REPUBLIC OF CYPRUS

**MINISTRY OF AGRICULTURE
NATURAL RESOURCES
AND ENVIRONMENT**

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CYPRUS ANNUAL REPORT ON EFFORTS DURING 2016 TO ACHIEVE A SUSTAINABLE BALANCE BETWEEN FISHING CAPACITY AND FISHING OPPORTUNITIES

Prepared in accordance with Commission Regulation (EU) 1013/2010

Nicosia, May 2017

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Introduction

Article 22 of Regulation (EU) No. 1380/2013 and Article 13 of Commission Regulation (EC) 1013/2010 provide for the submission of an annual report by the Member States on their effort during the previous year to achieve a sustainable balance between fishing capacity and fishing opportunities.

The structure of the present report is based on the required elements specified in Article 14 of Regulation 1013/2010, in accordance with the current Guidelines[1]. The relevant findings and advice of STECF (most updated STECF-16-18 reviewing EWG-16-09) have also been taken into account for the preparation of the report.

According to Article 14(2) of Regulation (EC) 1013/2010, "*The reports by Member State shall not exceed 10 pages*". Due to this limitation, certain information is provided in Annexes.

A. Description of the fishing fleets in relation to fisheries: developments during the previous year, including fisheries covered by multiannual management or recovery plans

A.(i) *Description of fleets*

The Cyprus fishing fleet included in the Fleet Register on the 31st of December 2016 was composed of 842 fishing vessels. **Table 1** provides information on the capacity of the different segments of the fleet, which are based on the fleet segmentation proposed by the DCF (Appendix III of Decision 2010/93/EU). Capacity values for 2016 and 2015 refer to 31st of December of the relevant year, while values for 2004 refer to 1st of May – day of accession of Cyprus to the EU.

It should be noted that there are restrictions on the number of licenses provided each year in the different fleet segments, and that the Fleet Register includes a number of vessels that are not licensed. It is clarified that each license may have been given or suspended at any time during the year; therefore the total number of licenses at any given time may differ from the total number of licenses issued during the year. It is further clarified that a vessel may receive more than one license.

The terms (obligations and restrictions) for each fishing license category are provided online at the following link (in greek):

http://www.moa.gov.cy/moa/dfmr/dfmr.nsf/All/377DC6D5E1EC841642257D9E002F3AF2?OpenDocument

The vessels using *Polyvalent passive gears with length 0-< 6m and 6-< 12m* compose the small scale inshore fleet and operate mainly with bottom set nets and bottom longlines, targeting demersal species. As it is shown in Table 1, they represent the large majority of the fishing vessels in the Register (95%). Cyprus Fisheries Law[2] provides for a limited number of licenses for this segment annually and divides it into three (3) subcategories: vessels with fishing license category A', vessels with fishing license category B' and vessels with fishing license category C'.

The vessels with license A' or B' have basically length 6-<12m and are allowed to operate every day all year round, with a number of restriction measures on the use of fishing gears and minimum landing sizes, according to the national and community law. The main gears used are trammel nets (GTR), set gillnets (GNS) and set longlines (LLS). Coding used in the current report for Polyvalent passive gears with length 0-< 6m and 6-< 12m of category A&B is *PG VL0006 (Category A&B)* and *PG VL0612 (Category A&B)*.

[1] COM(2014)545 final – Communication from the Commission to the European Parliament and the Council Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Art 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy

[2] Basic Fisheries Law Cap. 135 and subsequent amendments of 1961 to 2007,
Fisheries Regulations of 1990 to 2012 based on Article 6 of the Basic Law

The vessels with license category C' are mostly 0-<6m and have a limited fishing effort. By Law, the maximum allowable working days for this category are 70 days, and can be exercised only in the weekends. There are very strict measures on the use of fishing gears. Maximum allowable length of nets is 600m, and maximum number of longlines is 2 with no more than 200 hooks each. The primary gear used is trammel nets (GTR) and the secondary gear is hand and pole lines [LHP]. Coding used in the current report for Polyvalent passive gears with length 0-< 6m and 6-< 12m of category C is *PGO VL0006 (Category C)* and *PGO VL0612 (Category C)*.

During 2016, 740 licenses for the small scale inshore fleet were issued. Specifically, there were 325 licenses for A & B category (28 with length 0-<6m, 297 with length 6-<12m), and 415 licenses for the C category (342 with length 0-<6m, 73 with length 6-<12m).

During 2016 two vessels received license for operating with purse seines (for small pelagic) in territorial waters, one non-exclusive trawler and one registered as *Purse seiner* in the Fleet Register.

The vessels using *Polyvalent 'passive' gears with length ≥12m* range from 12-26m (the large majority from 12-18m) and are engaged in two fisheries; mainly in the large pelagic fishery using drifting longlines and operating around Cyprus waters and the eastern Mediterranean (targeting swordfish, bluefin tuna and albacore), but also in the inshore demersal fishery using mostly set nets and set longlines. A limited number of licenses are provided for this segment annually. Furthermore, closed seasons, restriction measures on the use of gears and minimum landing sizes are employed, in accordance to national and community regulations. During 2016, 28 vessels of this segment received licenses. In addition, 3 non-exclusive trawlers and also the purse seiner received license for operating in the large pelagic fishery with drifting longlines.

Demersal trawlers range from 22-27 m. The licensed trawlers are categorised, based on their type of license, in those fishing in the territorial waters of Cyprus and those fishing in international waters (eastern and central Mediterranean). Restriction measures on the use of trawl nets and minimum landing sizes are employed for all licensed trawlers, in accordance with national and community law. For the trawlers fishing in territorial waters a limited number of licenses is provided every year, and an extended closed season (from 1st of June until the 7th of November) is employed since the '80s. A *Management Plan for the Bottom Trawl Fishery Within the Territorial Waters of Cyprus* is implemented since the end of 2011, based on Article 19 of Council Regulation (EC) 1967/2006 (Mediterranean Regulation). The national technical measures introduced in the Management Plan for the Bottom Trawl Fishery include the restriction of the number of licensed bottom trawlers to 2, and the restriction of 2 areas from fishing with trawl nets on a rotational basis. Other provisions of the Mediterranean Regulation in the relevant Management Plan include minimum distance from the shore and minimum depth.
During 2016 7 trawlers received fishing licenses for operating with trawl nets; two received licenses for fishing in territorial and also in international waters, while the remaining 5 received license for fishing only in international waters. As it has already been mentioned, 3 of the 7 trawlers receive a license for participating at the large pelagic fishery as well.

A.(ii) *Link with fisheries*

The bottom trawl fishery in the territorial waters and the inshore fishery with polyvalent passive gears target a mix of demersal species, as it is the case in all Mediterranean demersal fisheries. The exploited stocks are not shared with other countries' fleets. Landings of both fisheries are mainly composed by *Spicara smaris*, *Boops boops*, *Mullus barbatus*, *M. surmuletus*, *Pagellus erythrinus* and cephalopods (*Octopus vulgaris*, *Loligo vulgaris* and *Sepia officinalis*). The inshore fishery with polyvalent passive gears catches also relatively large quantities of *Sparisoma cretense, Spicara maena* and *Siganus* spp.

The average landings of the bottom trawl fishery in territorial waters and the inshore fishery with polyvalent passive gears, for the period 2013-2015, were ~ 120 t and 605 t respectively. The average landings of the main demersal commercial species of each fishery for the same period are provided in **Table 2**.

Bottom trawlers in international waters operate in the central and eastern Mediterranean, catching *Merluccius merluccius*, *P. erythrinus*, *M. surmuletus*, *M. barbatus*, *Spicara* spp., *B. boops* and cephalopods. The average landings in international waters for the period 2013-2015, according to the available data, were ~40 t in the central Mediterranean and ~30t in the Eastern Mediterranean.

Concerning the large pelagic fishery, polyvalent vessels operate in the Eastern Mediterranean, catching *Xiphias gladius*, *Thunnus alalunga* and *Thunnus thynnus* with drifting longlines. *T. thynnus* is under a multiannual recovery plan, in accordance with Council Regulation (EU) No. 302/2009 (repealed during 2016 by Regulation (EU) 2016/1627). A 15 year Recovery plan of Mediterranean swordfish will be also implemented starting from 2017. The average landings of the above large pelagic species for the period 2013-2015 are provided in **Table 3**.

A detailed table with information on landings by species and by gear in 2015 is provided in **Annex I**.

Table 1: Description and development of Cyprus fishing fleet; values refer to 31st of December of the relevant year, while values for 2004 refer to 1st of May.

	2016			2015			2004			Change in 2016 - 2004		
	GT	kW	No.	GT	kW	No.	GT	kW	No.	GT (%)	kW (%)	No.(%)
Vessels using Polyvalent 'passive' gears only 0-<6m	403	11,195	395	395	11116	394	100	1,640	104	303	583	280
Vessels using Polyvalent 'passive' gears only 6-<12m	1448	20,239	409	1413	19654	403	2,297	26,699	720	-37	-24	-43
Vessels using Polyvalent 'passive' gears only 12-<18m	628	4285	28	523	3781	25	654	6,364	36	-4	-33	-22
Vessels using Polyvalent 'passive' gears only 18-<24m	80	320	1	80	320	1	419	2,412	9	-81	-87	-89
Vessels using Polyvalent 'passive' gears only 24-<40m	108	220	1	108	220	1	208	668	2	-48	-67	-50
Vessels using Polyvalent 'passive' gears only >=40m	0	0	0	0	0	0	415	736	1	-100	-100	-100
Demersal trawlers 18-<24m	103	260	1	103	260	1	1,344	3,513	13	-92	-93	-92
Demersal trawlers 24-<40m	667	2110	6	667	2110	6	1,363	4,146	12	-51	-49	-50
Demersal trawlers >=40m	0	0	0	0	0	0	5,008	6,016	2	-100	-100	-100
Purse seiners 18-<24m	51	270	1	51	270	1	51	270	1	0	0	0
Purse seiners 24-<40m	0	0	0	0	0	0	135	589	1	-100	-100	-100
Total	3,488	38,899	842	3,339	37,731	832	11,994	53,052	901	-71	-27	-7
Note: Situation as registered in the Community Fleet Register on 2/5/2017.												

Table 2: Average landings (t) of the main demersal species in Cyprus waters for the period 2013-2015.

Table 2: Average landings (t) of the main demersal species of the Cyprus fishery for the period 2013-2015			
Species		Inshore fishery with polyvalent passive gears	Trawl fishery (CYP waters)
Boops boops	BOG	87	9
Diplodus sargus	SWA	12	
Diplodus vulgaris	CTB	3	
Mullus barbatus	MUT	10	14
Mullus surmuletus	MUR	28	2
Octopus vulgaris	OCT	35	2
Pagellus erythrinus	PAC	6	4
Pagrus pagrus	RPG	8	
Sepia officinalis	CTC	17	
Siganus spp.	SPI	29	
Sparisoma cretense	PRR	26	
Spicara maena	BPI	27	
Spicara smaris	SPC	30	63

Table 3: Average landings (t) of the main species of the Cyprus large pelagic fishery for the period 2013-2015 caught by surface longlines.

Species		Landings (LLD) in tons
Thunnus alalunga	ALB	435
Thunnus thynnus	BFT	19
Xiphias gladius	SWO	52

A.(iii) Development *in fleets*

As shown in Table 1, from the 1st of May 2004 until the 31st of December 2016 the Cyprus fishing fleet was reduced by 71% in tonnage, 27% in power and 7% in number of vessels.

During the period 2004-2016 there has been a capacity increase in the fleet segment "vessels *using polyvalent gears 0-<6m*" with the entry in the Register of a large number of vessels with length <6m, following the creation by Law in 2007 of a new category of small scale inshore fishing license (category C, see section A(i)). For all other fleet segments, there has been a capacity reduction in terms of tonnage, power and number of vessels.

Until the 31st of December 2016, exits financed with public aid involved vessels from the three main fishing fleets as follows:

- destruction of 17 vessels using polyvalent passive gears (12-24m LOA), with tonnage and power
- destruction of 4 demersal trawlers and change of activity (RET) of 2 demersal trawlers,

- destruction of 173 small scale inshore vessels (<12m, category license A&B): 107 vessels destructed in 2013, 65 vessels in 2015 and 1 vessel in 2016 (January).

B. Impact of fishing effort reduction schemes on fishing capacity

B.(i) Statement *of effort reduction schemes*

An action plan was made in 2013 and 2014 concerning small scale inshore vessels (vessels with polyvalent passive gears 0-<12m with category licenses A&B), following the demonstration of imbalance between their fishing capacity and fishing opportunities in the 2013 & 2014 Cyprus Balance Reports. The basic tool for achieving balance was the permanent cessation of fishing activities through scrapping or heritage function. The action plan that was included in the 2013 and 2014 Balance Reports was implemented during 2015 and was finalised early 2016.

The *Management Plan for the Bottom Trawl Fishery Within the Territorial Waters of Cyprus*, which is based on Article 19 of Council Regulation (EC) 1967/2006 (Mediterranean Regulation), is implemented since the end of 2011. The plan restricts the number and the fishing activity of the bottom trawlers operating in territorial waters. An action plan was proposed in the 2016 Balance Report for the 2 demersal trawlers operating in territorial and international waters.

B.(ii) Impact *on fishing capacity of effort reduction schemes*

Following the action plan included in the 2013 and 2014 Balance Reports, during 2015 65 small scale inshore vessels (and one vessel in January 2016) were permanently withdrawn. The resulting capacity reduction was 189.74 GT (186.62 GT in 2015 and 1.55 GT in 2016) and 2863 kW (2797.08 in 2015 and 14.92 in 2016).

The national technical measures introduced in the Management Plan for the Bottom Trawl Fishery include the restriction of the number of licensed bottom trawlers to 2, and the restriction of 2 areas from fishing with trawl nets on a rotational basis (northwest part of Cyprus from 8 November – 15 February every year and southeastern part of Cyprus from 16 February-31 May every year). The 2016 action plan for the 2 demersal trawlers operating in territorial and international waters does not result in any capacity reductions.

C. Statement of compliance with entry / exit scheme and with level of reference

Cyprus ensures that at all times the fishing capacity in tonnage (GT) and power (kW) is equal or less than the fishing capacity at its accession date as adjusted, according to the provisions of Article 8 of Regulation (EC) 1013/2010 and Article 23 of Regulation (EU) 1380/2013.

The evolution of the fleet capacity of the Cypriot fleet (in tonnage and power) compared to its tonnage ceiling, as registered in the Community Fleet register, is provided in **Annex II**.

D. Strength and weaknesses of the fleet management system together with plan for improvements and information on general level of compliance with fleet policy instruments

D.(i) *Summary of weaknesses & strengths of fleet management system*

The Department of Fisheries and Marine Research (DFMR) is the single authority responsible for the management of fisheries resources and fishing fleet (management measures, issue and management of fishing licenses, control of fishing activities and VMS, record of logbooks, structural funds concerning fisheries). Management measures employed refer to effort restrictions. Until 2016, TACs have been applicable only for

Bluefin tuna, while from 2017 the quota management system will be also applicable for Mediterranean swordfish (as in the rest of the Mediterranean countries).

Strengths of fleet management system

- Having a single authority for the management of fisheries resources and fishing fleet, as mentioned above, the following are ensured: continuous and precise update of the Fleet Register, monitoring of entries and exits, rapid and efficient evaluation of the eligibility of possible requests to increase tonnage, collection of all necessary information related with the management of the fleet, efficient effort monitoring through VMS and cross-check of effort logbook data, and efficient monitoring and inspection of Bluefin tuna catches.
- The Cyprus Fisheries Law provides for a maximum limit of fishing licenses for the different fleet segments, allowing the Director of the DFMR adjustments on the number of licenses issued year-by-year.
- Fishing licenses are linked to both the vessels and the fishermen.

Weaknesses of fleet management system

- At the moment, the Cyprus Fisheries Law provides for a short duration of fishing licenses (1-3 years), with the possibility of renewal. The evaluation of the applications for the fishing licenses, the selection and the issue of licenses require high administrative effort and are very time-consuming, considering the limited number of DFMR employees engaged with licensing. Furthermore, this short duration of licenses may not be considered secure enough by the fishermen, and may lead to an "opportunistic" fishing behavior with no long-term vision for economic sustainability.
- The absence of auction markets, the existence of many small landing sites and the fact that the majority of the fishing fleet is under 10m create difficulties in monitoring and evaluating the accuracy of the landings and fishing effort.

D.(ii) Plan *for improvements in fleet management system*

An upgrading of the Cyprus Fleet Register system started during 2016, which will be finalized during 2017. With this upgrading, the system will be automatically connected with the DFMR Database on Licenses, thus any modifications on the licenses will be automatically updated in the Fleet Register system.

The Cyprus Fisheries Law is under revision process. The modifications concern the criteria for obtaining a fishing license, adjustment of the maximum allowable number of fishing licenses of the inshore small scale fleet (in accordance with scrapping schemes), multi-year duration of fishing licenses, possibility of transferable licenses, and further restrictions for the recreational fishery. The modifications aim to adjust the fishing capacity of the small scale inshore fleet, relieve administration burden on the issue of licenses, reduce the fishing effort exercised by the recreational fishery and assist the work of the control division. The Legal Services of the Cyprus Republic finalised the revision of the proposed modifications of the Cyprus Fisheries Law in late 2016; the revised law remains to be approved by the Cyprus Council of Ministers and the Parliament.

It should be clarified that the adjustment of the maximum allowable number of fishing licenses of the inshore small-scale fleet in accordance with scrapping schemes is already been done; the maximum number of licenses was adjusted in 2014, following the 2013 scrapping scheme, and was further adjusted in 2016 following the reduction scheme in 2015 (and early 2016).

D.(iii) *Information on general level of compliance with fleet policy instruments*

Cyprus considers a priority the adjustment of the fishing capacity of its fleet, for achieving a balance between the resources and the fishing capacity. It complies with the provisions of Article 23 of Regulation (EU) 1380/2013, Regulation (EU) 1013/2010, Regulation (EC) 26/2004 on the management of entries and exits, the increase in tonnage (for improving safety, working conditions, hygiene and product quality), the collection, transmission and exchange of information and the financial support through the EMFF on the adaptation of its fishing fleet.

Specifically, Cyprus ensures that at all times the fishing capacity in tonnage (GT) and power (kW) is equal or less than the fishing capacity at its accession date as adjusted, through a continuous and precise update of the Fleet Register, evaluation of the eligibility of possible requests to increase tonnage, monitoring of entries and exits. Necessary information related with the management of the fleet are collected, for evaluating the availability of fisheries resources in relation to the active Cyprus fleet.

Efforts to implement the National and Community Legislation continued in 2016 in order to ensure compliance with the Common Fisheries Policy of the EU and to accomplish the best possible management of the resources. During 2016, the decree put into force was the Application of Community Decisions and Community Regulations that concern the Fisheries Sector, Law 134/2006 (11th Modification of Annexes of Law - Decree 171/2016). The Decree includes, among others, delegated Regulations of Regulation (EU) no. 508/2014 on the European Maritime and Fisheries Fund, Regulation (EU) 2016/72 fixing fishing opportunities for 2016, and Regulation (EU) 2015/812 amending Regulations as regards the landing obligation.

The DFMR is using modern technologies in a wise, proper and effective way, in order to identify and combat illegal fishing activities. During 2016, the monitoring of fishing activities via VMS of the vessels with overall length more than 12 meters and the cargo vessels was successfully carried out by the Fishing Monitoring Center (FMC). The VMS, which was upgraded in 2015, provides more information and ease of use, but also it can be used in combination with the Electronic Reporting System (ERS) for the conduct of cross checks. With the upgrade, data exchange from the VMS with other Member States, the EU, the EFCA (European Fisheries Commission) and NEAFC (North East Atlantic Fisheries Commission) continued successfully throughout 2015.

Electronic Reporting System is compulsory for the fishing vessels with length more than 12m, with some exceptions for vessels between 12-15m, and for the registered buyers with an annual financial turnover in first sales of fisheries products of more than €20 000. The FMC is monitoring the fishing activities of the vessels via ERS and when there is a need, the VMS data are crosschecked with the ERS data. During the year, DFMR has successfully exchanged ERS data with the EU and the EFCA. In 2017, it is expected that VMS and ERS will be exchanged via the transportation layer and using the new formats for fishing activities and sales notes. Also, it is expected that catch reporting will be automatic and sent to the EU via the transportation layer.

In 2016 the Fisheries inspection and Control System (FICS) was delivered, in which Fishery Inspectors submit data relevant to control and inspections of fishing vessels and recreational freshwater dam fishery, as well as data relevant to the trade of fishery products. Beyond the information submitted by the above users, the system draws data from the Fisheries Resource Management System (FRMS) via the internet. The main goal of the FICS is to improve control and inspection conduct and procedures, providing better information for the Inspectors carrying them out.

During 2016, DFMR Inspectors made 500 patrols along the coast, in harbours and fishing shelters, at selling / storage facilities of fishery products and to inland waters and 110 patrols at sea. Within the framework of the Joint Deployment Plan for the conservation of Bluefin tuna fisheries, DFMR conducted 30 patrols at ports regarding polyvalent vessels that fished using longlines and another 15 patrols were performed at sea regarding the same fleet specifically for the control of fishing activities of Bluefin tuna.

During the above-mentioned patrols, a total of 770 inspections and 2802 controls were carried out for compliance purposes with the National and Community Legislation. Within the year 2016 DFMR reported a total of 188 Infringements, of different categories of offenses.

E. Information on changes of the administrative procedures relevant to the management of the fleet

As mentioned also in section D (ii), the Fisheries Law is under amendment, among others for modifying the management system of limited licenses (criteria for obtaining a fishing license, duration and transferability of fishing licenses).

During 2015 a technical committee was established, composed by representatives of the DFMR and the Fisheries Association of Small Scale Inshore Fishery (A&B category), for discussing technical issues related to the management of small scale fleet (A&B categories). The work of this technical committee resulted in 2016 to the decision of the DFMR Director to allow the small scale fleet the use of a specific net for targeting *Spicara smaris*, under certain conditions.

With the upgrading of the Fleet Register, which is expected to be finalised during 2017, procedures will be automatic for cross-checking information and updating any modifications of the vessel, the license and owner status.

F. Estimation and discussion of balance indicators

Given the 10 pages limitation of the report and the extent of the indicators, information on the estimation of indicators and relevant discussion are provided in **Annex III**. For the estimation of the indicators, the requirement of Article 22§3 of Regulation (EU) 1380/2013, to draw "*separate assessments for fleets operating exclusively outside Union waters"* was considered; to meet this requirement, a disaggregation of the trawler fleet was made where possible.

G. Statement of MS opinion on balance of fleet capacity and fishing opportunity

Based on an overview of the estimated balance indicators in traffic light system, the fishing capacity of the different fleet segments in relation to the fishing opportunities is as follows:

- Demersal trawlers operating in both territorial and outside Union waters are fully utilized. The estimated SHI is positive (<1), since the main species exploited by the fleet (*Spicara smaris* and *Mullus barbatus* in GSA25*)* are fished sustainably. Concerning the economic indicators, it is noted that they are common for all trawlers, including the trawlers operating exclusively in non-Union waters; the reason for clustering all trawlers for the estimation of the economic indicators is explained in Annex III. Although the economic performance has improved compared to previous year, this segment is still in a net loss-making position. This is a conclusion based not only on the two economic indicators but also on a more thorough economic analysis performed for the Annual Economic Report. It can be suggested that the fleet is not in balance with the exploited resources from an economic perspective. An action plan was proposed in 2015, and it is not considered that an additional action plan for this segment is required.

- The vessels with polyvalent passive gears 0-6m (small scale inshore fishery with category licenses A&B) seem to some extent underutilized, suggesting technical overcapacity. The estimated negative SHI (>1) is based on three stocks, two of which are sustainably exploited. The 3 stocks contributing to the biological indicator reach around 16% of the value of landings. The RoFTA is slightly negative, while the ratio CR/BER is almost 1; these results do not clearly suggest that the segment shows overcapitalization. However, this economic result should be treated with caution, since the information is based only on questionnaires, due to the absence of financial accounts and logbooks. An action plan for the small scale inshore fleet (0-12m with category license A&B) was implemented in 2015, based on the conclusions of previous reports that an action plan was required. The results of the action plan (i.e. permanent cessation of 66 vessels) cannot be evidenced in the current report, since the most recent data used for estimating the biological and economic indicators refer to 2015. Based on all the above, it cannot be concluded that this fleet segment is not in balance with the resources, and no additional action plan is proposed.

- The vessels with polyvalent passive gears 6-12m (small scale inshore fishery with category licenses A&B) seem to some extent underutilized; however, this can be explained by the fact that during 2015 more than 60 vessels were permanently withdrawn. The estimated negative SHI is based on three stocks, two of which are sustainably exploited. The 3 stocks contributing to the indicator reach around 20% of the value of landings. The RoFTA is negative but with positive trend; it was significantly improved compared to the previous year. The ratio CR/BER is positive and much higher than previous year, showing that the income is not enough for covering the costs; however, this result should be treated with caution since the information is based only on questionnaires, due to the absence of financial accounts and logbooks. In overall, there seems to be an improvement of the economic performance and the reliance to sustainably exploited stocks. It is reminded that an action plan for the small scale inshore fleet (0-12m with category license A&B) was implemented in 2015, based on the conclusions of previous reports that an action plan was required. The results of the action plan (i.e. permanent cessation of 66 vessels) cannot be evidenced in the current report, since the most recent data used for estimating the biological and economic indicators refer to 2015. Based on all the above, no conclusion can be reached whether this segment is in balance with the fishing opportunities, and no additional action plan is proposed.

- The vessels with polyvalent passive gears 12-18m show a heterogeneous activity, which is considered to exist due to the different fisheries exercised by the fleet, rather than due to a technical overcapacity. The SHI is negative, basically due to the exploitation of swordfish that at the moment is not sustainably exploited and for which ICCAT established a multiannual recovery plan in 2016. Since this fleet relies mostly on albacore, for which a stock assessment is expected in 2017, it is considered that the current SHI does not provide sufficient information on the reliance of this fleet on healthy stocks. Both economic indicators are negative, suggesting an economic over-capitalization; however, this result should be treated with caution because of the high difference from previous years and the fact that the information for many of these vessels is based on questionnaires, due to the absence of financial accounts. In conclusion, the estimated indicators do not suggest that this fleet segment is in imbalance with the resources.

- Demersal trawlers operating exclusively outside Union waters are under-utilised; however, this is not considered an indication of technical overcapacity, taking into account the small number of licensed vessels, and the possibility of the fleet to exploit a variety of stocks all over the Mediterranean Sea (international waters). The estimated SHI suggests that the fleet relies on stocks that are overfished; the stocks contributing to the indicator increased compared to previous reports, since additional relevant stock assessment results became available. The economic indicators, estimated for all trawlers, suggest that although the economic performance has improved compared to previous year, this segment is still in a net loss-making position. The reason for clustering all trawlers is explained in Annex III. In conclusion, there is not sufficient information to suggest whether this fleet is in balance.

- The vessels with polyvalent passive gears with length 0-< 6m and 6-< 12m of category C [*PGO VL0006 (Category C)* and *PGO VL0612 (Category C)]* show a heterogeneous activity. The estimated negative SHI is based on three stocks, two of which are sustainably exploited. The 3 stocks contributing to the indicator reach around 12% of the value of landings. Due to the very limited fishing effort that they can exercise by Law, i.e. a maximum allowable of 70 working days, which can be exercised only in the weekends, and many limitations on the use of fishing gears [see Secion A(i)], it is considered that a statement of the fishing capacity of these fleet segments in relation to the fishing opportunities is not applicable.

H. Action Plan

Demersal trawlers operating in territorial and international waters

An action plan for the *demersal trawlers operating in both territorial and non-EU waters* was proposed in the Cyprus Balance Report for 2015, setting the adjustment targets and tools to achieve a balance for the fleet by 2020.

The proposed measures included the establishment of fisheries restricted areas either permanently or at seasonal level. This measure is expected to be beneficial also for the small scale inshore fleet, considering that the two fleets share common fisheries resources. The updated proposed time-frame is the following:

- Adoption in 2017 of the management plan for the Natura 2000 site in Cavo Greko (southeast of Cyprus), which includes additional restrictions on fishing activities.
- Establishment by 2018 of a fisheries restricted area in northwest of Cyprus; the area has been proposed following consultation with scientists, fishermen and other stakeholders.
- Consultation with stakeholders in 2017-2018 for introducing a whole year area closure for trawling in the northwest of Cyprus, where there are indications that it is an area of biological importance; it should be mentioned that in this area there is already in place a seasonal closure for trawling.

Additionally, it is planned to intensify control inspections on trawl activities in territorial waters. The possibility of implementing additional control measures concerning trawlers, including the obligatory use of CCTVs, is being evaluated.

A further way for achieving an economic balance between the fleet segment and its fishing opportunities is to reduce its reliance on demersal stocks fished at territorial waters by differentiating the target species/fishery.

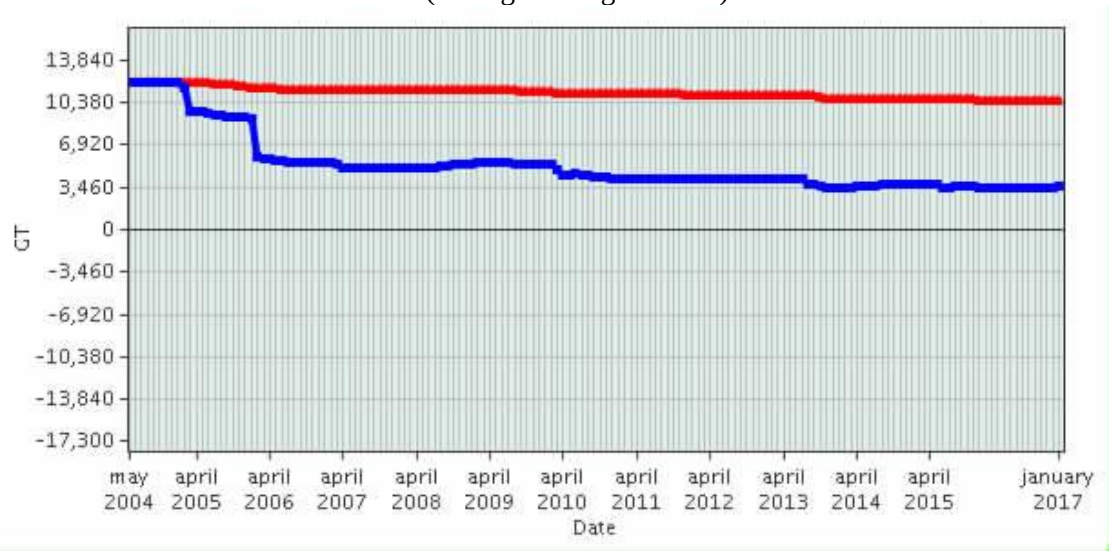
ANNEX I - Landings (kg) by species and gear in 2015 by vessels flying the Cyprus flag.

Species	OTB			PS	LLD	Passive gears (except LLD)	All gears
	Territorial Waters	International Waters		Territorial Waters		Territorial Waters	
		Central Med.	Eastern Med.				
ALB	0	0	0	0	502,251	9,252	511,503
AMB	74	0	0	50	0	8,041	8,165
ANE	0	0	3	0	0	1,186	1,189
ANN	0	0	0	0	0	1,195	1,195
AOM	278	0	0	0	0	1,898	2,176
BAR	0	0	0	0	0	2,657	2,657
BFT	0	0	0	0	22,327	0	22,327
BOG	12,133	1,123	1,998	7,705	0	97,350	120,308
BON	0	0	0	0	0	1,085	1,085
BPI	507	0	0	0	0	52,628	53,135
BSS	11	0	0	0	0	18,155	18,166
CBR	3,854	0	73	0	0	71,392	75,318
CLP	322	0	764	280	0	1,713	3,079
CTB	0	0	0	0	0	3,863	3,863
CTC	129	0	0	0	0	4,562	4,691
CVX	0	0	0	0	0	815	815
DEC	48	50	9	0	0	2,634	2,740
EFJ	456	0	197	0	0	824	1,477
FIO	0	0	0	0	0	2,757	2,757
FRZ	13	0	0	0	0	1,103	1,116
GPD	0	0	0	0	0	4,274	4,274
GUX	357	1,740	2,066	0	0	95	4,258
HCZ	0	0	0	0	0	33,869	33,869
HKE	712	6,590	30	0	0	1,938	9,270
IAX	478	1,350	1,785	0	0	10,523	14,136
IGU	0	0	0	0	0	3,975	3,975
JAX	542	100	478	0	0	2,349	3,469
JOD	147	830	14	0	0	54	1,044
LFX	0	0	0	0	0	13,202	13,202
LFZ	0	0	0	0	0	1,396	1,396
LIX	1,919	0	795	0	0	1,747	4,461
LTA	0	0	0	0	0	9,962	9,962
MAC	67	0	0	0	0	458	525
MAS	6	0	0	728	0	5,337	6,071
MAZ	0	170	0	5,070	0	147	5,387
MNZ	0	570	0	0	0	9	579
MUL	19	0	0	0	0	2,984	3,002
MUR	3,191	16,542	3,683	0	0	30,447	53,863
MUT	14,331	240	13,514	0	0	7,833	35,918
MZZ	1,348	0	0	0	0	34,756	36,104
OCC	27	0	0	0	0	2,819	2,846
OCT	1,461	970	1,389	0	0	19,851	23,671
OIL	0	0	60	0	1,709	0	1,769
OMZ	0	2,205	0	0	0	0	2,205
PAC	4,667	1,809	3,120	0	0	5,944	15,540
PEZ	55	610	0	0	0	30	695
PIC	7,264	0	728	0	0	12,375	20,367
PRR	9	0	0	0	0	28,575	28,584
PUX	0	0	0	0	0	21,886	21,886
RAJ	0	1,505	0	0	0	0	1,505
RPG	23	9	59	0	0	6,367	6,458
RRH	0	0	0	100	0	862	962
SBA	9,041	0	7,391	0	0	15,736	32,168
SBG	41	0	17	0	0	30,010	30,068
SBS	0	0	0	0	0	985	985
SCS	1,200	2,040	12	0	0	5,172	8,424
SKA	20	0	0	0	0	1,752	1,772
SLM	0	0	0	0	0	2,018	2,018
SPC	41,519	0	374	0	0	32,384	74,277
SPI	0	0	0	0	0	9,942	9,942
SQC	3,911	1,327	2,356	0	0	3,113	10,706
SQR	948	0	0	0	0	690	1,638
SRI	0	0	0	0	0	14,842	14,842
SRK	0	0	0	0	0	2,221	2,221
SSB	0	0	0	0	0	3,475	3,475
STT	593	0	17	0	0	5,128	5,738
SWA	6	0	0	0	0	14,308	14,314
SWO	0	0	0	0	44,834	1,284	46,118
WRA	0	0	0	0	0	1,193	1,193
YRS	0	0	0	0	0	1,432	1,432
MZZ	587	633	1,036	0	776	6,500	9,532
Total	112,310	40,413	41,968	13,933	571,897	699,353	1,479,873

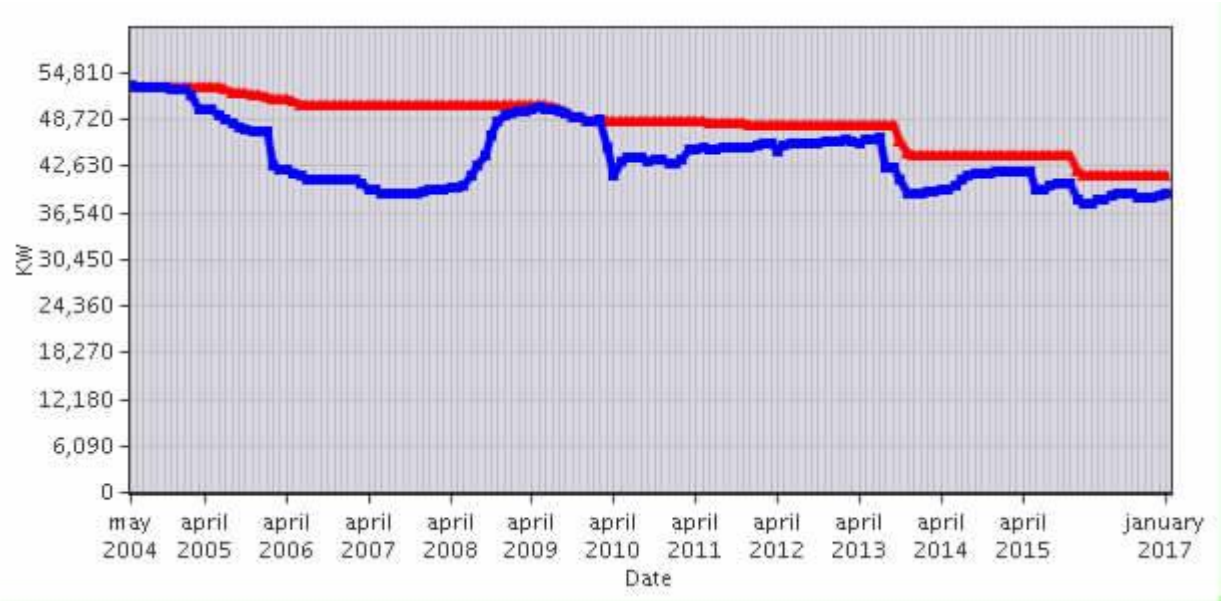
Note: Species with landings <500kg are grouped as “MZZ”

ANNEX II - Tonnage and Power Statistics for Cyprus

Cyprus: **Tonnage** of the fleet compared to its tonnage ceiling
Evolution between 1-5-2004 and 1-1-2017
(tonnage ceiling: red line)



Cyprus: **Power** of the fleet compared to its power ceiling.
Evolution between 1-5-2004 and 1-1-2017.
(power ceiling: red line)



ANNEX III: Estimation and Discussion of Balance Indicators

In accordance with the 2014 Balance Indicator Guidelines adopted by the Commission, two *biological* (sustainable harvest indicator, stocks-at-risk indicator), two *economic* and two *vessel use indicators* should be used for assessing the balance of the different Cyprus fleet segments.

STECF-16-09 notes that "*The values and weighting for all available indicators need to be taken into account when assessing whether the capacity of a fleet segment might, in the years represented, have been out of balance with fishing opportunities. To determine whether a given fleet segment is in or out of balance is a matter of judgement for fisheries managers depending on their priorities. The indicator values merely provide a means to identify which fleet segments might warrant further investigation."*

Another comment made by EWG 16-09 is that *"especially in fleet segments with under 10 m vessels (small-scale coastal fleets), many vessels are only used part time and fishing is often not the only source of income. Therefore, this indicator needs to be treated with care and does not necessarily indicate that these fleet segments are not in balance".*

For the preparation of the 2016 Report, Cyprus has calculated the indicators required by the 2014 Commission Guidelines, considering that there has not been any further revision of the Guidelines. Data used are the ones transmitted by Cyprus to the Commission through the 2017 Official Fleet Economic Data Call. For the calculations, the requirement of Article 22§3 of Regulation (EU) 1380/2013, to draw "*separate assessments for fleets operating exclusively outside Union waters"* was considered; to meet this requirement, a disaggregation of the trawler fleet had to be made.

Information is provided below on the clustering of fleet segments that were done for the estimation of indicators.

Clustering of fleet segments

The segments that have been clustered are shown on the Table below "Economic Clustering of fleet segments", where the clusters are named after the biggest segment in terms of number of vessels. The demersal trawlers below 24m is only 2 and thus, for sampling purposes as well as for confidentiality reasons it was regrouped in the >24m length group (up to 28m). Both groups are engaged in the same metier and they target the same group of species with the same gear despite their vessels length.

The same, as above, stands for the 26 active vessels using polyvalent passive gears where the vessels belonging in the length group 18-<24m are only 3 and the vessels above the 24m length group are only 1. Thus for sampling purposes, as well as for confidentiality reasons they were regrouped in the 12-<18m length group. It is noted that there were 22 active vessels with length less than 18m (length group 12-<18m). All the groups of vessels using polyvalent passive gears with length>12m are engaged in the same metiers since these vessels target the same group of species with the same gears despite their vessels length; this is evident from the landings value and volume.

It is emphasized that the cost structure of the clustered segments does not change much. It is important to have in mind that for all segments a census was performed.

Table - Economic Clustering of fleet segments

Name of the clustered fleet segments	Total number of vessels in the cluster by the 31st of December of the sampling year	Fleet segments which have been clustered	Number of vessels in the segment by the 31st of December of the sampling year
Passive gears : Polyvalent "passive gears only" 12-<18m*	26	Polyvalent passive gears 12-18 m	22
		Polyvalent passive gears 18-24 m	3
		Polyvalent passive gears 24-40 m	1
Demersal trawlers 24-<40m*	6	Demersal trawlers 18-24 m	2
		Demersal trawlers 24-<40m	4

(i) ***Biological Sustainability Indicators***

Sustainable Harvest Indicator

The Sustainable Harvest Indicator (SHI) was calculated by the DFMR in accordance with the guidelines.

Value and catch data used were based on data provided by Cyprus through the 2017 Official Fleet Economic Data Call. For calculating the indicator for the trawlers (DTS), more disaggregated data had to be used, at vessel level. The more disaggregated data were required for calculating the indicator *separately for the fleet operating exclusively outside Union waters (*CYP DTS VL2440 fishing only in international waters), and also for including in the indicator for the DTS fleet segments the catches of the trawlers that were participating at the large pelagic fishery using drifting longlines.

The SHI indicator was calculated using the available values of $F/F_{msy\ proxies}$ for the stocks concerned. In the STECF-16-18 report it is stated that the EWG 16-09 Prep. Meeting "*agreed that the SHI should take into account all stocks for which the most recent assessment was undertaken in 2013 or more recently*". Cyprus has followed this approach for the calculation of the SHI in the current report. Reports reviewed included the 2016 GFCM-SAC WGSAD Report[1], the 2016 GFCM-SAC Report[2], the 2015 GFCM-SAC Report[3], the 2014 GFCM-SAC Report, and 2016 ICCAT SCRS Report[4]). STECF EWG reports on Mediterranean stock assessments were also reviewed; no additional relevant data from the previous GFCM reports were found.

[1] FAO. 2016b. General Fisheries Commission for the Mediterranean. Report of the Working Group on Stock Assessment of Demersal Species (FAO headquarters, 7–12 November 2016

[2] FAO. 2016a. General Fisheries Commission for the Mediterranean. Report of the eighteenth session of the Scientific Advisory Committee on Fisheries. Nicosia, Cyprus, 21–23 March 2016.

[3] FAO General Fisheries Commission for the Mediterranean 2015. *Report of the seventeenth session of the Scientific AdvisoryCommittee. FAO headquarters, Rome, 24–27 March 2015.* FAO Fisheries and Aquaculture Report No. 1110. Rome, FAO. 300 pp.

[4] ICCAT 2016. Report of the Standing Committee on Research and Statistics (SCRS). Madrid, Spain, 3 to 7 October 2016

Table 2 provides the calculations made for estimating SHI for the different fleet segments. As seen from Table 2, only for one fleet, the demersal trawlers fishing in both territorial and international waters, the indicator SHI covers stocks that constitute at least 40% of the value of landings. The inclusion of stocks in the SHI indicator that constitute at least 40% of the value of landings is difficult to reach, due to the limited available number of stock assessments, and the high number of species caught, especially for the small scale inshore fleet.

In the case of the small scale inshore fleet, the species (stocks) represented in the indicator are important species in value and catch, and are been traditionally assessed; therefore this indicator is considered the best available scientific information for assessing biologically the balance of the small scale inshore fleet.

Concerning the polyvalent fleet (12-18m), for the main species caught (*Thunnus alalunga*) during the preparation of the report there was no available F value. Taking into account that the use of catch per unit effort is not recommended by the guidelines, this indicator is considered as the best available for assessing biologically the balance of this fleet.

As regards the trawlers fishing exclusively in non-Union waters, for 2014 and 2015 the indicator represents more than 30% of the value of landings, since additional stocks have been assessed (swo, mut-gsa24).

Table 3 provides the values of the SHI for the different fleet segments, in traffic light system.

Table 3: Estimated Sustainable Harvest Indicator for the Cyprus fleet segments in traffic light system

Fleet segment	Sustainable Harvest Indicator		
	2013	2014	2015
CYP DTS VL2440 (fishing in territorial and international waters)	0.6	0.81	0.87
CYP DTS VL2440 (fishing only in international waters)	5.6	2.9	2.8
CYP PGP VL1218	1.3	1.6	1.8
CYP PG VL0612 (Category A&B)	2.7	2.7	2.6
CYP PG VL0006 (Category A&B)	2.9	2.8	2.7
CYP PGO VL0612 (Category C)	2.6	2.6	3.1
CYP PGO VL0006 (Category C)	2.6	2.6	3.2

Stocks-at-risk indicator

According to the guidelines, a stock at high biological risk means a stock which is either (a) assessed as being below the B_{lim} biological level; (b) subject to an advice to close the fishery, to prohibit directed fisheries, to reduce the fishery to the lowest possible level, or similar advice from an international advisory body, even where such advice is given on a data-limited basis; (c) subject to a fishing opportunities regulation which stipluates that the fish should be returned to the sea unharmed or that landings are prohibited; (d) a stock which is on the IUCN "red list"or is listed by CITES.

None of the stocks exploited by the Cyprus fishing fleet segments seems to meet the above criteria. It is noted though that in the Mediterranean there is no agreed reference point concerning stock biomass (B), therefore criterion 'a' cannot be evaluated. EWG 16-09 notes that "*criterion 'a' specified for the identification of stocks at risk in the 2014 Balance Indicator guidelines was generally not applicable for most of the stocks in Mediterranean, since these stocks lack* B_{lim} *estimates*".

According to the criteria in the 2014 Balance Indicator Guidelines, the SAR indicator suggests that all fleet segments may be in balance with their fishing opportunities.

Table 2: Calculation of SHI for the fleet segments.

Fleet	CYP DTS VL2440 (fishing in territorial and international waters)					CYP DTS VL2440 (fishing only in international waters)					CYP PGP VL1218				
Year	stock	Fi/Fmsy	Vi	% in total V	% in total Catch	stock	Fi/Fmsy	Vi	% in total V	% in total Catch	stock	Fi/Fmsy	Vi	% in total V	% in total Catch
2015	bog-gsa25	3.80	58722	6.7%	6.6%	hke-gsa12_16	7.50	56674	7.1%	6.5%	bft	0.4	66166.8	5.0%	4.4%
	mut-gsa25	0.8	215680	24.7%	7.8%	mut-gsa13_14	3.50	3000	0.4%	0.2%	bog-gsa25	3.80	40285	3.0%	1.6%
	spc-gsa25	0.14	220976	25.3%	26.5%	mut-gsa15_16	1.22	0	0.0%	0.0%	mut-gsa25	0.8	2014.4	0.2%	0.0%
	swo	1.82	3543.75	0.4%	0.2%	mut-gsa24	1.30	163450	20.4%	12.8%	spc-gsa25	0.14	2153	0.2%	0.1%
	bft	0.40	132	0.02%	0.02%	mur-gsa15_16	4.10	4757	0.6%	0.3%	swo	1.82	365724	27.5%	8.4%
						mur-gsa26	2.70	1846	0.2%	0.1%					
						bft	0.40	681	0.1%	0.2%					
						swo	1.82	23030	2.9%	2.6%					
	SHI= 0.87		**sum**	**57.2%**	**41.2%**	**SHI= 2.8**		**sum**	**31.6%**	**22.8%**	**SHI= 1.8**		**sum**	**35.9%**	**14.5%**
2014	bog-gsa25	3.80	63869	6.3%	5.3%	hke-gsa12_16	7.50	57675	7.8%	5.4%	bft	0.4	73674	4.6%	3.1%
	mut-gsa25	0.8	261108.72	25.6%	8.5%	mut-gsa13_14	3.50	0	0.0%	0.0%	bog-gsa25	3.80	14498	0.9%	0.5%
	spc-gsa25	0.14	294776	28.9%	40.7%	mut-gsa15_16	1.22	0	0.0%	0.0%	mut-gsa25	0.8	7701	0.5%	0.1%
	mut-gsa24	1.30	8424	0.8%	0.3%	mut-gsa24	1.30	87737	11.8%	6.0%	spc-gsa25	0.14	8745	0.5%	0.5%
	swo	1.82	3456	0.3%	0.2%	mur-gsa15_16	4.10	5467	0.7%	0.4%	swo	1.82	365724	22.7%	8.8%
						mur-gsa26	2.70	5408	0.7%	0.3%					
						swo	1.82	90630	12.2%	9.2%					
						bft	0.40	11670	1.6%	2.1%					
	SHI= 0.81		**sum**	**61.9%**	**55.1%**	**SHI= 2.9**		**sum**	**34.8%**	**12.0%**	**SHI= 1.6**		**sum**	**29.3%**	**4.2%**
2013	bog-gsa25	3.80	28908	3.6%	3.7%	hke-gsa12_16	7.50	64038	5.88%	7.35%	bft	0.4	164056	12.0%	4.7%
	mut-gsa25	0.8	182434	22.8%	8.1%	mut-gsa13_14	3.50	0	0.00%	0.00%	bog-gsa25	3.80	3781	0.3%	0.1%
	spc-gsa25	0.14	293441	36.7%	45.4%	mut-gsa15_16	1.22	270	0.02%	0.02%	mut-gsa25	0.8	7588	0.6%	0.1%
	mut-gsa24	1.30	23693	3.0%	1.2%	mut-gsa24	1.30	20277	1.86%	2.15%	spc-gsa25	0.14	2445	0.2%	0.1%
	mur-gsa26	2.70	0	0.0%	0.0%	mur-gsa15_16	4.10	22760	2.09%	1.63%	swo	1.82	325877	23.9%	11.6%
	swo	1.82	9230	1.2%	1%	mur-gsa26	2.70	1100	0.10%	0.08%					
	SHI= 0.6		**sum**	**67.3%**	**59.2%**	**SHI= 5.6**		**sum**	**10.0%**	**11.2%**	**SHI = 1.3**		**sum**	**24.9%**	**11.9%**

(Table 2 cont..)

Fleet	CYP PG VL0612 (A&B category)					CYP PG VL0006 (A&B category)					CYP PGO VL0612 (C category)					CYP PGO VL0006 (C category)				
Year	stock (i)	Fi/Fmsy	Vi	% in total V	% in total Catch	stock (i)	Fi/Fmsy	Vi	% in total V	% in total Catch	stock (i)	Fi/Fmsy	Vi	% in total V	% in total Catch	stock (i)	Fi/Fmsy	Vi	% in total V	% in total Catch
2015	bog-gsa25	3.80	486608	12.5%	14.51%	bog-gsa25	3.80	30128	11.0%	12.5%	bog-gsa25	3.80	2881.1	4.2%	7.6%	bog-gsa25	3.80	13870	4.2%	7.6%
	mut-gsa25	0.8	138247	3.6%	1.20%	mut-gsa25	0.8	696	0.3%	0.1%	mut-gsa25	0.8	1168.5	1.7%	0.9%	mut-gsa25	0.8	5625	1.7%	0.9%
	spc-gsa25	0.14	142892	3.7%	6.70%	spc-gsa25	0.14	8940	3.3%	5.9%	spc-gsa25	0.14	487.8	0.7%	2.0%	spc-gsa25	0.14	2348	0.7%	2.0%
	SHI = 2.6		**sum**	**19.8%**	**22.40%**	**SHI = 2.9**		**sum**	**14.5%**	**18.5%**	**SHI = 2.6**		**sum**	**6.7%**	**10.6%**	**SHI = 2.6**		**sum**	**6.7%**	**10.6%**
2014	bog-gsa25	3.80	563514	14.7%	18.3%	bog-gsa25	3.80	26681	10.0%	12.2%	bog-gsa25	3.80	2604	4.7%	7.6%	bog-gsa25	3.80	12712	4.8%	7.6%
	mut-gsa25	0.8	160603	4.2%	1.6%	mut-gsa25	0.8	4129	1.5%	0.6%	mut-gsa25	0.8	1022	1.9%	0.9%	mut-gsa25	0.80	4992	1.9%	0.9%
	spc-gsa25	0.14	123759	3.2%	5.6%	spc-gsa25	0.14	6761	2.5%	4.6%	spc-gsa25	0.14	456	0.8%	2.0%	spc-gsa25	0.14	2224	0.8%	2.0%
	SHI = 2.7		**sum**	**22.1%**	**25.4%**	**SHI= 2.8**		**sum**	**14.0%**	**17.3%**	**SHI= 2.6**		**sum**	**7.40%**	**10.56%**	**SHI= 2.6**		**sum**	**7.5%**	**10.6%**
2013	bog-gsa25	3.80	458484	12.9%	12.1%	bog-gsa25	3.80	43514	12.9%	12.12%	bog-gsa25	3.80	2813	16.9%	18.7%	bog-gsa25	3.80	12391	16.9%	18.7%
	mut-gsa25	0.8	211986	6.0%	2.4%	mut-gsa25	0.8	20119	6.0%	2.45%	mut-gsa25	0.8	229	1.4%	0.7%	mut-gsa25	0.80	1010	1.4%	0.7%
	spc-gsa25	0.14	50214	1.4%	2.3%	spc-gsa25	0.14	4766	1.4%	2.29%	spc-gsa25	0.14	455	2.7%	8.0%	spc-gsa25	0.14	1836	2.5%	7.3%
	SHI = 2.7		**sum**	**20.3%**	**16.8%**	**SHI = 2.7**		**sum**	**20.3%**	**16.8%**	**SHI= 3.1**		**sum**	**21.0%**	**27.3%**	**SHI = 3.2**		**sum**	**20.8%**	**26.7%**

.(ii) *Economic indicators*

Return on Fixed Tangible Assets (RoFTA)

The ROI indicator shows the long-term viability. The return on investment compared to the potential return that would be received from investing the capital asset value elsewhere. Due to the fact that there is not a market for fishing rights in Cyprus the data on intangible assets are not available. It is noted that the fishing licences in Cyprus are issued on a three-year basis. As for the rest of the fleet segments, the licences are issued annually and quotas exist only for blue-fin tuna which they are also granted on an annual basis. Thus, the value of intangible assets is considered small. Having this in mind, the indicator Return on Fixed Tangible Assets (RoFTA) for each category of the fleet is considered more appropriate, since the value of fishing rights is not included.

The indicator is calculated as follows:

RoFTA = Net profit/ Depreciated Replacement Value

The indicator is compared against TRP: return on risk free long-term investment minus inflation.

The RoFTA indicator is estimated for the four segments of the active fishing fleet (vessels with polyvalent passive gears 0-<6m, vessels with polyvalent passive gears 6-<12m vessels, with polyvalent passive gears 12-24m and demersal trawlers 24-40m, based on 2014-2015 data. It is noted that the fleet segments: polyvalent passive gears 12-24m and demersal trawlers 24-40m, have been clustered as shown and explained on the Annex Table: "Economic Clustering of fleet segments", where the clusters are named after the biggest segment in terms of number of vessels.

The Trafic light system is used: red < TRP; green > TRP ; yellow 0 – TRP

RoFTA

		YEARS	
FLEET SEGMENTS	2014	2015	Δ
DTS VL2440	-4.6	-4	↘
PG VL0006 (A&B)	6.5	-0.4	↘
PG VL0612 (A&B)	-5.3	-2.7	↗
PGP VL 1218	3.4	-12.7	↘

RISK FREE INTEREST RATE

YEARS	2014	2015
	3.2	3.3

The development trend is analysed for all indicators for the latest year (2015) to 2014 and indicated by an arrow: "↗" improved/increased; "↘"deteriorated/decreased and "↔"stable.

The RoFTA regarding all the fleet segments is negative, indicating economic over-capitalization. The fleet segment PG 6-12m and DTS 24-40 are improved compared to the previous year.

In 2015 the small-scale fishery fleet was reduced by 66 vessels, scrapped within the framework of the Scheme of Permanent Cessation, co-funded by European Fisheries Fund, and despite the fact that it is too early to come up with safe results the situation for this fleet segment (PG 6-12m), as it is shown by the development trend above, is getting improved. Comparing the RoFTA with the interest rate of a low risk long term investment, as calculated above, shows that it is more beneficial to invest elsewhere.

The calculations of indicator RoFTA are the following:

TABLE: Calculation of RoFTA

		2014				2015		
	PG VL0006 (A&B)	PG VL0612 (A&B)	PGP VL1218	DTS VL2440	PG VL0006 (A&B)	PG VL0612 (A&B)	PGP VL1218	DTS VL2440
Income	267,752	3,832,190	1,888,147	1,293,624	274,628	3,884,096	1,521,231	1,482,497
Less Exp	222,053	5,082,521	1,678,388	1,701,217	277,327	4,544,225	2,791,025	1,883,263
Net Profit	45,699	-1,250,331	209,760	-407,593	-2,698	-660,129	-1,269,794	-400,766
Cap. Value	698,627	23,486,470	6,213,431	8,834,000	723,318	24,290,371	9,965,900	10,010,000
RoFTA	6.54	-5.32	3.38	-4.61	-0.37	-2.72	-12.74	-4.00

Ratio between current revenue and break-even revenue

This ratio gives a short term view of financial viability and it is calculated as follows:

Ratio = Current Revenue (CR) / BER

Where, the break even revenue (BER) is the revenue required to cover both the fixed and variable costs so that zero profits and losses are generated and it is calculated as follows:

BER = (Fixed Costs) (1 – {Variable Costs / Current Revenue})

It is noted that the opportunity cost of capital is excluded.

CR/BER*

		2014	2015	
DTS	VL2440	0.22	0.42	↗
PG	VL0006 (A&B)	2.08	0.94	↘
PG	VL0612 (A&B)	0.08	0.53	↗
PGP	VL1218	1.54	-0.98	↘

For all the fleet segments the ratio is less than 1 showing that the income is not enough to cover all the costs: fixed, variable and capital, indicating that the segments are not profitable, with potential overcapitalization. For the small-scale fishery 6-12m the ratio is closed to one.

The calculations for this indicator are shown below:

TABLE: Calculation of Ratio= CR/BER

	2014				2015			
	PG VL0006 (A&B)	PG VL0612 (A&B)	PGP VL1218	DTS VL2440	PG VL0006 (A&B)	PG VL0612 (A&B)	PGP VL1218	DTS VL2440
Income	267,752	3,832,190	1,888,147	1,293,624	274,628	3,884,096	1,521,231	1,482,497
FC	42,343	1,359,001	389,720	519,811	43,358	1,400,485	641,155	692,943
VC	3,723,520	1,288,668	1,181,406	1,185,884	233,969	3,143,740	2,149,870	1,190,321
BER	128,773	47,924,451	1,227,479	5,992,265	292,855	7,347,299	-1,551,517	3,515,978
CR/BER	2.08	0.08	1.54	0.22	0.94	0.53	-0.98	0.42

(iii) Vessel Use Indicators

Inactive Fleet Indicator

Table 5 provides the proportion of inactive vessels of the total fleet with respect to number of vessels, power and tonnage for the period 2008-2016. The development trend is analysed for the latest year (2016) to the average over the period 2008-2015 and indicated by an arrow: "↗" increased; "↘"decreased and "↔"stable. The indicator suggests a decrease in the inactive capacity (in terms of number, GT and kW), with relative stabilization in the last years.

Table 5: Inactive Fleet Indicator

				Number of inactive vessels									Δ	no. inactive vessels as % of total vessels									Δ
MS		Fleet segment		2008	2009	2010	2011	2012	2013	2014	2015	2016	#	2008	2009	2010	2011	2012	2013	2014	2015	2016	#
CYP	NONE	INACTIVE	VL0006	355	82	29	53	75	28	44	31	29	↘	29.7%	7.0%	2.9%	4.9%	6.9%	2.8%	4.6%	3.4%	3.5%	↘
CYP	NONE	INACTIVE	VL0612	294	172	72	64	94	38	48	32	40	↘	24.6%	14.6%	7.1%	5.9%	8.7%	3.8%	5.0%	3.5%	4.8%	↘
CYP	NONE	INACTIVE	VL1218	11	6	1	1	3	2	4	1	1	↘	0.9%	0.5%	0.1%	0.1%	0.3%	0.2%	0.4%	0.1%	0.1%	↘
CYP	NONE	INACTIVE	VL1824	3	4	1	3	2	0	0	1	0	↘	0.3%	0.3%	0.1%	0.3%	0.2%	0.0%	0.0%	0.1%	0.0%	↘
CYP	NONE	INACTIVE	VL2440	3	2	1	1	1	0	1	0	0	↘	0.3%	0.2%	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	↘
CYP	National inactive fleet			666	266	104	122	175	68	97	65	70	↘	55.6%	22.6%	10.3%	11.3%	16.2%	6.8%	10.2%	7.2%	8.4%	↘

				Inactive kW as % of fleet kW									Δ	Inactive GT as % of fleet GT									Δ
MS		Fleet segment		2008	2009	2010	2011	2012	2013	2014	2015		kW	2008	2009	2010	2011	2012	2013	2014	2015	2016	GT
CYP	NONE	INACTIVE	VL0006	15.7%	3.1%	0.4%	2.9%	4.2%	1.8%	2.9%	2.0%	2.3%	↘	5.5%	1.5%	0.2%	1.2%	1.9%	0.9%	1.3%	0.8%	0.8%	↘
CYP	NONE	INACTIVE	VL0612	23.5%	11.4%	7.1%	5.3%	8.7%	4.3%	4.9%	4.1%	5.1%	↘	27.3%	10.5%	8.3%	4.4%	6.9%	3.9%	4.4%	3.1%	3.9%	↘
CYP	NONE	INACTIVE	VL1218	2.7%	1.4%	0.2%	0.1%	1.5%	0.5%	1.7%	0.5%	0.6%	↘	2.7%	1.6%	0.3%	0.4%	1.2%	1.0%	2.9%	0.9%	1.0%	↘
CYP	NONE	INACTIVE	VL1824	1.4%	1.9%	0.6%	1.8%	1.2%	0.0%	0.0%	0.6%	0.0%	↘	4.2%	7.3%	1.2%	6.1%	4.9%	0.0%	0.0%	2.8%	0.0%	↘
CYP	NONE	INACTIVE	VL2440	1.8%	1.1%	0.7%	0.9%	0.7%	0.0%	1.0%	0.0%	0.0%	↘	6.4%	4.9%	2.9%	3.6%	3.1%	0.0%	4.2%	0.0%	0.0%	↘
CYP	National inactive fleet			45.1%	18.9%	9.0%	11.1%	16.2%	6.6%	10.5%	7.3%	8.1%	↘	46%	26%	13%	16%	18%	6%	13%	8%	6%	↘

Vessel Utilisation Indicator

Table 6 provides the estimated Vessel Utilisation Indicator per fleet segment in traffic light system (red < 0.7; green ≥ 0.9; yellow 0.7-0.9). The development trend is analyzed for the latest year (2015) to the average over the period 2009-2014 and indicated by an arrow: "↗" improved/increased; "↘"deteriorated/decreased and "↔"stable.

In accordance with the Guidelines, the capacity is indicated in kW for active and in GT for passive gear segments.

For all fleets, except the trawlers fishing exclusively in non-EU waters and the two segments of Category C, the maximum activity was based on the maximum effort actually expended by a vessel in the segment (in kWdays or GT-days) in the reference year. This is because, based on DFMR experience, this can be considered as the maximum effort that could be exerted by the fleets.

For the trawlers fishing exclusively in non-EU waters, the maximum activity of all reference years was based on the maximum number of days exercised by this fleet during 2014; while in the previous years the maximum observed number of days of this fleet was quite low, in 2014 it was significantly increased and it can be considered as a reference for the previous years.

For Category C, the maximum activity is considered to be the maximum by Law allowable days during a year (70 days).

Table 6: Estimated Vessel Utilisation Indicator for the Cyprus fleet segments in traffic light system.

Fleet segment	Vessel Utilisation Indicator														Δ	Comments
	2009		2010		2011		2012		2013		2014		2015			
	kW-days	GT-days	kW-days	GT-days	kW-days	GT-days	kW-days	GT-days	kW-days	GT-days	kW-days	GT-days	kW-days	GT-days		
CYP OTB VL1824 (fishing in territorial and international	0.93		0.79		0.65		0.98		0.98		1.00		0.99		↗	calculated based on observed maximum days
CYP OTB VL1824 (fishing only in international waters)	0.23		0.55		0.48		0.23		0.42		0.71		0.47		↗	observed maximum for 2014 and 2015. 2014 value used as theoretical maximum for 2009-2013
CYP PGP VL1218		0.33		0.61		0.50		0.47		0.45		0.54		0.61	↗	calculated based on observed maximum days
CYP PG VL0612 (Category A&B)		0.54		0.48		0.41		0.55		0.50		0.49		0.29	↘	calculated based on observed maximum days
CYP PG VL0006 (Category A&B)		0.84		0.54		0.57		0.83		0.60		0.69		0.22	↘	calculated based on observed maximum days
CYP PGO VL0006 (Category C)		0.35		0.27		0.37		0.41		0.41		0.39		0.39	↗	calculated based on maximum allowable days (70 days)
CYP PGO VL0612 (Category C)		0.35		0.27		0.31		0.41		0.40		0.46		0.39	↗	calculated based on maximum allowable days (70 days)

The indicator suggests that only one fleet segment, the "demersal trawlers operating in both territorial and international waters", does not have low values of capacity utilization (>0.7).

Concerning the different small scale inshore fleet segments, the relatively low values of capacity utilization suggest a technical overcapacity. However, the low value of the indicator for category A&B is also explained from the fact that during 2015 more than 60 vessels were permanently withdrawn.

The segment “vessels using polyvalent passive gears 12-18 m” exhibits heterogeneous activity; however, this heterogeneous activity can be explained by the fact that the segment includes vessels using mainly drifting longlines targeting large pelagic, and vessels using mainly bottom nets and longlines targeting demersal species. Therefore, for the segment “vessels using polyvalent passive gears 12-18 m” it is considered that the low value of capacity utilization does not indicate technical overcapacity.