

Report on the PGECON subgroup DCF workshop on small scale fisheries

The Hague, 25 - 29 September 2017

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1 Executive Summary

The proposal for a SSF workshop stemmed from the Fisheries Data Collection Experts Subgroup of the 5th Planning Group on Economic Issues (PGECON, Zagreb 2016) and the 2nd DCF workshop on transversal variables (Nicosia, 2016). Both these meetings highlighted the further need to investigate issues linked to SSF. In PGECON 2017 (Vilnius, 2017) the terms of reference (ToRs) for the workshop on SSF were presented and agreed.

Recently, several works have highlighted the need to improve our knowledge about small scale fisheries in order to secure their sustainable development (Chuenpagdee et al., 2006 ; Salas et al., 2007 ; Chuenpagdee Ed., 2011 , Guyader O. et al., 2013 ; FAO, 2015). Furthermore, the European Commission gives particular attention to small-scale fishing and stressed their intention to provide support to this sector under the reformed Common Fisheries Policy and to promote small-scale coastal fishing activities. For example, the European Maritime and Fisheries Fund regulation includes many references to small-scale coastal fishing as the Article 25 which states: *"With a view to promoting small-scale coastal fishing, Member States having a significant small-scale coastal fishing segment should attach, to their operational programmes, action plans for the development, competitiveness and sustainability of small-scale coastal fishing"*.

At the same time, several scientific bodies (SSF Nantes workshop, WGCATCH meeting 2015 & 2016, fishPi research project 2016, etc.) highlighted the important role, small-scale fisheries play in Europe's fishing sector as they are an important component of many ICES fisheries. However, these fisheries are undergoing a serious crisis in Europe, due to conflict or competition with other users of coastal living resources and limited economic profit. All of that highlighted the need to improve our knowledge about them.

Furthermore the 2nd DCF Workshop on transversal variables (Nicosia, 2016) considers that additional work was needed to devise common methodology on calculation of Fishing Days and Days at Sea based on data sources other than logbooks when SSF fleets present several data formats (coming from adapted declarative forms, sales notes or sampling data) stored in different ways.

Finally, the meeting on Statistical Issues and Methodologies (SIM subgroup of DCF/PGECON, 12-14 December 2016, Rome) concluded that some definitions as those related to the financial position, employment and value of unpaid labour for small-scale fisheries shall be further discussed at small scale subgroup in order to address several critical issues by various Member States.

All of that lead to the organisation of the PGECON subgroup DCF workshop on small scale fisheries which was hosted and partly financed by the Wageningen Economic Research and took place in The Hague from September 25th to September 29th in parallel with the workshop on fishing activity levels in economic data collection. The topics to be addressed were as follows:

ToR 1. Description of the small-scale fisheries and fishing habits per macro-area (North Sea, Med. Sea, Atlantic, Baltic, etc.).

SSF are typically "artisanal", labour intensive and coastal, using small boats, targeting multiple resource species using traditional gears, and participating with low volumes of catches with low economic importance. These are also highly diverse. This diversity is reflected in a plethora of definitions and terms and in the wide variety of fisheries activities which should be considered separately with respect to both economic and transversal data collection. Moreover, there could be differences between regions, in terms of characteristics, importance of the SSF in fishing fleet and the regional social and economic role of the SSF. Therefore, to get a comprehensive description and analysis of SSF, a regional approach should be considered also with a view to find the degree of income diversification, the risk strategies that fishermen used to apply to support their income and their needs and problems to support their sustainability.

ToR 2. Management measures per macro-area.

In many MS, SSF is submitted to specific national legislations on fisheries which are mainly aimed at resource conservation by means of control of the fishing effort and landings. Usually a great number of technical measures apply to the various gears used by the small-scale fishermen. These measures concern the mesh sizes of the nets, the characteristics of some particular gears and, in some cases, the number of gear units deployed.

A comparative analysis at national and regional level could highlight differences and similarities existing in this sector in order to individualize main technical, economic and social characteristics of small vessels and common criteria of classification and reveal data needs

ToR 3. Data needs in relation to peculiarities of small scale vessels.

The new EUMAP adopted on 12th July 2016 specifies the mandatory fishing activity variables. Based on the information already collected from control regulations and considering the minimum requirement that is common to all MS, the relevant effort measures for passive gears are: Number of trips, Days at Sea, Fishing Days, Total length of nets/Total number of pots-traps/Total number of hooks (for vessels with logbooks) (2nd DCF Workshop on transversal variables, Nicosia, Cyprus 2016).

This list should be considered as the essential data to be collected as mandatory for vessels <10 m. Also, different MS data collection methodologies should be considered.

ToR 4. Methodologies for collecting socio-economic variables in SSF.

The meeting on statistical issues and methodologies (SIM subgroup of DCF/PGECON, 12-14 December 2016, Rome) concluded that some definitions relating to the financial position, employment and value of unpaid labour for small scale fisheries should be further discussed at small scale subgroup in order to address several critical issues by various Member States.

SIM also suggested the following ToR for SSF WS:

- To overview employment definitions and assess impact of under-coverage of employed part of population, directly related to fishing activities but working on shore. Propose recommendation to modify or complement the current employment definition linking to small scale fleet.
- Assessment of methodologies applied by each MS to estimate economic variables for SSF and possible suggestion for common approaches will be carried out.

ToR 5. Suggested data collection procedures for SSF.

The legal references (Articles 19, 23, 65 of Reg. (EC) 1224/2009) underlying landing declaration states the possibility of exemption from landing declarations and sales notes for fishing vessels of less than 10 meters' length overall which are monitored by a sampling plan. In addition, administrative information such as balance sheets are not available for small scale vessels.

The need of a sample plan tailored to the characteristics of SSF represents a fundamental issue for a correct and complete management of the sector. Focus in the SSF workshop should be on vessels <10m.

The main outputs from the workshops are:

ToR 1. Description of the small-scale fisheries and fishing habits per macro-area (North Sea, Med. Sea, Atlantic, Baltic, etc.).

Questionnaires about SSF fishing sector were disseminated, before the workshop, to all the EU Member States. Eighteen of them responded referring to forty-four fleet segments for Mediterranean (GSA 7, 8, 9, 10, 11, 15, 16, 17, 18, 22, 23, 25 and 29) and to fifty-eight fleet segments for North/East Atlantic, Baltic, North Sea and France other regions. The data collected from the questionnaires covers eighty-five percent of the whole SSF European Fleet registered in 2015 (DCF, 2017).

For the description of the small-scale fisheries and fishing habits per macro-area, the following definition of SSF has been considered '**fishing vessels of an overall length of less than 12m and not using towed fishing gear**' coming from the EU regulations No. 26/2004 and No. 508/2014 (Article 3(2)(14)).

The comparative analysis highlighted that the SSF EU fleet segments represent, in term of number of vessels and employment, a large part of the EU total fleet in nearly all EU countries though it has to be assessed by region as significant differences can occur between them.

SSF present a large diversity in terms of target species, gear used, activity levels and commercial strategies.

Disparities among MS are also highlighted in terms of productivity (value and weight of landings) per vessel and per unit of effort expressed in days at sea.

According to data collected, the average SSF days at sea represents high variability among MS ranging from less than 30 average days at sea up to more than 100 average days at sea which nevertheless remains quite low comparing with the Large Scale Fleet segments (~150).

According to the information collected from the questionnaires, SSF is a typical multi-gear and multi-species fleet in nearly all EU countries. The most used gears are trammel nets and set gillnets, followed by pots, set longline and hand lines.

According to data collected (only six of the eighteen countries answered this question), the number of family members employed in activities on shore ranges from around 25-30% up to almost 80%.

Only three MS answered the question regarding the incidence of SSF on household income of the boat owner. Data collected ranges from 50-60% to around 80%.

Regarding information on sales market channels, the main are wholesalers, fishmongers and direct sales with the exception of SSF fleet segments from Baltic and North Sea regions where the main sales market is processing industry.

Data collection procedures also reflect the diversity of structures of SSF fleets. Two different type of SSF fishing activity data collection are now underway in EU:

- 1) census approach (with adapted declarative forms, sales notes, landings declarations, geolocalization data) and
- 2) sampling approach (stratified sampling of vessels or clustered sampling of fishing trips).

Census approach is the most common way used for Member States with a relative limited number of vessels when sampling approach is the primary data collection source used in countries with large and fragmented SSF fleet segments as Italy and Greece.

Statistical surveys based on questionnaires are widely used by all countries to collect economic and social variables.

Most Member States report using alternative or supplementary data sources to verify the information. Validation by comparison with different sources therefore represents a fundamental best practice to overcome problems with reliability and completeness of data collected.

ToR 2. Management measures per macro-area.

Prior to the meeting MS were asked to summarise any management measures used in their SSF. These were presented by each MS at the meeting. At the meeting itself MS were also asked to provide a summary of their fleet registration systems and how this may influence estimates of SSF activity.

The data collected before and during the meeting was not complete for all MS. MS provided a varying amount of detail resulting in any meaningful conclusion was difficult to make. The exercise did highlight the variety of management measures in places in MS which reflects the heterogeneity and diversity of the SSF fleets across MS.

Fleet Registers

The system of vessel registration by MS can impact on how activity is estimated. In most MS fishing vessels must apply for a licence and then they are placed on National registers. The frequency of licence renewal can differ between Member States as does the amount of vessels remaining on national registers that might not be active. This is particularly the case for Italy as vessel licences only have to be renewed every eight years. A summary of systems currently on-going in several MS are summarised in section 3.2.1.

Management Measures

As highlighted throughout the meeting the lack of/or incomplete and low quality information for SSF has resulted in a low perceived importance for SSF stocks and economic output (e.g., landings value and effort). This lack of data has been highlighted as one of the main issues in obstructing management for SSF. While, in general, SSF can be less harmful to stocks than LSF due to their less intensive fishing methods they can in certain areas have significant impact on stocks in certain local fisheries where there is overcapacity, internal competition and over-exploited stocks.

Besides some overarching EU management measures such as minimum conservation references sizes (MCRS), EU 850/1998, the management of SSF takes place at the local, regional or national level reflecting the diverse and often specific fisheries and their associated ecosystems. Most SSF also occur in MS EEZs where national authorities are responsible for the conservation and management of natural resources.

During this meeting a sample of measures for SSF were requested from Member States which are summarised in section 3.2.2. The varied spread of management measures reflects the diversity of the SSF across all the MS.

ToR 3. Data needs in relation to peculiarities of small-scale vessels and ToR 5. Suggested data collection procedures for SSF.

As the two ToR 3&5) are significantly related, the workshop decided to deal with them together. To that end, first the workshop discussed the main findings and outstanding questions arising from previous meetings on small-scale fisheries and deal with some of questions/issues raised during them. Then, the workshop discussed the on-going SSF data collection procedures of 15 MS (presented during the workshop), procedures summarised in a resume table describing also the major concerns raised.

Based on findings of previous meetings, results of the ToR1 and group's discussions, the workshop concluded that SSF is an important component of many EU fisheries (*which can contribute significantly to landings and effort in some areas*) and that it is essential to estimate the fishing activities of SSF in terms of fishing effort, volume and value of catches as a minimum requirements of data to answer the different on-going regulations. The workshop highlights that SSF could be a major concern for stock assessment, fishery spatial management, socio-economic studies (and so on) but are often underreported and difficulties arise to have access to this information, noted that it should be assessed regionally by fisheries, species or areas because significant differences can occur between them.

The workshop agreed with the conclusion of 2015 WGCATCH: '*SSF are important in nearly all countries (no particular north/south distinction) but seemed to be trapped in a vicious cycle where due to incompleteness and lower quality of existing data on this component, systematic lower importance was assigned to it relative to larger scale fleets*'.

The workshop considered also the best practice guidelines elaborated by the 2016 WGCATCH where a lot of data collection issues were addressed and advised MS to consider it as a support to their SSF data collection procedure and quality assurance.

The group discussed the issue relating to the **definition of small-scale fleet for data collection purposes**. Given the data collection issues (*lack of legal basis for direct reporting of activity using EU logbooks for less than 10m vessels -8m in Baltic and no VMS obligation for less than 12m*) and in light of what exactly the terms 'Small-scale fleet' or 'Coastal fleet' refers to varies across the range of end-users, the workshop agreed it was more precise to refer to vessels with and without logbooks, or vessels with or without VMS data as the major difference in situations for the SSF is related to the sources of information available. The group agreed, in particular, that regarding the SSF as only vessels using passive gears and excluding those active gears is, for data collection purposes, less relevant as the issues related to data collection and calculation of fishing activity variables are similar for both groups of vessels. Consequently and for specific data collection needs and fishing activity variables calculation, these part of the fleet could be assessed as a data poor fleet segment which clarifies the fact that there are specific data collection issues related to these vessels that do not apply to the large-scale fleet (*for example, as well as not being legally required, the EU logbook format is not suitable for these vessels*). It is clearer then **to refer to fleet segments by vessel length (LOA) ranges (<10m, 10-12m and >=12m, under-8m in Baltic Sea)**; this view is also in line with the view adopted by WGCATCH and SSF Nantes workshop.

The group discussed the issues regarding the **SSF data collection procedures**. Based on findings of previous meetings, participants' presentations and group's discussions, the workshop concluded that there are two different types of data collection methodologies currently applied in EU to calculate fishing activity estimates of vessels less than 10/12 meters: **1) Census approach** and **2) Sampling approach**. The group agreed that the choice between the two options should be based on cost efficiency including level of reliability/quality of data assessed to be reached by each approach envisaged and data resolution needed.

Regarding **data quality/reliability**, the group agreed that assessing the coverage/completeness of the estimates reached by the data collection is a specific issue that will require specific attention especially when census approach (*even more accurate for countries using a data collection system based mainly on sales note*) is used to survey vessels less than 10/12 meters. A specific check will be advised on vessels without any information or with part-time information to verify the completeness of their data and assess the reality of their inactivity (*notably to validate the following assumption, currently applied in almost all MS, that "one vessel without any declarative data is an inactive vessel"*). Specific licenses system (*in place in some MS*) linked with the availability of declarative data as a tangible proof of their activity, could be a mean, among others, to improve completeness/representativeness and quality of data of vessels less than 10/12 meters. In the end, major concern of the two different approach in used in MS have been described in the report. In particular specificities and difficulties raised of census approach using a data collection system based on sales note, have been described. The group agreed that while they are similar to, they are not the same as a complete census of activity regarding, among others, the different exemptions in place, 'direct sales' and missing information within (*e.g. detailed area, detail of the fishing trip associated, gear used, ...*).

As suggested during the 2nd Transversal variables DCF workshop, the group continue also to debate the basic "Nicosia" principles (*developed for vessels carrying logbooks*) adopted for **fishing effort calculation**. The group debated their fitting with the specific features of SSF and on-going SSF data collection procedures. The group came to the conclusion that "*24h period definition*" for days at sea calculation could not be applied in many cases for SSF as departure time and arrival time are not collected and that, consequently, days at sea have to be estimated differently. Furthermore, the group concluded that for fishing effort calculation the basic principle

of "trip by trip basis" calculation could not be applied in many cases (*as data collection procedures often collect data on a "day by day basis"*) and that this agreed calculation methodology could have also a great impact for some of fleets. Consequently, the group advised the fact that for less than 10 meters vessels, the effort calculation should be calculated on a "day by day basis" rather than a "trip by trip basis". Considering the other "Nicosia" basic principles adopted, the workshop advised that, for them, fishing effort measures calculation has to be in line, as far as possible, with the methodology established for vessels carrying logbooks considering the data available and the way to collect them.

Finally, the group discussed the impact the **new technology** could have to improve the quality/reliability of SSF data in the future and highlights that there are significant opportunities to improve SSF monitoring and data collection using new technologies. Consequently, the workshop advised that the development of new technologies helping to monitor the activity of SSF should be support further. In addition to the several programs already described during the previous meetings, two new programs were mentioned during the workshop.

ToR 4. Methodologies for collecting socio-economic variables in SSF.

The main discussion topics of ToR 4 are based on the discussion and conclusions of the SIM workshop held in Rome, December 2016 and further endorsement or discussion held at PGECON meeting in Vilnius (May 2017).

The first discussion issue was the amendment in the definition of engaged crew proposed by SIM and a bit changed by PGECON. According to the previous DCF definition, *only people working on-board or on-shore and on-board should be considered in the number of people employed in the sector while people working only on-shore were excluded.*

SIM discussed this definition and restriction and found that especially in some countries and in some segments (e.g. SSF) the number of people that work on-shore but contribute actively to the income of the sector is not so negligible. On the basis of this discussion further amended by PGECON a new definition for engaged crew has been proposed: *total number of persons who have worked on-board the vessel, irrespective of the total number of hours. People working only onshore and paid from vessels could be included if their activity has a direct link with the fishing operations.*

This change in the definition is going to affect all the employment variables, including unpaid labour. The aim of the SSF workshop has been to verify the real relevance of the on-shore employment in the SSF at MS level and evaluate the impact of the change in the definition in terms of data collection. The discussion has been facilitated by a template, prepared during the subgroup filled in for each MS represented at the workshop. The main findings highlight that the data collection is based on different methodologies from census to sample survey and sometimes a mix of them. There are different approach applied for the estimation of employment for SSF. In some MS employment on-shore appear to be relevant, especially for SSF. What is mainly highlighted from MS is that it is definitely important to better define which are **those on-shore activities that should be considered as names "linked directly to fishing operations"**. The group concluded on the relevance of the on-shore employment for SSF but considering that, until now, the collection of employment variables has been based only on the labour on-board or on-board/on-shore (but not exclusively on-shore) this amendment is likely producing the addition of new variable to the EU-MAP (after the entry into force of the EU-MAP). In the light of all this consideration, the group suggested/recommended:

- To further discuss the concept of employment on-shore (in general and not only linked to SSF);
- To specify which could be on-shore activities that should be considered as linked directly to fishing operations (as written in the amendment);
- That considering the wide extent of the topic, further discussions and investigations could represent the object of a future study;

- after the above and further investigations, if on-shore employment will be considered relevant, to propose an amendment to EU-MAP in order to add a new variable "employment exclusively on-shore" (and the related value of labour), for sake of consistency of data series;
- alternatively, MS to start to evaluate the relevance of employment on-shore (if deemed to be important at MS level) in line with the pilot studies/data collection of social data that have already started or are going to start in all the MS.

The second discussion issue was the methodology for the **estimation of the imputed value unpaid labour**. SIM and subsequently PGECON recommended to remove the Size Method as it was not appropriate and more specific country orientated and proposed a methodology (deriving from the "Capital" workshop, Napoli 2011) based on a three steps approach: 1) estimation of paid and unpaid FTE; 2) definition of an average remuneration per paid FTE (e.g. average wage by fleet segment/company, national average wage, minimum national wage, etc...); 3) calculation of imputed value of unpaid labour =: "unpaid FTE" * "average remuneration per paid FTE". The unpaid labour is considered particularly relevant for SSF and during the workshop the impacts of the suggested methodology as well as impacts in the change of employment definition affecting also unpaid labour were discussed. As far as unpaid labour data collection, data sources vary between Member States. Regardless of the data collection procedure, the estimation process for the imputed value of unpaid labour has the same principles. For all the MS the value of unpaid labour is deemed to be relevant especially for SSF and in many cases it is linked to the work on-board of the ship-owner. In other MS unpaid work could largely emerge from the amendment proposed on employment, including people working on-shore (in most cases family member supporting the vessel's activities). All the MS agreed with the recommended methodology. It is, however, likely that MS will have difficulties in getting accurate information for the time worked by unpaid workers (necessary to apply the methodology proposed by SIM) and it is likely that data on the number of hours needed to estimate FTE would be estimated rather than based on actual recording of time (making difficult to calculate FTE data with an acceptable level of accuracy).

In the light of this and in order to be consistent with the methodology proposed by SIM and to provide a realistic measure of the unpaid labour, if MS experience difficulties in collecting the number of unpaid FTE, the group proposed:

- for unpaid labour on-board, to collect or estimate the number of unpaid persons and use, if not available, the average number of hours worked by paid persons working on similar vessels or the FTE share deriving from similar fleet segments;
- for unpaid labour on-shore (if the amendment is going to be approved), to start the collection of data on the numbers of hours worked in on-shore activities in parallel with the collection of social data (as suggested for the employment on-shore). On-shore activities are, indeed, completely different from on-board activities, in terms of number of hours worked.

The third item of discussion was the impact on the data collection for SSF in the light of what recommend by the SIM for the **financial position variables**. SIM has recommended balance sheets as the most reliable source of data, taking into account the low response rate experienced by most MS in the past data collection when using questionnaires. Even if representing a more reliable data source, this can create methodological problems in the collection of data, especially for SSF, because two different situations are very likely to happen:

1. Balance sheets are available but it is necessary to split the total value of debts and assets among vessels. It is, indeed, very frequent that one firm owns more than one vessels and most of the time detailed data are not reported in the balance sheet and in the supporting document. How to do the split?
2. Balance sheets are not available

When balance sheets and the total value of assets and debts have to be split by vessels, SIM recommended to use the capital value of each vessel estimated through the PIM as a “weight” to derive the share on the total value.

In case balance sheets are not available SIM recommended to consider the capital estimated through the PIM as a *proxy* for total assets.

As for the previous variables, the discussion has been facilitated by a template, prepared during the subgroup and filled in for each MS represented at the workshop. The main findings are that in most MS (60%) information about debts and assets are extracted from balance sheets. For MS where balance sheets are not available (40%) there is a survey/questionnaire asking each vessel owner about their debts and assets. For these variables, approximately 40% of the MS have a different data collection method for SSF compared to LSF.

MS using balance sheet as main source of data have to adjust their data collection method for SSF (e.g. by mean of questionnaire/survey). In this case there is a common problem with individual firms as they don't have as detailed balance sheets as capital firm, or in some MS individual firms are not obliged to submit balance sheets, thus making it hard or impossible in some cases, to extract the information.

MS with a questionnaire/survey as main source of data don't change their data collection method for SSF. In these cases there is a problem with low answering frequency, which in turn make the approximation for the whole SSF volatile.

All the MS agree and don't see any difficulties in applying the proposed method (e.g. split among vessels) where the primary data exists and are reliable. But, in general, SSF can be seen as a quite data poor segment and one can argue that this information should/could not be provided for SSF. During the discussion it was, indeed, also stressed that the financial position variables are not very relevant for SSF.

In general the group agreed in considering balance sheets as the most reliable source of data for the collection of financial position variables but considering that in most MS balance sheets are not available for SSF vessels, it is recommended to use questionnaire and face-to-face interview to collect data on the value of assets. Taking into account past experiences of low response rate and low reliability of data collected by mean questionnaires, it is also recommended that data collectors should be well trained in their role. This is essential for the quality of data. Where problems in collecting data or in data quality for small-scale vessels persist, it is suggested:

- for the value of assets to use the fixed capital asset estimated through the PIM, considering that in the SSF the financial assets are presumably a negligible share of the total value of assets;
- to consider the submission of the value of debts “optional” for small SSF segment in the fleet data call, at least in the first years of EU-MAP data calls. It is, indeed, to be stressed that, for SSF, the value of debts are, in most of the cases, debts not exclusively linked to the fishing activity but a mix of personal and financial debts.

2 Introduction

The PGECON subgroup DCF workshop on small scale fisheries took place from the 25th to the 29th of September in Wageningen Economic Research in The Hague, The Netherlands. The workshop was attended by 20 experts from 17 Member States. The list of participants is included under annex 1 of this report.

2.1 Terms of Reference (ToR) for the workshop

According to the PGECON 2016 & 2017 request, the group should meet to address the following tasks:

1. Description of the small-scale fisheries and fishing habits per macro-area (North Sea, Med. Sea, Atlantic, Baltic, etc.).
2. Management measures per macro-area.
3. Data needs in relation to peculiarities of small scale vessels.
4. Methodologies for collecting socio-economic variables in SSF.
5. Suggested data collection procedures for SSF.

2.2 Organisation

The agenda is shown in annex 2. Four subgroups were created, the tasks to be addressed and the facilitators are identified in the table below. The workshop was guided by two chairs.

Name	Function
Sébastien Demanèche	Co-Chair of workshop and rapporteur subgroup ToR 3 & 5
Monica Gambino	Co-Chair of workshop and rapporteur subgroup ToR 1
Emmet Jackson	Rapporteur subgroup ToR 2
Loretta Malvarosa	Rapporteur subgroup ToR 4

2.3 Data

Information were collected on the basis of a format previously distributed among all national correspondents with the objective to highlight peculiarities of SSF vessels in the EU regions and to provide a comparison in terms of activity, social and economic profile and management measures (annex 3). The questionnaire included 15 questions and was divided into three sections. The first section mainly dealt with quantitative information related to SSF in terms of number of active vessels, landings weight and income, fishing effort (total days at sea) and employment. The second section included additional questions concerning main gear(s) used, target specie(s), main sales market channel(s), and season of the year when activity is concentrated. The number of family members employed in activities on shore and the incidence of fishery on household income of the boat's owner were also asked. Finally, questions on data sources and type of data collection scheme were included under the third section. Data from questionnaires were then organized in an Excel worksheet, which is annexed to the present report along with the questionnaires.

During the workshop, the experts were requested to present their fishing activity (capacity, fishing effort and landings estimates) data collection procedures for SSF and data issues

encountered. They were also asked to do a special focus on fishing effort measures methodologies applied. They were required too to summarise the management measures for SSF (e.g. control of fishing effort, landings, or TCMs) at a national and regional level, also including the licensing schemes and how this might impact on activity estimation.

Additionally, a template prepared and agreed from the subgroup on ToR4, was distributed among participants during the workshop, including specific questions on methodologies for estimation of engaged crew, imputed value of unpaid labour and financial position. The templates with all the details at MS levels are provided in annex 4.

Ahead to the workshop there were already some important outputs to be considered, these are included in the following background documents. The main findings and outstanding questions arising from these previous meeting were also presented during the first day of the workshop.

- Report on the DCF Workshop on "Common understanding and statistical methodologies to estimate/re-evaluate transversal data in small-scale fisheries" Nantes, 21th to 23th May 2013.
- Report of the Working Group on Commercial Catches (WGCATCH) 9-13 November 2015 Lisbon, Portugal
- Report of the Working Group on Commercial Catches (WGCATCH) 7-11 November 2016 Oostende, Belgium
- Report on the 2nd Workshop on Transversal Variables, Nicosia, Cyprus. 22-26 February 2016
- Meeting on Statistical Issues and Methodologies (SIM subgroup of DCF/PGECON). 12-14 December 2016, Rome, Italy

3 The results of the workshop

The results of the workshop will be presented herein after for each Term of Reference (ToR) addressed to the group. However, for a matter of logical organisation of the outputs, the report will present the results according to the following sequence:

1. **Description of the small-scale fisheries and fishing habits per macro-area (North Sea, Med. Sea, Atlantic, Baltic, etc.). (ToR 1)**
2. **Management measures per macro-area. (ToR 2)**
3. **Data needs in relation to peculiarities of small scale vessels and suggested data collection procedures for SSF. (ToRs 3 & 5)**
4. **Methodologies for collecting socio-economic variables. (ToR 4)**

3.1 Description of the small-scale fisheries and fishing habits per macro-area (North Sea, Med. Sea, Atlantic, Baltic, etc.) ToR 1

3.1.1 Introduction

There is no single definition of small-scale fisheries, as any definition is linked to the end-user needs such as stock assessment, marine spatial planning, socio-economic studies, Marine Strategy Framework Directive (MSFD), Marine Protected Areas (MPA), management regulation texts, etc. For the analysis presented hereafter, EU Regulations No. 26/2004 and No. 508/2014 (Article 3(2)(14)) have been considered. The SSF definition in both these EU regulations, namely **'fishing vessels of an overall length of less than 12m and not using towed fishing gear'**, has been used for the work done in the workshop under the first topic of description of the small-scale fisheries and fishing habits per macro-area

In the analysis, only the information collected from the questionnaires were used, in order to ensure consistency among Member States which validated their data submitted during the workshop. It should be noted that for the purpose of this workshop, some additional information which are not included in DCF were collected through the questionnaires, for example questions concerning main sales market channels, list of target species (accounting for more than 50% of landings income), season of the year when activity is concentrated, number of family members employed in activities on shore and incidence of fishery on household income of the boat's owner.

The questionnaires were submitted by eighteen Member States and refer to forty-four fleet segments for Mediterranean (GSA 7, 8, 9, 10, 11, 15, 16, 17, 18, 22, 23, 25 and 29) and to fifty-eight fleet segments for North/East Atlantic, Baltic, North Sea and France other regions. The data collected from the questionnaires cover 85% (36,837 vessels) of the whole SSF European Fleet registered (43,495 vessels) in 2015 (DCF, 2017¹).

3.1.2 Overview of EU Small Scale Fleets

According to data collected from the questionnaires, over 65% of vessels using passive gears less than 12 meters are concentrated in the Mediterranean region (Bulgaria, Cyprus, France, Greece, Italy, Malta, Romania and Slovenia), around 20% belong to Baltic and North Sea Regions (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden) and the remaining 25% are dispersed in the other regions/countries of North East Atlantic (excluding Baltic and North Sea regions) and France other region.

¹ 2017-07_STECF 17-12 - EU Fleet Economic and Transversal data_fs level_final

Table 3.1-1. Distribution of SSF vessels and employment by macro area (SSF Questionnaires)

Macro Area	% No. of active ves- sels	% No. of Employees
Baltic and North Sea	20%	16%
France OTR	4%	5%
Mediterranean	65%	65%
North East Atlantic	11%	13%
Total SSF	100%	100%

A 33% of SSF landings weight and a 56% of SSF landing value, are concentrated in the Mediterranean regions when 28% (in weight) and 12% (in value) are concentrated in the Baltic and North Sea Regions and 35% (in weight) and 27% (in value) are concentrated in the other regions/countries of the North East Atlantic.

Table 3.1-2 . Distribution of SSF landings weight and value by macro area (SSF Questionnaires)

Macro Area	% Landing weight	% Landing value
Baltic and North Sea	28%	12%
France OTR	4%	5%
Mediterranean	33%	56%
North East Atlantic	35%	27%
Total SSF	100%	100%

The diagram (Fig. 3.1-1) below highlights the percentage incidence of small scale vessels on total MS fleets. More than 75% of the total EU fleet is classified into the segment of passive gears below 12m. In fact, in nearly all EU countries, SSF represent a large part of the EU total fleet though it has to be assessed by region.

The incidence is more than 90% in Greece, Cyprus, Estonia and Finland and exceeds 85% in Slovenia. In Malta, Poland, Germany, Latvia, Bulgaria and Sweden the percentage incidence is above 70%; above 65% in Ireland, Italy, Lithuania, United Kingdom and Romania when in Denmark and France SSF accounts for half of the total fleets.

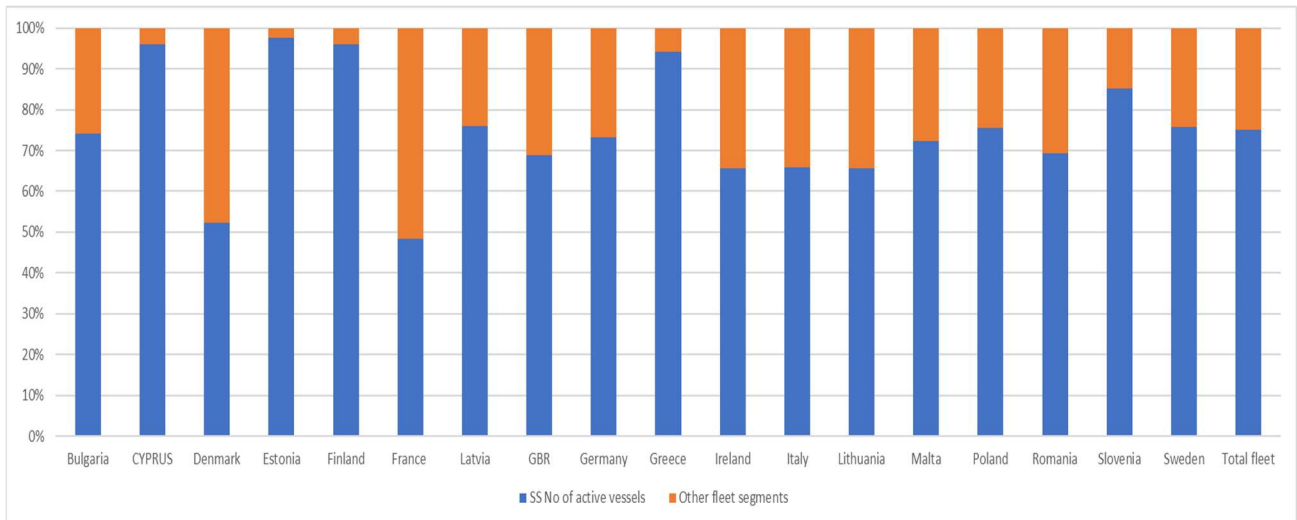


Figure 3.1-1 The percentage incidence of small scale vessels on total MS fleets (SSF Questionnaires)

Some Member States were not able to provide the number of inactive vessels classified by fleet segment, so it is not possible for them to calculate the incidence of inactive vessels on the whole SSF included in the data set. Other Member States classified inactive vessels by fleet segment based on the vessel activity (and prevalent fishing technique) of the previous year(s). For the thirteen member states which reported this information, the incidence of active vessels on the whole fleet is very high and on average is between 60%-70% in Finland, Malta, Poland, Romania, Sweden and Latvia and above 90% in Greece, Cyprus, Estonia, Italy and Malta. Only SSF fleets in Bulgaria and Slovenia show higher shares of inactivity above 30%.

The fleet is distributed in five vessel length classes that are not homogenous or easily comparable. Mediterranean countries use the segmentations 0<6m and 6<12m, but in some cases as in Italy, Bulgaria, Slovenia and Malta they add further segmentation as 6<10m and 10<12m, in order to facilitate comparison with the vessel length classes 0<10m and 10<12m, used in all other regions. In particular, the size class less than 10m seems too wide to understand properly the main peculiarities of vessels as those relating to vessels below and above 8m, considering that in Baltic vessels above 8m are required to keep logbooks. However, the main length class is <10 m with 32% of SSF vessels investigated, followed by length class 6<12 m (25%), 0<6 m (23%) and 6<10m (14%). The largest length class 10<12 m, counts only a 5% of the number of vessels and 9% of the number of employees, but it accounts 35% of the total SSF landings weigh and 19% of the total SSF landings value.

Table 3.1-3. Distribution of SSF vessels, employment, landings weight and value by length classes (SSF Questionnaires)

Length classes	% No. of active vessels	% No. of Employees	% Landing weight	% Landing value
< 6m	23%	19%	7%	13%
< 10m	32%	29%	35%	29%
6-<10m	14%	15%	9%	15%
6-<12m	25%	27%	14%	25%

10-<12m	5%	9%	35%	19%
Total	100%	100%	100%	100%

The following figure summarizes the percentage distribution of SSF vessels by MS and length classes.

For Mediterranean countries as Bulgaria, Italy, Cyprus, Malta, Romania and Mediterranean France the majority of SSF vessels belong to length classes 6<10m and 6<12m.

In the Baltic region and in the North Sea, the vast majority of SSF vessels are in the wide length class <10m. Also in GBR, Ireland and France Other regions, SSF vessels are mainly concentrated in the lowest class <10m.

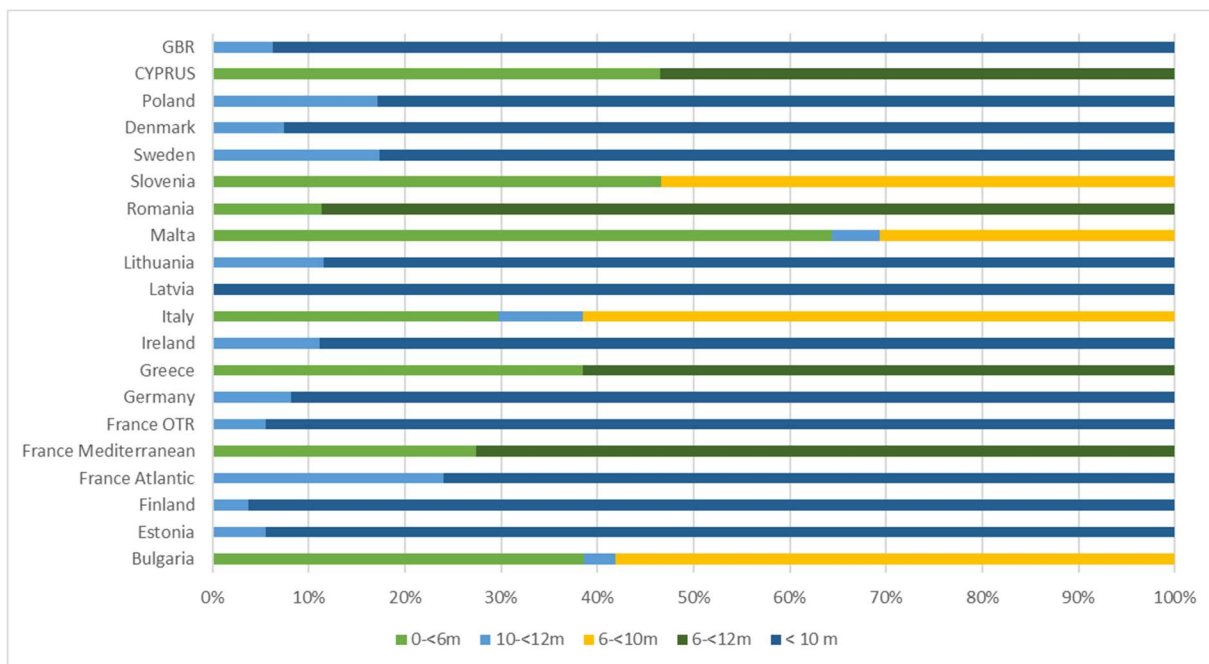


Figure 3.1-2. Distribution of the SSF vessels by Member State and length classes (SSF Questionnaires)

According to data collected from the questionnaires, 36% of the persons employed in SSF is concentrated in Greece, followed by Italy (22%), France (12%), UK (10%), Estonia (4%) and Finland (3%). All other countries account for less than two percent (2%) of the EU SSF total employment.

In some Member States (e.g. Greece, Finland, Estonia, Ireland, Denmark and Cyprus) SSF employment accounts for more than 80% of national employment in fisheries sector. In all other countries, SSF represent more than 50% of the total employment with the only exception of Malta, Latvia and Lithuania where SSF employees accounts for less than 30% of total employment in the sector.

In Mediterranean countries SSF employment is concentrated in length classes 6-<10m and 10-<12 m with the only exception of Malta where more than 50% of employment is engaged on vessels length class <6m. In all other regions, most SSF employment belongs to the length class <10m.

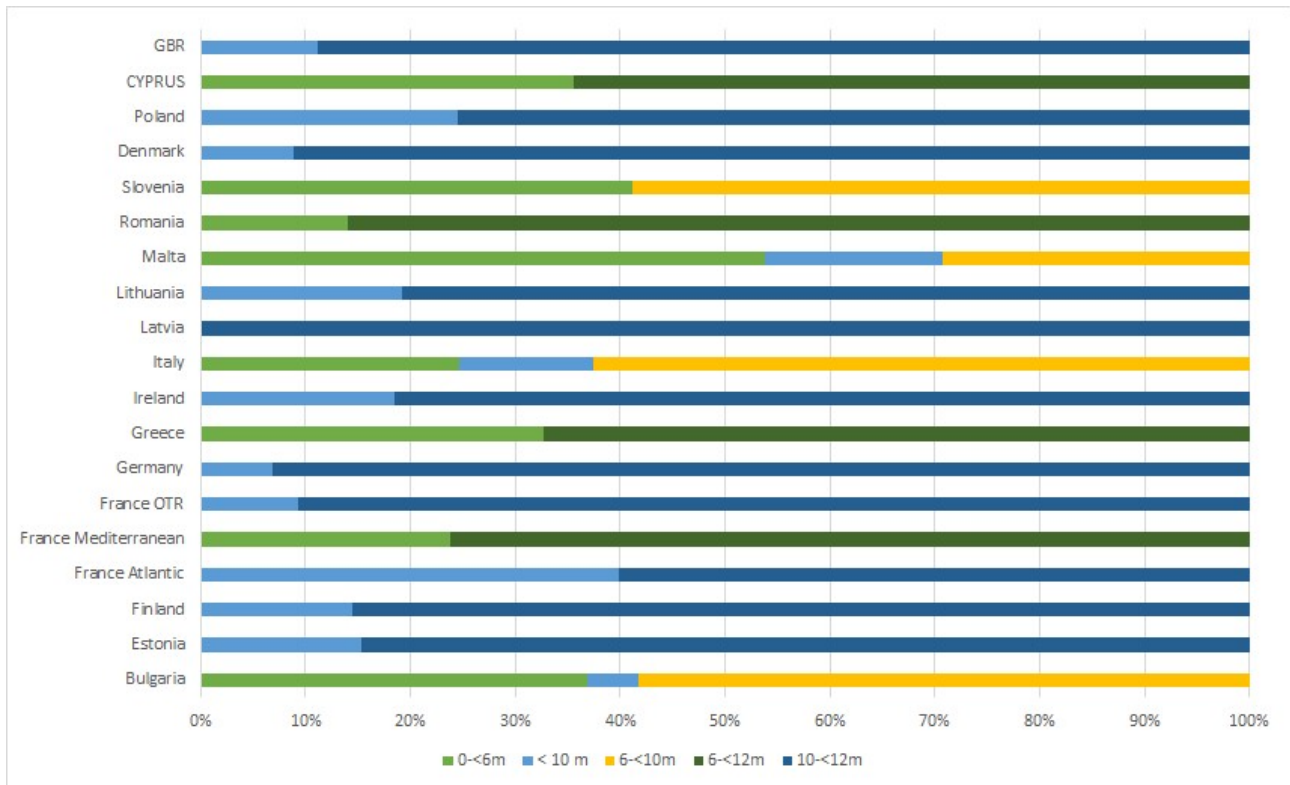


Figure 3.1-3. Distribution of SSF No. of employees by Member State and length classes (SSF Questionnaires)

The average number of employees in SSF is around two. However, the distribution of the average number of employees per vessel length classes highlights differences. Vessels length class 10-<12m engaged on average three or more persons (in Poland, Lithuania, UK, France OTR, France Atlantic, Finland and Estonia). In Mediterranean countries (France, Italy, Slovenia, Malta, Greece, Cyprus, Bulgaria and Romania), the average number of employees is around two in the larger vessel length classes 6-<10m and 6-<12m and one in the lower class.

The diagram below highlights the differences existing among European Member States in terms of value and weight of landings per unit of effort expressed in days at sea. Value of landings per unit of effort ranges from € 1 052 for France Atlantic to €14 for Bulgaria. Weight of landings per unit ranges from 391 KG for Atlantic France to 11 KG for Slovenia and Cyprus. This is dependent on the gear used and species caught. For some countries, as Ireland, effort data are not complete and results are thereby not presented here.

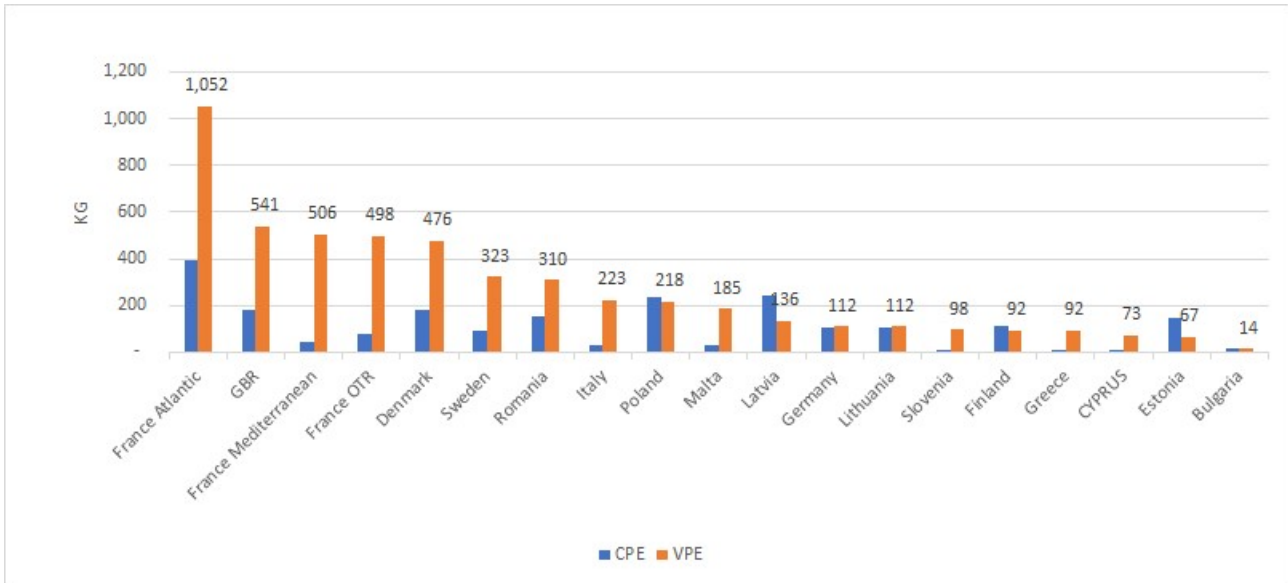


Figure 3.1-4. Value and weight of landings per unit of effort expressed in days at sea (VPE and CPE) by Member States (SSF Questionnaires).

Value and weight of landings per unit of effort ratios are heavily affected by the average SSF number of days at sea which presents high variability among MS, ranging from 9.7 average days at sea for Bulgaria to 180 for Greece.

According to data collected, SSF fleet segments of Greece, France Mediterranean, Italy, France Atlantic and Slovenia recorded the highest SSF activity levels above 100 average days at sea in 2015. This remains quite low comparing with the Large Scale Fleet segments for which average days at sea is mainly above 150 in 2015. In the same time, Bulgaria, Romania, Ireland and Malta recorded the lowest activity levels with less than 30 average days at sea in 2015.

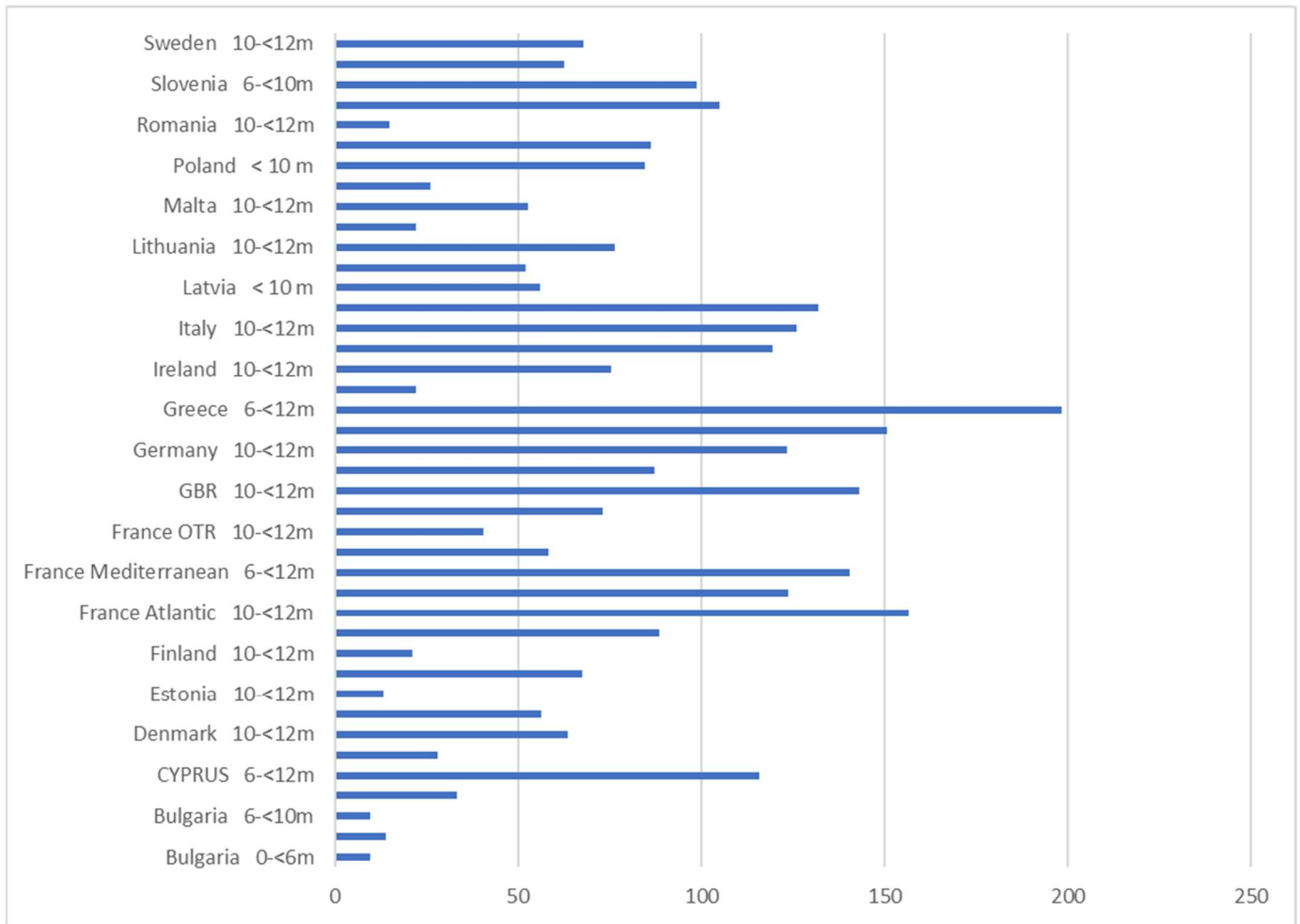


Figure 3.1-5. Average days at sea per vessel by main area and vessel length classes (SSF Questionnaires)

EU SSF fleets are also very diverse in terms of average landings value and weight per vessel. France Atlantic (110 295 euro), France Mediterranean (68 762 euro) and United Kingdom (41 955) report the highest average landings value per vessel. France Atlantic (41,030 KG) reported also the highest average landings weight per vessel followed by Poland and Ireland with an average production of around 20,000 kg.

Relative high landings value and low landings weight characterize most Mediterranean SSF fleets. This is due to the higher average prices of target species in Italy, Greece, Cyprus, Malta and Mediterranean France compared to other EU regions.

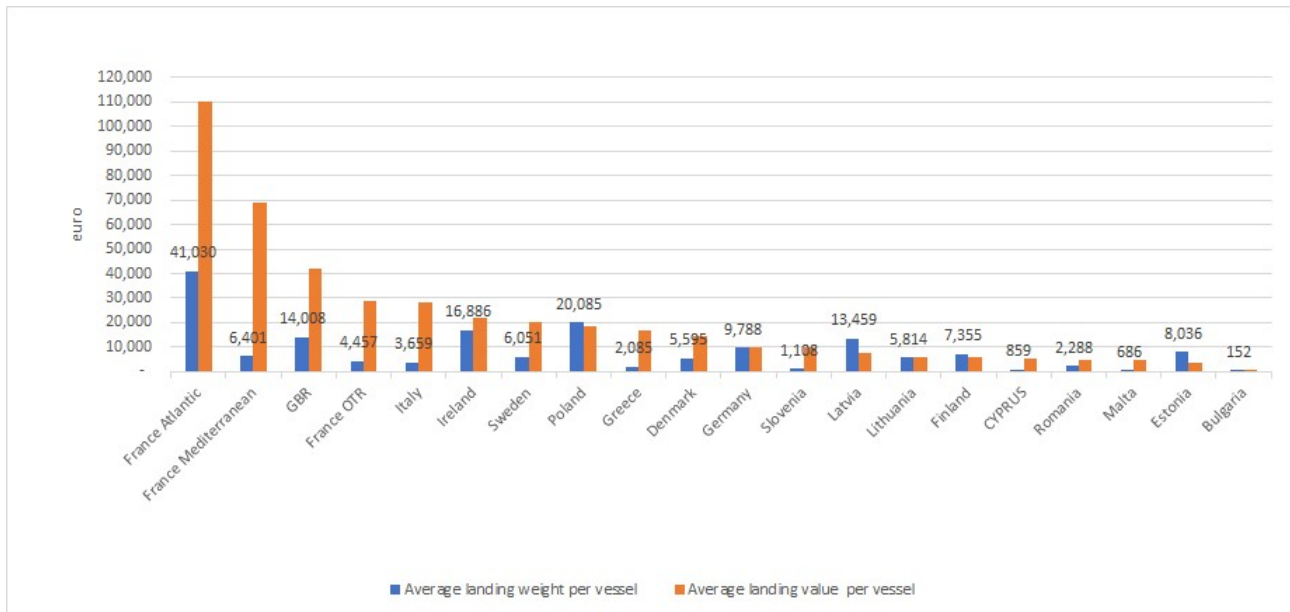


Figure 3.1-6. Average landing value and Average landing weight per vessel by MS (SSF Questionnaires)

Except for Lithuania, Estonia, Finland and Poland, where only one specie accounts for more than fifty percent (50%) of landings income, most of SSF fleet segments target more than three species (multi-species fleet).

With regard to the main gears used, only few SSF fleet segments (Bulgaria, Ireland, United Kingdom and Estonia), use mainly one gear when the other segments are mostly multi-gear fleet. The most used gears are trammel nets and set gillnets, followed by pots, set longline and hand lines.

Although SSF has a relative high importance in social terms in most European countries, only six of the eighteen countries answered the question regarding the role of family members. Accorded to these data collected, the number of family members employed in activities on shore ranges from around 25-30% for Mediterranean France, Lithuania, Greece to 40-50% for Romania, Atlantic France up to almost 80% for Italy.

Only, three MS answered the question regarding the incidence of SSF on household income of the boat owner. Data collected ranges from 50-60% for Slovenia and Mediterranean France to around 80% for Greece.

Regarding information on distribution channels, data were collected by twelve MS. The diagram below highlighted that for all regions, the main channels are wholesalers, fishmongers and direct sales. For example, in the Mediterranean regions the main sales channels are represented by fishmongers followed by wholesalers and direct sales. Processing industry is a specificity of the SSF fleet segments of the Baltic and North Sea regions where it represents the main sales market (absolutely different from the other regions).

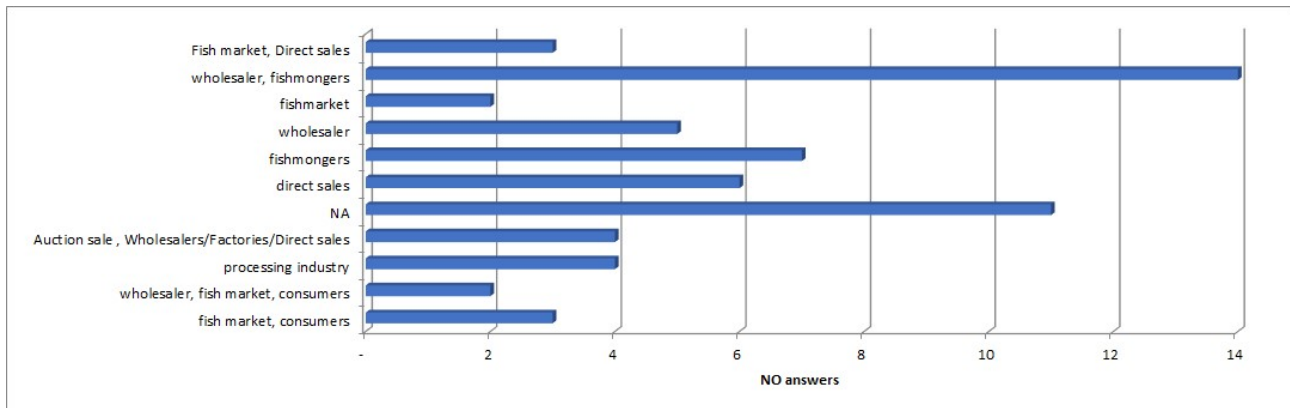


Figure 3.1-7. Main distribution channels (SSF Questionnaires)

Seventeen MS provided information on the data source used for effort variables and the type of data collection scheme underway in their MS. This also reflect the diversity of structures of SSF fleets. Two different type of SSF fishing activity data collection are now underway in EU: 1) census approach (with adapted declarative forms, sales notes, landings declarations, geolocalization data) and 2) sampling approach (stratified sampling of vessels or clustered sampling of fishing trips). Census approach is the most common way used for Member States with a relative limited number of vessels when sampling approach (implementation of a statistical survey) is the primary data collection source used in countries with large and fragmented SSF fleet segments as Italy and Greece.

Statistical surveys based on questionnaires are widely used by all countries to collect economic and social variables.

Most Member States report using alternative or supplementary data sources to verify the information. For example, in the United Kingdom, logbook, landings declaration and sales notes data are cross checked with other data sources (sightings, inspection data) to derive the activity and landings data. Similarly, in most Mediterranean countries, procedures are applied to verify the information obtained from the different sources, relating to the same variable (gears, days, catch and price for species), with the goal to identify and validate the final figure.

3.1.3 Conclusions and recommendations

SSF EU Fleet segments is marked by a high proportion of small-scale vessels and employees in nearly all EU countries though it has to be assessed by region as significant differences can occur between them. The employment in SSF represents more than fifty percent of the total workers in fishery in most countries when more than 75% of the total EU fleet is classified into the segment of passive gears below 12m.

SSF present a large diversity in terms of target species, gear used, activity levels and commercial strategies.

Disparities among countries are also evidenced in terms of productivity (value and weight of landings) per vessel and per unit of effort expressed in days at sea. Relative high landings value and low landings weight characterize most Mediterranean SSF fleets. This is due to the higher average prices of targets species in Mediterranean regions compared to other EU regions.

SSF is a typical multi-gear and multi-species fleet in nearly all EU countries. Only in Bulgaria, Ireland, United Kingdom and Estonia, SSF use mainly one gear. The most used gears are trammel nets and set gillnets, followed by pots, set longline and hand lines. Also, most SSF fleet segments target more than three species with the only exception of Lithuania, Estonia, Finland and Poland, where only one specie accounts for more than fifty percent of the landings income.

According to data collected, the average SSF days at sea represents high variability among MS. SSF fleet segments of Bulgaria, Romania, and Malta recorded the lowest SSF activity levels with

less than 30 average days at sea in 2015 when, in the same time, SSF fleet segments of Greece, France Mediterranean, Italy, France Atlantic and Slovenia recorded the highest SSF activity levels above 100 average days at sea. Nevertheless, this remains relatively quite low comparing with the Large Scale Fleet segments which reported average days at sea above 150 days in 2015.

SSF fleet is defined in different length classes that are not homogenous or easily comparable because Mediterranean countries use 0<6m and 6<12m, while all other regions use 0<10m and 10<12m. From the analysis it emerged that these length classes are not suitable for catching the real differences existing in terms of activity and productivity among fleet segments. A more appropriate limit could refer to vessels below or above 8m.

SSF has a relative high importance in social terms in most European countries. However, only six of the eighteen countries answered the question about the role of family members and only three MS answered the question regarding the incidence of SSF on household income of the boat owner. Accorded to data collected, the number of family members employed in activities on shore ranges from around 25-30% for Mediterranean France, Lithuania, Greece to 40-50% for Romania, Atlantic France up to almost 80% for Italy. Based on data collected, incidence of SFF household income of the boat owner, ranges from 50-60% for Slovenia and Mediterranean France to around 80% for Greece.

Disparities among MS also emerged regarding the main sales market channels and data collection methodologies. For most of the countries, main sales market channel are wholesalers, fishmongers and direct sales with the notable exception of SSF fleet segments from Baltic and North Sea regions where the picture is absolutely different and the main sales market is processing industry.

Data collection procedures also reflect the diversity of structures of SSF fleets. Administrative data sources (census approach) such as logbooks, adapted declarative forms, sales notes, landings declarations, geolocalization (mainly VMS) data are the most used sources of landings and effort data in Member States with a relative limited number of vessels. Statistical survey (sampling approach as stratified sampling of vessels or clustered sampling of fishing trips) is the primary fishing data source in countries with large and fragmented SSF fleet segments as Italy and Greece.

Statistical surveys based on questionnaires are widely used by all countries to collect economic and social variables.

Finally, most Member States report using alternative or supplementary data sources to verify the information. Validation by comparison with different sources therefore represents a fundamental best practice to overcome problems with reliability and completeness of data collected.

3.2 Management measures per macro-area (ToR 2)

Prior to the meeting MS were asked to summarise any management measures used in their SSF. These were presented by each MS at the meeting. At the meeting itself MS were also asked to provide a summary of their fleet registration systems and how this may influence estimates of SSF activity.

The data collected before and during the meeting was not complete for all MS. MS provided a varying amount of detail resulting in any meaningful conclusion difficult to make. The exercise did highlight the variety of management measures in places in MS which reflect the heterogeneity and diversity of the SSF fleets across MS.

3.2.1 Fleet Registers

The system of vessel registration by MS can impact on how activity is estimated. In most MS fishing vessels must apply for a licence and then they are placed on National registers. The frequency of licence renewal can differ between Member States as does the amount of vessels remaining on national registers that might not be active. This is particularly the case for Italy as vessel licences only have to be renewed every eight years. A summary of systems currently on-going in several MS are summarised below.

- **Bulgaria** – Vessels must have a fishing licence.
- **Cyprus** - There are 3 types of SSF licenses issued in Cyprus, based on the Fisheries Act:
Small scale fisheries licenses called “Category A” (Full time fishing); “Category B” (Part time fishing) and “Category C” (Occasional fishing). All SSF licenses are based on the legislation, only for vessels belonging to the vessel length class 4-<12m. The maximum number of SSF licenses for “Categories A & B” is 327 and they are issued every one to three years whereas the “Category C” licenses are issued on an annual basis. The mean number of licenses issued per year for this category is around 420 and they are allowed to fish for only 70 specific days per year.
- **Finland** - According to the Fishing Act (379/2015), all commercial fishermen must be entered in the commercial fishermen register and the Act on the registration of fishing and aquaculture vessels operating at sea (690/2010) obliges all vessels and boats engaged in commercial marine fishing under a Finnish flag to be registered.
- **Greece** - A licensing system is in place for commercial fishing in waters under Greek sovereignty. A fishing license is valid for two years. It can be transferred and renewed under certain terms and conditions. A fishing permit is valid for one year.
- **Ireland** - In general, sea fishing boat licences are renewed by the Licensing Authority for Sea-Fishing boats on an annual basis. National fleet segmentations are divided into five segments in accordance with national policy directives. Under this segmentation SSF are included in the Beam Trawl, Polyvalent (multi-purpose including small inshore vessels) and Specific segment (permitted to fish for bivalve molluscs and aquaculture species).
- **Italy** – All vessels, fishing by means of all possible gears are required to possess a licence, which is centrally managed by the Direction of Fishery of the Ministry of Agriculture Policy. The fishing license is a formal authorization issued by the Ministry to the ship owner; the license specifies detailed terms and conditions for the operations, including limitations of fishing areas, gear use and fishing categories (overseas and ocean-going fishing, Mediterranean fishing, in-shore coastal fishing, local coastal fishing, service boats). On the license all the characteristics of the vessel used for the fishing activity are reported in order to identify the vessel (among these, the name of the vessel, the EU number, GT, kW, LOA). Consequently, one fishing license corresponds to one fishing vessel. Licenses are valid for eight years and are renewed on the request of the ship owner. To get a license renewal, the ship owner have to fill out a form indicating the technical characteristics of the boat and the main gears.

- **Portugal** - The licenses are requested every year. To get a license renewal, each vessel have to achieve in the preceding year a minimum of fishing days and a minimum of sales, adjusted to the number of days accorded with the license.
- **Romania** - Commercial fishing license is released at the owner's request for vessels/fishing craft registered in the Fishing Vessel/Boat register and is granted according to the quotas. The license is issued for one year and is endorsed at the beginning of every year.
- **Slovenia** - Slovenia has a licensing system for all of the fishing fleet. Licenses are linked to fishing vessels and are granted for an indefinite period (for ever).
- **Sweden** – A licence is required in order to be able to sell landings. Licenses are issued by SwAM (Swedish Agency for Marine and Water Management). Licenses are renewed every year.

3.2.2 Management Measures

As highlighted throughout the meeting the lack of/or incomplete and low quality information for SSF has resulted in a low perceived importance for SSF stocks and economic output (e.g., landings value and effort). This lack of data has been highlighted as one of the main issues in obstructing management for SSF. While, in general, SSF can be less harmful to stocks than LSF due to their less intensive fishing methods they can in certain areas have significant impact on stocks in certain local fisheries where there is overcapacity, internal competition and over-exploited stocks.

Besides some overarching EU management measures such as minimum conservations references sizes (MCRS), EU 850/1998, the management of SSF takes place at the local, regional or national level reflecting the diverse and often specific fisheries and their associated ecosystems. Most SSF also occur in MS EEZs where national authorities are responsible for the conservation and management of natural resources.

During this meeting a sample of measures for SSF were requested from Member States which are summarised below. The varied spread of management measures reflects the diversity of the SSF across all the MS.

- **Cyprus**

As detailed in the background to their licensing system Cyprus has restricted license numbers and effort restrictions based on license categories for SSF.

- **Greece**

The national legislation provides local and temporal restrictions on the use of certain fishing gears and seasonal restrictions on fishing for certain species. Minimum sizes and protected species are covered by the European Union legislations EU 1967/2006, EU 1534, EU 1639 and EC 93/2010.

For **trammel nets** and bottom-**set gillnets**

1. The maximum drop of a trammel net shall not exceed 4m.
2. The maximum drop of a bottom-set gillnet shall not exceed 10m.
3. It shall be prohibited to have on board or set more than 6 000m of trammel net or bottom-set gillnet per vessel, taking into account that, as from January 2008, in the case of a single fisherman, such nets may not exceed 4 000m, to which a further 1 000m may be added for a second fisherman and another 1 000m for a third one. Until 31 December 2007 such nets shall not exceed 5 000m in the case of single or a second fisherman and 6 000m for a third one.

For **combined bottom-set nets** (trammel nets plus gillnets)

1. The maximum drop of a combined bottom-set net shall not exceed 10m.

2. It shall be prohibited to have on board or set more than 2 500m of combined bottom-set nets per vessel.

3. By way of derogation from paragraph 1, a combined bottom-set net of maximum length of 500m may have a maximum drop of 30m. It shall be prohibited to have on board or set more than 500m of combined bottom-set nets when it exceeds the drop limit of 10m as established in paragraph 1.

For bottom-set longline

1. It shall be prohibited to have on board or set more than 1 000 hooks per person within the overall limit of 5 000 hooks per vessel.

2. By way of derogation from paragraph 1 each vessel undertaking fishing trips longer than three days may have on board a maximum number of 7 000 hooks.

For surface-set longline (floating)

It shall be prohibited to have on board or set more than:

1. 2 000 hooks per vessel for vessels targeting bluefin tuna (*Thunnus thynnus*) where this specie accounts for at least 70% of the catch in live weight after sorting;

2. 3 500 hooks per vessel for vessels targeting swordfish (*Xyphias gladius*) where this specie accounts for at least 70 % of the catch in live weight after sorting;

3. 5 000 hooks per vessel for vessels targeting albacore (*Thunnus alalunga*) where this specie accounts for at least 70 % of the catch in live weight after sorting;

4. By way of derogation from subparagraphs 1, 2 and 3 each vessel undertaking fishing trips longer than two days may have on board an equivalent number of spare hooks (in case 1: 2000; in case 2: 3500; and case3: 5000).

For fyke nets, pots, traps and rectangular traps

It shall be prohibited to have on board or set more than:

1. 1 000 pairs of fyke nets per vessel
2. 15 000 pots per vessel
3. 300 traps or rectangular traps per vessel

Fisheries with fyke nets and pots are prohibited from 1/7 to 30/9 every year. Fisheries with traps and rectangular traps are prohibited from 1/5 to 31/7 every year. Fisheries with any kind of pots and traps are allowed in depths of more than 10m.

Ireland

Besides EU minimum conservation reference sizes for species caught in SSF there are a number of national and local measures which are summarised below.

Scientific Species Name		FAO MCRS	Local Measures	Other Measures
Brown Crab	<i>Cancer pagurus</i>	CRE	130 mm CW, 140 mm N of 56oN	Proposal to increase MLS to 140mm nationally
Whelk	<i>Buccinum undatum</i>	WHE	Length 45 mm, width 25 mm	
Lobster	<i>Homarus gammarus</i>	LBE	min 87 mm CL, max 127 mmCL	V-notching, TCM

Shrimp	<i>Palaemon serratus</i>	CPR		Local extensions of closed season	Closed season 15th March to 1st August 2015 Shrimp order SI 180(2002)
Crayfish	<i>Palinurus elephas</i>	CRW	110 mm CL	Local areas closed to tangle netting by order	Crawfish Order 2002
Spider Crab	<i>Maja brachydactyla</i>	SCR	Min LS 120 mm CL Female 130mm CL Male		
Velvet Crab	<i>Necora puber</i>	LIO	TBA		65mm Minimum landing size being proposed
King Scallop	<i>Pecten maximus</i>	SCE	100 mm, 110 mm VIIa N of 52o 30'N		Sub-segment capacity limited for vessels >10m
Queen Scallop	<i>Aequipecten opercularis</i>	QSC	40 mm		
Cockle	<i>Cerastoderma edule</i>	COC	22 mm Dundalk Bay	Dundalk Bay	NATURA, Limited entry, limited opening, TAC, catch limit
Flat Oyster	<i>Ostrea edulis</i>	OYF	76-78 mm	Locally managed in Tralee Bay, Clew Bay, Lough Foyle, Kilkerrin, Achill and Belmullet	
Razor Clam	<i>Ensis</i>	RAZ	100 mm		Weekly Catch Limits, GPS Tracker
Surf Clam	<i>Spisula</i>		25 mm	Waterford Estuary	Daily catch limit, limited opening

- Italy

Management regulations are mainly based on input controls or technical measures, such as mesh size, area limitation, time closure and minimum landing sizes (EC Reg. 1967/06 enforcing the main measures for the Mediterranean fisheries).

As regard the management of the fishing capacity, adjustment plans contained in the EFF Operating Programme were adopted. The adjustment plans contained decommissioning levels calculated in order to be compatible with a gradual pathway toward rebalancing fish stocks. For small scale fleet, with reference to biological resource status and on the basis of biological parameter estimates, the decommissioning plan should bring about a reduction ranging between 8% and 3% of fishing effort.

Management measures concerning small-scale fishery were recently focused on the possibility of enforcing property rights on the country's actual situation. Through the provision of Article 37 of Regulation (EC) 1198/06 on the European Fisheries Fund - (EFF),

which allows the possibility of financing the drafting of local management plans (LMPs), local communities have been provided with an intervention tool that is totally innovative in relation to presently available management instruments in Italy. LMPs are the result of a consultation and sharing process with fishing trade associations and field operators and include any measures that impose more restrictive regulatory obligations compared to those indicated in EU legislation, such as to keep on board a more limited number of gears, to harmonize rules for access and fishing activity in the area concerned, to encourage the use of fishing techniques with reduced environmental impact and to improve the treatment and quality of product.

In the most recent period the enhancing the small-scale fisheries was further promoted through the birth of management address consortia which allows employees to take on tasks of their own self-regulatory activities levy, in particular in those areas subject to special protection schemes, as in the case of marine protected areas. By Ministerial Decree of 7 December 2016 a new framework has been defined to manage small-scale/artisanal fisheries, aimed to encourage a strong dialogue at local, regional and national level among all interested stakeholders. This means *inter alia* to work for *ad hoc* vocational training addressed to actors as consortia partners, to offer them *ad hoc* financial opportunities to be accessed through open and simplified procedures, to give them minimum safety and social security standards, to let them access to new forms of sustainable R&D investments.

- **Finland**

The offshore fleet is managed mainly through TACs that are shared between Baltic Sea countries. The main quota species for the small-scale coastal fisheries is salmon. Apart from salmon the coastal fleet target mostly freshwater species that do not have quotas but are managed with licenses, seasonal closures and gear restrictions. Since 2017 ITQ regime was introduced in the Finnish pelagic and salmon fisheries. The allocation of the fishing rights was based on track record. Furthermore, the fishing law reform sanctioned the coastal fishing reports for all small-scale coastal vessels from the beginning of 2015 and therefore the estimation of non-response has been abolished.

- **Portugal**

At the national level, the legal framework for fishing is provided by national regulation, which regulates the fishing activity and marine cultures in waters under their sovereignty and jurisdiction. There is a diploma (DL 383/98) from 1998 that establishes the basic principles for the management of resources.

Decree-Law 43/87 defines national measures for the conservation of biological resources applicable to fishing in both oceanic and inland waters under Portuguese sovereignty and jurisdiction. Among the measures included are the establishment of areas for the operation of vessels, requirements and characteristics of vessels and the establishment of a licensing scheme for professional fishing. It was under this law that fisheries regulations were published in 2000 for the various types of fishing, a fundamental instrument of the national policy for the management of fishing activity in oceanic and maritime inland waters.

These diplomas complement, in the case of regulated gear at European Union level, (e.g. trawls and gill nets) the Community resource management measures, which are compulsory. These national measures apply only to the Portuguese fleet, except in the case of the Frontier Agreements with Spain.

Restrictions on the allocation of fishing licenses are one of the main measures to prevent the rise of fishing capacity and fishing effort. With the aim of conserving marine resources, the allowed fishing gears and forbidden techniques are defined by law. For species that lack a minimum sizes in Community legislation, they may be set by Order of the National Government.

When the resource situation is at risk, fishing licenses for gear not used for at least two years are not renewed (in the case that the composition of the discards does not contain any quantity of species for which the gear is intended). The license may be refused when

the applicants have been penalized for infringing the fishing activity rules three or more times in the previous 12 months and in the case of vessels that do not have had license in the last six years.

- **Romania**

Management measures for SSF are issued by national legislation that regulates the fishing activity. For example, Order no.807/2016 establishes the approvals on access to living aquatic resources in the public domain of the State in order to engage in commercial fishing in natural habitats and Order no. 449/2008 outlines the technical characteristics and conditions for the use of gears authorized for commercial fishing and the commercial fishing methods in marine and continental waters.

- **Slovenia**

No additional management measures are provided for SSF in Slovenia. All Slovenian vessels, including those less than 10 meters, are obliged to submit logbooks for all quantities landed (even if the volume of landings is just one kg).

3.3 Data needs in relation to peculiarities of small-scale vessels (ToR 3) and Suggested data collection procedures for SSF (ToR 5)

3.3.1 Methodology

As the two ToR 3&5) are significantly related, the workshop decided to deal with them together, having however a special focus (linked more specifically with the ToR3) on the methodologies underway in MS to calculate fishing effort estimates (*e.g. Number of trips, Days at sea, Fishing days, Total length of nets/number of pots/number of hooks*).

To that end, first the workshop discussed the main findings and outstanding questions arising from previous meetings on small-scale fisheries and deal with some of questions/issues raised during them. Then, the workshop discussed the on-going SSF data collection procedures of 15 MS presented during the workshop (*Bulgaria / Slovenia / Germany / Denmark / Lithuania / Latvia / Cyprus / Finland / Sweden / Greece / United Kingdom / Poland / Ireland / Italy / Portugal*).

The following table summarises the data collection procedures in used in each member state and describe the major concerns raised by country. A digest of the presentations given (*highlighting the following key issues, namely; Data collection procedures for SSF, Methods for estimating fleet activity, and Methods and data issues for fishing effort/transversal calculations*) can be also found in annex 5.

Table 3.3-1. Summary table of gathered Effort variables by country and type of data collection for SSF

Country	Region	Type of data collection	Sources	Fleet segment	Effort variables (Yes/No)							If available, spatial distribution resolution	1 trip = 1 day at sea = 1 fishing day assumptions applied	Comments
					Number of trips	Days at Sea	Fishing Days	Fishing hours	Length of gears	Number of gears	Gear mesh size			
BGR	Mediterranean	Census	Logbooks	0-12m	Declared	Yes	Yes	Yes	Yes	Yes	Yes	GSA 29	Yes	
DNK	Baltic	Census	Sales notes	0-8 m	Yes	Yes	Yes	No	No	No	No	Management area	Yes	
DNK	North Sea	Census	Sales notes	0-10 m	Yes	Yes	Yes	No	No	No	No	Management area	Yes	
FIN	Baltic	Census	Coastal reports / Landings declaration	0-10m	Declared	Yes	Yes	Yes	Yes	Yes	Yes	Statistical rectangle	Yes	
FIN	Baltic	Census	Logbooks	10-12m	Declared	Yes	Yes	Yes	Yes	Yes	Yes	statistical rectangle	Yes	
FRA	Atlantic, Channel and North Sea	Census	Fishing fleet register, Fishing activity calendars, Monthly declarative forms, Sales notes data	0-10m	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Based on declaration in Monthly declarative forms (some vessels are equipped with geolocalization tools to improve this) + Fishing activity calendars	Yes	Completeness of the declarative data: ~90% of the total active fleet (comparison with exhaustive fishing calendars)

Country	Region	Type of data collection	Sources	Fleet segment	Effort variables (Yes/No)							If available, spatial distribution resolution	1 trip = 1 day at sea = 1 fishing day assumptions applied	Comments
					Number of trips	Days at Sea	Fishing Days	Fishing hours	Length of gears	Number of gears	Gear mesh size			
FRA	Atlantic, Channel and North Sea	Census	Fishing fleet register, Fishing activity calendars, Logbooks, Sales notes data	10-12m	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Based on declaration in logbooks (some vessels are equipped with geolocalization tools to improve this) + Fishing activity calendars	Yes	Completeness of the data: ~95% of the total active fleet (comparison with exhaustive fishing calendars)
IRL	North Atlantic	Census	Sales Notes	0-12m	Declared /Estimated				Yes	Yes			Yes	Difficult to assign gear to sales notes for gears other than FPO and DRB.
IRL	North Atlantic	Census	Landings declaration	10-12m	Declared /Estimated	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Improvement of sales notes for vessel length class 10-12m
LTU	Baltic	Census	Coastal logbooks	0-8m	Yes	Yes	Yes	No	Yes	Yes	Yes	based on district borders	Yes	
LVA	Baltic	Census	Coastal logbooks	0-10m	Yes	Yes	Yes	No	Yes	Yes	Yes	based on district borders	Yes	

Country	Region	Type of data collection	Sources	Fleet segment	Effort variables (Yes/No)							If available, spatial distribution resolution	1 trip = 1 day at sea = 1 fishing day assumptions applied	Comments
					Number of trips	Days at Sea	Fishing Days	Fishing hours	Length of gears	Number of gears	Gear mesh size			
POL	Baltic	Census	Monthly catch reports	0-10m	Declared	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
POL	Baltic	Census	Logbooks	10-12m	Declared	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
ROU	Mediterranean	Census	Logbooks	0-12m	declared	Yes	Yes	Yes	Yes	Yes	Yes	GSA 29	Yes	
SVN	Mediterranean	Census	Logbooks	0-12m	Yes	Yes	Yes	Yes	Yes	Yes	Yes	GFCM area	Yes	
SWE	Baltic Sea	Census	Journal	0-8m	Declared	Yes	Yes	No	Yes	Yes	No	Latitude and longitude, degree and full minutes. (N/E)	Yes	
SWE	North Sea	Census	Journal	0-10m	Declared	Yes	Yes	No	Yes	Yes	No	Latitude and longitude, degree and full minutes. (N/E)	Yes	
UK	NE Atlantic	Census	Logbooks + landings declarations/sales notes	10-12m	Declared	Yes	Yes	Yes	Yes	Yes	Yes	ICES rectangle/ Zone	Yes	Also use landings declarations and sales notes for these trips as checks on the species and quantity of fish but the activity data is derived from the EU logbook.

Country	Region	Type of data collection	Sources	Fleet segment	Effort variables (Yes/No)							If available, spatial distribution resolution	1 trip = 1 day at sea = 1 fishing day assumptions applied	Comments
					Number of trips	Days at Sea	Fishing Days	Fishing hours	Length of gears	Number of gears	Gear mesh size			
														Fishing hours is reported on the logbook but the quality has not been assessed
UK/ Scotland	NE Atlantic	Census	Weekly activity summary + Sales notes	0-10m	Declared	Yes	Yes	Yes	Yes	Yes	No	ICES rectangle/ Zone	Yes	For Scotland: A weekly activity summary is required from 10m and under vessels (not EU logbook format) - this is cross-checked against sales note data. Each day of activity = 1 fishing trip, so number of fishing trips = number of calendar days = number of days at sea.
UK exc. Scotland	NE Atlantic	Census	Sales notes	0-10m	Estimated	Yes	Yes	Yes	Yes	Yes	No	ICES rectangle/Zone	Yes	For the UK Exc. Scotland: Gear, meshsize, gear dimension and spatial data are estimated and added to the sales note information. Each Date of sale = date of landing = 1 fishing trip, so

Country	Region	Type of data collection	Sources	Fleet segment	Effort variables (Yes/No)							If available, spatial distribution resolution	1 trip = 1 day at sea = 1 fishing day assumptions applied	Comments
					Number of trips	Days at Sea	Fishing Days	Fishing hours	Length of gears	Number of gears	Gear mesh size			
														number of fishing trips = number of calendar days with a sale recorded = number of days at sea.
PRT	Atlantic	Census	Sales notes	0-10m	Estimated	No	No	estimated	estimated	estimated	No	assign to 27.9.a	Yes	Mainland
PRT	Atlantic	Census	Logbooks + Sales notes	10-12m	Declared	Yes	Yes	Yes	Yes	Yes	Yes	ICES rectangle	No	Mainland
PRT	Atlantic	Census	Sale Notes	0-10m	Estimated	Yes	No	Yes	estimated	estimated	No	assign to 27.10.a	No	Azores
PRT	Atlantic	Census	Logbooks + Sales notes	10-12m	Declared	Yes	Yes	Yes	Yes	Yes	Yes	ices rectangles	No	Azores
DEU	Baltic Sea	combined	landings declaration	0-8m	gear dependent	No	partially	No	gear dependent	No	No	Statistical ICES rectangle	Yes	
			on-board sampling	0-8m	recorded	Yes	Yes	No	No	No	Yes	Statistical ICES rectangle	Yes	

Country	Region	Type of data collection	Sources	Fleet segment	Effort variables (Yes/No)						If available, spatial distribution resolution	1 trip = 1 day at sea = 1 fishing day assumptions applied	Comments	
					Number of trips	Days at Sea	Fishing Days	Fishing hours	Length of gears	Number of gears				Gear mesh size
			questionnaire	0-8m	declared	No	Yes	No	Yes	No	No	No	Yes	
DEU	North Sea	combined	landings declaration	0-10m	gear dependent	No	partially	No	gear dependent	No	No	Statistical ICES rectangle	Yes	
			on-board sampling	0-10m	recorded	Yes	Yes	No	No	No	Yes	Statistical ICES rectangle	Yes	
			questionnaire	0-10m	declared	No	Yes	No	Yes	No	No	No	Yes	
CYP	Mediterranean	combined	production reports	0-10m	Declared	Yes	Yes	Yes	Yes	Yes	No	GFCM area	Yes	
FRA	Mediterranean	Sampling	Fishing fleet register, Fishing activity calendars, Monthly declarative forms, Sales notes data + On-site sampling (Catch	0-10m	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Based on declaration in on-site sampling survey (some vessels are equipped with geolocalization tools to	Yes	Completeness of the declarative data: ~45% of the total active fleet (comparison with exhaustive fishing calendars) - do not cover every fishery/area - has to be completed with on-site sampling survey

Country	Region	Type of data collection	Sources	Fleet segment	Effort variables (Yes/No)							If available, spatial distribution resolution	1 trip = 1 day at sea = 1 fishing day assumptions applied	Comments
					Number of trips	Days at Sea	Fishing Days	Fishing hours	Length of gears	Number of gears	Gear mesh size			
			assessment survey)									improve this)		
FRA	Mediterranean	Sampling	Fishing fleet register, Fishing activity calendars, Logbooks, Sales notes data + On-site sampling (Catch assessment survey)	10-12m	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Based on declaration in on-site sampling survey (some vessels are equipped with geolocalization tools to improve this)	Yes	Completeness of the declarative data: ~55% of the total active fleet (comparison with exhaustive fishing calendars) - do not cover every fishery/area - has to be completed with on-site sampling survey
FRA	Other regions	Sampling	Fishing fleet register, Fishing activity calendars, Monthly declarative forms On-site sampling (Catch	0-10m	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Based on declaration in on-site sampling survey (some vessels are equipped with geolocalization tools to	Yes	Completeness of declarative data is estimated regions by regions, differences can occur between them. Nevertheless, usually, declarative data are insufficient

Country	Region	Type of data collection	Sources	Fleet segment	Effort variables (Yes/No)							If available, spatial distribution resolution	1 trip = 1 day at sea = 1 fishing day assumptions applied	Comments
					Number of trips	Days at Sea	Fishing Days	Fishing hours	Length of gears	Number of gears	Gear mesh size			
			assessment survey)									improve this)		and effort variables are estimated on the basis of data available through on-site sampling survey
FRA	Other regions	Sampling	Fishing fleet register, Fishing activity calendars, Logbooks On-site sampling (Catch assessment survey)	10-12m	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Yes/estimated	Based on declaration in on-site sampling survey (some vessels are equipped with geolocalization tools to improve this)	Yes	Completeness of declarative data is estimated regions by regions, differences can occur between them. Nevertheless, usually, declarative data are insufficient and effort variables are estimated on the basis of data available through on-site sampling survey

Country	Region	Type of data collection	Sources	Fleet segment	Effort variables (Yes/No)							If available, spatial distribution resolution	1 trip = 1 day at sea = 1 fishing day assumptions applied	Comments
					Number of trips	Days at Sea	Fishing Days	Fishing hours	Length of gears	Number of gears	Gear mesh size			
IRL	North Atlantic	Sampling	Sentinel Vessel Logbooks	0-12m	Declared	Yes	Yes	Yes	Yes	Yes	Yes	Grid Reference	Yes	For some fisheries fine resolution Data (effort, landings, position) is known due to local management measures such as the Razor fisheries and Dundalk Cockle fishery.
ITA	Mediterranean	sampling	questionnaires	0 -10m	Declared	Yes	Yes	Yes	Yes	Yes	Yes	GFCM area & Italian region	Yes	
ITA	Mediterranean	sampling	questionnaires/logbooks	10- 12m	Declared	Yes	Yes	Yes	Yes	Yes	Yes	GFCM area & Italian region	Yes	
PRT	Atlantic	sampling	Survey	<12m	Declared	Yes	Yes	Yes	estimated	estimated	estimated	Yes	No	AZORES. Effort variables and spatial distributions only known for the inquired (sampled) trips

Country	Region	Type of data collection	Sources	Fleet segment	Effort variables (Yes/No)							If available, spatial distribution resolution	1 trip = 1 day at sea = 1 fishing day assumptions applied	Comments
					Number of trips	Days at Sea	Fishing Days	Fishing hours	Length of gears	Number of gears	Gear mesh size			
GRC	Mediterranean	Simple random sampling	Survey data/paper logbooks/self reported data	0-6m and 6-12m	Declared	Yes	Yes	Yes	Yes	Yes	Yes	GFCM area	Information from the survey/ in case of limited information we use 1 trip = 1 day at sea=1 fishing	

3.3.2 Main conclusions previous meeting on SSF

Recently, several works have highlighted the need to improve our knowledge about small-scale fisheries in order to secure their sustainable development (*Chuenpagdee et al., 2006; Salas et al., 2007; Chuenpagdee Ed., 2011, Guyader O. et al., 2013; FAO, 2015, see references*). In the same time, the European Commission stressed the intention to provide support to the small-scale sector under the reformed CFP and to promote small-scale coastal fishing activities. The European Maritime and Fisheries Fund regulation includes many references to small-scale coastal fishing and as an example Article 25 states: *"With a view to promoting small-scale coastal fishing, Member States having a significant small-scale coastal fishing segment should attach, to their operational programmes, action plans for the development, competitiveness and sustainability of small-scale coastal fishing"*. SSF also receives growing attention within Marine Spatial Planning (MSP) initiatives.

In this context, a number of meetings, research studies and workshops have dealt with the SSF data collection issue during the last 10 years, among them it could be mentioned: *Workshop on Small-Scale Fisheries, Kavala (Greece), 2005, Small-Scale Coastal Fisheries in Europe, research project (No FISH/2005/10), 2007, DCF Workshop on Common understanding and statistical methodologies to estimate/re-evaluate transversal data in small-scale fisheries, Nantes (France), 2013, ICES Working Group on commercial catches (WGCATCH), Lisbon (Portugal), 2015, ICES Working Group on commercial catches (WGCATCH), Oostende (Belgium), 2016, 2nd DCF Workshop on Transversal Variable, Nicosia (Cyprus), 2016 or FishPi research project (EU MARE/2014/19) , 2016 (see references).*

The workshop discussed the main findings and outstanding questions arising from these previous meetings and deal with some of questions/issues raised during them.

Based on all these works, results of the ToR1 and group's discussions, the workshop concluded that SSF is an important component of many EU fisheries and that it is essential to estimate the fishing activities of SSF in terms of fishing effort, volume and value of catches as a minimum requirements of data to answer the different on-going regulations (*e.g. CFP (protect small scale vessels sector), Control Regulation, Management Plan in the Mediterranean Sea, Marine Strategy Framework Directive (MSFD), Natura 2000, Marine Protected Area (MPA), Water directive, ...*). Furthermore, work done under the ToR1 (and in similar way results of WGCATCH 2015) document the importance of SSF and how much they can contribute significantly to landings and effort in some areas.

The workshop highlights that SSF could be a major concern for stock assessment, fishery spatial management, socio-economic studies (and so-on) but are often underreported and difficulties arise to have access to this information, noted that it should be assessed regionally by fisheries, species or areas because significant differences can occur between them.

The workshop agreed with the conclusion of 2015 WGCATCH: *'SSF are important in nearly all countries (no particular north/south distinction) but seemed to be trapped in a vicious cycle where due to incompleteness and lower quality of existing data on this component, systematic lower importance was assigned to it relative to larger scale fleets (the following schema summarised this cycle in comparison with the state of Large Scale Fleets).*

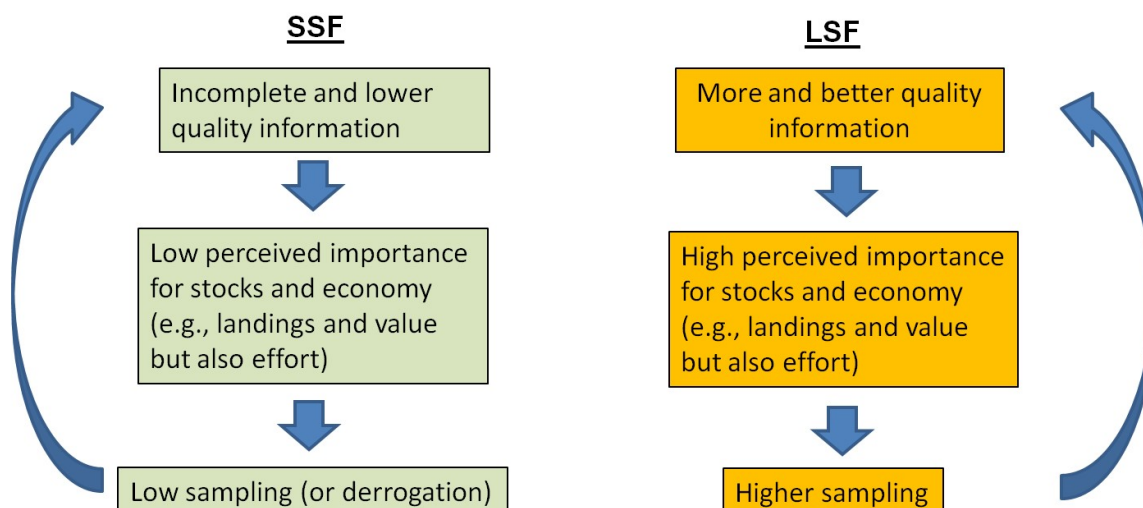


Figure 3.3-1. SSF data quality vicious cycle compared with LSF

The group considered also the best practice guidelines elaborated by the 2016 WGCATCH where a lot of data collection issues were addressed and advised MS to consider it as a support to their SSF data collection procedure and quality assurance.

3.3.3 Definition of small-scale fleet for data collection purposes

There is no single harmonised definition of small-scale fisheries, as any definition used is determined by the end-user needs whether it could be for stock assessment, marine spatial planning, socio-economic studies, marine strategy framework directive (MSFD), marine protected areas (MPA), management regulation texts, ... One official definition is found in the EMFF regulation – 508/2014 - Article 3, para 2 ,indent 14: '*small-scale coastal fishing*' means fishing carried out by fishing vessels of an overall length of less than 12 meters and not using towed fishing gear as listed in Table 3 of Annex I to Commission Regulation (EC) No 26/2004' when one other definition could be find in FAO text as the following: '*Artisanal or small-scale fisheries are traditional fisheries involving fishing households (as opposed to commercial companies), using relatively small amount of capital and energy, relatively small fishing vessels (if any), making short fishing trips, close to shore, mainly for local consumption.*'

Nevertheless, for data collection purposes, the workshop stressed the fact that the major difference in situations for the SSF is related to the sources of information available. The group agreed, in particular, that regarding the SSF as only vessels using passive gears and excluding those active gears is, for data collection purposes, less relevant as the issues related to data collection and calculation of fishing activity variables (*e.g. fishing effort, volume and value of catches, gear dimension*) are similar for both groups of vessels.

The group thus agreed that the under-10 meters fleet needs to be considered as a separate fleet segment for data collection purposes given the lack of a legal basis under the Control Regulation (*Regulation (EU) N° 1224/2009 of 20 November 2009 and Commission Implementing Regulation (EU) N° 404/2011 of 8 April 2011*) for direct reporting of activity using EU logbooks for those vessels (*this applies to under-8 meters vessels in the Baltic*). Also, the LOA class 10–12 meters should be retained as a separate fleet segment because they are not under Vessel Monitoring System (VMS) obligation under the Control

Regulation (*which is critical for mapping of fishing activities for marine spatial planning or other purposes needing data with a detailed spatial resolution*). This is also needed to ensure consistency in time-series. Finally, it should also be noted that as many countries have put exemptions in VMS data requirement inside the 12–15 meters fleet segment, some part of this fleet segment could not be covered by VMS data. As such retaining the 12–15 meters fleet segment may also be needed in some cases.

Given the data collection issues mentioned above and in light of what exactly the terms 'Small-scale fleet' or 'Coastal fleet' refers to varies across the range of end-users, the workshop agreed it was more precise to refer to vessels as with and without logbooks, or vessels with or without VMS data. Consequently and for specific data collection needs and fishing activity variables calculation, these part of the fleet could be assessed as a data poor fleet segment which clarifies the fact that there are specific data collection issues related to these vessels that do not apply to the large-scale fleet (*for example, as well as not being legally required, the EU logbook format is not suitable for these vessels*). It is clearer then **to refer to fleet segments by vessel length (LOA) ranges (<10m, 10-12m and >=12m, under-8m in Baltic Sea)**; this view is also in line with the view adopted by WGCATCH and SSF Nantes workshop.

3.3.4 SSF data collection procedures

The group discussed the issues regarding the SSF data collection procedures. Based on findings of previous meetings, participants' presentations and group's discussions, the workshop concluded that there are two different types of data collection methodologies currently applied in EU to calculate fishing activity estimates of vessels less than 10/12 meters: 1) Census approach and 2) Sampling approach.

The group agreed that the choice between the two options should be based on cost efficiency including level of reliability/quality of data assessed to be reached by each approach envisaged and data resolution needed.

For example, the choice of sampling approach could be driven by the high number of vessels and fishing trips, also the high spread over the territory and diversity of "métiers" in use by the fleet considered. These specific characteristics could imply that the implementation of census approach based on declarative forms like logbooks for these vessels will be inappropriate (this will imply high cost for data inputs and data control when reliable final estimates could be reach through the application of sampling techniques).

On the other hand, the choice of census approach could be driven by, for example, the need of real-time data for management purposes (*see UK presentation*).

In the end, the group agreed with the 2016 WGCATCH following statement: *'The most appropriate data collection methods and designs will depend primarily on the objectives of the scheme (i.e. what types, resolution, precision and quality of estimates - the domains of interest - are required by end users from the target population of vessels), and the practical aspects of collecting data (including available means to collect the data) in a reliable, statistically sound and cost-efficient way. Resolution may refer to spatio temporal strata; gear types, etc. An important initial step is the pre-screening or frame survey of the fishery which provides information allowing the development and evaluation of data collection methods based on factors such as accessibility of vessels, fishing and landing patterns, part-time activity, gears used, target species etc.'*

Regarding data quality/reliability, the group discussed the particular issue regarding the assessment of the coverage/completeness of data collected and described the major concern of the different approach in used in MS (*census approach with legal requirements and control system associated, census approach based on sales notes/landings declaration sometimes completed with survey, sampling approach*). Specificity of each member data collection procedures have been summarised in annex 5 of the report and complete

presentation made during the workshop could be found in "*annex report*" (which compile all the presentation done during the workshop).

3.3.4.1 *Assessing fleet activity/inactivity, coverage/completeness of the data*

The group agreed that assessing the coverage/completeness of the estimates reached by the data collection is an issue that will require specific attention especially when census approach is used to survey vessels less than 10/12 meters (*having a census approach does not mean having 'perfect' complete data*). In particular, the assumption, currently applied in almost all MS, that "*one vessel without any declarative data is an inactive vessel*" has to be validated. For example in France, based on an exhaustive fishing activity calendar survey for all the EU FFR vessels, it could be concluded that less than 50% of Mediterranean active vessels complete declarative data when these rate goes up to 90% in Atlantic in 2015. A specific check will be advised on vessels without any information or with part-time information to verify the completeness of their data and assess the reality of their inactivity.

To improve completeness and availability of fishing activity data, some MS (*see Cyprus and Portugal experience for example*) introduced a licenses system (*without any licenses, a fisherman could not fish*) where the process of license renewal is linked with the availability of declarative data as a tangible proof of their activity. This could be a great incentive for fisherman to have complete and better quality data. Nevertheless, this could have some side effects conducting, for example, some fishermen to under-declare not to change of license' category (*cross validation with sales note could be implemented to minimize this issue*) when other could have an incentive to over-declare just to be sure to conserve their license. In the end, license system linked with declarative data available could not be seen as a replacement tool to the setup of a detailed data quality process (*including assessing the completeness/representativeness of the data available*) but could be better seen as a mean, among others, to improve completeness/representativeness and quality of data of vessels less than 10/12 meters.

In fact, this particular issue about data completeness could be even more accurate for countries using a data collection system based mainly on sales note. This could be less significant where data collection methodology is based on a legal requirement including a strict control system and obligations for vessels to complete declarative forms (*as it could be the case in some MS*) but this not mean that it has not to be assessed.

This particular issue about data completeness, could also be even more relevant for MS presenting high inactivity rate for SSF (estimation ~40% or more in a number of MS and for all types of census approach, including approach based mainly on declarative forms under a legal basis). In these cases, it is also advised to MS to assess the reality of inactivity of vessels without any information or with part-time information.

3.3.4.2 *Major concern regarding census approach*

The group decided to focus on issues relating to fishing activity variables for vessels that are not under logbooks requirement (vessels less than 10 meters, 8 meters in Baltic). Different census approach for data collection are applied between MS. Based on presentation given during workshop 12 of the 15 countries (see Table 3.3-2.) use census type data collection schemes for SSF (sometimes combined with a sampling approach). Mostly completing logbooks, journal or monthly reports under a legal basis based on established national legislation with control purposes. In these cases, effort and landing data are assumed to be accurate and consistent and are assumed to cover the whole of the reference population. Nevertheless, these assumptions need to be validated notably by implementing a complete data quality assurance and quality control procedure (*including, among other things, input error detection, reliability of self-reporting data, completeness/coverage of the information collected and other bias issues*). The group

highlighted that the different data formats of adapted declarative forms (e.g. coastal logbooks, journals, monthly reports, etc. as EU logbooks are not suitable with the specific features of this fleet) existing across Member States and stored in different ways, create challenges to the standardization of calculation of fishing activity variables between MS especially for fishing effort and encouraged MS, for sake of consistency and comparability, to share procedures and principles in used in order to pursue this objective.

Finally, the group agreed also that statistical quality of the transversal data reached by a census approach can be reinforced using cross-checking methodologies between available data, coming from various sources (e.g. declarative data coming from logbooks or adapted declarative forms, sales notes, landings declaration, geolocalization data, licenses register, ...). Such methodologies are already in use in some MS (especially by cross-checking declarative data with sales note) and the group advised that the development of such methodologies should be support further to improve SSF data quality.

3.3.4.2.1 Specificities and difficulties raised using a SSF data collection system based mainly on sales note.

Some MS used mainly sales notes (sometimes combined with a complementary survey) to estimate SSF fishing activities variables (see Table 3.3-1). The sales notes give information on vessel ID, date, port of landing, area, landings quantity and value by species.

The requirements in the Control Regulation (*Council Re. 1224/2009, Article 16, para 1*) allows member states to choose how to collect data on fishing activity for vessels under 10 meters that do not have to complete EU logbook. They can either use a sampling scheme (*Council Re. 1224/2009, Article 16 para 1 and Article 65 para 1*) or sales notes related to the landings (*Council Re. 1224/2009, Article 16, para 4*). For example, if a sampling scheme is used for vessels less than 10 meters, MS can choose not to require sales notes related to sales by these vessels to be reported, and if they require sales notes for these landings they can choose not to operate a sampling scheme.

However, if sales notes are used, there is an additional exemption whereby sales less than 30kg to private individuals from any length of vessel are not required to have a sales note submitted. Thus while the requirement for sales notes is more like a census approach to data collection in terms of its completeness, there is a category of small-scale sales that are not covered. This may be important for some types of activity (especially for SSF) and affect the use made of the data.

In addition, while the Control Regulation has within it requirements for the reporting back to flag states details of any sales of landings by its vessels that take place in other member states, in practice several member states have experienced problems with getting this information reported back to them. This missing information for sales in other countries will affect the accuracy of information on quantity and value of landings, with this possibly affecting such landings by over 10 meters vessels as well as under 10 meters vessels.

Finally, in ToR1, information regarding sales market channels highlights that 'direct sales' is one of the main sales market channels used by fleets (especially for SSF) which could significantly affect the completeness of sales notes. the data collected in a such data collection system.

These issues affect the completeness of data collected under data collection system based mainly on sales note, such that while they are similar to, **they are not the same as a complete census of activity.**

In addition, while the content of the sales note includes a requirement for area details, what is required is set as a **"relevant geographic area"** (*Control Regulation, 1224/2009, article 64 para 1e*), this is only defined **very broadly** in the regulation which means that

the level of detail reported for area within the sales note may not be sufficient to meet the end-use for the information (*for example, if it is to be used to manage activity*).

Similarly, for effort estimations, a commonly used assumption regarding fishing activity is that **one sales note per landing of vessel equals one fishing trip, one fishing day and one day at sea**. These assumptions **should be validated**.

Finally, for small-scale fleets monitored mainly by sales note census approach, information on **gear, mesh size, gear dimension** and **more precise location of the fisheries** (e.g. ICES rectangles) are **missing**.

It should be noted that to improve completeness and quality of fishing activity data in these cases, some MS are using different complementary methods to collect the missing information and/or validate the sales notes:

- Additional monthly or weekly reports
- Additional questionnaires
- Additional sampling on geo-location
- Application of an algorithm to define the "métier" (including the gear used) based on licenses and species composition

The group advised that such methodologies should be supported further to improve SSF data quality.

Furthermore, several Member States are starting to look into the possibility to collect the missing information using new technologies as smart phone apps and geolocalization tools, but it is still in the development phase.

In addition, UK experience on assessment of use of sales notes as data source for 10 meters and under vessels in England has been presented during the workshop. Main findings are described here after completing the general overview given above.

3.3.4.2 Assessment of use of sales notes as data source for 10 meters and under vessels in England

Sales notes are a key source of information on activity by the English administered 10 meters and under fleet. Around 90% of sales notes are reported electronically with submission required within 24 hours of the sale, making it suitable for use in near real-time to inform management and monitor compliance with management limits. However, there is an element of activity that is not covered – i.e. sales of fish below 30kg for use by private individuals are exempt. This type of activity can be significant in some parts of the English coast and for some types of fishing activity. As such an exercise was carried out to identify any issues with the use of sales notes. This involved using observers to visit ports and gather direct information on 415 individual landings by 10 meters and under vessels to be compared with the official recorded activity data derived from sales notes for those vessels.

The results showed a problem in matching the dates of observed landings and that estimated from the sale dates. This difference could be due to the date of landing being the day before the date of sale or due to reporting practices at some merchants that produced summary sales notes at the end of a week rather than for individual sales (*Note - this has implications for the use of date of sale as a proxy for the exact date of a landing, but does not give information on the assumption that a sale event is equivalent to a day of fishing*).

The matching process was rerun using a relaxed option for matching (*e.g. observed event being up to 3 days before the official recorded date*), but even then there were some observed landings that could not be matched to any official data. These were considered to possibly be due to "ghost fishing" whereby the sale of the fish was attributed to a vessel other than the one that actually carried out the activity – this might be occurring to avoid the quota management limits on landings that are set at the individual vessel level. The

sales note system would thus be recording the correct total quantity of fish landed, but the usefulness when monitoring individual vessel activity would be affected.

Those cases where observed and official events could be matched and were analysed to compare the species and quantities of fish recorded. Matched trips showed a high level of correlation between quantities of fish recorded in some cases, but there was a high degree of variability seen. For example, landings of Sole in all areas showed a high correlation between observed and official data ($R^2 > 0.9$). However, Cod landed in the SE of England showed a much lower level of correlation – this is an area where catch limits per month are low and as such the phenomenon of “ghost fishing” may be occurring.

The high variability within results made it difficult to draw a rationale for deriving adjustments to official data, but it did identify a need for more information to be gathered. Consequently, the UK is currently developing a direct reporting system to be applied to English 10 meters and under vessels – this is likely to take the form of a daily or weekly electronic declaration of fishing activity similar to the FISH1 summary form used in Scotland. This information will be linked to a separate project to introduce low-cost VMS systems on-board English 12 meters and under vessels allowing the activity reports to be checked, with a check with sales note data also being made. Major concern regarding sampling approach

3.3.4.3 Major concern regarding sampling approach

Several types of sampling scheme are possible and two different approach are now used by MS:

1) A catch sampling survey where the primary sampling unit (PSU) is a landing location on a day, and PSUs are sampled using a clustered random sampling scheme in order to interview skippers of vessels landing throughout the day to collect data for that trip. The vessels trips are the secondary sampling units (SSU).

2) A vessel sampling survey where a list-frame of small-scale vessels is identified, and selected from a known fishing fleet vessel register using a stratified random sampling scheme to collect data on their fishing activities and catches. This could be done by: i) direct interview for the last trip (PSU = vessel x day); ii) self-reporting of data for the full year using declarative forms (PSU = vessel); or iii) self-reporting of data for a shorter period using declarative forms (PSU = vessel x month for a monthly collection period for example).

These methods present additional quality issues (as the one described for census approach) related to the good use of the statistical soundness for the sampling design (*based on accurate information to calculate the sample probabilities*), the good use of statistical estimation procedures linked with the sampling design applied and the available mean to collect the data (sampling rate). Additional issues, as, among others, non-response rate, have to be treated also (*see 2016 WGCATCH report for more details*).

Therefore the group advised that implementing a SSF sampling data collection system implies, among others, cost to well statistically designed the sampling procedures used (*from sampling design to calculation of the estimates*) ; procedure which should be checked and reviewed regularly.

Additional difficulties could appear especially to estimate the fleet inactivity/activity (*to be able to distinguish inactive/active vessels*) and to calculate fishing effort estimates (*number of trips, days at sea, fishing days, ...*) based only on data collected on-site or partially from fishermen. In such cases, the group advised that the use of new technology or complementary data (*as fuel data in France or license register in Portugal for example*) could be a good way to improve the estimates.

3.3.5 Calculation of days at sea and fishing days, discussion on 'Nicosia' principles

2nd Transversal variables DCF workshop met in Nicosia (Cyprus) from 22 to 26 February to fine-tune the work initialized during the 1st Transversal variables workshop (January 2015).

As a conclusion of these two weeks of workshops, some basic principles have been adopted for fishing effort calculation (Days at Sea, Fishing Days, ...) for upper-10 meters vessels carrying logbooks (upper-8 meters in Baltic Sea). The detail basic principles adopted and the reasons why they have been adopted could be found in the final report of the workshops.

In the second workshop, there were some discussions focalized on vessels without logbooks and on passive gears but the workshop could not find a consensus conclusion on that and suggested that additional work was needed to devise common methodology on calculation of Fishing Days and Days at Sea based on data sources other than logbooks (see ToR3).

Among the main basic principles adopted during the 2nd workshop, some of them (described hereafter) have been debated during the workshop as they could be a major concern for vessels less than 10 meters. In particular their fitting with the specific features of SSF and on-going SSF data collection procedures have been discussed:

... Days at sea is calculated by trip. It is the time between when a vessel leaves the harbor and the return to a harbor. The number of days at sea by a trip is calculated as commenced 24 hour periods expressed in whole numbers. This means for example that a trip of 26 hours will result in 2 days at sea. ... ("24h definition")

*... The total Fishing Days of a trip requires consideration of passive and active gears. The total is the sum of the combined Fishing Days from passive and active gears on that trip. Every passive gear on a fishing date*area combination, counts as one Fishing Day. For active gears, it is calculated as the number of unique fishing dates with active gears in that trip, i.e. look at the fishing dates which have at least one active gear entry and count the number of unique dates. ... ("calendar day" definition with specific assumption adopted for passive gears which are assumed to be used in parallel)*

... That separate trips have to be always counted separately, regardless of whether they are by the same vessel or different vessels, meaning that the fishing trip is the basic unit of observation for effort calculation and that fishing trips are always seen independently regardless of the vessel(s) that has/have performed them. ... ("trip by trip" basis for fishing effort calculation)

... As stated in the FAO handbook of fisheries statistical standards: "For biologists, a good measure of fishing effort should be proportional to fishing mortality. For economists it should be proportional to the cost of fishing." Fishing Days is the measure related to fishing mortality, Days at Sea is the measure related to the cost of fishing. The measure of Fishing Days should be related to the amount of time a fishing gear or gears are in the sea (best fishing time proxy that is EU-wide available, currently). When gears are used in parallel this measure will not equal the number of days on which fishing occurs for the vessel. To make the distinction clear we introduce the term 'vessel-fishing-days' when describing the vessel activity only. ...

The group discussed these basic principles for less than 10 meters vessels (*without logbooks*) and have some debates on their practical implementation for these fleet and the impact the agreed calculations methodologies might have in future for them, especially for countries where such fleets represent an important share of their national fishing fleet. It's important to note that (*as described above*) there are several approach and data formats existing across Member States including adapted declarative forms (*e.g. coastal log-books, monthly reports, monthly declarative forms, etc.*), sales notes or sampling programs, with datasets stored in different ways, which create challenges to harmonize

and standardize the fishing effort calculation (*Days at sea, Fishing days, ...*) across European countries.

Based on that and participants' presentations, the group came to the conclusion, similar as the one established in previous meetings, that in many cases departure time and arrival time are not collected such that the "Days at Sea" could not be calculated based on the hours spent at sea and in turn the "*24h period definition*" could not be applied. Consequently, in these cases, days at sea have to be estimated differently.

Considering the principles that "*separate trips have to be always counted separately*", the workshop stressed the fact this assumption could have a great impact for some of fleets for which usual activity is to perform two fishing trips during the same day, one to set gears or put gears in the sea, one to take away the gears and catches from the sea. Moreover, the group considered the fact that data collection procedures (*as sales notes, adapted declarative forms or catch assessment survey*) applied for less than 10 meters vessels often do not have a 'trip by trip' basis data but rather a 'day by day' basis data (*for example, one sales note available for a specific day could correspond to one, two or more fishing trips*). Therefore, the workshop advised the fact that for less than 10 meters vessels, the effort calculation should be calculated on a 'day by day' basis rather than a 'trip by trip' basis (*which is then not completely in line with the basic principles adopted in Nicosia workshop*).

Considering the other 'Nicosia' basic principles adopted ("*effort calculation methodology for passive and active gears*", "*the adopted methodology to apportion days at sea and fishing days between gears and areas*", "*calendar day fishing day calculation*", ...), the workshop advised that, for them, fishing effort measures calculation has to be in line, as far as possible, with the methodology established for vessels carrying logbooks considering the data available and the way to collect them. For example, vessels with no logbooks that generally perform trips lasting more than 24h have to be counted as spending two Days at Sea considering the "*24h period definition*" when only one fishing day might be estimated when fishing occurs only on one "*calendar day*".

In the end, the group noted that less than 10 meters vessels have generally a daily activity and that, for them, it could be assumed that 1 Day at Sea is equivalent to 1 Fishing Day as far as no other data contradicts this hypothesis. Nevertheless, the workshop stressed the fact that this assumption has to be assessed regionally by fishery, as significant differences can occur between them.

3.3.6 New technology

The 2013 Nantes SSF Workshop report and the 2016 WGCATCH Report list several programs which have applied new technology in order to improve the SSF data collection. The main aim is to obtain missing data from SSF such as fishing effort and to acquire a higher spatial and temporal resolution of the activity of the vessels. Equipment used for the LSF data collection often needs to be adapted for the use on SSF vessels or complete different methods are put in use. The trials which have been done so far were either on a voluntary basis or mandatory in order to fish for certain species in certain areas. In some projects it is used also to allow a real-time control of the fishing activity of inshore vessels.

The group discussed the impact the new technology could have to improve the quality/reliability of SSF data in the future and highlights that there are significant opportunities to improve SSF monitoring and data collection using new technologies. Consequently, the workshop advised that the development of new technologies helping to monitor the activity of SSF should be support further.

Technologies in use could be:

- Remote electronic monitoring with Closed Circuit Television
- Apps for smartphones/tablets

- AIS/VMS/GPS for geolocalization

In addition to the several programs already described during the previous meetings, two new programmes were mentioned during the workshop:

Data Capture from Inshore Fisheries - Marine Institute and SFPA (Sea-Fisheries Protection Authority) group on eData.

Data on effort through VMS is already collected from selected SSF. Building on this work this eData pilot project aims to collect data on the location of fishing, the fishing effort at location and the catch composition at the location for inshore fisheries. The impetus for collecting these data come from legislative, scientific, and control drivers as well as a need to collect more robust data. The project will investigate many options including, but not limited to, VMS, gear sensors, hard copy logbooks and electronic logbook interfaces, semi-automated recording of catch on mobile phones.

Marine Management Organisation (MMO) – UK

A project has been initiated to develop a direct reporting system for English under 10m vessels to collect information on their activity (trip duration, gear usage, location of activity) and catches (landed weight). To assess the quality of declarations this information will be cross-checked with the sales note data that will continue to be collected, allowing landings values to be estimated. The collection is likely to take the form of a smart-phone app or on-line declaration submitted electronically either daily or as a weekly summary. As well as being checked against sales notes, the activity declaration will be cross-checked with data from a separate project to introduce a low-cost VMS system for 12 meters and under vessels. It is likely that this activity reporting system will become a legal requirement on English vessels as part of the vessel license. In addition a new Producer Organisation specifically for under 10 meters vessels is being established in England, and it is likely its membership rules will require vessels to make use of this or a similar system.

3.4 Methodologies for collecting socio-economic variables (ToR 4)

3.4.1 Background

The main discussion topics of ToR 4 are based on the discussion and conclusions of the SIM workshop held in Rome, December 2016. The SIM group went through the report of definitions finalized at the PGECON 2016 (Zagreb, 2016) - "Definitions of the variables collected under the DCF socio-economic modules for the fleet, aquaculture and fish processing". The group firstly checked the consistency with the EU-MAP and proposed several suggestions to modify definitions. SIM agreed on a final list of definitions for each economic variable requested under the EU-MAP, reported in annex 4 of the SIM report (available at <https://datacollection.jrc.ec.europa.eu/docs/rcm/2016>). In particular, amendments on the definition of employment, unpaid labour and financial position (value of assets and debts) under EU-MAP were proposed by the SIM (more details are reported below in the related section).

The SIM group also went through the document dealing with methodologies on how to collect variables under the DCF socio-economic modules for the fleet, aquaculture and fish processing - "Methodologies for the socio-economic data described in EU MAP", available at the following address: <https://datacollection.jrc.ec.europa.eu/docs-links/socio-ecovar>. In particular, the SIM groups discussed the methodologies for the fleet sector. SIM went through each variable and checked if the proposed methodologies are clear and consistent with the requirement of the EU-MAP and made comments and amendments. SIM agreed on a final table of proposed methodologies for each variable, reported in annex 5 of the SIM report. The SIM stressed the importance to consider this table "as a reference document by MS but it has to be considered just as a reference for best practices. If a MS considers that other approaches are more appropriate, these could be used providing that MS explain the reasons in their Annual Report". During the SIM workshop some issues raised in relation to the collection of data for the SSF. In particular during the SIM workshop it was highlighted that "The sampling size, probability calculations as well as some definitions related to the **financial position, employment and value of unpaid labour for small scale fisheries** shall be further discussed at small scale subgroup in order to address several critical issues by various Member States" (SIM workshop report, p. 7).

Some definitions and methodologies for the collection of economic and socio-economic variables were further discussed and amended by the PGECON meeting, held in Vilnius in May 2017, where the SIM conclusions and recommendations were presented. Details of the background for each variable are reported below in the related section.

Employment variables background:

SIM workshop debated on the definition of the engaged crew (as coming from the previous data collection system). According to the previous DCF definition only *people working on-board or on-shore and on-board should be considered in the number of people employed in the sector while people working only on-shore were excluded*. SIM discussed this definition and restriction and found that, especially in some countries and in some segments (e.g. SSF), the number of people that work on-shore but contribute actively to the income of the sector is not so negligible. On the basis of this discussion, the definition of engaged crew was amended as follow (as reported in annex 4 of the SIM report) – in *italics* the amendment proposed by SIM:

Engaged crew: Total number of persons who have worked on-board the vessel, irrespective of the total number of hours. *People working only on-shore and paid from vessels should not be excluded if their activity has a direct link with the fishing operations.*

SIM found these amendments important as they influence significant part of the employment in small-scale fleet in certain MS. For this reason the group proposed to discuss this issue more exhaustively in a scheduled workshop regarding data collection for small-scale fleet, with the particular aim to assess the impact of under-coverage of employed part of population, directly related to fishing activities but working only on-shore (and eventually propose recommendation to modify or complement the current employment definition linking to small-scale fleet).

PGECON revised the main findings of the SIM group and proposed a further amendment, aimed to provide a less restrictive definition of engaged crew, as follow – in *italics* the amendment proposed by SIM and in **bold** the amendment proposed by PGECON:

Engaged crew: Total number of persons who have worked on-board the vessel, irrespective of the total number of hours. *People working only on-shore and paid from vessels **could be included** if their activity has a direct link with the fishing operations.*

The amendments proposed have been taken by PGECON for all the employment variables (engaged crew, personnel costs and value of unpaid labour).

Unpaid labour background:

The amendment proposed by SIM workshop for engaged crew (inclusion of the work on-shore if the activity has a direct link with the fishing operations) were also taken into account and included in the definition of imputed value of unpaid labour. The definition was amended by the SIM as follow - (as reported in annex 4 of the SIM report) - in *italics* the amendment proposed by SIM:

Unpaid labour: Work that produces goods or services but is unremunerated. (OECD Glossary of statistical terms). *People working only on-shore should be included only if their work is directly related to fishing activity.*

As far as the methodology of estimation of the value of unpaid labour, SIM and subsequently PGECON recommended to remove the Size Method as it was not appropriate and more specific country orientated. The method based on the number of FTE (suggested the first time at the "Capital" workshop, Napoli 2011) has been taken into account and recommended as a best practice to be applied by MS.

The method, based on other surveyed or collected variables, consists in a three steps procedure and considers that the starting point should be the estimation of unpaid FTE (number of unpaid workers according to their working time) as follow:

1. Estimation of paid and unpaid FTE;
2. Definition of an average remuneration per paid FTE (e.g. average wage by fleet segment/company, national average wage, minimum national wage, etc...);
3. Calculation of imputed value of unpaid labour = "unpaid FTE" * "average remuneration per paid FTE".

Financial position background:

EU-MAP will not require financial position as a ratio indicator (as under the previous DCF), but the two terms of the ratio: "long/short debts" and "total assets".

As far as the definition, SIM workshop has suggested an amendment in relation to the 'value of assets': Balance sheet total, fixed assets and financial assets, highlighting that the value of assets should include also the financial part of the assets.

PGECON has suggested an amendment to the name of the variable representing the debts from "long/short debts" to "gross debts".

SIM has also recommended the balance sheets as the most reliable source of data, taking into account the low response rate experienced by most MS in the past data collection when using questionnaires.

This can create methodological problems in the collection of data, especially for SSF, because two different situations are very likely to happen:

1. Balance sheets are available but it is necessary to split the total value of debts and assets among vessels. It is, indeed, very frequent that one firm owns more than one vessels and most of the time detailed data are not reported in the balance sheet and in the supporting document. How to do the split?
2. Balance sheets are not available

When balance sheets are available and the total value of assets and value of long/short debts have to be split by vessel, SIM recommended the following methodology:

- To split the total (company) value of assets and value of long/short term debts, the capital value of each vessel estimated through the PIM could be used to “weight” the share on the total value;

In case balance sheets are not available, SIM recommended the following methodology (annex 5) to estimate the total value of assets and value of long/short term debts:

- Value of assets: the value of capital estimated through the PIM could be considered as a *proxy* for total assets (it is, indeed, important to bear in mind that the PIM value refers only to physical capital).
- Value of debts:
 1. To estimate (e.g. by mean of questionnaire) the financial position as ratio total debts/total value of assets;
 2. To use the value of capital (deriving from the PIM) as a proxy for total value of assets;
 3. To derive the value of long/short term debts (sum) multiplying the financial position ratio (estimated in 1) by the value of assets (estimated in 2).

3.4.2 Objectives and achievements

The SSF workshop has been asked:

1) to revise the amendment of the definition and the methodology of data collection suggested by the SIM workshop (Rome, December 2016) and by the PGECON group (Vilnius, May 2017)

2) to evaluate the potential impacts on the collection of data for SSF for the following variables:

- Employment variables: engaged crew and personnel costs
- Unpaid labour (unpaid workers and imputed value of unpaid labour)
- Financial position, under EU-MAP, value of debts and value of assets

According to the background, the SSF workshop has discussed if and how the amendment proposed for the definition of the employment variables (engaged crew and personnel costs) have impacts on the data collection, with a focus on the SSF. The discussion was

animated by the following questions, asked to be replied by the MS' delegates attending the workshop:

- What is the methodology for estimation of engaged crew, unpaid labour and financial position (from now on value of assets and value of debts) at MS level?
- As far as, is employment on-shore relevant in your country? If yes, can you provide preliminary information (e.g. qualitative)?
- Are there specific issues (or different methodologies) arising for SSF for the amendment proposed in definitions and methodologies?
- Are these issues addressed by the amended definition proposed by the SIM 2016 and PGECON 2017 reports?
- Do we agree with the current proposed definitions and methodologies?
- If and how we think this new information can be collected at MS level?

The discussion has been facilitated by a template, prepared by the subgroup, where these specific questions have been answered by experts attending the workshop, in line with the data collection system in place in their respective countries. A synthesis of the main info collected for each variable addressed is provided below.

The templates with all the details at MS levels are provided in annex 4.

Table 3.4-1. Summary template on employment

<p>What is the methodology for estimation of engaged crew at MS level?</p>	<p>Are there specific issues (or different methodologies) arising for SSF?</p>	<p>Is employment on-shore relevant in your country? If yes, can you provide preliminary information (e.g. qualitative)?</p>	<p>Are these issues addressed by the amended definition proposed by annex 4 of the SIM report?</p>	<p>Do you agree with the current proposed definition?</p>	<p>If and how do you think this new information can be collected in your country</p>
<p>Census Survey (Poland, Sweden, Slovenia, Romania, Bulgaria, Denmark, Cyprus)</p> <p>Sample Survey (Italy, Greece, Ireland)</p> <p>Estimation (Germany, Finland)</p> <p>Combination of survey and census (UK, Portugal)</p>	<p>Mainly no different methodologies for SSF, but some countries carry out additional surveys for them like Finland and the UK (England and Wales)</p>	<p>Countries with on shore activities: Italy, Finland, Greece, Ireland, Poland, Sweden, Denmark, Cyprus</p> <p>Countries without on shore activities: Slovenia, Germany and Romania</p> <p>Countries which will look for this issue under the pilot study of social variables: UK</p>	<p>Most of people working on-shore are mainly devoted to activities strictly linked to the fishing activity (e.g. repairing nets, gear/vessel maintenance, working on accounts, delivery of catch).</p>	<p>There is not a clear specification of these activities.</p> <p>It is important to better define which are those on-shore activities that should be considered under the term "linked direct to fishing operations".</p> <p>The UK would prefer the inclusion of this data as being optional (the "could" definition).</p>	<p>Considering that MS are obliged to collect (new) social data under the current EU-MAP and that in most MS the social data collection is going to start, the collection of data on employment on-shore can be associated to it.</p> <p>Countries like Italy, Greece, Ireland, UK, Portugal, Cyprus, Poland, Slovenia, Bulgaria and Romania will develop their census survey to cover this information.</p> <p>Sweden collects the corresponding information.</p> <p>Finland mentioned that she will face some problems to collect this information for SSF</p>

Table 3.4-2. Summary Template on unpaid labour

<p>What is the methodology for estimation of imputed value of unpaid labour at MS level?</p>	<p>Are there specific issues (or different methodologies) arising for SSF?</p>	<p>Are these issues addressed by the amended definition and by the methodology proposed by the SIM report?</p>	<p>Do you agree with the current proposed definition and methodology?</p>	<p>Do you foresee difficulties in applying the proposed methodology? If yes, which are?</p>
<p>Data sources for the value of unpaid labour vary between Member States. Regardless of the data collection procedure, the estimation process for the imputed value of unpaid labour has the same principles.</p> <p>First, the unpaid work input performed is observed through questionnaires, administrative data or estimation procedure. The unpaid input can refer to the number of employers or to the work effort in terms of FTE. Then the value of unpaid labour is estimated using an appropriate wage level (e.g. average or minimum wage for the industry or the fleet segment) for the unpaid work input.</p>	<p>The value of unpaid labour is relevant especially for the small scale fisheries.</p>	<p>The proposed recommendation from PGECON 2017 that people on-shore directly linked to fishing operations could be included, does not seem problematic. Many Member States are currently carrying out pilot studies for the socio-economic data collection but results are yet to be interpreted.</p>	<p>All Member States agree with the definition. However, given the difficulty in getting data on the number of hours worked by people not getting remuneration and that any data collected is likely to be estimated rather than based on actual recording of time, it is proposed to collect data on the basis of numbers of people rather than in terms of FTE.</p>	<p>Many Member States have concerns in applying the FTE for the estimation of the imputed value of unpaid labour. The difficulty in getting accurate information for the time worked will make it difficult to calculate FTE data with any accuracy.</p>

Table 3.4-3. Summary Template on the financial position

<p>What is the methodology for estimation of financial position (from now on value of assets and debts) at MS level?</p>	<p>Are there specific issues (or different methodologies) arising for SSF?</p>	<p>Are these issues addressed by the amended definition and by the methodology proposed by the SIM report?</p>	<p>Do you agree with the current proposed definition and methodology?</p>	<p>Do you foresee difficulties in applying the proposed methodology? If yes, which are?</p>
<p>In most MS, information about debts and assets are extracted from balance sheets. For MS where balance sheets are not available there is a survey/questionnaire asking each vessel owner about their debts and assets. Approximately 60 percent of all MS are using balance sheets as their main source of data for debts and assets. Some MS use both balance sheets and a questionnaire/survey to gather the correct information.</p> <p>Approximately 40 percent of the MS stated, that they are using PIM as a method of choice when data need to be divided from company level to vessel level.</p>	<p>Approximately 40 percent of the MS have a different data collection method for SSF compared to LSF. MS using balance sheets as main source of data have to adjust their data collection method for SSF. The approach used in these MS is a questionnaire/survey. MS with a questionnaire/survey as main source of data don't change their data collection method for SSF.</p> <p>There are different problems/issues arising depending on the data collection method. Approximately 40 percent of the MS stated that they had issues with collecting the information. For MS using balance sheets as their main source of data there is a common problem with individual firms. Individual firms do not have as detailed balance sheets as capital firm, or in some MS individual firms are not obliged to submit balance sheets. Thus making it hard or impossible in some cases, to extract the information. For MS using questionnaire as main source of data there is a problem with low answering frequency, which in turn make the approximation for the whole SSF volatile.</p>	<p>Issues mentioned are, according to each MS, stated in the amended definition and by the methodology proposed in the SIM report.</p>	<p>All MS agree on the current proposed definition and methodology.</p>	<p>It is a quite data poor segment. This can argue that this information should not be provided for SSF.</p> <p>The majority of the MS don't see any difficulties in applying the proposed methodology where the primary data exist and are reliable.</p>

3.4.3 Conclusions

The main issues arising from the MS experiences are the following.

As far as of **employment variables**, the data collection is based on different methodologies from census to sample survey and sometimes a mix of them. There are different approach applied for the estimation of employment for SSF. In some MS employment on-shore appear to be relevant, especially for SSF. And in some MS (e.g. UK) pilot study have already been planned for looking at more quantitative information. What is mainly highlighted from MS is that it is definitely important to better define which are those on-shore activities that should be considered as names "linked directly to fishing operations". This is strongly linked to the concept of data collection unit, i.e. the vessel or the company. Considering that MS are obliged to collect (new) social data under the current EU-MAP and that in most MS the social data collection is going to start, the collection of data on employment on-shore can be associated to these pilot studies. There are already some MS collecting this type of data (e.g. Sweden).

As far as **unpaid labour**, data sources vary between Member States. Regardless of the data collection procedure, the estimation process for the imputed value of unpaid labour has the same principles. First, the unpaid work input is observed through questionnaire, administrative data or estimation procedure. The unpaid input can refer to the number of employers or to the work effort in terms of FTE. Then the value of unpaid labour is estimated using an appropriate wage level (e.g. average or minimum wage for the industry or the fleet segment) for the unpaid work input. For all MSs the value of unpaid labour is deemed to be relevant especially for SSF. All the MS agree with the recommended methodology. However, given the difficulty in getting data on the number of hours worked by people not getting remuneration and that any data collected is likely to be estimated rather than based on actual recording of time, some MS find it easier and they suggest to collect data on the basis of numbers of people rather than in terms of FTE. In fact, many MS have concerns in applying the FTE for the estimation of the imputed value of unpaid labour. The difficulty in getting accurate information for the time worked will make it difficult to calculate FTE data with any accuracy, especially if the employment on-shore (most of the time unpaid) will be included.

As far as the **financial position** variables, in most MS (60%) information about debts and assets are extracted from balance sheets. For MS where balance sheets are not available (40%) there is a survey/questionnaire asking each vessel owner about their debts and assets. For these variables, approximately 40% of the MS have a different data collection method for SSF compared to LSF.

MS using balance sheets as main source of data have to adjust their data collection method for SSF (e.g. by mean of questionnaire/survey). In this case there is a common problem with individual firms as they don't have as detailed balance sheets as capital firm, or in some MS individual firms are not obliged to submit balance sheets, thus making it hard or impossible in some cases, to extract the information.

MS with a questionnaire/survey as main source of data don't change their data collection method for SSF. In such cases there is a problem with low answering frequency, which in turn make the approximation for the whole SSF volatile.

All the MS agree and don't see any difficulties in applying the proposed method (e.g. split among vessels) where the primary data exists and are reliable. But, in general, SSF can be seen as a quite data poor segment and one can argue that this information should/could not be provided for SSF.

During the discussion it was, indeed, also stressed that the financial position variables are not very relevant for SSF: a) the value of the fixed capital assets estimated through the

PIM can be used as a very good proxy of the overall value of assets for SSF and b) as far as debts, in SSF it is very likely to happen that fishermen ask for a loan having a double purpose, e.g. personal and financial, resulting in difficulties to be separated.

3.4.4 Recommendations

In line with the above discussions, the SSF group agreed on the following **recommendations**:

Employment

Where the employment on-shore is relevant, it is suggested to collect information on the number of these workers. There are, indeed, countries that have reported relevant on-shore activities for SSF. Nevertheless, considering that, until now, the collection of employment variables was based only on the labour on-board or on-board/on-shore (but not exclusively on-shore) this amendment is likely producing the addition of new variable to the EU-MAP (after the entry into force of the EU-MAP). Furthermore, considering the main doubts arising on which could be the on-shore activities that can be considered really linked to the fishing operations, the group considered extremely important to launch an in-depth discussion on this (that is valid also for the large scale fisheries). As a consequence and also for practical reasons linked to the consistency of historical series under the AER reports, the groups suggests/recommends the PGECON:

- To further discuss the concept of employment on-shore (in general and not only linked to SSF) in order to investigate the real need for this type of info under the EU-MAP and verify if it is coherent with the data-collection main concepts (based on a vessel approach);
- To specify which could be on-shore activities that should be considered as linked directly to fishing operations (as written in the amendment). It is, indeed, essential to find out the activities that have direct impacts on employment;
- That considering the wide extent of the topic, further discussions and investigations could represent the object of a future study;
- after the above and further investigations, if on-shore employment will be considered relevant, to propose an amendment to EU-MAP in order to add a new variable "employment exclusively on-shore" (and the related value of labour), for sake of consistency of data series;
- alternatively, MS to start to evaluate the relevance of employment on-shore (if deemed to be important at MS level) in line with the pilot studies/data collection of social data that have already started or are going to start in all the MS. The collection of qualitative information could be enough in a first stage.

Unpaid labour

The value of unpaid labour is relevant especially for the small scale fisheries. In many case linked to the work on-board of the ship-owner. In other MS it emerges that unpaid work will largely emerge from the amendment proposed on employment, including people working on-shore (in most cases family member supporting the vessel's activities).

In these last cases, it is likely that MS will have difficulties in getting accurate information for the time worked by unpaid workers (necessary to apply the methodology proposed by SIM) and it is likely that data on the number of hours needed to estimate FTE would be

estimated rather than based on actual recording of time (making difficult to calculate FTE data with an acceptable level of accuracy).

In the light of this and in order to be consistent with the methodology proposed by SIM and to provide a realistic measure of the unpaid labour, if MS experience difficulties in collecting the number of unpaid FTE, the group proposed:

- for unpaid labour **on-board**, to collect or estimate the number of unpaid **persons** and use, if not available, the average number of hours worked by paid persons working on similar vessels or the FTE share deriving from similar fleet segments;
- for unpaid labour **on-shore** (if the amendment is going to be approved), to start the collection of data on the numbers of hours worked in on-shore activities in parallel with the collection of social data (as suggested for the employment on-shore). On-shore activities are, indeed, completely different from on-board activities, in terms of number of hours worked.

Financial position:

Balance sheets are still considered, by the group, as the most reliable source of data for the value of assets and debts. Considering that in most MS balance sheets are not available for SSF vessels, it is recommended to use questionnaire and face-to-face interview to collect data on the value of assets. Taking into account past experiences of low response rate and low reliability of data collected by mean questionnaires, it is recommended that data collectors should be well trained in their role. This is essential for the quality of data.

Where problems in collecting data or in data quality for small-scale vessels persist, it is suggested:

- for the value of assets to use the fixed capital asset estimated through the PIM, considering that in the SSF the financial assets are presumably a negligible share of the total value of assets

to consider the submission of the value of debts "optional" for small SSF segment in the fleet data call, at least in the first years of EU-MAP data calls. It is, indeed, to be stressed that, for SSF, the value of debts are, in most of the cases, debts not exclusively linked to the fishing activity but a mix of personal and financial debts.

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ANNEX 1 - Participants

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ANNEX 2 – Agenda

WORKSHOP ON SMALL SCALE FISHERY 25 – 29 March 2017 The Hague, Netherland – Institute

Monday 25-09 (day one):

15:00 – 16:30 Presentation of the main findings and outstanding questions arising from previous meetings (DCF Workshop on small-scale fisheries 2013, WGCATCH meetings 2015 and 2016 ; 2nd Workshop on Transversal variables, 2016. (Sebastien Demaneche)

17:00 – 18:30 Comparative analysis of information collected from the questionnaires (TORs 1 & 2) and from DCF (Monica Gambino)

Tuesday 26-09 (day two):

9:00 – 12:00 Presentation by each MS description of their data collection procedures to calculate fishing activity variables with a special focus on effort measures (TOR 3) and for landing declarations and sales notes (TOR 5) and main problem faced.

14:00 – 17:00 Presentation by each MS of methodologies for collecting socio-economic variables and main problem faced (TOR4).

Wednesday 27-09 (day three):

9:00 – 12:00 Finalizing of the discussion on TORs 3,4,5

14:00 – 17:00 Presentation and discussion of results from subgroups (Plenary session)

Thursday 28-09 (day four):

9:00 – 12:00 Finalizing of the discussion on TORs 3,4,5

14:00 – 17:00 Subgroup sessions for writing the report

Friday 29-09 (day five):

9:00 – 12:30 Drawing general conclusions from the pilots (Plenary session)

12:30 – 13:00 Wrap up and closure

ANNEX 4 –Description of estimation methods of socio economic variables and main issues by MS (TOR 4)

EMPLOYMENT

Member state	What is the methodology for estimation of engaged crew at MS level?	Are there specific issues (or different methodologies) arising for SSF?	Is employment on-shore relevant in your country? If yes, can you provide preliminary information (e.g. qualitative)?	Are these issues addressed by the amended definition proposed by Annex 4 of the SIM report?	Do you agree with the current proposed definition?	If and how do you think this new information can be collected in your country	Do you foresee difficulties in applying the proposed methodology? If yes, which are?
Bulgaria	The data for employment is collected by the annual questionnaire which is obligatory for every vessel/boat. Till now we were asking for the number of people involved in the fishing on the annual/seasonal basis and part time/full time. Because of the Census scheme that we use, there is no need to estimate the data. We don't have data for the people working only on-shore because this parameter were not in Appendix VI of the Commission Decision 93/2010 and our questionnaire includes the parameters from this Decision.	The data collection system for employment data is the same for the whole fleet.	We don't have information for the people working on-shore.	There is possibility people working on-shore to be involved in fishing activity.	We agree with the current proposed definition.	We will include additional questions in the questionnaires that we collect by fishing vessles.	

Cyprus	Cyprus excludes onshore work from employment variables. The collection of employment data for SSF is based on the official data from the fishing licences where there is information about the persons who are employed in fishery. In SSF only individuals (vessel owners) can hold fishing licenses and those owners are entitled to 1 or 2 assistants whose names are written on the fishing licenses. No questionnaires are used to collect this information.	For the Large Scale Fleet Segment this information is collected through questionnaires.	There is not much expertise acquired around this issue, but regarding the SSF the fishing activities onshore are carried out mainly by the fishermen and their family members and relatives. Usually the onshore work by persons other than the fisherman is taking place on a seasonal basis, during the production of <i>Spicara smaris</i> in order to help the fisherman to take out the fish from the nets.	Most of people working on-shore are mainly devoted to activities strictly linked to the fishing activity (e.g. repairing nets, or taking out the fish from the nets). In most of the cases these on-shore workers are unpaid workers.	It is important to better define which are those on-shore activities that should be considered linked to fishing operations. It is significant not to have too broad definition, otherwise we may get misleading information e.g. including accountants.	It is very difficult this information to be collected especially since most of it can take place on a seasonal basis. Also it is very difficult to evaluate in money terms this work because it regards unpaid workers (family members). A way to collect these data could be through pilot studies.	It is very difficult this information to be collected especially since most of it can take place on a seasonal basis. Also it is very difficult to evaluate in money terms this work because it regards unpaid workers (family members).
Denmark	The accounting form includes a table on labour/employment from which we get information on the crew for owner/partners, hired skippers and other hired workers. This information include number of fishing trips, days at sea, average work hours on days at sea, and number of working days in land for each labour category. Also information on extra/alternative crew is included. All data is combined/checked with registered data for the vessel (logbooks, landing declarations and sales notes).	No	In SSF work on-shore is relevant. Most of that would be owners own work, which is usually not registered by the owners.				

Finland	Employment data (FTE and number of employees) is estimated with regression based on the employment data from Statistics Finland and on the employment numbers reported by the coastal fishermen in account survey. Number of hours worked is estimated based on the employment and financial statement statistics data from Statistics Finland.	Number of employees of coastal fisheries is mainly based on log book information.	Assumption: There is some on-shore activity but it is not significant. The account survey for coastal fishing units has been modified in 2017. Fishermen are asked to fill in employment separately for paid and unpaid labour. We also distinguish full and part time workers. The account survey clearly states that all persons participated in the fishing activity should be reported as employees.		It should be clarified what activities are directly linked to fishing.	Typically employment variables have been somewhat problematic especially for the part of the SCF that are not VAT liable and therefore income statements are not available from the Statistics Finland (Tax Office).	
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France	<p>The FR data collection for employment data is based on a activity survey, to complement the one we use for most of economic data. The sample rate is close to a census. The data collection is the same for all the fishing fleet segments (= for SSF). However we have issues with the collection of data in "other regions".The collection of data is carried out by mean of a questionnaire, asking for the following information: 1) Average engaged crew of the year: average number of people working on-board on the reference year. Excluded are people working only on-shore. The questionnaire, built on the DCF rules and definitions, has allowed the collection of the primary data needed to estimate the parameters set out in Appendix VI of the Commission Decision 93/2010, e.g.: Number of on-board jobs, equivalent to the average number of people working for and paid by the ship, including the temporary crew as well as the rotating crew.</p>	<p>The data collection system for employment data is the same for all the fishing fleet segments (= for SSF).</p>	<p>The data collection we use for fleet socio-economic data is based on probability sample survey. Close to half the sample units are collected through accountants, the other half through direct survey of the ship owner. The questionnaire of this survey includes questions on family work. The response rate of that sole direct survey is about 1/3 . The specific non-response rate for the questions on family work is only a few % points. Overall the number of SSF having family members working for the fishing business can be estimated to 40% . The sample size is to small to have estimate by fleet segments .</p>	<p>A better definition of the work included in the onshore activities is very important .</p> <p>According to the (very) few data we have collected most of on-shore work done by family members is related to sells and accounting.</p> <p>According to the same data 1/5 of the family members associated with the work of the companies are paid employees.</p>		<p>As agreed in the Vilnius Pgecon meeting the social data collection in France will be, like in a few other countries, register-based. Onshore labour as such are only recorded for seagoing crews, and of course there is no record of informal work contracts! The cost effectiveness of a specific survey, or added questions to the data we collect from the accountants, is questionable. The added cost has to be regarded not only from our point of view but also from the point of view of the very small businesses we survey. We will consider all options, including a proxy based on overall rate of SSF having family members involved in the fishery business, to produce the best estimates.</p>	
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Germany	<pre> if 190 < days@sea then engCr=crew@FIRegister; if 155 < days@sea less_or_eq 190 then engCr = crew@FIRegister*0.75; if 110 < days@sea less_or_eq 155 then engCr = crew@FIRegister*0.5; if 20 < days@sea less_or_eq 110 then engCr = crew@FIRegister*0.25; if days@sea le 20 then engCr = 0; if income > 300000€ then engCr=crew@FIRegister; </pre>	NO	NO	Work on shore is either not linked to fishery (e.g. selling or processing fish) or is of negligible amount			
Greece	<p>The Greek data collection for employment data is based on a sample survey which refers to the economic variables collection. The data collection is the same for all the fishing fleet segments. The sampling method is a random sampling in each fleet segment of the Greek fishing fleet, with the exemption of the segments based on the fishing technique "vessels using hooks." The collection of data is carried out by mean of a structured questionnaire. The vessel owner is asked to estimate the personnel of the crew. Personnel refers to regural and temporary employees following the DCF rules and definitions. Average engaged crew of the year: average number of people working on-board on the reference year. Excluded are people working only on-shore. Furthermore, some qualitative information is collected under the Greek data collection, like part time or full time employment, size of family.</p>	No. The data collection is the same for all fleet segments.	Yes, family members are involved to small scale fisheries.	It is not clear. There are people working on-shore are mainly devoted to activities strictly linked to the fishing activity (e.g. repairing nets).	It is important to define better which are these on-shore activities that should be considered linked to fishing operations.	Under the pilot study for social indicators it would be possible to organize the collection of these information.	

Ireland	The Irish data for employment is taken from a Crew and Operational survey that is sent out with the Economic survey to all active vessels for the reference year. The data collected on this form is the same for the SSF and asks for total engaged crew by employment status, and average days per week and hours per day worked.	The data collection system for employment data is the same for all the fishing fleet segments (= for SSF).	Yes. We have some data concerning onshore work that we have collected for a number of years. For some segments work onshore, especially in an unpaid capacity, is important. However as this is self reported it is hard to verify the data.	Most of people working on-shore are mainly devoted to activities strictly linked to the fishing activity (e.g. repairing nets, gear/vessel maintenance, working on accounts, delivery of catch). A share of these on-shore workers are unpaid workers.	It is important to have clear definitions of on-shore activities that are directly connected to fishing activities.	The new data will be added to the annual Crew and Operational survey. Specifically, questions relating to unpaid labour at-sea and unpaid and paid work, directly related to the fishing practices, on-shore will be made clearer in the survey.	
Italy	The IT data collection for employment data is based on a sample survey (the same used for most cost data). The data collection is the same for all the fishing fleet segments (= for SSF). The sample is extracted taking into account representativeness at geographical (GSA), fishing technique and vessel length (segment) level. The collection of data is carried out by mean of a questionnaire, asking for the following information: 1) Average engaged crew of the year: average number of people working on-board on the reference year. <u>Excluded are people working only on-shore.</u> The questionnaire, <u>built on the DCF rules and definitions</u> , has allowed the collection of the primary data needed to estimate the parameters set out in Appendix VI of the Commission Decision 93/2010, e.g.: Number of on-board jobs, equivalent to the average number of people	The data collection system for employment data is the same for all the fishing fleet segments (= for SSF).	According to expertise acquired directly on the field, it is possible to provide some (very preliminary) qualitative information: \approx 1/3 of vessels under 12 metres have at least 1 person working exclusively on-shore. Geographical differences: Central-southern areas: persons working exclusively on-shore are, most of the time, family members, often in retirement. The work is not a formal work, i.e. they work for helping the family.	Most of people working on-shore are mainly devoted to activities strictly linked to the fishing activity (e.g. repairing nets). A share of these on-shore workers are unpaid workers.	It is important to better define which are those on-shore activities that should be considered linked to fishing operations.	Considering that MS are obliged to collect (new) social data under the current EU-MAP and that in most MS the social data collection is going to start, the collection of data on employment on-shore can be associated to it. If considered relevant, the collection of these data could be in the form of "estimation of the % of on-shore workers on the total engaged crew" and could be carried out, for instance, every 3 years, as the social data collection.	Main difficulties in estimating the value of labour on-shore: for people working on-board the remuneration is, in most of the case, related to the value of landings (e.g. the share approach). What about the on-shore labour cost?

	working for and paid by the ship, including the temporary crew as well as the rotating crew. By now quantitative information are not collected under the Italian data collection (because of the previous definition)		Sometime this work is unpaid; Central and northern regions, mainly along the Adriatic coast: persons working exclusively on-shore have a more formal role, i.e. they are paid for the work. Most of the time the workforce is non-EU.				
Latvia	The two sources for the number of employed are used. The questionnaires provide data for the total number of employment in the fishery sector. That values usually are used for the cross checking. Also, multiplication is applied for the number of engaged crew. It is based on the minimum crew and average crew per vessels in each segment. FTE national calculated based on the data for the total employment and days at sea as it was recommended by Study No	The two types of activities exist for the small-scale fisheries vessels. The commercial fishery and the recreational fisheries. The distinguishing between activities is shown in the licence. The fishermen have to report their personal data	The accounting of the employees exists only for the fishermen which applied for the licence. The people who could also be involved in the activity but working on-shore are not included to the number of employees.	Is assumed that the fishermen working on-shore and involved in the commercial activities could be unpaid persons. These persons are included to the unpaid labour calculation.	It should be clearly defined what kind of workers have to be included in the variable 'employments'.	The significance of the share of the on-shore workers should be defined. The social data collection could provide the opportunity to investigate if the share of the on-shore workers may influent to the fishery activity, as well as necessity of inclusion of the variable 'workers	

	FISH/2005/14 Calculation of labour including FTE in fisheries.	when they apply for the licence.				on-shore' as separate variable.	
Lithuania	Data collection for economic and social fleet variables is based on census survey and collected annually by questionnaires. Template in the questionnaire concerning employment provides an option to distinguish the employment on board and on shore. In the methodology of questionnaire is indicated that data concerning employment on shore should be included only in cases when working position is payed from fishing activities. The same template also require to provide working hours for FTE calculation.	Small enterprises or individual fishermen sometimes do not account working hours and provide only number of employees. In such case FTE are estimated on the basis from available data provided from SSF units.	People working on shore is separated in the questionnaire, the data shows, that this part of employment is important in terms of size and better reflects fishing community activities.	Data concerning fisheries on shore are collected since 2010.	Yes	It is collected since the survey was lounched in 2010.	

Poland	The Polish data collection is census and based on statistical questionnaires filled out by fishing vessels owners for individual vessel for reference year. Questionnaire asked for the following information: Average number of employees by type of contracts (full time, part time, seasonal), Average number of employees by workplace (crew on board –including owner, personnel on shore – including owner), Average number of employees by education level (in the field of fisheries, other), Average number of employees by status of employment (employees, employers (owner), self-employment), Average number of employees by age and by gender. In the case of non-response in census, estimation is made based on average values for vessels that provided data.	The data collection system for employment data is the same for all the fishing fleet segments (= for SSF).	We have data about average number of on shore work. For SSF on shore work is important.	There is no information about on shore workers type of activity.	It is necessary to identify on shore activities strictly linked to the fishing operations.	Poland probably will continue the collection of social data on an annual basis.	
Portugal	Social-economic data is collected by survey. The sample is stratified by fleet segment (VL * Fishing Technic) with some criteria: CV <5%; minimum 30 vessels by segment; segments with less than 15 vessels is census approach) Azores and Madeira regions have Census.	No, apart the difficulty on getting economic data from SSF	Only for seine beach. But no number to provide once the data collection is per vessel and no dissociation is made between fishermen on-shore or onboard.	Diferent activities on-shore can be performed with diferent impact on fishing activity. For example, SB don't operate without on-shore workers but netters (DFN) can use different nets while someone on-shore are repairing other nets.	A clear definition should be define for the activities on-shore activities that can be considered linked to fishing operations.	per relevant segment, split on-board and on-shore crew in the questionnaire	

Romania	Data collection is based on questionnaire, face to face interviews and fishing log for each vessel and data segmentation by schip segments, fishing techniques and fishing gears. Excluded are those who work only on the shore.	No	No	No	We agree, but there should be included on the fishing operations maintenance and repairs of the fishing gears.	Yes, these data can be collected as before (questionnaire, fishing log, and interview for each ship).	
Slovenia	•Engaged crew – number of jobs on board, including temporary crew as well as rotation crew, equal to the average number of persons working for and paid by the vessel; the data are collected through the use of survey questionnaires and from accounting records – AJPES.	no	no	no	yes	on the census base	
Sweden	The information is gathered via balanced sheets for each company. It is cross-checked and complemented via a census survey to all license owners. Where they are asked how many workers were on board working on the vessel. The latter approach is more precise as it only takes into account workers actually working on board the vessel. Balance sheets are available on company level, and a company can own several vessels. For Swedish vessel the hit rate of vessel specific data is approximately 80 percent.	This information is collected in the same way for the whole fleet. No specific issues.	Yes it is relevant. In our census survey we collect data on how many hours each vessels employees have spent on shore, repairing nets etc. Average time spent on shore for SSF is 285 hours per year and vessel. Rough approximation. Preliminary results.	No issues specified.	Yes, although some examples should be available of what should be included and not included. It is very important to have a clear unified definition.	We already collect information about onshore activities. Such as repairing net etc. We measure it in hours work on shore.	

<p>United Kingdom</p>	<p>Fleet employment data are collected separately by each fisheries administration in the UK. In Scotland and Northern Ireland, staff in coastal offices are issued with a census of all vessels in their responsibility and asked to provide data on the number of part-time and regular fishermen on each vessel, with this vessel level data collated to provide estimates of fishermen numbers on vessels at each port of administration. In England and Wales, a census of fishing vessels over 10 metres in overall length is performed. A stratified sample of vessels 1m and under is taken (strata defined by administration port, vessel length and gross tonnage). A 20% per cent sample is drawn from each stratum. For all administration the employment data is based on local knowledge and enquiries to the vessel operators. For the purposes of the survey, a fisherman is defined as a person working at sea on a commercial fishing vessel, such as skippers or crew members. The definition excludes persons not working at sea, such as administrators and land-based processing staff. Fishermen are classified as regular or part-time according to whether commercial fishing is their main occupation.</p>	<p>For England and Wales 10m and under vessels are covered by a stratified sample survey - the rest of the fleet is by a full census</p>	<p>Not thought to be significant but it may be relevant for the small scale fleet - the UK has carried out a pilot exercise on the collection of socio-economic data in 2017 which when finalised will provide information on the significance of this activity</p>	<p>Included as part of the pilot socio-economic data collection exercise but not in the usual annual estimates.</p>	<p>The UK would prefer the inclusion of this data as being optional (the "could" definition)</p>	<p>The UK plans to carry out a larger scale exercise to collect socio-economic data in 2018 following on from the pilot exercise in 2017 and this issue will be incorporated into the revised survey.</p>	
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UNPAID LABOUR

Member state	What is the methodology for estimation of imputed value of unpaid labour at MS level?	Are there specific issues (or different methodologies) arising for SSF?	Are these issues addressed by the amended definition and by the methodology proposed by the SIM report?	Do you agree with the current proposed definition and methodology?	Do you foresee difficulties in applying the proposed methodology? If yes, which are?
Bulgaria	The data collection for imput value of unpaid labor is based on questionnaires which are collected from all vessels. We ask the fishermen for value of unpaid labour and we calculate the value by the information from questionnaires.	The unpai labour is calculate for all fleet segments.	In Bulagria mainly ship-owners, people working on-board and people working on-shore (if any) are people working without receiving a remuneration. The variable of unpaid workers would include and people working on-shore.	We agree with the current proposed definition.	No
Cyprus	The imputed value of unpaid labour is based on estimation. It regards the SSF where the workers do not get any salary and it is related only to onboard crew. The numbers of workers are gor besed on official data from the individual licences of fishermen. Then a fixed	The unpai labour is considered mainly relevant for SSF and estimated only for SSF since the workers in LFS get salary.	In Cyprus case including onshore work means that besides the fishermen we need to take into consideration the persons, most of the cases family members who help the fishermen onshore mainly taking out the fish from nets.	It is very difficult to collect this information but it is important to have it for economic and social purposes.	It is very difficult to collect such information especially to estimate the value of the unpaid onshore work.

	salary is estimated based on the FTE. -				
Denmark	We use the index for average hourly wage cost for workers employed in the private sector. For the year 2015 the average wage was EUR 33.25 per hour. The amount of owners own labour (when the fishing enterprise is not corporate/firm) is based on a specific table in the harmonized accounting form together with data on days at sea and fishing trips from logbooks and landing declarations/sales notes.	The estimation of owners own labour in SSF is difficult, because a significant part of the workload is work on shore, which is not registered. The fisherman may be able to give a suggested figure, as his actual work in fisheries usually is only part time.	No		
Finland	Opportunity costs for unpaid labour are estimated by Statistics Finland based on the annual amount of unpaid work and the average wage of the enterprise. Any missing data is imputed with weighted average by stratum. The pay adjustment is made by first specifying in detail the annual unpaid work input performed by the entrepreneur. Then the total amount of wages and salaries for the unpaid work input is estimated.	For passive gear vessels under 10 m with turnover below the threshold level (VAT), the calculation of the value of unpaid labour is done by exploiting the ratio of value of unpaid labour and total expenditure for fishing units that have declared their income statements.	The proposed recommendation from PGECON 2017 that people onshore directly linked with fishing operations could be included does not seem problematic	Yes	Difficulties may arise in estimation of paid and unpaid FTE.

France	<p>The collection of data on the imputed value of unpaid labour is based, until now, on an estimation. Assumptions have been made using information collected on the field:</p> <ul style="list-style-type: none"> - Unpaid workers are mainly associated to the concept of vessels' owners working on-board, usually not included on the payroll at least on-board of the small-scale vessels - 1 vessel ≈ 1 unpaid worker - this assumption is applied only and to all the fishing vessels under 12 metres - for the remuneration of the unpaid workers, the average cost per engaged crew member has been used, on a stratum basis (defined by fleet segment and GSA) - the estimated value of unpaid labour is detracted by the overall value of labour costs (hence, splitted in paid and unpaid value). 	no	We agree with the proposed definition: "People working only onshore ...could be included if their activity has a direct link with the fishing operation"	Measuring the FTE for unpaid labour, working only on-shore, will certainly be very difficult. There is usually no formal recording of hours worked under informal contracts.	Yes, indeed with no good estimates of the FTE and only a proxy of the "salary" per day or per hour we believe we cannot produce good estimates for unpaid-onshore-family work. We would rather leave it to the end-users to make their own assumptions and calculate estimates than pretend we have a reliable measurement.
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Germany	<p>Unpaid labour will be estimated if the vessel length is below 30 m and if the total days at sea are less than 270 (3/4 of a year). If a vessel exceeds one of these thresholds, it is regarded as company-owned with no unpaid labour involved. The imputed value of unpaid has to be regarded as dependent upon total activity and earnings from landings. It is therefore estimated based upon three elements:</p> <ul style="list-style-type: none"> • the average national salary provided by the "German Federal Statistical Office" (2008 = 30.600 €) • the total number of days at sea • the total earnings from landings. <p>The imputed value of unpaid labour will be determined per vessel by multiplying the average national income with the matching factor as indicated in the subsequent scheme:</p> <p>Total days at sea Annual earnings from landings in 1.000 €</p> <table border="0"> <tr> <td>20 - 49</td> <td>50 - 99</td> <td>100 - 299</td> </tr> <tr> <td>300</td> <td>+</td> <td></td> </tr> <tr> <td>50 - 74</td> <td>1/6 1/4 1/2 3/4</td> <td></td> </tr> <tr> <td>75 - 149</td> <td>1/4 1/2 1 5/4</td> <td></td> </tr> <tr> <td>150 +</td> <td>1/2 2/3 1 3/2</td> <td></td> </tr> </table>	20 - 49	50 - 99	100 - 299	300	+		50 - 74	1/6 1/4 1/2 3/4		75 - 149	1/4 1/2 1 5/4		150 +	1/2 2/3 1 3/2		no			
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Greece	In Greece, the paid and unpaid FTEs are estimated. Then the average remuneration per paid FTE is defined according to data collected from the questionnaires. The value of unpaid labor is estimated by multiplying the unpaid FTEs with the average remuneration per paid FTE or with the minimum wage.	The variable refers to the value of labor provided by people delivering unpaid labor and estimates the salary that these unpaid workers would receive if their work were remunerated. It is a very crucial indicator for small-scale fisheries in Greece.	For small scale fisheries, family members are main part of people working and we have to included.	We agree with the definition. We think that it would be more appropriate to estimate the unpaid labour on the basis on the number hours that each unpaid worker on shore. Then to calculate on FTE basis. Through the survey we could collect this information.	No
Ireland	The collection of data on the imputed value of unpaid labour is based on responses to a crew survey where the vessel operator is asked to indicate how much time the owner and/or family members work in an unpaid capacity for work directly related to the fishing enterprise. The minumial industrial hourly wage and unpaid labour hours is used to estimate the total unpaid amount.	No. The same method is used for SSF, although it is usaly higher for SSF.	The proposed recommendation from PGECON 2017 that people onshore directly linked with fising operations could be included does not seem problematic	We agree with the definition. We think that it would be more appropriate to estimate the unpaid labour on the basis on the number of people and not on FTE.	

Italy	<p>The collection of data on the imputed value of unpaid labour is based, until now, on an estimation. Assumptions have been made using information collected on the field:</p> <ul style="list-style-type: none"> - Unpaid workers are mainly associated to the concept of vessels' owners working on-board, usually not included on the payroll at least on-board of the small-scale vessels - 1 vessel ≈ 1 unpaid worker - this assumption is applied only and to all the fishing vessels under 12 metres - for the remuneration of the unpaid workers, the average cost per engaged crew member has been used, on a stratum basis (defined by fleet segment and GSA) - the estimated value of unpaid labour is detracted by the overall value of labour costs (hence, splitted in paid and unpaid value). 	The unpaid labour is considered mainly relevant for SSF and estimated only for SSF	Including workers on-shore for Italy would mean to consider, in most cases, people working without receiving a remuneration (most of the time family members). This would mean that the variable of unpaid workers will include, for Italy, not only the ship-owners working on-board but also people working exclusively on-shore.	We agree with the definition. We think that it would be more appropriate to estimate the unpaid labour on the basis on the number of people and not on FTE. It is, indeed, difficult, at least in Italy, to collect the number of hours worked by people working without a remuneration, also considering that the collection of data is based on an estimation.	Difficulties in using the FTE for the estimation of the imputed value of unpaid labour.
Latvia	For the calculation of Value of unpaid labour the data about average personal costs in the segment and number of unpaid persons are used. The number of unpaid persons include the owners of the fishing firms and theoretical number of the family members who may be involved into the fishery activity. The value of unpaid labour could	Applicable only for SSF (the segment VL0010)	Due to the lack of information there is no clear distinction between unpaid family members working on-shore and on-board.	The variable Value of Unpaid labour could include also family members involved in the activity on-shore or on-board.	The FTE cannot be used due to that variable is based on hours worked per day. The working hours for the fishing firm owners and their family members not be collected.

	include people working on board and on-shore.				
Lithuania	In the employment questionnaire fishing units has to provide the status of employee and one of the options is to indicate how many unpaid family members are involved and how many hours were worked, which later are be used for FTE calculation. Then average salary for particular segment is used to calculate unpaid labour value in SSF segments.	The same data collection methodology is used for both SSF and LSF.	Addressed	Yes	Possible issues could arise in the gathering data on working hours of unpaid labour, because according to the law, there is no obligation to record data on unpaid family members.
Poland	The collection of data on the imputed value of unpaid labour is based on survey where the ship owner is asked about average number of unpaid workers (on board and on shore).To estimate imputed value of unpaied labour the average wages by fleet segments has been used.	The metodology is the same for all the fishing fleet segments.	We have data about average number of unpaid on shore work. There is no problem to follow PGECON recomendation.	We agree with the definition. We think that it would be more appropriate to estimate the unpaid labour on the basis on the number of people and not on FTE.	It will be very difficult to apply FTE for the estimation of the imputed value of unpaid labour.
Portugal	In the questionnaire is asked if any worker is unpaid. Average value by segment is inputed to the work	In SSF the labour is not always paid as the revenues from the sales goes directly to the fisherman			
Romania	The collection of data on the imputed value of unpaid work is based on data recorded by each	No	No	Yes	No

	enterprise in questionnaires, interviews and checks on the website of the Ministry of Finance.				
Slovenia	Work that is not remunerated in the usual sense of the word (non-salaried work) and is therefore regarded as unpaid labor – family members...Value of unpaid labour is calculated on the basis of the salaries of paid employees. When the owner does not receive a "salary" in the sense that a hired fisherman would, but receives an emolument due to the capital invested in addition to the emolument for labour. Value of unpaid labour in that case equals net profit.	no	no	yes	no
Sweden	It is part of the new collection of socio-economic variables. A question will be included asking about total number of workers, paid and unpaid as well as working hours for paid and unpaid. Thus a FTE can be calculated for both work-segments. The information will be gathered via a mail survey. In the same way as we gather part of the economic data. It is a census survey for all vessels, both SSF and LSF.	Unpaid labour is mainly part of the SSF. The future question included in the survey will be asked for all vessel owners.	No issues specified.	We agree with the definition. Although the discussion should continue and be continuously evaluated.	It will be a rough estimate due to the fact that each vessel owner dont know the exact number of unpaid workers/unpaid working hours. He/she will have to estimate the number.

<p>United Kingdom</p>	<p>This is estimated based on the analysis of average crew wages per day of work - if the crew income is below £100 per day then it is increased to £100. As such the £100 per day is treated as a minimum wage level.</p>	<p>The methodology used results in the valuation of unpaid labour being incorporated into the estimated overall crew wages and not calculated as a separate adjustment</p>	<p>this will be estimated using the results of the pilot exercise that has been carried out in 2017 or the collection of socio-economic data (the results are currently being compiled) and also in a larger scale follow-on exercise planned for 2018</p>	<p>We agree with the definition and think given the difficulty in getting data on the number of hours worked by people not getting remuneration and that any data collected is likely to be very much estimated rather than based on actual recording of time, it would be best to collect data on the basis of numbers of people rather than in terms of FTE.</p>	<p>See comment left - difficulty in getting accurate information for the time worked will make it difficult to calculate FTE data with any accuracy.</p>
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FINANCIAL POSITION

Member state	What is the methodology for estimation of financial position (from now on value of assets and value of debts) at MS level?	Are there specific issues (or different methodologies) arising for SSF?	Are these issues addressed by the amended definition and by the methodology proposed by the SIM report?	Do you agree with the current proposed definition and methodology?	Do you foresee difficulties in applying the proposed methodology? If yes, which are?
Bulgaria	We collect data for value of assets and debt for the fishing vessels with the annual questionnaires.	Balance sheets are available only for capital companies. Small-scale vessels belong mainly to individuals, which are not obliged to submit balance sheets.	Yes	Yes, in line with the methodology proposed.	No
Cyprus	We got this information from questionnaires and in most of the cases fishermen are not in position to separate the fishing debts from their total debts.	Balance sheets are available only for nominal persons. Small-scale vessels belong based on the national legislation only to individuals who don't prepare financial accounts.	Only partially since it doesn't provide any help in estimating the value of fishing debts	It is a better indicator but it will still create problems because it doesn't provide any answers to the estimation of value of debts.	Yes because with no financial accounts the value of assets can not be collected or estimated.

Denmark	The financial position is calculated as debts in percent of total assets using data from harmonized balanced accounts reported by the fisherman's professional accountant.	The reported accounts are used as basis for simulating individual accounts for all not reported units in each fleet segment. For the smallest units (below threshold) individual balanced accounts are not simulated. Instead a raising factor is calculated to include these units in the fleet segment.	No		
Finland	Economic data is collected by fishing unit: company or fisherman (including family members). Financial statements data for fishing firms with income over a threshold level of around € 11 000 are obtained from the database of Statistics Finland (SF) on structural business and financial statement statistics. PIM method is used for the calculation of the capital value, the depreciation and the investments for the fleet.	For fishing units below the VAT threshold level an additional account survey is conducted (NSS). Account survey for coastal fishermen is targeted for all those fishermen having value of annual catch more than 5 000 euros. The response rate is around 35%. Any missing data is imputed with regression by stratum.		Yes	No
France	The data collection we use for fleet socio-economic data is based on probability sample survey. Close to half the sample units are collected through accountants, the other half through direct survey of the ship owner.	The methodology is the same for SSF.			

Germany	Where balance sheets are available the necessary figures are taken from the balance sheet. In other cases data are taken from questionnaires. The sample will be raised in proportion to the value of landings.	No			
Greece	The variable will be obtained from the survey, since balance sheets are not available , especially for small scale fisheries.	The quality of this information is poor, without high reliability or completeness. It is difficult for the fishermen to give reliable information on this issue. It is a raw estimation.		Yes	No
Ireland	Use of balance sheets for estimation of financial position, based until now, by collection financial statements from fishermen's accountants. The data collection is based on a non-probability sample survey. All the balance sheets available are considered: they are used as non-probability sample to raise the figures for the overall population. For firms with more than 1 vessels, the total value of assets and the total value of debts is split using the fixed capital value (estimated by mean of PIM) as a weight or in the few instances where there are vessels in the same DCF segmentations with similar operations the data is equally split.	Vessels between 10-12m also submit financial statements with balance sheets. However, for some vessels sampled the data submitted is not as detailed as the accounts for vessels >12m. This is due in part to these vessels having lower activity levels. Vessels under 10m are not required to submit a balance sheet and as such it is more difficult to calculate financial position, long/short debt.	It is difficult, and will most likely remain so, to collect data on debt from the SSF.	Yes, in line with the methodology proposed to split total value of assets and debts when required.	Data poor segments will be difficult to calculate. It would be useful if this variable did not have to be reported for SSF, or vessels under a certain threshold.

Italy	Use of balance sheets for estimation of financial position, based until now, by collection data on value of assets and debt for fishing firms. The data collection is based on a non-probability sample survey. All the balance sheets available are considered: they are used as non-probability sample to raise the figures for the overall population. Different coverage rates for the different strata. For firms with more than 1 vessels, the total value of assets and the total value of debts is split using the fixed capital value (estimated by mean of PIM) as a weight.	Balance sheets available only for capital companies. Small-scale vessels belong mainly to individual firms not obliged to submit balance sheets. The coverage rate of the non-probability sample is around 19% (while for large scale fleet is.....).	Yes	Yes, in line with the methodology proposed to split total value of assets and debts.	No
Latvia	The assumption based on the collected data about debts and total company assets attributed to the fishery.	No	NA	Yes	No
Lithuania	Data concerning value of assets and debts are collected on census basis.	Balance sheets are not obligatory for individual farms, in the questionnaire they provide assets and debts accounted for individual purposes, for example value of purchased vessel, gear and loans for fisheries. A large part of SSF are JSC companies, they have balance sheets and provide data in questionnaires. In the cases of missing or unavailable data, information from small scale JSC are used for estimation	Yes	Yes	No

Poland	Estimation of financial position based on data from the questionnaires filled out by fishing vessels owners for individual vessel for reference year. Questionnaire asked for the following information: total value of fixed assets, total value of current assets, total value of debts. In the case of non-response in census, estimation is made based on average values for vessels that provided data.	The methodology is the same for all the fishing fleet segments.		Yes, in line with the methodology proposed to split total value of assets and debts.	No
Portugal	value of assets and value of debts collected by questionnaire	most of the SSF has no organized accountability.			
Romania	The data are extracted from the balance sheets of all ships operating on the Romanian seaside. The questionnaires are filled in by census. For all firms, the total asset value and total amount of debt is divided using the fixed capital value as a weight.	All the companies in Romania present the balance sheet. The probability rate is over 85%.	Yes	Yes	No

SVN	<p>Debt/asset ratio - % debt in relation to total capital value; the data are collected from accounting records – AJPES. Capital value is in principle the sum of all assets (or liabilities) presented on the annual balance sheet. The capital value of the fishing firms is in principle composed of the following components: Fixed tangible assets – sea-based = vessel, engine, electronics, other equipment on board, Fixed tangible assets – shore based = buildings, cars and other facilities on shore, Intangible assets = licenses, quota, permits, etc, Working capital = liquidity (money) required to pay regularly on-going operational expenses, Reserves, participations, shares, etc. = resources (money) 'invested' in assets not directly related to the fishing operations, but for example maintained to assure pension payments to the owner.</p>	no	no	Yes	no
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Sweden	<p>The information for long/short term debt and total assets are gathered through Statistics Sweden (SCB). They have access to balance sheets and match it to our registry of vessels and companies. The hit rate on vessel level is approximately 80 percent. The rest 20 percent is approximated on a certain segment level. The fleet is divided in approximately 30 homogenous segments. These segments are segmented via the following variables; pelagic fishing or not, length of vessel, passive/active, main species caught and activity level. Each vessel belong to one segment and get approximated with the segment-specific values.</p>	<p>Not necessarily. It is easier to find good information for a capital valued company. But the needed information is still available, in most cases, for individual firms.</p>	<p>No issues specified.</p>	<p>Yes</p>	<p>No</p>
United Kingdom	<p>Balance sheets are used to estimate financial data when available (e.g. using data on value of assets and debts). The data is collected by a non-probability sample which is then used to raise the figures for the individual strata that are then collated into the overall population. The PIM is used to estimate the division of values of assets and debts for firms with more than 1 vessel.</p>	<p>Balance sheets are available for capital companies and for some higher performing small scale vessels (usually those 8-10m and some 10-12m). Other small-scale vessels belong mainly to individual firms not obliged to submit balance sheets.</p>	<p>Yes</p>	<p>Yes</p>	<p>No</p>

ANNEX 5 - Summary SSF data collection (for vessels without EU logbooks)

Summary of the Member States SSF presentations (18 countries).

Bulgaria

Based on the Control Regulation and Bulgarian legislation all fishermen in Bulgaria are obliged to use fishing logbook and on base of the data from logbook our system calculates the number of fishing trips, days at sea, fishing days and hours at sea. For active vessel, we consider vessel that has at least one at sea.

To calculate the total length of nets we use the marking system based on the Control Regulation. For calculation the number of pots/traps, we use the information form fishing licence.

Regarding Bulgarian legislation there is no difference between SSF and LSF and all commercial fleet is treated equally. Because of this all owners of vessels are obliged to use fishing logbook. Vessels which applying for quota for turbot should have and VMS on the board. Bulgarian Fisheries and Aquaculture Law, amended in 2016 defines that the owners of vessels with length less than 10 meters are exempt from the obligation to be legal entities. All other management measures applied for SSF are the same as this for LSF.

Regarding the licencing scheme in Bulgaria, our vessels getting the fishing licence that is not renewable, and for estimation of activity, we use the activity from the previous year.

Cyprus

There are 3 types of SSF licenses issued in Cyprus, based on the Fisheries Act:

- Small scale fisheries license, called "Category A" (Full time fishing);
- Small scale fisheries license, called "Category B" (Part time fishing);
- Small scale fisheries license, called "Category C" (Occasional fishing).

All SSF licenses according to the legislation must be between 4 meters and 12 meters LOA. The maximum number of SSF licenses for "Categories A&B" is 327 and they are issued every one to three years whereas the "Category C" licenses are issued on an annual basis. The mean number of licenses issued per year for this category is around 420 and they are allowed to fish only for 70 specific days per year.

Data collected include landings by species, catches by fishing area(s), number of trips, fishing days, total length of nets/total number of pots/traps/total number of hooks (for vessels with logbooks) and biological data.

As for effort data the Cyprus data collection procedure is based on (a) paper logbooks for vessels 10-12 meters (LOA), (b) Production reports for vessels less than 10 meters (LOA), which is mandatory according to license rules for vessels "Categories A&B". The production reports must be submitted within one month of issuing (this was introduced in the terms of licenses, in order to validate the catch and effort of the vessels for license renewal (there is a minimum number of days (120) and a minimum catch per annum (1000Kg) and (c) annual landing report logbook, for "Category C". Despite the fact that we have census landings data and fishing days through the production reports, the quality of the data for the "Categories A&B" licenses would be improved if inspections at landings sites for sampling purposes were increased significantly.

For vessels <10m the procedures and methodology to calculate fishing activity variables regarding fishing gear use is based on a random sampling system. Fisheries inspectors randomly (minimum 2 sampling trip per week at various fishing shelters) inspect landing sites where data on landings/discards/gears with relevant dimensions /soaking time/fishing area are collected. According to the information collected and the total number of fishing days that is based on the production reports, the gear use is calculated.

Denmark

In Denmark vessels over 10 m (over 8 m in the Baltic) are obliged to fill in EU logbooks. There are census data on the sales notes, so all landings, also from the vessels that are not obliged to fill in logbooks, are recorded in the sales notes. The sales notes are validated through control and information from other public administration such as information from the tax authority and food safety authority. For the vessels without logbooks, for each landing in the sales notes, the effort is assumed to be one trip, one fishing day and one day at sea.

The size of the small-scale fishery in Denmark depends on the measure: in 2015 61% of the active vessels were less than 12 m, catching 4% of the total landing weight and 7% of the total landings value. 42% of the total days at sea was from vessels less than 12 m in 2015. 53% of the active vessels were less than 10 m, catching 1% of the total landing weight and 3% of the total landing value. 32% of the days at sea was from vessels less than 10 m.

There are plans to make a pilot study to collect information missing from the sales notes (gear type, mesh size, fishing area) through a smartphone app, and to supplement the VMS data with historical AIS data (but it not covering the whole fleet).

Finland

Commercial fishing. Commercial marine fishery statistics are based on periodic catch declarations by commercial fishermen. A commercial fisherman may be a natural person (person or business) or a legal person (limited liability company, limited partnership or general partnership), engaged in fishing for commercial purposes. The catch statistics include the entire catch of Finnish commercial marine fishermen, including the part of the catch landed outside Finland.

According to the Fishing Act (379/2015), all commercial fishermen must be entered in the register on commercial fishermen and the Act on the registration of fishing and aquaculture vessels operating at sea (690/2010) obliges all vessels and boats engaged in commercial marine fishing under a Finnish flag to be registered.

Commercial marine fishery statistics are based on data received from official registers. The frame population of the statistics comprises the registers of commercial fishermen and commercial fishing vessels and boats.

Transversal Data Sources. Capacity, logbook and landings data are derived from sources which are covered by different legislation. All these data are available exhaustively. The bigger vessels are covered by logbooks and smaller vessels are covered by the coastal fishing report.

Fishing reports of vessels of 10 metres or more in overall length are usually submitted via the electronic **EU logbook** directly from the vessel. The following information is reported for each fishing effort: the fishing trip and its duration, the quantity caught (by fish species), the catch area as a statistical rectangle (approximately 55 x 55 km in size, formed on the basis of map coordinates), the fishing gear used and the catch time in hours.

Fishing reports of vessels under 10 metres in length, with the exception of species with catch quotas (up to 50 kg/day of Baltic herring), are given either on paper or electronically on a **monthly coastal fishing journal**. The following information is reported: the quantity caught (by fish

species), the statistical rectangle, the fishing gear used, the number of fishing gear and fishing days plus the quantity of discarded fish by species.

Reports by vessels under 10 metres in length of species with catch quotas and up to 50 kg per day of Baltic herring are given in **landing declarations of coastal vessels under 10 m** for each fishing effort, either on paper or electronically. The following information is reported: the quantity caught by fish species, the statistical rectangle, the fishing gear used, the catch time, the number of fishing gear and fishing days plus the quantity of discarded fish by species.

Value of landings. The value of catches landed in Finland is calculated from the average prices paid to fishermen published by the Finnish Natural Resource Institute. The value of catches landed abroad or trans-shipped is calculated from the database called the central control register on commercial fishery maintained by the Centres for Economic Development, Transport and the Environment and the Provincial Government of Åland. In the case of Poland, the price data are obtained from local fishery authorities.

Regulation. The offshore fleet is managed mainly through TACs that are shared between Baltic Sea countries. The main quota species for the small-scale coastal fisheries is salmon. Apart from salmon, the coastal fleet target mostly on freshwater species that do not have quotas but are managed with licences and other time and gear restrictions. From the beginning of 2017, ITQ regime was introduced in the Finnish pelagic fisheries. The allocation of the fishing rights was based on grandfathering. ITQ system will also be introduced into the salmon fishery.

Furthermore, the fishing law reform sanctioned the coastal fishing reports mandatory for all small-scale coastal vessels from the beginning of 2015 and therefore the estimation of non-response has been abolished.

France

Key Points: The French fleet present a large spatial distribution all around the world. Special features and differences appear between regions, especially for the fleet segment of vessels less than 10 meters. The way to follow them differs therefore from one region to another.

Composition: Under-10m fleet represent a large part of the total fleet in term of number of vessels and consequently in employment in all regions (~50% of the total number of vessels in North Sea and North Atlantic, ~80% in Mediterranean Sea and ~90% in Over-seas Regions).

The reality of the activity of this fleet is well assessed through the exhaustive "Activity Calendar Survey" applied every year in all regions which cover the whole of the reference population. Such survey provide input each year for the typological classifications of vessels (inactive/active vessels and classification by métiers), makes also possible the definition of sampling plans to structure the routine data collection program and is used for checking the completeness and reliability of declarative data available.

Landings and effort data: Two approaches are used to follow the under 10m fleet: i) a census approach in North Sea and North Atlantic based on a monthly declarative form adapted to their special features. These data are crossed with sales notes through the SACROIS tool to get validated and qualified landings per species and fishing effort data series. ii) a sampling approach is used in Mediterranean Sea and Overseas Regions as the coverage and precision of the available declarative data have been assessed to be insufficient to meet the DCF requirements. Therefore on-site sampling of trips surveys (catch assessment survey) have been implemented in these regions to estimate fishing effort and landings per species data series. Sampling scheme combine a cluster weighted sampling of the fishing trips (spatial*time sampling) with a complementary stratified phone sampling to estimate the number of fishing trips.

Germany

A vessel is considered active if landings have been declared for the respective period and inactive if no landings have been reported. The transversal data for commercial vessels without logbooks are obtained from different sources.

The capacity data (number of vessels, GT, kW, vessel age) is taken from the fleet register and vessels with LoA of < 8m (Baltic Sea) and < 10m (North Sea) have to hand in monthly declarations of their landings, including remuneration, where applicable.

Random sampling on-board the vessels is used to get data on gear dimension, mesh size and fishing hours. In order to estimate the days at sea, a questionnaire is sent to fishing firms based on probability sampling at the end of each year. It is aimed at sampling about 20% of the segment of vessels with passive gears and LoA of 0 – 10m. The firms are asked to write down the days at sea for the different types of passive gears they used during that year. This information is recorded separately for each vessel in case a firm owns more than one.

Greece

In Greece, the majority of vessels (94%) are small-scale vessels. The small-scale fleet mainly exploits the extensive Greek coastline, using polyvalent passive gears (mainly nets, longlines, pots, and traps). **Simple Random Sampling** is used to collect the transversal information in each fleet segment, with the exemption of vessels using Hooks, (stratified random sampling approach on métier level is used). The sample unit is the vessel, and it is selected from the Greek vessel registry. **Collection of data** is obtained through face-to-face interviews with well-educated data collectors. For each vessel for which economic variables are collected, the corresponding activity variables have also to be collected (following Commission Decision 2010/93/EU (paragraph A.1.1)). All fishing activity variables are collected monthly, and all economic variables are collected yearly. **Inactive vessels** are estimated from the selected sample, as there is no a priori information on inactivity. For the estimation of effort activity, data is obtained from the survey. In case of limited information, we use the hypothesis of one fishing trip refers to one day at sea. **Reporting:** Fishing vessels between 10-12 meters are required to fill out paper logbooks, but there are no obligations to record catches below 50 kg. Fishing vessels < 10m are not obliged either to complete any type of logbook or to present sales notes. Now, there is an obligation for self-reported data. **Validation:** Specific procedures will be applied to verify the information obtained from the different sources. For specific variables and fleet segments, available control data will be validated with data collected through the sample survey.

Ireland

National fleet segmentations are currently divided into five segments in accordance with national policy directives. However, these segmentations do not specifically define small-scale fleets. For general purposes SSF are considered as inshore vessels below 12m in length with a distinction being made for vessels less than 10m, which are not required to complete a logbook. Vessels using active and passive gears are considered in the small-scale fishery.

In general, sea fishing boat licences are renewed by the Licensing Authority on an annual basis. This details all registered vessels both active and inactive. Fishing activity for vessels ≥ 10 m is taken from logbook data where an active vessel is defined as any vessels with ≥ 1 day logbook entry. Fishing activity for vessels less than 10m is estimated from a combination of analysis of sales notes entries, data from the Sentinel Vessel Program (a national logbook completed by a sub-sample of the inshore fleet), economic survey returns, comparison to similar segments (10-12m) and local fishery knowledge.

Effort based transversal variables are provided through logbook census data at the appropriate stratification level and units for all Irish vessels >10m including number of vessels, Days at sea, Hours fished, Fishing days, kW * Fishing Days, GT * Fishing days, Number of trips, Gear type, and Number of fishing operations. Future effort calculations will utilise fecR: Fishing Effort Calculator in R following the DG MARE Ad-Hoc Workshops on Transversal Variables in Zagreb (2015) and Nicosia (2016). <https://cran.r-project.org/package=fecR>

For vessels less than 10m effort calculations are more difficult. Sub-samples collected through a Sentinel Vessel Logbook programme that collect daily fishing details are used to validate Sales notes data and calculate effort. Effort calculation is easiest for main gears DRB and FPO where the target species and gear can easily be matched. There are some assumptions made, mainly that a sale event for a vessel represents a day of fishing. This is probably correct for DRB but not for FPO. Presenting data to sub-region is difficult and some assumptions need to be made. Other métiers are hard to define using species sold as they are sometimes not included.

Besides minimum conservation a reference sizes for species caught in SSF there are a number of national and local measures, which are summarized in table 1.

Table 1. List of EU/National and Regional management measures for Ireland.

Species	Scientific Name	FAO	MCRS	Local Measures	Other Measures
Brown Crab	<i>Cancer pagurus</i>	CRE	130 mm CW, 140 mm N of 56°N		Proposal to increase MLS to 140mm nationally
Whelk	<i>Buccinum undatum</i>	WHE	Length 45 mm, width 25 mm		
Lobster	<i>Homarus gammarus</i>	LBE	min 87 mm CL, max 127 mmCL		V-notching, TCM
Shrimp	<i>Palaemon serratus</i>	CPR		Local extensions of closed season	Closed season 15th March to 1st August 2015 Shrimp order SI 180(2002)
Crayfish	<i>Palinurus elephas</i>	CRW	110 mm CL	Local areas closed to tangle netting by order	Crawfish Order 2002
Spider Crab	<i>Maja brachydactyla</i>	SCR	Min LS 120 mm CL Female 130mm CL Male		
Velvet Crab	<i>Necora puber</i>	LIO	TBA		65mm Minimum landing size being proposed
King Scallop	<i>Pecten maximus</i>	SCE	100 mm, 110 mm VIIa N of 52° 30'N		Sub-segment capacity limited for vessels >10m
Queen Scallop	<i>Aequipecten opercularis</i>	QSC	40 mm		
Cockle	<i>Cerastoderma edule</i>	COC	22 mm Dundalk Bay	Dundalk Bay	NATURA, Limited entry, limited opening, TAC, catch limit
Flat Oyster	<i>Ostrea edulis</i>	OYF	76-78 mm	Locally managed in Tralee Bay, Clew	

				Bay, Lough Foyle, Kilkerrin, Achill and Belmullet	
Razor Clam	<i>Ensis</i>	RAZ	100 mm		Weekly Catch Limits, GPS Tracker
Surf Clam	<i>Spisula</i>		25 mm	Waterford Estuary	Daily catch limit, limited opening

Italy

Data collection procedures for SSF: For vessels included in the Italian Fisheries Register, data are collected using probability sample survey. Information for vessels above 10 metres are further compared with logbook data.

Methods for estimating fleet activity: Probability Proportional to Size. Strata are organized by main fishing technique, LOA and GSA.

Methods and data issues for effort/transversal calculations: Probability Proportional to Size. Strata are organized by main fishing technique, LOA and GSA.

License schemes: licenses has to be renewed every 8 years.

Management measures that exist (e.g. control of fishing effort, landings, or TCMs) at a national and regional level:

- fishing effort management measures (plans for the adjustment of fishing capacity: about a reduction that ranges between 8% and 3% of fishing effort in the period 2008-2015);
- specific technical measures (selectivity of the nets and fishing sizes);
- closure of fishing area.

Latvia

Latvia has licensing system for SSF fishery companies based on districts level. Each company has limited amount of fishing gears in district where they can operate. According Latvian fishery rules all fishermen are obliged to fill the coastal logbooks where they have to provide information about their daily activity. The information about fishing gears (name, amount, length and mesh size), catch composition in kilos and registration numbers of the vessel (boats) per each activity day should be provided in the coastal logbook. Due to the information about fishing hours is not available for effort variables calculation is decided to equate one trip, one day at sea and one fishing day. In case when in one day more than one fishing gear was used fishing days are counted per each gear. All SSF is registered in Latvian Fleet Register and decision about vessels activity/inactivity is based on information from the coastal logbooks. All economic parameters are collected by obligatory national questionnaire "1-Fisheries" which is based on balance sheet. Type of all collected information is census.

Lithuania

Based on current official information 58 vessels, which length of under 8 m overall, and 7 vessels, which length from 10 m to 12 m overall, are operating in the coastal area of the Baltic Sea. Due to technical or economic reasons, the amount of fishing vessels are insignificantly changing year by year. Roughly, 40 percent of Lithuanian fleet is inactive. The small-scale coastal fishing segment

is not significant in comparison with total fleet. On average, catches venue and value is approximately 0.4 and 0.5 percent of total respectively.

For data collection, Lithuania uses census methodology. The commercial fishing operations carried out within a 12 mile zone of the Baltic Sea mostly by vessels of 10–12 m length overall. SSF vessels remaining within an effort at the sea never exceeding the continuous 24 hours period. As fishing vessels of an overall length of 8 meters or more assumed in targeted fishing for cod and in according to Regulation (EC) Nr. 2016/1139 of the European Parliament and of the Council requirement that applied to those operators, to complete logbooks. For vessel under 8 m overall there is a legal requirement to complete the national logbooks that include the information as following: dates on beginning and finish of fishing; fishing gear's mesh size and length or number of hooks/pots used and the amount of catch by species. That segment is not issued by license. Summarized efforts and landing's data are provided to the Fisheries Service on a monthly basis. No exemptions from sales notes requirement. Once collated, the Fisheries Service enters the data into the FDIS database. All institutions that involved in DCF supported with access to primary data. Data can be aggregated in response to DCF requirements. There is in place a system of crosschecks of catch from logbook with sales note. As well computerized validation system capable to verify that all data recorded is accurate and complete.

Poland

Data collection procedures for SSF. Data produced for SSF has been produced using two main sources of primary information: administrative documents (fishing logbooks (vessel from over 10 metres in overall length to less than 12)/monthly catch reports (vessels of overall length less than 10 meters), first sale documents and statistical questionnaires filled out by fishing vessel owners for individual vessels. The study is census and questionnaires are sent to all owners of fishing vessels registered in Fishing Fleet Register.

Methods for estimating fleet activity. Active vessels - those which performed catches on at least one day per year.

Methods and data issues for effort/transversal calculations. Capacity data originated from the national register of fishing vessels. Assigning a given vessel to a segment of the fleet was based on information derived from fishing logbooks or monthly catch declarations (vessels below 10 m LOA). **Effort data** were collected using the national register of fishing vessels, logbooks or monthly catch declarations in case of vessels less than 10 meter LOA. **Volume of landings** of the vessels was taken from logbooks or monthly catch reports submitted to Fishing Monitoring Centre (census data). Data for **value of landings** were produced for entire population (100%) using sales notes information. If value was missing for some vessels belonging to different segments, it was estimated on the basis of average prices of similar group of vessels taking into account seasonal price variability.

Management. Fishing licenses are issued for one year and this has no impact on activity estimation for SSF. Commercial fishing license is released at the owner's request for vessels registered in the Fishing Vessel Register. The license is released for 1 year and is granted according to the quotas. According to the Act on Marine Fisheries, the master of a licensed fishing vessel can be required to provide statistical information and other information.

The method and nature of the data collected on fishing activity depends on the length of the vessel.

Fishing vessel over 10 metres in length. Master of a fishing vessel over 10 metres in length shall keep a fishing logbook in paper or electronic form. It includes data on fishing activity by individual vessels by trip, and for each day of activity within a trip. This includes details of the catch, by species, in terms of the presentation and quantity of fish retained on board. Information is also collected on the fishing gear used and the area where the fish were caught.

Electronic data must be submitted to the Fisheries Monitoring Centre every day until midnight. Paper logbook must be submitted to the District Marine Fisheries Inspector after the end of the fishing trip.

Fishing vessel of overall length less than 10 meters. Master of a fishing vessel of overall length less than 10 meters prepares a monthly catch reports which includes data on fishing activity by individual vessels by month, quantity of the catch, by species, type and number of fishing gear and the area where the fish were caught.

Nevertheless, since 12 July 2017, in accordance with the amendment of the act on marine fisheries dated 25 May 2017, the master of a fishing vessel of overall length less than 8 meters does not include quantity and species of caught or by-caught marine organisms in the monthly catch report.

The monthly catch report is forwarded by the master to the Fisheries Monitoring Centre until the 5th day of the following month after the end of fishing.

The division of fishing quotas. The general catch quotas available in Poland for particular fish species are divided into individual quotas and quotas for common use based on the Act on Marine Fisheries and implementing regulations published annually.

Portugal

In Portugal, data collection procedures for SSF are different among the 3 regions (Mainland, Azores and Madeira). On the Mainland fleet the vessels under 10m does not have logbook. Vessels with length between 10 and 12 m fill paper logbooks.

For those that have not logbook, sales notes are used to get data on landings (quantity and value). For effort calculation is assumed that 1 auction sale=>1 trip => 1 day at sea => 1 fishing day. Soaking time per gear is calculated on the basis of a study made by DGRM during 2007/08 using questionnaires to SSF. Average values (for effort calculations) were estimate for each Fishing Technique. Since the fishing activity of those vessels is close to the shore, the fishing area is assumed as 27.9.a. The gear used in a fishing trip is estimated through an algorithm combining license and landing composition (métier approach).

For vessels with logbook, the data declared by the fishermen are used to calculate landings (just quantity). In spite of that, quality control is made by crosschecking logbooks with the sale notes. For effort, data from logbooks is used for effort estimations.

In the case of Autonomous Region of Azores an annual questionnaire is take in place to get effort variables. In this region the pattern of activity is different from the mainland once usually 1 fishing trip can take 3 days at sea and cover more than one region.

Romania

In Romania, we have two length classes: 0-6m and 6-12m Total number of active vessels is 113 and 28 are inactive. We take our data by questionnaire, logbooks (that are mandatory) and for landings variable also from sale notes. Type of data collection scheme that we use is census.

Our management measure is our national legislation that regulates the fishing activity, for example we have Order no.807/2016 for the approval of the Norms on access to living aquatic resources in the public domain of the State in order to engage in commercial fishing in natural habitats and Order no. 449/2008 on the technical characteristics, the conditions for the use of gears

authorized for commercial fishing and the commercial fishing methods in marine and continental waters.

Commercial fishing license is released at the owner's request for fishing vessels registered in the National Fleet Register and is granted according to the national legislation. The released license is endorsed at the beginning of every year.

The fishing season in the Black Sea is starting on the first January and is finishing at 31 December

All data related to fishing activity are collected for each vessel, i.e: effort and landings data according to the logbooks, sales notes (at designated landings points) collected and verify by the fishing inspectors. Annually based on questionnaires and interviews the other variables (social and economic) and other transversal variables-related with the control regulation- are collected by the fishing inspectors.

The catches are collected according to the fishing authorization indicated the allocated quotas. The catches are reported for each fishing trip on landing declaration/coastal fishing logbooks.

SSF in Romania is limited only on a 24 hours for a fishing trip, the only exception is for the catch loading on vessel from the pots (passive fishing gear).

Slovenia

Fishing activity data (capacity, effort and landings data) are collected for all vessels active at any point in time of the year. The data are collected from the logbooks. All Slovenian vessels, also those under the 10 meters, are obligated to submit the logbooks.

Landings data. All vessels, data are collected from the logbooks, sales notes and questionnaires.

As a type of data collection Slovenia will use **census**.

Data collection for SSF. The national program for collection of economic data for the fishing sector combines information from three main resources:

- Questionnaire information returned on a voluntary basis,
- The Slovenian data base InfoRib,
- The annual accounts of business enterprises.

The economic and social variables are collected for all vessels regardless of their activity (also for vessels under 10 meters). All economic variables are collected for active vessels. For inactive vessels, only capacity indicators and capital value and costs are collected. As a type of data collection Slovenia use census.

Management measures. Slovenia has a licensing system for all of the fishing fleet. Licenses are linked to fishing vessels and are granted for an indefinite period (forever). No additional management measures are provided for SSF in Slovenia. All Slovenian vessels, also those less than 10 meters, are obligated to submit the logbooks for all quantities landed (also if the volume of landings is just one kg).

Sweden

Data collection procedures for SSF. Swedish fleet consist of 975 vessels and 280 inactive vessels. 813 of these are SSF. Data are collected in the same way, independent of the length of the vessel, with exemption of logbooks and journals.

Sweden have three main data sources for SFF:

- Balance sheets for economic data
- Journals and landing declarations for transversal data
- Survey for economic and socio-economic variables

Methods for estimating fleet activity. The SSF fill in journals, at least one per month, if they are fishing. This information is mandatory to fill in. Information included in these journals are: number of trips, fishing days, days at sea, soaking time, length of net, number of pots, number of days gear has been in the water. Furthermore, information regarding fishing area and mesh size are provided in these journals.

Methods and data issues for effort/transversal calculations. Issues arising are for example number of trips. In some cases, number of trips can be an approximation of days at sea. Days at sea and number of trips is not always the same.

Licensing scheme and management measures. For a person to be able to sell its catch, he/she need to have a license. Licenses are issued by SwAM (Swedish Agency for Marine and Water Management). Licenses are renewed every year. Based on previous year activity and landings. Landing controls are made and controlled for vessels >10 m. LSF are monitored 24/7 by the landing control on Swedish Agency for Marine and Water Management.

United Kingdom

The collection of data on the small scale fleet uses as its basis the common control data such as the UK fleet register and vessel licence systems that apply to all UK commercial fishing vessels. Information on activity by 10-12m vessels is collected via the EU logbook and landing declaration reported by the vessel operator and sales notes reported by buyers of fish, with these data cross-checked to ensure consistency and accuracy in the declarations.

For vessels 10m and under the key source of information is the sales note for the first sale of fish. The UK requires all such sales to be reported other than those below 30kg sold to private consumers, making it a census of activity with quality and completeness of data managed by inspection of the merchants. Around 90% of sales notes are reported electronically within 24 hours of the sale, making it suitable for use in near real-time to inform management and enforcement decisions.

The sale date is used as a proxy for a landing event, with estimates of activity data (such as gear, area etc.) added to the sales species and quantity data to generate an individual landing declaration. Each 10m and under vessel has an allocated range of default options for gear, mesh size and gear dimension and fishing area based on local knowledge of the vessel. In Scotland, direct reporting by 10m and under vessels of a weekly landings summary is required as part of their vessel licence conditions, giving daily summaries of activity and landings data that are used instead of sales notes. An investigation into the use of sales notes in England has identified several issues, and there is currently work underway to introduce similar direct reporting requirements for English administered 10m and under vessels.