to the amount of flat fee of 450 Euro/year. The budget assigns for sectorial support by FPA provided 215,000 Euro and 630,000 Euro respectively in 2011 and 2012, close to annual revenue in Cape Verde (OECD 2011).

<Table 18> Max and Min income, depending on utilization rate of the fishing

Unit: No, Ton, Euro

| | Full utilization | | | Utilization (2012) | | |
|---|---|---|---|---|---|---|
| Reference tonnage (1) | 5,000 | | | 5,000 | | |
| Category | Seiners | longline | Pole | Seiners | longline | Pole |
| Number of licensed used (2) | 28 | 35 | 11 | 28 | 35 | 11 |
| Fixed tonnage (3) | 125 | 90 | 18 | 125 | 90 | 18 |
| Lump sum/tonne (4) | 35 | 35 | 25 | 35 | 35 | 25 |
| Lump-sum advance/vessel (5)=(3)x(4) | 4,375 | 3,150 | 450 | 4,375 | 3,150 | 450 |
| Shipowner contribution (6)=(2)x(5) | 122,500 | 110,250 | 4,950 | 100,625 | 91,350 | 3,600 |
| Total shipowner contribution (7) | 237,700 | | | 195,575 | | |
| EU contribution/tonne (8) | 65 | | | 65 | | |
| EU financial compensation (9) | 325,000 | | | 325,000 | | |
| Total shipowner contribution and EU contribution (7)+(9) | 562,700 | | | 520,575 | | |
| Owners Contribution and EU/ Fishing possibilities (%) | 30 | | | 38 | | |
| Sector support (10) | 110,000 | | | 110,000 | | |
| Financial compensation (11)=(9)+(10) | 435,000 | | | 435,000 | | |
| **Total shipowner contribution and EU (12)=(7)+(11)** | **672,700** | | | **630,575** | | |
| Full utilization (%) | 100 | | | 94 | | |

Source: Eurostat 2013

Now, if the additional payments related to exceeding tonnage in 2012 and, the lump tonnage in 2011 and 2012 were taken into account, the amount which has benefited Cape Verde for 2011 and 2012 respectively, was in the order of 220,000 Euro and 736,000 Euro or about 22,000 and 106,000 Euro more than that realized before the liquidation account of catches.

<Table 19> Total amount obtained by Cape Verde in 2011 and 2012

Unit: Euro

| | 2011 | 2012 | Total |
|---|---|---|---|
| Amount paid by the shipowner for fishing authorization (1) | 53,438 | 195,575 | 249,013 |
| Amount paid by the shipowner for exceeding lump sum tonnage (2) | 22,089 | 105,617 | 127,706 |
| Total amount paid by shipowner (3)= (1)+(2) | 75,527 | 301,192 | 376,719 |
| Contribution of the EU for access in the EEZ of Cape Verde by EU vessels | 108,333 | 325,000 | 433,333 |
| Amount paid by EU for exceeding the reference tonnage | 0 | 45,733 | 45,733 |
| **Total amount for access (shipowner and EU)** | **183,860** | **626,192** | **810,052** |
| Sectoral support from EU | 36,667 | 110,000 | 146,667 |
| **Total amount for access and sectoral support** | **220,527** | **736,192** | **956,719** |
| Difference/before counting | 22,089 | 105,617 | 127,706 |

Source: Eurostat 2013

## 2.2. Employment impacts on Cape Verde

On board, only some Cape Verdean sailors are embarked alongside Senegalese and Ivorian sailors who complete the crews of the EU. No Cape Verdean observer is there. On the ground, some warehouseman are put in contribution during operations of supply to the port of Mindelo. The created employment, however, for the main part, to the advantage of the EU and, to a lesser extent than other ACP countries bordering the Atlantic Ocean: about 1,900 jobs which are related to the activity of EU vessels in 2011 and 2012, about 1,150 are filled by the citizens of the EU against only about 70 for Cape Verde and 700 sailors from other ACP countries.

The absence of landing of captures in the port of Mindelo limit considerably the possibilities of employments related to the FPA. The absence of trained domestic observers is another constraint in the employment of professionals Cape Verdean by the fleets of the EU.

<Table 20> Direct employment related to the EU fleet

Unit: No

| Type of vessels | 2011 | | | | 2012 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | seiners | Longline | Pole | Total | seiners | Longline | Pole | Total | Average |
| Number of vessels | 25 | 12 | 7 | 44 | 23 | 29 | 8 | 60 | **52** |
| Number of EU sailors | 23 | 16 | 4 | 43 | 23 | 16 | 4 | 43 | **43** |
| Number of Cape Verdeans seamen | 0 | 3 | 1 | 4 | 0 | 3 | 1 | 4 | **4** |
| Number of other seamen ACP countries | 15 | 11 | 11 | 37 | 15 | 11 | 11 | 37 | **37** |
| EU crew | 563 | 192 | 28 | 783 | 518 | 464 | 32 | 1,014 | **898** |
| Cape Verde crew | 0 | 36 | 7 | 43 | 0 | 87 | 8 | 95 | **69** |
| Crew other ACP countries | 375 | 132 | 77 | 584 | 345 | 319 | 88 | 752 | **668** |
| **Total crew** | **938** | **360** | **112** | **1,410** | **863** | **870** | **128** | **1,861** | **1,635** |
| EU staff related to the management | 141 | 54 | 17 | 211 | 129 | 131 | 19 | 279 | **245** |
| **Total directs employments** | **1,078** | **414** | **129** | **1,621** | **992** | **1,001** | **147** | **2,140** | **1,880** |

Soure: EU 2012

## 2.3. Impact on illegal fishing

One of the main problems with the agreement with the EU is not exactly in its content, but in the rigour of its implementation. The evaluation of the previous agreement, made in 2010, concluded that progress in terms of monitoring and enforcement are disappointing, since the agreement did not help the fight against illegal fishing (Oceanic development; MegaPesca Lda, 2011). Although a study by MRAG (2010) suggests that illegal catches in the West African sub

region vary considerably, from very low, as in Cape Verde, to very high, as in Guinea, the truth is that the dimension of the phenomenon of unreported, unregulated and illegal fishing is largely unknown (on the impact of illegal fishing in African countries, see Kimani 2009). The evaluation of the EU-Cape Verde fisheries agreement says, for example, that there is clear evidence of inconsistencies in the reports of entries and departures from the EEZ and delays or non-declaration of catches by vessels, which is facilitated by the vast extension of the Cape Verdean EEZ and the fact that landing is not made in the country. How to know exactly that vessels fishing exactly match those that have been licensed and how to control the fishing methods and catches in quantity and content if you do not have Cape Verdean observers aboard vessels or at transshipment ports.

In a context where the control of catches is increasingly hard in EU waters and where the overexploitation of fishing stocks imposes quotas leading European shipowners to seek resources outside EU waters, the agreements with countries where surveillance is less effective and there is no capacity to prepare impact assessments on fish stocks is something that should worry the EU in terms of coherence of its policies.

Indeed, although the protocol of the Fisheries Agreement with the European Union requires vessels licensed to declare catches made, only a very small percentage actually declare their catches. Existing data are not recent, but from the 96 vessels licensed in 2006, only 10 complied with the declaration of catches (9.4% of total) and, of these, the majority did not use the form provided in the agreement ( Republica de Cabo Verde 2009, Fisheries Resources Management Plan 2004-2014), which gives an idea of the scale of the problem. In recent years, observers were not mobilized for European vessels during the protocol due to financial constraints and the lack of a group formed for this purpose, and the VMS satellite system has just begun to be implemented, so the supervision has continued to be one of the main

problems of the agreement.

In addition, although there is no evidence that the agreement has contributed to the depletion of stocks, the lack of knowledge on the available stock of some species raises questions about sustainability. For example, catches reported Indicate that swordfish represents 4.7% of the estimated population, blue shark 4.5% and mako shark 3.7%, which, in a context of ignorance about the stocks and sub reporting of catches, may have uncertain effects in terms of sustainability, as already mentioned. The fact several associations of local fishermen have alerted to the large amounts of shark and swordfish catches by longliners, and the existence of incidental catches of turtles and other species points to the need to document these phenomena and ensure a realistic assessment of the impact on biodiversity.

## 2.4. Impact on the local fisheries sector

Regarding the impact of foreign fishing in the local fisheries sector, there are two fundamental aspects to highlight. One of the aspects has to do with fishing areas and the availability of fish resources.

Under the agreement, EU vessels can only operate beyond 12 nautical miles. However, some fisheries organizations and artisanal fishermen say that foreign ships have violated that zone and systematically entered in the zone reserved for industrial fishermen. This is worsened by the fact that resources are increasingly scare, forcing artisanal and industrial fishermen to travel greater distances to get less results, according to the perception of fishermen. Considering the small size of artisanal fishing vessels and the insufficient equipment available to them, this represents several risks, including security.

These data are consistent with a recent study on the perception of fishermen on the evolution of the stock of fish resources in the island of Santiago (Bouwsma J, 2009), according to which 52% of the

fishermen considered it was necessary to go fishing farther than ever before (particularly in the mackerel fishery), 78% felt that the amount of fish in the community has decreased significantly and 65% said the size of the species has also decreased, while 96% pointed out that some species have totally disappeared in the community. In some documents, including video and documentary work, fishermen describe the existence of international fishing vessels along the coast during the night or in poor visibility days, coinciding with the days of poor fishing to local fishermen. The need to fish in more distant places increases the risk, both human and material, requiring higher operating costs and reducing the profitability of fishing, which turns out to have as an indirect effect a smaller attraction of new entrepreneurs to the activity.

Thus, a major criticism of the agreement is the fact that Cape Verdean authorities respond to the inability of Cape Verdean operators to catch species away from the coast with international agreements allowing a poorly controlled capture, with little benefits for locals, instead of a greater investment in improving national fleets and conversation and transport infrastructures, so that Cape Verdean ship-owners have some ability to complete. The two types of measures are not incompatible, but should rather go side by side in order to promote a better balance.

A second aspect has to do with the supply of local industry. The promotion of the processing industry for trade in the domestic market and for export, adding value to fishery products, is a major goal in developing the sector in the country. However, the product of fishing performed under the agreement with the EU does not arrive in Cape Verde, not contribute to supply the market since the lack of a deepwater port causes a deviation from boats to Senegal. Therefore, there has not been any link between the agreements; the access has been no contribution to supply the local cannery industry, which is forced to import fish for processing.

## 2.5. Impact on food security

No fishery products caught under the Agreement have been landed in Cape Verde and the Agreement has not contributed to supplies to this market. The fisheries targeted by EU vessels operating under the Agreement are also targeted by the national fisheries of Cape Verde, with catches of migratory species (including skipjack and yellowfin tunas and some swordfish) estimated to be in the region of 2,000-3,000 tons/year (FAO 2010 Agriculture et peche: strategie de developpement a l'horizon 2015). Given that these species are caught by EU vessels both within and outside the Cape Verde EEZ, the agreement may be considered to have had impact on availability of the resources for the domestic fishery.

Furthermore the domestic fishery is pursued mainly by the artisanal fishery operating close to shore and well within the territorial waters, where the EU vessels operating under the agreement sometimes capture of the fish. Therefore there may have direct interaction between the national and EU fleets.

Overall the agreement has therefore had negative impacts on the food security situation in Cape Verde. Conversely, by supporting, through the policy support measures, the development of new landing and distribution infrastructure and improved quality control, there is more likely to a positive impact of the Agreement on food security (albeit still to be realized).

## V. Conclusion

From the overview of my research, I drawled the conclusion related to the impact of the agreements signed between Cape Verde and the EU within the framework of exploitation of fishery resources in its EEZ on its economy and food security.

To achieve this objective, I used multiple sources from Directorate General of fisheries of the Cape Verde, FAO, and the data of many publications; I noticed the income that Cape Verde obtained under the current protocol in 2011 and 2012, related to fishing authorizations that Cape Verde has obtained under the current protocol have been respectful of the order of 180,000 and 520,000 Euro. The budget assigns for sectorial support by PPA provided 215,000 Euro and 630,000 Euro respectively in 2011 and 2012, close to annual revenue in Cape Verde. As regards the fisheries sector, it is central for the Cape Verdean economy, particularly in terms of exports (as shown by the effects of the EU embargo); although much remains to be done to fully realize their potential. Small scale and industrial fishing remains at similar values over the years, vessels remain obsolete and there are shortcomings to address in the handling and conservation of fish. The Compensation given by the EU, which Cape Verde has committed to use by 100% for the development of the fisheries sector, reveal themselves clearly insufficient, either in relation to identified needs, or to the value of the fishery resources to which EU fleets have access.

I also noticed that the tuna and other oceanic pelagic species captured in the EEZ of Cape Verde are not landed in one of the ports of the archipelago. They are transshipped in the port of Mindelo for longline vessel and landed at the port of Abidjan (Ivory Coast) and Dakar for tuna seiners and in the Port of Dakar for bait boats. The Fishing activities of EU vessels have therefore overall no impact on the supply of Cape Verde and that local markets in spite the incentive measure to reduce the cost of the license included in the protocol. It is

also pertinent to note that the level of integration of activities carried out under the agreements with other socioeconomic sectors in the Cape Verde is extremely reduced. With the aim of enhancing this integration, it is important to impose on EU vessels that fish caught in Cape Verdean waters be landed in Cape Verdean ports and sold to local processing plants will enable Cape Verde to increase its sales of higher value fishery products. A similar obligation existed, for example, in past EU agreements with Senegal. Currently, all valued added to the raw products that Cape Verde sells via the EU fisheries agreements accrues to the European states where that fish is processed. Such a measure, would, however, be met with resistance from the part of EU shipowners who currently sell their catches in European ports at much higher prices than those paid by Cape Verdean processing plants.

In terms of employment creation, about 70 job positions were created by the European vessel in favor of the Cape Verde, which remains insufficient with regard of the fishery resources potentialities and development objective of the country. Until the Cape Verde has its own fishing vessels, it is extremely important that Cape Verde invest in a comprehensive dialogue and consultation for the fisheries sector, particularly in the context of the National Fishing Commission, training and informing fishermen about the contents of external agreements, so that they can defend the interests of the fisheries sector in Cape Verde and by the same created more employment for the Cape Verdeans. The Cape Verde have not invested in the construction of ports to prevent vessels from the EU to make transshipment in other neighboring countries. The issue of the taking on board observers should be looked into with some urgency. The system currently in place has unequivocally failed. One may ask whether it should not be replaced by a system where observers are made compulsory, either on all or on randomly assigned EU vessels, and paid for by the EU.

I also find that the very legal precondition for the agreements,

namely the evidence of a resource surplus that EU fleets may harvest, can actually be put into question, as neither available stocks, nor actual catches are known with exactitude. In this context, it is particularly worrisome that EU vessels continue to fail to report their movements and especially their catches to Cape Verdean authorities, in clear breach of the agreements. Because in Cape Verde there is a generalized insufficiency of means to patrol the respective EEZ and to inspect vessels at sea, EU vessels operate with almost complete impunity. To do so, the Cape Verde must to foster a greater monitoring and inspection of catches, investing not only in expensive surveillance systems by satellite, but also taking advantage to forming a body of fisheries inspectors by putting them in the vessels from EU. EU must to impose stricter procedures to its vessels regarding the periodicity and the exactitude of these communications, but also the Cape Verde authorities have to more firmly impose sanctions on EU vessels not fulfilling their obligations.

The Cape Verde have lack of specific fisheries management and fish market system already in place, like fixing a maximum number of licenses (or tonnage), in line with ICCAT recommendations; uncontrolled catch of live bait within 12 miles limits and fishing for demersal catches; the TAC (Total allowable catch) of bigeye tuna 85,000 tons  31,200 tons for EU ( Spain, France Portugal) in 2014; no purse seine and pole and line vessels fishing during November in the area encompassed by 0°-5° N, 10°-20° W. For the yellowfin tuna, effective fishing effort not to exceed 2008 level. The government of Cape Verde have also a lack to sale a part of catches in the EEZ to supply national industry and fish market in order to increase local value added from the protocol and alleviate raw material supply problems for local processing industries.

As regards on food security, overall agreement has had negative impacts on the food security situation in Cape Verde. Conversely, by supporting, through the policy support measures, the development of

new landing and distribution infrastructure and improved quality control, there is more likely to a positive impact of the agreement on food security (albeit still to be realized).

Finally it is important to indicate that if the income for the treasury is important, it is up to the responsible for the fisheries sector of Cape Verde to invest in a program of control and surveillance of the ZEE of the Cape Verde, in order, not only to bridge the difference between the currently received pension and the pension which he could perceive. This responsibility rests with also the EU and in government of Cape Verde to make sure that FPA fosters a fair and mutually beneficial platform for economic development, food security and responsible fisheries based on the marine resources of Cape Verde.

I recommend that the government of Cape Verde have to make many cold storage and them the next protocol should include an obligation to sell catch to national processors with a correct price. Make a port whose the management system will enable Cape Verde to control all the operations taking place in this port and provide a single application to integrate operations involving agents, the maritime authority, the customs authority, sanitary works, border control and commercial activities. This port will be comprehensively adapted technologically, that will achieve more fluid and secure exchange of information, simplification of administrative management, increased efficiency and greater control in the transport of freight and commercial activities.

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