

DCF Workshop on
"Common understanding and statistical
methodologies to estimate/re-evaluate
transversal data in small-scale fisheries"
Nantes, 21-23 May 2013

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1. Executive summary

The Workshop on "Common understanding and statistical methodologies to estimate/re-evaluate transversal data in small-scale fisheries" met in Nantes, from 21st to 23rd May 2013. 19 experts from 9 Member States attended the meeting. The workshop has been organized to investigate methodological approaches for collecting transversal data for small scale fisheries and to provide useful input for the implementation of the next new DC-MAP.

As a basis, the state of art of the implementation of the new EU DC-MAP for the period 2014-2020 was presented. In particular, two key points of the future DC-MAP have been taken into consideration during the workshop: the need of a regional data collection scheme and the end user driven approach.

The workshop started with a key note speaker by Olivier Guyader who presented the conclusions of the EC Study N° FISH/2005/10 on Small Scale Coastal Fisheries in Europe. The study illustrates that SSCF defined as fleet segment of vessels less than 12 meters is of high importance in all countries in terms of number of vessels as they represent almost 80% of the fleets (~70 000 vessels) and ~50% of the direct employment (~100 000 fishermen). There is a strong heterogeneity of SSF in terms of vessels' technical characteristics mainly explained by their heterogeneity in terms of fishing activity (gears, equipment used, areas of operation ...). In general, SSF are less harmful to stocks but they have the potential to create overcapacity and have potential adverse impacts on coastal species and functional areas (e.g. nurseries).

The group discussed the definition "Small-Scale Coastal Fisheries" as there is no universally accepted definition of this notion. The group suggested that in the context of the future DC-MAP the term "small scale coastal fisheries" should not be used. Instead the terms "fleet segment of vessels < 10 meters" should be preferred. This is motivated by the fact that vessels less than 10 meters are not under logbooks requirement. The group also suggested keeping the class 10-12 meters in future DCMAP in order to ensure consistency in time series and as they are no under VMS regulation. The group agreed also that some recommendations proposed for less than 10m vessels should be profitably applied to this fleet segment.

The group considered that a useful input for the discussion on DCMAP could be a complete overview of all European small scale fisheries. This review will allow getting a whole picture of all practices used to collect data and to understand the relative importance of such fisheries in each Member State. In order to compile this overview, the group agreed on tables and framework to be filled by all member states to review the data collection practices (data sources, sampling methods and raising strategies) used to produce transversal variables in response to the DCF requirements with a special focus on the small-scale fisheries. These templates were sent to all national correspondents. The received templates are presented under section 6 of this report.

Discussions during the workshop together with the presentations given by the participants allow the group to conclude that there are two different types of data collection methodologies currently applied to estimate transversal data of vessels less than 10 meters:

- In the Mediterranean and Overseas Regions a sample survey is applied because it is considered more cost effective and it allows the assessment of reliability of final estimates through the application of sampling techniques. Moreover, the implementation of declarative forms like logbooks for vessels < 10 meters appears to be inappropriate considering the characteristics of this fleet and would imply high costs for data inputs and data control considering the big number of vessels and fishing trips.
- In other European regions, a declarative approach is used. In some cases logbook or coastal registers are cross checked with sales notes to verify the completeness of the information received. Some countries apply statistical techniques to treat the non respondents and to estimate the share of activity not covered by logbook.

The group considered that additional work is needed to:

- Suggest best practices for sampling scheme
- Propose methods to assess and to present to end users the completeness and the reliability of the declarative forms

The group discussed the input of modern techniques (CCTV, mobile phone apps or geolocalization data) to improve the estimated statistics. The group focussed especially on the input that new geolocalization data (as VMS or GPS data extended to the fleet segment of vessels less than 12m) could have for CFP and spatial management. The group concluded that the utility of such information could not be ignored and that these technical instruments must be supported in the next DC-MAP by helping the implementation of pilot or trial studies. The group suggested that an incentive approach instead of a top down approach should be promoted. Moreover, the group recommended member states to work together in the future, e.g. on extension/improvement of open source applications and development of tools to process data.

The workshop investigated the requirements of data related to the small scale coastal fisheries included in European regulations (new CFP, control regulation, MSFD, MPA, Mediterranean Regulation, etc.) and it concluded that it is essential to estimate the fishing activities of SSCF. The group noted that the impact on ecosystem and spatial distribution of effort can be of major importance and therefore it should be monitored. The group also considered that there could be differences among regions and that RCGs should investigate specific regional data needs.

The group discussed the provisions under the control regulation to collect transversal data also for vessels not subject to logbooks and agreed on the final recommendation of the STECF-EWG 13-02 which states that: *The collection of transversal data is partly included in other EU regulations (Control Regulations: Council Regulation (EC) 1224/2009 and Commission Implementation Regulation (EU) 404/2011). As a general principle duplication of data collection requirements should be avoided. It needs to be ensured, however, that data collected under other regulations is available to DC-MAP end users where relevant (see end user section). If the quality of the data collected under other regulations does not meet the requirements in the DC-MAP (see section 9) collection of the data concerned could be included in the DC-MAP. Before such a measure is taken it should be investigated if it is possible to improve the quality in the primary data source. If that is not possible the EWG 13-02 suggests that the Commission and Member States consider if it is feasible to use the DC-MAP as primary data source to avoid duplication of collection requirements. To this end it would be useful to have in the DC-MAP flexibility to use data collected under other regulations and vice versa (see section on recreational fisheries below).*

With reference to the new DCMAP, the group considered that the present DCF requirements for the vessels < 10 meters are too much detailed and that a broad range of information required by the current DCF has not been used so far. In addition, the group considered that the collection of very detailed effort variables was cost-inefficient in the case of no logbook obligation, considering the specificity of the fleet. The group reviewed the present requirements (appendix VIII of EC Commission Decision 93/2010) and proposed a list of transversal data to be collected for vessels < 10 meters. This list should be considered as the core mandatory of data to be collected. In addition to this, RCGs could suggest the inclusion of other additional variables or a more detailed level of aggregation, in line with the general governance of the new DCMAP.

The group considered that an indicator of the spatial distribution of the effort deployed by vessels < 10 meters could be of high interest for scientific and management purposes. This indicator should give information on the changes in the distribution of fishing activity resulting from catch controls, effort controls or technical measures (including MPA established in support of conservation legislation) and to the development of any other human activities that displace fishing activity (e.g. aquaculture farms). Fishery independent tools (electronic device) should be used to collect such information. The group suggested the inclusion in the DC-MAP of a provision for pilot studies coordinated at regional level to propose the methodology and to assess the cost for collecting information on the spatial distribution of the effort deployed by vessels < 10 meters.

2. Introduction

The Workshop on "Common understanding and statistical methodologies to estimate/re-evaluate transversal data in small-scale fisheries" met in Nantes, from 21st to 23rd May 2013.

The terms of reference for the workshop are given in section 3.

19 experts from 9 Member States attended the meeting.

The workshop was chaired by Evelina Sabatella and Sébastien Demanèche.

The workshop was scheduled following a proposition of the 5th meeting of the **PGMED (Mediterranean Planning Group for Methodological Development)** to organize a workshop on statistical methodologies to estimate/re-evaluate transversal variables, with a special focus on the small scale fisheries. It takes as well into account the **RCM Baltic 2010** recommendation for a workshop on transversal variables where economists, biologists and responsible for transversal data collection would discuss methodological issues related to data collection, assessment and analysis of these variables. This recommendation was confirmed by the **Liaison Meeting 2010** in order to have a common understanding of transversal variables and to ensure the linkage between biological and economic data collection.

More recently the evaluation of the DCF made for the DGMare (see background documents) concluded that: *Artisanal fleets are generally regarded as being difficult to get data for. This is generally regarded as being due to the fact that there can be many small vessels and numerous landings points all of which need to be adequately sampled since these vessels are not required to fill in logbooks nor do they have VMS.* Then it could be assessed that the requirements for the small-scale vessels has to be adapted to its context when in the same time guidelines for preparation of the Annual Report 2012 of the DCF reaffirmed that: *MS are reminded of the fact that the DCF has no provisions for the exclusion of any part of the vessels population from data collection (by means of threshold for, e.g., fishing effort, quantities landed, revenues, etc.). If, nonetheless, part of the fleet was excluded from sampling, the reasons for this should be thoroughly explained and justified.*

This workshop was, as well, in line with one of the objectives of the CFP reform concerning the way to *protect the small-scale vessels sector* (see background documents) by:

- *Promoting capacity reduction and an economically efficient industry without losing local employment and cultural heritage in coastal communities*
- *Adapting instruments to the specific of fleets by a differentiated approach :*
 - o *Artisanal fleet : regime linked to social objectives such as employment or linkage to local community*
 - o *Industrial fleet : regime aiming at capacity adaptation, profitability and economic independence*

The workshop was finally organized in the beginning of the year 2013 with the objectives to be a useful input for the implementation of the next new DC-MAP. It follows three meetings of the STECF regarding the next new DC-MAP (**STECF/EWG-12-15**, **STECF/EWG-12-20** and **STECF-13-06**). **STECF 12-15** concluded amongst others that: *Concerning the collection of transversal data, a distinction needs to be made between vessels which are subject to logbooks and vessels which are not (<10m vessels which comprise a large part of the fleet in terms of the number of vessels). As vessels in the <10m segment are not required to complete logbooks some information on transversal variables are lacking for biological studies. Logbooks can be used only if it can be proved that data collected through logbooks are complete and reliable. For vessels which are not subject of logbooks ... MS should implement a monitoring program estimating the transversal parameters. The issue concerning such data collection will be dealt in a dedicated workshop early in 2013, and data availability should be re-addressed by RCMs and PGECON. The attendance of economists and biologists is strongly recommended. Conclusions of both the dedicated workshop and PGECON should be made available before the June STECF meeting on the DC-MAP.* The conclusions of the **STECF 13-06** meeting about transversal variables were also discussed during the workshop especially concerning the general principle that *duplication of data collection requirements should be avoided.*

Otherwise, input from PGCCDBS and PGMED meetings (18/02/2013 to 22/02) were taken into account to finalize the WK's terms of references.

As a basis, the state of art of the implementation of the new EU DC-MAP for the period 2014-2020 was presented. The DC-MAP will follow a regional data collection scheme and the need for the data will be end user driven and these two aspects have been taken into consideration during the workshop.

Previous STECF EWGs have considered the need to move away from the overly-prescriptive data collection obligations in the DCF. Instead in the future, an end user driven data collection should be set up, allowing for flexibility in what and how much data to be collected and in which methods to be applied, which more active and more influential Regional Coordination Groups (RCG-s), should have the responsibility for.

The following background documents have been useful as starting points for the discussion:

- Commission Decision of 06/11/2008 (2008/949/EC)
http://datacollection.jrc.ec.europa.eu/document_library
- Commission Decision of 18/12/2009 (2010/93/EU)
http://datacollection.jrc.ec.europa.eu/document_library
- Council Regulation (EC) N° 1224/2009 of 20/11/2009
<http://eur-lex.europa.eu/fr/index.htm>
- CFP Reform :
EC DG Mare presentation,
http://ec.europa.eu/fisheries/reform/background/index_en.htm
European Parliament report (10/01/2013),
http://ec.europa.eu/fisheries/reform/proposals/index_en.htm
- EU Project N°FISH/2005/10 on SSCF in Europe:
Final report and Executive summary, September 2007,
<http://archimer.ifremer.fr/doc/00000/6348/>¹
Guyader & al. (2013), Fisheries Research, 2013,
<http://dx.doi.org/10.1016/j.fishres.2012.11.008>²
- STECF Reports, <http://stecf.jrc.ec.europa.eu/reports/dcf-dcr>:
2013-04 STECF 13-06 – DC-MAP review part 1, **EWG 13-02**, Review of DC-MAP part 1, Brussels, Belgium, 8-12 April 2013
2013-01 STECF 13-01 – Review of proposed DCF 2014-2020, **EWG 12-15**, Review of proposed DCF 2014-2020 part2, Brussels, Belgium, 1-5 October 2012
12-05 STECF 12-07 – Review of proposed DCF, **EWG 12-01**, Review of proposed DCF 2014-2020 part1, Barza, Italy, 12-16 March 2012
- Report DG Mare (2013-04-15) “The evaluation of the data collection framework (DCF)”, 19/12/2012,
http://datacollection.jrc.ec.europa.eu/document_library/-/document_library/view/20245

¹ Guyader Olivier, Berthou Patrick, Koustikopoulos C., Alban Frederique, Demaneche Sebastien, Gaspar M, Eschbaum R, Fahy E, Tully O, Reynal Lionel, Albert A (2007). **Small-scale coastal fisheries in Europe. Final report.** <http://archimer.ifremer.fr/doc/00000/6348/>

² Guyader Olivier, Berthou Patrick, Koustikopoulos Constantin, Alban Frederique, Demaneche Sebastien, Gaspar M. B., Eschbaum R., Fahy E., Tully O., Reynal Lionel, Curtil Olivier, Frangoudes Katia, Maynou F. (2013). Small scale fisheries in Europe: A comparative analysis based on a selection of case studies. Fisheries Research, 140, 1-13. Publisher's official version : <http://dx.doi.org/10.1016/j.fishres.2012.11.008> , Open Access version : <http://archimer.ifremer.fr/doc/00118/22934/>

- Report of the 5th meeting of the Mediterranean Planning Group for Methodological development (PGMED), http://datacollection.jrc.ec.europa.eu/document_library/-/document_library/view/489065
- RCM 2010 & 2011 reports, http://datacollection.jrc.ec.europa.eu/document_library/-/document_library/view/20245
- AER 2012:
Report, <http://stecf.jrc.ec.europa.eu/reports/economic>
Data, <http://stecf.jrc.ec.europa.eu/data-reports>
- Workshop on allocation of Economic Data at disaggregated level as related to the DCF, Hamburg, Germany, July 4-8, 2011, http://stecf.jrc.ec.europa.eu/documents/43805/192392/11-12_STECF+11-19+Review+of+economic+data+in+relation+to+DCF_JRC68014.pdf
- Workshop on Small-Scale Fisheries, Kavala (Greece), September 12-16, 2005, <http://datacollection.jrc.ec.europa.eu/documents/10213/565485e6-efad-4bdc-9908-e2cf675980f7>

3. Key note speaker presentation

Recently, a couple of projects in the field of transversal data and small scale fisheries have been implemented. Amongst others, “MedStat and MedFisis”, “Prespo” or “Small-scale fisheries in Europe – Contract N° FISH/2005/10” can be cited. The workshop started with a key note speaker Olivier Guyader who presented the conclusions of the EC Study N° FISH/2005/10 which are summarised below (for more details, see annex 2 for complete presentation and background documents).

The EC study on Small Scale Coastal Fisheries in Europe was financed by the DGFISH in 2005 to investigate if the lack of information regarding SSCF characteristics has had the consequences that SSCF are not taken into account properly when management measures are designed and decided. And subsequently the question arises if SSCF should be treated differently from other fleet segments due to their specificities.

The objectives of the study were the following:

- To get a **comprehensive description and analysis** of SSCF covering different areas/fisheries/species in order to get a better picture of the diversity and of the specific conditions under which SSCF are carried out;
- To verify on the basis of existing data the **assumptions** around the subject of SSCF, specific focus on competitors;
- To obtain concrete **recommendations** for the management of fisheries exploited by small scale coastal fleets.

The EC study resulted in a report published in 2007 and later in 2013, an article was published released in Fisheries Research (see background documents).

The study included nine SSCF Case Studies (CS) in the Baltic Sea, the Mediterranean Sea and the Atlantic Ocean.

Some assumptions have been tested considering the general framework following:

- multi-criteria analysis

- matrix of indicators (biological, technical, socio-economic, institutional)
- applied to each CS
- Scientist expertise from CS with a strong experience in national SSCF

The study illustrates that SSCF defined as fleet segment of vessels less than 12 meters (see EU regulation) is of high importance in all countries in term of number of vessels as they represent almost 80% of the fleets (~70 000 vessels) and ~50% of the direct employment (~100 000 fishermen). Their contribution to total landings is often lower compared to other size segments; however their share of TAC-quota or catches of regulated species can be significant. It is also stressed that landings could be under-reported giving a truncated view of SSF. During the study, the **principal assumptions** below were concluded, seeing the nature of the different case studies and more general consideration of SSCF in member states:

- **Are SSF more heterogeneous than LSF (Large Scale Fleet)?**

There is a **strong heterogeneity of SSF** in terms of vessels' technical characteristics mainly explained by their heterogeneity in terms of fishing activity (gears, equipment used, areas of operation, ...). So **using vessel size, engine power or gross tonnage alone is an insufficient way to define SSF, especially SSF fishing capacity**. This fleet segment present a higher degree of polyvalence in terms of gear used compared to Large Scale Fleets (LSF). **SSF are mainly operating with passive gears, but active gears cannot be ignored since they are exploited by the larger and more powerful SSF vessels.**

- **Are SS(C)F dependent on coastal areas?**

The SS(C)F present a **strong dependence on the territorial** (12nm) and **coastal waters zone** (<3nm, lagoons) but activity beyond 12 nm is possible for specific SSF segments. A significant part of LSF operates in territorial waters with potential interaction with SSF.

- **Are SSF less active than LSF?**

From selected case studies, average SSF activity expressed in terms of days at sea is 150 days per annum compared to 190 days for LSF. Various explanations are available for these differences. Some segments are constrained by the behavior of fish stocks, inshore fisheries management regulations, and also by meteorological conditions. In some cases, the time consecrated to the sale of landings, or gear maintenance requirements limit activity at sea. SSF vessels are not intentionally part-time operators even if some fishers do develop other non-fishing activities. A distinguishing characteristic of SSF is their daily activity pattern. For a given fishery, variability in days at sea is higher for SSF than LSF

- **Are socio-economic characteristics of SSF different?**

Harvest rate per crewmember is lower in the case of SSF and this is naturally true for the cases where the different activities are targeting the same stocks. These elements suggest fundamental differences in the economic characteristics of jobs in SSF and LSF, whether in terms of total value of capital or capital necessary for one fisher to work. The investment in the SSF is generally more limited than in the LSF. Dependence on subsidies is lower for SSF and this is particularly crucial for the future viability of fleets considering the current subsidies ban for vessel building at EU level. Productivity indicators per crew member, invested capital, time at sea are sometimes higher for SSF than LSF. SSF generally improve production price to a higher degree than the LSF, and the gap between prices at first sale can be very high. These gaps may be explained by both the differences in quality linked to freshness, the size of the products but also the marketing channels. As SSF operate throughout Europe and

frequently in areas with low employment opportunities (rural areas, isolated islands, for instance), the social benefits of viable SSF may be high.

- **Competitors for stocks? Competitors for space, environmental interactions?**

Except internal competition, **LSF** are the **most significant competitors** of SSF for stocks and space but recreational and illegal fisheries can not be ignored. As a result, SSF could not be ignored in **bio-economic analysis** or **spatial planning-coastal zone management** (MSFD, MPAs, Water directive, habitats and birds directives, ...).

- **Impact on the stocks and ecosystem?**

In general, SSF are **less harmful to stocks** but they have the potential to create overcapacity and have potential adverse impacts on coastal species and functional areas (e.g. nurseries). The reduced mobility of the SSF makes them extremely dependent on local and regional ecosystems. LSF has received most of the attention given to fisheries management issues and fish stocks assessment.

- **Are SSCF managed?**

Conservation measures (landing size, gear selectivity, area closures, global quotas, ...) are not solely EU decisions. Such measures can be defined at local or regional levels with the involvement of fishermen organizations. SSF are subject to access regulation (licenses, vessels quotas, TURFs) sometimes more than LSF. However, open access situations are possible. From the case studies, it was concluded that management measures are not always sufficient to protect the interests of SSF in relations to LSF.

Some final principal recommendations of the study are presented below (see report and executive summary for more details):

- “Develop a classification, better segmentation of the SSCF with the EU fleet, ... CFR should also be improved by integrating more gears (at least 5) and more reliable information on their use”
- “Support an efficient data collection system within the DCR context and intensify data collection for SSCF. In several cases the SSCF are under-sampled, the quality of the data is poor and data particular to SSCF may be omitted.
- “Extend the electronic monitoring and control possibilities for fishing activities to the coastal zone. As spatial aspects are of crucial importance for SSCF enlargement of electronic monitoring of the activities could be very useful both in terms of control and data collection and would improve understanding of interactions of different fleet segments”

4. Terms of Reference

The "terms of reference" were the following:

a) Review and evaluate the data collection, (data sources, sampling methods and raising strategies) used by Member States to produce transversal variables for small scale fisheries in response to the DCF requirements. Assess their consistency and accuracy, by type of variables (Appendix VIII of Decision 2010/93/EC) and by fishing fleet segment (Appendix II&III of Decision 2010/93/EC). Discuss the regional approach for small scale fisheries. Discuss the input of moderns techniques (CCTV, mobile phone apps or geolocalization data) to improve the estimates calculated. Discuss about methodological issues and cost efficiency of the different strategies currently developed by MS;

b) Agree on methodological approaches and common references for addressing the issues raised in ToRa). Link the different options with the minimum requirement to answer the different regulations (CFP, MSFD, Water directive, ...);

c) Based on the DCF Decision 2010/93/EU, proposes common definitions, and describes the requirements to be part of a renewed EU Regulation (future DC-MAP). Propose guidelines to produce the different types of transversal variables for the small-scale fisheries (vessels under 12m).

5. The definition of small scale fishery in the context of the DCF/DC-MAP

The group considered that there is no universally accepted definition of the notion of ‘Small-Scale Coastal Fisheries’. Therefore, the group discussed initially this definition in order to be consistent during the workshop.

The Regulation on the European Fisheries Fund defines SSCF for 2007-2013 as fishing vessels with an overall length less than 12 metres and which do not use towed gear.

The Kavala workshop discussed the definition of small scale fisheries and “concluded that the term should no longer be used in the context of the data collection regulation (DCR) to avoid confusion with the different definitions. Instead the term fleet segment of vessels <12 m in length all gears included (active and passive) must be adopted in order to be consistent with previous regulations”. In the same time, the EC study on Small Scale Coastal Fisheries in Europe (EC FISH/2005/10) take an overall vessel length of 12m as a practical delimitation between small-scale and large-scale fisheries in Europe.

However the group discussed that the boundary of 12 meters is inept for the workshop focus. The control regulation states that “Member States should monitor the activities of their fishing vessels in and outside Community waters. To facilitate effective monitoring masters of Community fishing vessels of 10 metres’ length overall or more should be obliged to keep a fishing logbook and submit landing and transshipment declarations. For small fishing vessels of less than 10 metres’ length overall an obligation to keep a fishing logbook or to complete a landing declaration would constitute a disproportionate burden in relation to their fishing capacity. In order to ensure an adequate level of control over such vessels, Member States should monitor their activities by the implementation of a sampling plan”.

That means that vessels between 10 and 12m are legally obliged to provide all transversal data which have been relevant under the DCF. Therefore, for the data collection purposes and the workshop, the group agreed to focus on the vessels without logbook obligation (i.e. < 8m for the Baltic and <10m anywhere else).

The group suggested that in the context of the future DC-MAP the term “small scale coastal fisheries” should not be used. Instead the term fleet segment of vessels < 10 meters is preferable. The group also suggested keeping the class 10-12 meters in order to ensure consistency in time series and as they are no under VMS regulation. The group agreed also that some recommendations proposed for less than 10m vessels should be profitably applied to this fleet segment.

6. Review and evaluate the data collection, (data sources, sampling methods and raising strategies) used by Member States to produce transversal variables for vessels < 10 meters in response to the DCF requirements.

The group agreed on tables and framework to be filled by all member states to review the data collection practices (data sources, sampling methods and raising strategies) used to produce transversal variables in response to the DCF requirements with a special focus on the small-scale fisheries, to allow the presentation of the small scale fisheries in each Member State and assess their significance in each region of Europe (Baltic Sea, North Sea and Eastern arctic, North Atlantic, Mediterranean Sea and Black Sea). The templates were sent to all national correspondents in order to complete an overview of all European small scale fisheries, to get the whole picture of all practices and to progress further on the issues raised during the workshop. Indeed, the picture during the workshop was limited only to the Member States which were represented. The more detailed presentations made during the workshop by each member states attending the workshop could be found in annex 2.

6.1 Country sections

6.1.1 BEL – Belgium

The focus is on the vessels less than 10m, and Belgium has no vessels < 10m (or 12m).

The distribution of the vessels in Belgium is as follows:

Beam trawler - 12-< 18 m: 5

Beam trawlers - 18-< 24 m: 34

Beam trawlers - 24-< 40 m: 30

Demersal trawlers and/or demersal seiners - 10-< 24 m: 5

Demersal trawlers and/or demersal seiners - 24-< 40 m: 5

Dredges - 18-< 40 m: 2

Drift and/or fixed netters - 12-< 24 m: 5

The data collection scheme for transversal variables used is a census questionnaire.

6.1.2 BGR – Bulgaria

6.1.3 CYP – Cyprus

6.1.4 DEU – Germany

- What is the importance of SSCF?

Year	2012											
Region	Baltic Sea											
Vessel Length	No. of vessels (Fishing fleet reg.)	%	No. of active vessels ¹	%	Total Days at Sea	%	Total No. of trips	%	Total weight of landings	%	Total value of landings	%
0-8m	948 (990)	76	664	70	131630 ²	83	5117 ²	20	2070	3	see Table2	
8-12m	238 (263)	19	215	23	20171	13	16404	64	6900	9	see Table2	
> 12m	69 (313)	5	72	8	7616	5	4174	16	68250	88	see Table2	
Total		100		100		100		100		100		100

- weight in tons

¹ No. Of vessels: number of German-flagged vessels owning a fishing license that are registered in a Baltic Sea port (EU-Register from 2012, number in brackets shows total numbers for the German fleet)

² the exact number of trips and days-at-sea is unknown, due to monthly declarations in this sector. 80% of the vessel therefore have max. 12 trips/year (or less, when not fishing every month) with 28/30/31 days-at-sea assigned

Table 6.1.4.1: Overview of fishing vessels, fishing activity and their contribution to the total landings in the Baltic Sea (Germany)

The number of small scale vessels (<12m, 'SSCF') is very high, but they are of minor importance in terms of weight and value of landings. They may, however, have a larger influence on a small-scale or regional level (in a certain harbour or on a certain ecosystem). Logbooks are available for all vessels > 8m. Vessels with a length <8m almost exclusively operate in the Baltic Sea. Almost all SSCF is using passive gear such as nets, pots and traps. This group of vessels accounts for less than 2% of both weight and value of the total national landings (see table 1.2).

LoA	sum of catches (tons)	sum of landings (tons)	Sum value	catch share	land share	value share	Saltwcatch share	Saltwland share	Saltwvalue share	FWcatch share	FWland share	FWvalue share
<8	1982	1964	3.019.838	5,5%	5,6%	14,5%	1,9%	1,9%	4,6%	3,6%	3,7%	9,9%
8-10	2218	2145	1.619.016	6,1%	6,1%	7,8%	4,8%	4,8%	6,2%	1,4%	1,4%	1,5%
>10	31942	30829	16.200.989	88,4%	88,2%	77,7%	77,5%	77,4%	68,2%	10,9%	10,9%	9,5%
all	36141	34938	20.839.843	100,0%	100,0%	100,0%	96,5%	96,4%	91,1%	3,5%	3,6%	8,9%
<8 FW	830	830	1.258.413	65,6%	65,6%	68,0%						
8-10 FW	280	280	364.331	22,1%	22,1%	19,7%						
>10 FW	156	156	226.957	12,3%	12,3%	12,3%						
all FW	1266	1266	1.849.701	100,0%	100,0%	100,0%						
FW = freshwater												
all data refer to Baltic only (i.e. area 3c*, 3d*)												
Baltic catch = 18% of national catch												
Baltic value = 10% of national value												
That means:	LoA	national catch share	national land share	national value share	SaltW national catch share	SaltW national land share	SaltW national value share	FW national catch share	FW national land share	FW national value share		
	<8	1,0%	1,0%	1,4%	0,3%	0,3%	0,5%	0,6%	0,7%	1,0%		
	8-10	1,1%	1,1%	0,8%	0,9%	0,9%	0,6%	0,2%	0,2%	0,2%		
	>10	15,9%	15,9%	7,8%	13,9%	13,9%	6,8%	2,0%	2,0%	1,0%		
	all	18,0%	18,0%	10,0%	17,4%	17,3%	9,1%	0,6%	0,7%	0,9%		

Table 6.1.4.2: Economic data and the relative share of SSCEF to total landings in the Baltic Sea (Germany)

- Data sources for Transversal variables by type of variables (Effort, Specific effort, Gear characteristics, Landings) and for each part of the fleet (SSCF, LSF)

Vessel >8m		Transversal variables			
Data Source	Type	Capacity	Effort		Landings
			Fishing effort	Gear information	
Fishing Fleet Register	Census	X			
Logbooks	Census		X	X	X
Economic Questionnaire	Sampling				
Sales notes	Census				X
Vessel 0-8m		Transversal variables			
Data Source	Type	Capacity	Effort		Landings
			Fishing effort	Gear information	
Fishing Fleet Register	Census	X			
Logbooks	Census				
Economic Questionnaire	Sampling		X	X	
Sales notes	Census				X
Capacity data : Nb of vessels, KW, GT, Vessel age per <i>fleet segment</i>					
Fishing effort data : Nb of vessels, Days at sea, Hours fished, Fishing days, KW*fishing days, GT*fishing days, Number of trips, Soaking time					
Additional effort data : Total length of nets, Number of hooks (lines and longlines), Number of pots and traps					

Table 6.1.4.3: Data sources for transversal variables for SSCF and LSF

Capacity: capacity data for all vessels are available through the official fleet register, regardless of the vessel size. If the owner of the vessel wants to have the option to sell the catch, the vessel has to be registered.

Landings: all transversal variables under the heading "landings" are collected or calculated for all vessels. Reg. 2807/1983. Landing declarations are available at least on a monthly basis (vessel <8m).

Effort: all data for vessels >8m are available through logbooks, based upon Reg. 1098/2007, 404/2011. For vessels below 8m a survey is conducted (sampling about 25% of the vessels and getting responses by about 25%), requesting per vessel the days at sea per gear and gear size information. This information is related to catch period length information derived from the landings declarations. The ratio between those two is applied to the catch period length of all vessels in order to estimate the days at sea and the gear information. The fishing days are set equal to days at sea. German fishing vessels <8m are almost exclusively in the PG (passive gear) segment.

This way the days at sea can be estimated per month. The gear, however, can only be assigned to the entire year. Using some background information on fishing seasons and gears used for certain species, it might also be possible to estimate data by métier. However, this has not been attempted yet.

- **Methodology (census, sampling methods and raising strategies) used to produce transversal data in response of DCF requirements with a special focus on the small-scale fisheries**

Methods: see above.

Reliability: Landings declarations are cross-checked (e.g. with trip-summaries, sampling-data and logbooks, where available) in situ on a systematic basis. Entries are checked before processing

In the Baltic Sea vessels for sampling of biological data are selected randomly from a vessel list. There is a list for active and passive gear, containing all active fishing vessels that contributed 90% or 60% of the total landings in the previous year, respectively. A vessel is chosen randomly, the fisher is contacted, the contact(s) are documented in a contact list and quality indicators are produced (e.g. contact summary list, response rate, rejection rate). Due to practical considerations, sometimes vessels still have to be selected by expert judgement.

Only few vessels < 10m are present in the selection list (due to their small landings), so that sampling intensity therefore is low. For example, in the Baltic Sea in 2012 about 134 trips were sampled by Germany (demersal fisheries: 79, small pelagics: 55). From these sampled trips, only five trips were conducted on vessels <8m, covering the passive fisheries on small pelagic fishes. Another 24 trips were sampled on vessels between 8m to 10m from which 15 were targeting demersal species and nine trips small pelagics.

Transversal data are collected from census data or derived from sampling (e.g. economic questionnaire and on-board-sampling). Precision level and CV for effort/landings data are calculated and stated in the German Annual Report following Articles 3 and 4 of Council Regulation 199/2008.

- **Qualitative assessment about data consistency and accuracy :** See above.
- **Other Comments/Suggestions :** None.

6.1.5 DNK – Denmark

Legislation in Denmark

By national ministerial order all Danish fishing vessels are required to fill in logbooks. Though vessels less than 10 meter (or less than 8 meter in the Baltic) may get derogation and instead use a landing declaration to report area of catch to the authorities. The declaration of catch area is together with logbooks the basis information for distributing landings on catch areas. In addition, in some special fisheries, it is required to fill in logbooks even if the vessel is below 10/8 meters.

Vessels below 10/8 meters may voluntarily carry and report fishing activities using logbooks and some Danish fishermen have chosen to use the electronic logbook because it contains some features which make hail messages much simpler.

All first-hand sales of fish and shell fish by professional fishermen must be reported to the authorities. Therefore, Denmark has a full coverage (census data) of all landings by the Danish commercial fishing fleet.

Danish commercial fishing fleet

According to the Danish fishing vessel register at present 2,726 commercial fishing vessels are registered. This can be compared with the 1,810 of commercial fishing vessels that in 2012 at least one sales note. This gives 916 inactive vessels nearly all of the inactive vessels are less than 10 m in length. Table 1 is showing the number of Danish commercial fishing vessels including numbers of sales notes and turnover by length class groups in 2012.

As it is given in table 1 only 2.2% of the total turnover in 2012 is not covered by logbooks. For this limited number of vessels or landings the information in the vessels register on vessel type and most used gear or gears (max 2) can be used for segmentation into meters.

Length group	No. Vessels as of today	No. Vessels with sales-notes in 2012	No. Sales-notes in 2012	Turnover in 1000 €	Turnover in 1000 € covered by logbook	Turnover % for group	Turnover % for group not covered by logbook
24m-	72	74	4,726	233,567	233,567	59.5	0.0
18m-23.99m	93	91	9,751	59,151	59,151	15.1	0.0
12m-17.99m	282	283	33,820	70,357	70,357	17.9	0.0
10m-11.99m	137	127	12,687	11,390	11,390	2.9	0.0
8m- 9.99m	431	347	21,279	12,174	8,326	3.1	1.0
0m- 7.99m	1,711	859	21,099	5,603	1,043	1.4	1.2
Unknown	0	29	219	102	0	0.0	0.0

Total	2,726	1,810	103,581	392,344	383,834	
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Table 6.1.5.1 Number of Danish commercial fishing vessels including numbers of sales notes and turnover by length class groups in 2012.

Danish fisheries carried out by vessels less than 10 m in length

In Denmark in 2012 the number of vessels less than 10 m in overall length that at least conducted one landing was 1209. The total landing of that fleet segment landed approx. 7000 tonnes. The total Danish landings by the vessel less than 10 m are given by species in tonnes in table 2 below.

	Baltic	IIIa	North Sea	Total
Cod	1,786	478	282	2,546
Plaice	443	571	333	1,347
Herring	52	44	534	631
Flounder	316	47	82	446
Eel	252	23	15	291
Mackerel	38	133	72	242
Dab	84	82	53	218
Sole	13	85	8	106
Turbot	26	13	18	57
Lumpsucker	14	34	2	50
Hake	0	7	41	48
Nephrops	0	47	0	47
Pollack	0	35	5	40
Brill	10	9	5	24
Salmon	19	0	0	19
Other species	311	304	339	954
Total	3,363	1,912	1,790	7,066

Table 6.1.5.2 Total Danish landings by the vessel less than 10 m by are given by species in tonnes

As table 2 shows most of the landings by the fleet group is cod and plaice the gear used is mainly gill nets. Eel have been taken in pound nets and in trap nets.

It should be mentioned that the number for the North Sea seems high. This is due to the Danish west coast fjords where nearly all catches origin from fisheries in mainly the Ringkøbing Fjord and Limfjorden. The west coast fjords are managed as a part of the North Sea and the catches are counted against the North Sea quotas. All landings of quota species are counted against the respective quotas. In table 6.1.5.3 the total turnover by species for the vessels less than 10 m. is given.

	Baltic	IIIa	North Sea	Total
Cod	2,865	1,308	832	5,005
Eel	3,181	224	170	3,575
Plaice	517	732	410	1,659
Sole	161	1,039	111	1,312
Lumpsucker	128	463	49	640
Flounder	277	27	151	455
Turbot	141	90	167	398
Nephrops	0	378	1	379
Herring	24	15	271	309
Mackerel	68	142	53	264
Dab	70	57	39	166
Brill	47	48	27	122
Pollack	0	97	78	175
Hake	0	14	78	92
Salmon	164	0	0	164
Other species	607	723	1,545	2,875
Total	8,251	5,358	3,982	17,591

Table 6.1.5.3 Total turnover by species in € 1,000 by the Danish vessel less than 10 m.

It should be mentioned that of the € 2,875,000 turnover for the “Other species” group 49% is the turnover for landings of oyster, common shrimp and European lobster.

In annex 2 accumulated landing by the vessels less than 10 m fleet segment in terms of weight and value are given by all areas and by the Baltic, the Division IIIa and the North Sea respectively.

To separate the most active vessels from the less active vessels a 90% threshold of the total landing in weight or in volume may be used. If this threshold is used the approximately number of vessels most active vessels are given in the text table below:

Number of vessels	In weight	In value
All areas	360	370
Baltic	170	200
IIIa	110	140
North Sea	110	140

Data registration/collection methodology

All Danish commercial fishermen have to report either by logbook or by landing declaration when a landing has been made and first hand fish buyer has to report what he has bought, from whom, fishing area, species, size grade, quality and the amount in weight and value. Therefore, the total Danish landings data is regarded as census data.

Effort data in term of days at sea is recorded for vessels 8-10 m in the Baltic and for other vessels a sale note for a day is recorded as one day at sea.

Information on hours fishes, soaking time, number of nets, length of nets, number of pots/ hooks are not recorded. As for the DCF data collection requirements Denmark is having derogation for collecting this information.

Qualitative assessment about data consistency and accuracy

As the landing statistic is based on census data the quality of the data is assumed to be accurate and consistent. Control actions have been carried out for years as well as information from other public administration such as information from the tax authority and food safety authority have been checked against the data collected by the Danish fisheries authority.

Other Comments/Suggestions

For those vessels in the less than 10 m fleet segment that carry logbook the logbook information is used to count days at sea and number of fishing days and gear used. For the rest of the fleet segment that do not carry a logbook (2.2% of the total turnover) one or more sales note at the same date is regarded as a day at sea. Therefore, the total number of days at sea is regarded as accurate.

6.1.6 ESP – Spain

The fisheries information is mainly obtained from the registration of fleet and the sales notes.

- What is the importance of SSCF?

Year		2011		Region		ALL REGIONS	
Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	Total weight of landings	%	
0-10m.*	5 802	53	4 411	49		5	
10-12m.	2 083	19	1 725	19		5	
above 12m.	3 007	28	2 855	32		90	
Total	10 892	100	8 991	100		100	

Year		2012		Region		ALL REGIONS	
Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	Total weight of landings	%	
0-10m.*	5 638	53	4 495	50		5	
10-12m.	2 019	19	1 703	19		5	
above 12m.	2 887	27	2 729	31		90	
Total	10 544	100	8 927	100		100	

Year		2011		Region		AREA 27	
Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%			
0-10m.	4 302	74	3 516	72			
10-12m.	383	7	365	7			
above 12m.	1 093	19	1 028	21			
Total	5 778	100	4 909	100			

Year		2012		Region		AREA 27	
Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%			
0-10m.	4 574	72	3 893	70			
10-12m.	418	7	399	7			
above 12m.	1 361	21	1 299	23			
Total	6 353	100	5 591	100			

Year		2011		Region		AREA 37	
Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%			
0-10m.	361	11	108	4			
10-12m.	1 587	50	1 257	50			
above 12m.	1 208	38	1 167	46			
Total	3 156	100	2 532	100			

Year		2012		Region		AREA 37	
Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%			
0-10m.	324	11	121	5			
10-12m.	1 533	51	1 249	50			
above 12m.	1 148	38	1 110	45			
Total	3 005	100	2 480	100			

Year		2011			
Region		OFR			
Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	
0-10m.*	1 139	58	787	51	
10-12m.	113	6	103	7	
above 12m.	706	36	660	43	
Total	1 958	100	1 550	100	

Year		2012			
Region		OFR			
Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	
0-10m.*	732	62	481	56	
10-12m.	68	6	55	6	
above 12m.	372	32	320	37	
Total	1 172	100	856	100	

Tables 6.1.6.1 – Spain, Area 27/Area 37 & OFR, 2011 & 2012

6.1.7 EST – Estonia

- What is the importance of SSCF?

Year		2011											
Region		Baltic Sea											
Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings (kg)	%	Total value of landings (€)	%	
0-10m	790	85,1	790	86,1	NA	NA	NA	NA	3 098 099	4,9	2 703 918	19,6	
10-12m.	86	9,3	86	9,4	NA	NA	NA	NA	7 250 605	11,4	1 160 097	8,4	
above 12m.	52	5,6	42	4,6	4696	NA	NA	NA	52 994 954	83,7	9 914 484	72,0	
Total	928	100	918	100	NA	100	NA	100	63 343 658	100	13 778 499	100	

Year		2012											
Region		Baltic Sea											
Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings (kg)	%	Total value of landings (€)	%	
0-10m	786	85,6	786	85,6	NA	NA	NA	NA	1822536	3,5	2363242	17,5	
10-12m.	86	9,4	86	9,4	NA	NA	NA	NA	6906226	13,2	1527541	11,3	
above 12m.	46	5,0	46	5,0	4474	NA	3384	NA	43482771	83,3	9584749	71,1	
Total	918	100	918	100	NA	100	NA	100	52211533	100	13475532	100	

Year **2011**
Region **North Sea and Eastern Arctic**

Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings (kg)	%	Total value of landings (€)	%
0-10m	0	0	0	0	0	NA	0	NA	0	NA	0	NA
10-12m.	0	0	0	0	0	NA	0	NA	0	NA	0	NA
above 12m.	6	100	5	100	NA	NA	NA	NA	NA	NA	NA	NA
Total	6	100	5	100	NA	100	NA	100	NA	100	NA	100

Year **2012**
Region **North Sea and Eastern Arctic**

Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings (kg)	%	Total value of landings (€)	%
0-10m	0	0	0	0	0	NA	0	NA	0	NA	0	NA
10-12m.	0	0	0	0	0	NA	0	NA	0	NA	0	NA
above 12m.	5	100	5	100	NA	NA	NA	NA	NA	NA	NA	NA
Total	5	100	5	100	NA	100	NA	100	NA	100	NA	100

Tables 6.1.7.1 – Estonia, Baltic Sea & North Sea and Eastern Arctic, 2011&2012

Effort data for Baltic coastal fishery (vessels < 12m) were not presented because they were not electronically inserted to the Estonian Fisheries Information System. How to handle this huge amount of data has been problematic. We are considering as one option in future prospect to adapt electronic data system for boats under 12 meters. The days at sea and number of trips are also not available for boats < 12 m because effort is registered to fisherman and not to the boat. There is a legislative process going on to solve this problem. At the same time Estonia records the number of gears and the number of demanding the gear.

In the Baltic Sea SSCF has an important contribution for herring, a minor importance for cod, salmon and flounder. In North Sea and Eastern Arctic, Estonia has no SSCF activity and therefore no detailed data is presented. Only number of vessels and active vessels are presented.

Source of information of active vessels is Estonian Fleet Register.

- **Data sources for Transversal variables by type of variables (Effort, Specific effort, Gear characteristics, Landings) and for each part of the fleet (SSCF, LSF)**

Year	2011/2012				
Region	Baltic Sea				
Vessel Length	under 12m				
Transversal data variables estimated					
Data Source	Type	Capacity data	Effort data		Landings data
			Fishing effort data	Additional effort data	
Fishing Fleet Register	Census	+			
Fisheries Information System	Census	+	+	+	+
Logbooks	Census		+	+	+
First sales notes	Census				+

Year	2011/2012				
Region	Baltic Sea				
Vessel Length	above 12m				
Transversal data variables estimated					
Data Source	Type	Capacity data	Effort data		Landings data
			Fishing effort data	Additional effort data	
Fishing Fleet Register	Census	+			
Fisheries Information System / ERS*	Census	+	+		+
Logbooks	Census		+		+
First sales notes	Census				+

* ERS - electronic reporting system

Year	2011/2012				
Region	North Sea and Eastern Arctic				
Vessel Length	above 12m.				
Transversal data variables estimated					
Data Source	Type	Capacity data	Effort data		Landings data
			Fishing effort data	Additional effort data	
Fishing Fleet Register	Census	+			
Fisheries Information System / ERS*	Census	+	+		+
Logbooks	Census		+		+

* ERS - electronic reporting system

Tables 6.1.7.2 – Estonia, Baltic Sea & North Sea and Eastern Arctic, 2011&2012

There are variables listed under each table that are available from relevant data source.

Vessels less than 10 m in the Baltic Sea have to fulfill landing declaration (for pound net herring fishery) coastal logbook and sales note. In North Sea and Eastern Arctic Estonia has no SSCF activity.

- Methodology (census, sampling methods and raising strategies) used to produce transversal data in response of DCF requirements with a special focus on the small-scale fisheries

In Estonia full obligation of EC regulations are applied. There is full obligation of data submission for all boats and sampling system is not applied.

6.1.8 FIN – Finland

In Finland the share of small scale fishing (<10m vessels) of the total catch is about 7 %. The corresponding landings value is about 9,5 million euro, which is about 27% of the total landings value. The number of vessels <10m is about 3000, 92% of the total fleet. 40% of the small-scale fleet is considered as in-active.

Year 2012
Region Baltic Sea

Vessel Length	Number of vessels (Fishing fleet register)		Number of active vessels		Total Days at Sea		Total Number of trips		Total weight of landings (tons)		Total value of landings (€1000)	
		%		%		%		%		%		%
0-8m.	2395	74	1457	75	107515	79	107515	80	4456	3	7224	20
8-10m	589	18	378	19	22097	16	22097	16	5632	4	2338	7
10-12m.	183	6	63	3	1697	1	1587	1	2678	2	791	2
> 12m.	74	2	55	3	5352	4	3320	2	120162	90	25320	71
Total	3241	100	1953	100	136661	100	134519	100	132927	100	35672	100

Tables 6.1.8.1 – Finland, Baltic Sea, 2012

Data sources for Transversal variables: Transversal data in Finland is based on Fisheries control data collected and maintained by Ministry of Agriculture and Forestry and regional fisheries authorities. The target population of the transversal data is all vessels in the fishing vessels register. The

transversal data in Finland is basically census. Finnish Game and Fisheries Research Institute (FGFRI) is a responsible authority to process transversal data and supply estimates and information for data collection as well as for official fishery statistics. FGFRI has direct reading access to the data collected by the fisheries control authorities. There are three different report forms to enter fishing data:

1. The fishing data of vessels at least 10-metres long are entered in the *EU fishing logbook*.
2. With the exception of salmon catches, the fishing data of vessels under 10-metres long are entered in a monthly *coastal fishery report*. The data entered are the size of the catch by species, the statistical rectangle, the type and number of gears used in fishing, the number of fishing days, and discarded fish by species. The forms must be returned to the regional fisheries authority by the fifth day of the following month.
3. The salmon fishing data of vessels under 10-metres long are entered in a *salmon fishery report for coastal fishermen* that has to be completed for each trip. The form must be returned to the regional fisheries authority within 48 hours of the catch being landed.

Data processing and accuracy and reliability of information: A big part of the catch notification forms are checked at the FGFRI before the data are processed, and erroneous information is corrected according to standardised instructions. The search for illogical entries is made using error query software. The catch notifications are compared with those made by fishermen in other countries when they land their catch outside Finland. Catch reports are also cross checked with purchase sales note information provided by first-hand buyers and updated accordingly. Item non-response is corrected by multi-step imputation.

Unit non-response in 2012 was 0% in the group with a EU fishing logbook and 16% among those completing coastal fishery forms (= coastal fishery form and salmon fishery form for coastal fishermen). Of the total catch, 92% was reported with the EU fishing logbook.

Because the logbook data were obtained from all vessels at least 10 m long, there was no need to estimate their catch. There were regional differences in the non-response of the coastal fishery forms and the response rate ranged from 75% to 98%, depending on region. The unit non-response and the resulting bias were rectified by stratum-specific weighting coefficients.

In Finland there is a long tradition to collect transversal information of small scale fishing. This means, that also the fishermen are used to supply information on their activities. The harmonized time series of small scale fishing catch and effort start from 1980.

Year	2012				
Region	Baltic Sea				
Vessel Length	All				
Data Source	Type	Transversal data variables estimated			
		Capacity data	Effort data		Landings data
			Fishing effort data	Additional effort data	
Fishing Fleet Register	Census				
Logbooks	Census				
Coastal fishery report (<10m)	Census				
Salmon fishery report for coastal fishing	Census				

Tables 6.1.8.2 – Finland, Baltic Sea, 2012

6.1.9 FRA – France

Key Points: The French fleet presents 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.

- What is the importance of SSCF?

Year	2011											
Region	North Sea and Eastern Arctic - North Atlantic											
Vessel Length	Number of vessels (Fishing fleet reg.)		Number of active vessels		Total Days at Sea		Total Number of trips		Total weight of landings (tons)		Total value of landings (k€)	
		%		%		%		%		%		%
0-10m.	1 629	52%	1 498	51%	145 632	34%	145 392	44%	34 562	10%	97 320	11%
10-12m.	691	22%	678	23%	108 404	25%	101 821	31%	72 411	20%	162 190	19%
above 12m.	794	25%	785	27%	176 154	41%	81 314	25%	256 343	71%	601 097	70%
Total	3 114	100%	2 961	100%	430 190	100%	328 527	100%	363 316	100%	860 607	100%

Table 6.1.9.1.1 – France, North Sea and Eastern Arctic – North Atlantic, 2011

Year **2011**
Region **Mediterranean Sea**

Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings (tons)	%
0-10m.	1074	81%	877	80%	~130 000*	88%	~130 000*	89%	~6 100*	35%
10-12m.	109	8%	97	9%	17 083	12%	16 232	11%	11 458	65%
above 12m.	137	10%	120	11%	147 083	100%	146 232	100%	17 558	100%
Total	1320	100	1094	100	147 083	100%	146 232	100%	17 558	100%

*Statistic sampling estimates have to be considered with their precision associated

Table 6.1.9.1.2 – France, Mediterranean Sea, 2011

Year **2011**
Region **Other regions**

Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings (tons)	%
0-10m.	2371	92%	1790	92%	~111 000*	89%	~111 000*	99%	~8 700*	78%
10-12m.	126	5%	88	5%	13 708	11%	982	1%	2 489**	22%
above 12m.	87	3%	70	4%	124 708	100%	111 982	100%	11 189	100%
Total	2584	100	1948	100	124 708	100%	111 982	100%	11 189	100%

*Statistic sampling estimates have to be considered with their precision associated

**Partial Data

Table 6.1.9.1.3 – France, Other regions, 2011

In all regions, SSF represent a large part of the total fleet in term of number of vessels (see tables 1) and consequently in employment.

Although their input to total landings remains generally low, in Atlantic Ocean and North Sea, this fleet segment do not have only contribution for coastal species but as well for some species catches by large vessels, some of them being assessed internationally (ex. European Lobster in Atlantic Ocean and North Sea). In Overseas and in Mediterranean Sea, the fleet of vessels < 10 meters represents an important share of the fleet not only in terms of number of vessels and employment but even in terms of contribution to total landings and total revenues (see tables 1). In Overseas, SSF contributes mainly to the “large pelagics fishes” landings. These fishes are assessed by RFMO (ICCAT, CTOI). In Mediterranean Sea, SSF has a crucial impact on some species assessed internationally (hake for example) and particularly on some species subject of management plans (ex. Eels).

In all regions, SSF are socially important and an integral part of the French coastal zone. As a result, SSF could not be ignored in bio-economic analysis or spatial planning-coastal zone management (MSFD, Natura 2000, MPAs, Water directive, habitats and bird directive, Management plan in the Mediterranean Sea ...).

SSF vessels are in general less active than larger with commonly a daily activity pattern. A part of them could be inactive or with a very low degree of activity. This part of reality of the fleets is well assessed through the exhaustive "Activity Calendar Survey" applied every year in all regions on the basis of preliminary documentation provided by available declarations (logbooks, fishing notes, sales notes)³. It covers the whole of the reference population. In particular, it provides monthly activity schedules indicating the main fishing grounds and métiers operated by the vessels. It is to be noticed that this procedure has the benefit to provide the métiers as given by the fisherman himself throughout the year and on an exhaustive basis and provide information on the part of no fishing activity which is not included in available declarations.

Such surveys provide input each year for the typological classifications of vessels by fleet and a description of their métiers which in return makes also possible the definition of sampling plans to structure the routine data collection actions in response to the DCF technical decision. They are as well particularly useful for checking the completeness of declarative data (logbooks, monthly declarative forms and sales notes) and if necessary for re-evaluating them. They are also the exhaustive basis for doing estimation based on the on-site sampling data and allow improving the precision of the catch and effort estimates.

IFREMER, with a strong joint effort of the French Fishery ministry, has elaborated since 2000 a Fishery Information System, repository of all the fisheries data. Following a multidisciplinary and statistic approach, FIS data provide basis for fisheries multidisciplinary works. FIS aim to cover all the French fleet with the same precision so as well small scale fleets. The general scheme of the FIS of Ifremer is presented below:

³ ICES CM 2008/K:12 "From fleet census to sampling schemes: an original collection of data on fishing activity for the assessment of the French fisheries." - Patrick BERTHOU*, Olivier GUYADER**, Emilie LEBLOND***, Sébastien DEMANECHÉ****, Fabienne DAURES**, Claude MERRIEN**, Patrick LESPAGNOI*** - <http://www.ices.dk/products/CMdocs/CM-2008/K/K1208.pdf>.

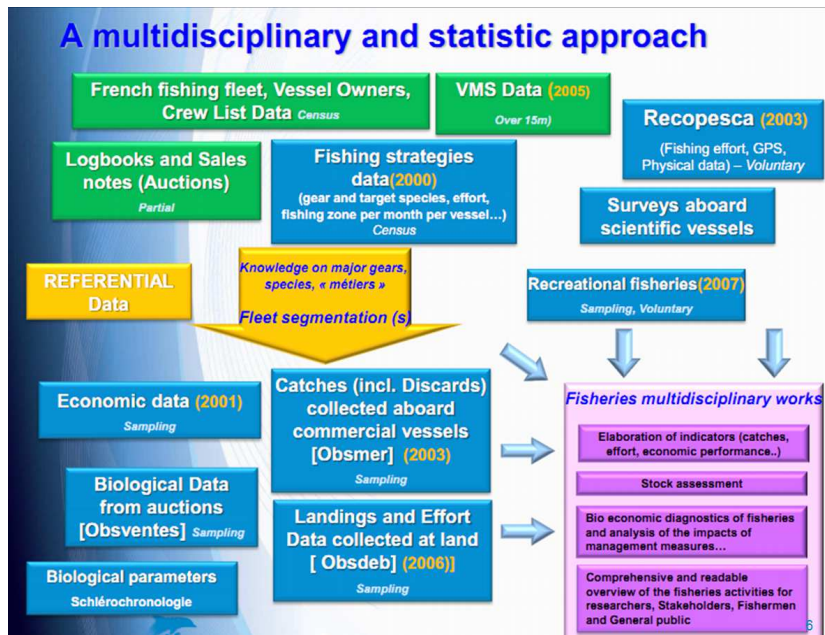


Figure 6.1.9.1: FIS of Ifremer

- Data sources for Transversal variables by type of variables (Effort, Specific effort (gear characteristics), Landings) and for each part of the fleet (SSCF, LSF)

Year	2011/2012				
Region	All				
Vessel Length	above 10m	Transversal data variables estimated			
Data Source	Type	Capacity data	Effort data		Landings data
			Fishing effort data	Additional effort data	
Fishing Fleet Register	Census				
Fishing activity calendars	Census				
VMS data	>=12m				
Logbooks	Declarative and partial				
Sales notes	Partial				

Table 6.1.9.2.1 – France, All regions, Above 10m, 2011/2012

Year	2011/2012				
Region	North Sea and Eastern Arctic - North Atlantic				
Vessel Length	0-10m	Transversal data variables estimated			
Data Source	Type	Capacity data	Effort data		Landings data
			Fishing effort data	Additional effort data	
Fishing Fleet Register	Census				
Fishing activity calendars	Census				
Monthly declarative forms	Declarative and partial				
Sales notes	Partial				

Table 6.1.9.2.2 – France, North Sea and Eastern Arctic – North Atlantic, 0-10m, 2011/2012

Year	2011/2012				
Region	Mediterranean Sea - Other regions				
Vessel Length	0-10m				
		Transversal data variables estimated			
Data Source	Type	Capacity data	Effort data Fishing effort data	Additional effort data	Landings data
Fishing Fleet Register	Census				
Fishing activity calendars	Census				
Monthly declarative forms*	Declarative and partial				
Sales notes*	Partial				
On-site sampling survey	Sampling				
Fuel data**	Partial				

* Insufficient to do an estimation completed by on-site sampling data

** Guadeloupe

except the 200 vessels belonging to the Corsica fleet (GSA 08)

Table 6.1.9.2.3 – France, Mediterranean Sea – Other regions, 0-10m, 2011/2012

Capacity data are estimated for all vessels, all regions through the official Fishing Fleet Register and the exhaustive “Activity Calendar Survey” which give useful information to better classify the vessels into DCF fleets. Indeed, the two only gears, generally not updated, declared in the FFR are mainly insufficient to well classify the vessels, especially the SSF which present a strong heterogeneity and polyvalence in terms of fishing gears used. In fact, reliable information on their use is necessary to classify SSF in compliance with DCF requirements.

For the vessels under 10m (with no logbooks requirement), there is a national requirement to fill in monthly declarative form adapted to their special features. Monthly declarative forms contain declarative monthly data on fishing effort and catches per species, dates, locations and gears for all registered vessels under 10m. (See figure below).

Descriptions des sorties en mer

Date (jour/mois/année)	5/11/04	5/11/04	6/11/04	6/11/04	9/11/04	10/11/04	12/11/04	12/11/04	12/11/04	15/11/04	18/11/04	
Secteur de pêche (a)	23E61	23E61	23E61	23E62	23E61	23E61	23E62	23E61	23E61	23E62	23E61	
Durée en heures	12	12	12	12	12	12	12	12	12	12	12	
Engin	Engin	519	512	512	512	512	519	242	512	519	242	242
	Maillage	55	110	110	110	170	120		110	55		
	Dimension (b)	500	5000	3000	3000	7000	5000	500	2000	500	500	600
Temps engin (c)	6	24	24	24	48	24	48	24	24	6	72	72
Espèces pêchées	Poids des captures (d)											
Sole	5	60	40	40	5	5			30	2		
Rouget barbet	50	5								50		
Baudroie		5	20	15	200				5			
Merlu		5	10	5	2	100			10			
Araignée		10	15	15	30	10	300	30			400	400
Homard		5	2		4		30	5			20	40
Tourteau		5		3	4		200	2			250	300
Congre							10				6	20

Signature du capitaine



) Indiquer les codes de la carte jointe

) Quantité de matériel levée pour les engins dormants (nombre de casiers, kilométrage de filets, nombre d'hameçons), largeur cumulée pour les engins trainants

) Durée d'immersion des engins en heures

) En kilos, sauf la civelle (en kilo et dixième de kilo, exemple : 3,4).

Figure 6.1.9.2: Monthly declarative form

Monthly declarative forms are used to estimate **effort and landings data** for vessels under 10m in North Sea and North Atlantic. They are cross validated with the other declarative data of fishing statistics available (sales notes, VMS data, fishing activity survey).

For vessels less than 10m in the Mediterranean continental area (GSA 07) and Overseas (La Réunion, French Antilles and French Guiana zones), 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 surveys⁴ are implemented in these regions. These sampling surveys are used to estimate **effort and landings data**. In Guadeloupe, they are completed with fuel data to better assess the number of trips of the fleet surveyed when in French Guiana, specific “landing site fishing activities observations” are used to ameliorate the estimates.

Concerning the 200 vessels belonging to the Corsica fleet (GSA 08), their declarative data (coverage rate estimated at 50 %) are completed with specific surveys about “landings site fishing activities observations” and on-board observations to estimate fishing and landings data.

⁴ ICES CM 2008 / K:14 "A new approach to estimate catches and fishing effort of small scale fisheries by sampling fishing trips on-site" - Sébastien DEMANECHÉ, Claude MERRIEN, Joël VIGNEAU, Olivier GUYADER, Patrick BERTHOU, Patrick LESPAGNOL, Emilie LEBLOND, Fabienne DAURES - <http://www.ices.dk/products/CMdocs/CM-2008/K/K1408.pdf>

- **Methodology (census, sampling methods and raising strategies) used to produce transversal data in response of DCF requirements with a special focus on the small-scale fisheries**

For all regions, for vessels more than 10m and for vessels under 10m in North Sea and North Atlantic, data collection is of census type. The completeness (evaluated against the exhaustive Ifremer activity survey) of the declarative data (logbooks, monthly declarative forms, sales notes, VMS data) available for these segments of fleet is reputed to be sufficient for an estimation of the effort and landings data. To get validated and qualified fishing statistics, an application SACROIS has been developed crossing the different sources of fishing statistics and compiling them into a single, verified and consistency, controlled data flow, with the aim of displaying validated and qualified landings per species and effort data series. The SACROIS tool general scheme is presented hereafter:

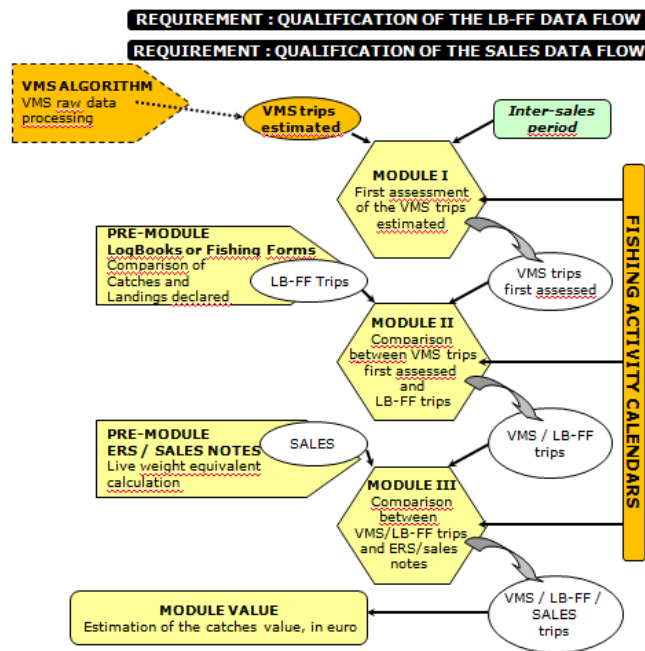


Figure 6.1.9.3: SACROIS tool general scheme

For vessel under 10m, in the Mediterranean continental area (GSA 07) and Overseas (La Réunion, French Antilles and French Guiana zones), data collection is of sampling type. The methodology involves a set of observers who directly interact with the fisherman at the time of their fishing trip return. The sampling frame applied is based on the fishing fleet register (administrative data) and the annual fishing activity calendars giving structural information of the fisheries surveyed. Samplings scheme combine a cluster weighted sampling of the fishing trips (spatial*time sampling) with a complementary stratified phone sampling. They aim to cover, at best and regarding available financial means, the variability of catches and fishing effort between “metiers”, “fishing area” or “seasonality” by optimising the expendable sampling effort. The two samples resulting of this sampling strategy (a set of fishing trips and of weekly activity calendar) are then post-stratify by “métier”. Percentile bootstrap method is applied to estimate the mean and the precision (5% and 95% threshold) of the different estimates calculate. Mac Carthy and Snowden method is applied to define the size of the bootstrap samples in order to take into account the ‘finite population correction’.

As results fishing effort and landings estimates have been calculated in all the regions followed (see details below):

Region studied	Number of active vessels	2011 Estimates				Main Species	Sampling rate
		Number of fishing trips	+/-	Total landings in ton	+/-		
Continental Mediterranean Sea	974	130 000	15%	6 100	49%	Gilthead seabream, Mussels, Mulletts, European eel, Octopus, ...	~4%
Guadeloupe	751	61 000	10%	4 000	25%	Dolphinfish, Yellowfin tuna, Parrotfishes, Bigeye scad, Groupers, ...	~4%
Martinique	854	35 000	20%	1 700	55%	Bigeye scad, Dolphinfish, Blue marlin, Yellowfin tuna, Other tuna, ...	~8%
French Guiana	87	3 100	NA	2 400	10%	Weakfishes, snook, Sea catfishes, Tripletail, Groupers, Mulletts, ...	~38%
Reunion	186	11 900	20%	600	59%	Yellowfin tuna, Swordfish, Albacore, Dolphinfish, Mackerel scad, ...	~9%

Table 6.1.9.3 : Results effort and catch estimates and precision associated for all regions followed by sampling survey

Combined with the frame survey, it allows having a comprehensive picture of the fleets and fisheries operated in the different regions followed although transversal data estimates remain imprecise. The variability of catches and fishing effort between “metiers”, fishing area or seasonality as well as the polyvalence of the fleets surveyed and the diversity of the catches is covered. Big issue remain the low accuracy of the elevation factor (number of fishing trips) calculated on the basis of the weekly activity calendar samples. Generalization of fuel data (already tested in Guadeloupe) or implementation of geo-localization data for vessels under 12m. are the two options considered at the moment.

- Qualitative assessment about data consistency and accuracy

The transversal data estimation global process is presented below:

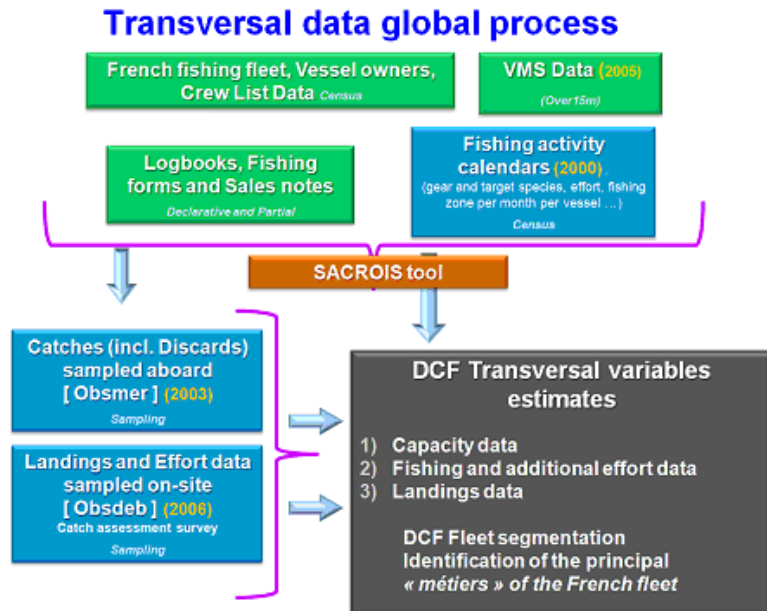


Figure 6.1.9.3: Summary of processing of transversal variables

The statistical quality of the transversal data is assured by the procedure of data compilation, processing and in particular the cross-checking of various declarative sources (SACROIS tool). When declarative sources are assessed to be insufficient to do estimation (compared with the exhaustive fishing activity calendars survey), the completion of these data by on-site-sampling data allow proposing reliable transversal data estimates. If only declarative data have been used, the picture of the French fleet would be truncated especially in the Mediterranean Sea and in Overseas. In this context, the sampling approach is considered as the most cost effective strategy to reach these data.

The assessment of the completeness and quality of declarative forms available was possible through the provision of the exhaustive fishing activity calendars for the whole French fleet giving a comprehensive picture of the fishery sector in France and assessing for example the level of activity of fleets which until now were partially known.

6.1.10 GBR – United Kingdom

6.1.11 GRC – Greece

6.1.12 IRL – Ireland

6.1.13 ITA – Italy

- What is the importance of SSCF?

Year 2011
Region Mediterranean Sea

Vessel Length	Number of vessels (a)	%	Number of active vessels (b)	%	Total Days at Sea (b)	%	Total Number of trips (b)	%	Total weight of landings (tons) (b)	%	Total value of landings (k€) (b)	%
0-6 m	2 803	21%	2 141	19%	355 710	20%	370 521	21%	8 344	4%	68 453	6%
6 - 10 m	5 195	40%	4 488	40%	721 469	41%	739 381	43%	22 737	11%	182 787	17%
10 - 12 m	969	7%	886	8%	122 605	7%	124 124	7%	7 242	3%	56 694	5%
above 12 m	4 097	31%	3 795	34%	554 364	32%	499 518	29%	172 001	82%	782 393	72%
Total	13 064	100%	11 310	100%	1 754 148	100%	1 733 544	100%	210 324	100%	1 090 328	100%

(a) Fishing Fleet register at 31 december 2011 and 30 september 2012

(b) Sampling survey Mipaaf-Irepa

Table 6.1.13.1.1 – Italy, Mediterranean Sea, 2011

Year **2012**
Region **Mediterranean Sea**

Vessel Length	Number of vessels (a)	%	Number of active vessels (b)	%	Total Days at Sea (b)	%	Total Number of trips (b)	%	Total weight of landings (tons) (b)	%	Total value of landings (k€) (b)	%
0-6 m	2 747	21%	2 006	19%	269 485	17%	274 122	18%	5 504	3%	44 795	5%
6 - 10 m	5 215	41%	4 315	40%	671 312	43%	674 631	44%	20 545	11%	158 008	17%
10 - 12 m	894	7%	810	8%	114 665	7%	110 615	7%	7 598	4%	51 564	6%
above 12 m	3 958	31%	3 603	34%	500 292	32%	463 130	30%	160 562	83%	650 916	72%
Total	12 814	100%	10 734	100%	1 555 754	100%	1 522 498	100%	194 208	100%	905 283	100%

(a) Fishing Fleet register at 31 december 2011 and 30 september 2012

(b) Sampling survey Mipaaf-Irepa

Table 6.1.13.1.2 – Italy, Mediterranean Sea, 2012

The fleet of vessels with length overall less than 12 meters (SSF) consists of a little less than 9000 units and constitutes more than 2/3 of the entire national fleet. In reason of the small size, the contribution to total gross tonnage is only 11 %.

The segment is composed primarily of vessels that use fixed gears and have a particular socio-economic importance as it is the only source of income in some areas. The products, composed of species of high economic value, generally skips the first rings of the commercial chain and is sold directly to the retail and catering and obtains a higher price than the average for the other segments. Therefore, although the proportion of landings is only 17 %, economic contribution reaches the 28% of the total revenues in the Italian fishing fleet.

- **Data sources for Transversal variables by type of variables (Effort, Specific effort (gear characteristics), Landings) and for each part of the fleet (SSCF, LSF)**

Year	2011/2012					
Region	Mediterranean Sea					
Vessel Length	All					
		Transversal data variables estimated				
Data Source	Type	Capacity data	Effort data		Landings data	Economic data
			Fishing effort data	Additional effort data		
Fishing Fleet Register	Census					
Weekly questionnaire	Sampling					
Monthly questionnaire	Sampling					

Table 6.1.13.2 – Italy, Mediterranean Sea, 2011/2012

The source of data transversal and economic related to SSF is a sample survey developed in agreement with the Annex XVI of the Reg. (EC) 404/2011 (see annex 2 for details and fully description of the sampling survey Mipaaf Irepa).

Given the strong dispersion of the fleet along the coastal area (7600 km) and the consequent strong commitment in men and resources necessary for the control of landing declarations and the logbook, the Italian Administration has deemed it appropriate to use the possibility given by article 14 of the Reg. (EC) 1224/2009.

- Summary Small scale fishery (only passive gears)

The small-scale segment is composed of vessels with a total length (LOA) less of 12m, typically using passive gears like set nets, long-lines, pots and traps. They are mostly managed on a family and artisanal basis. This segment comprises 2/3 of Italian fishing vessels (8,800), but due to their small size - which fall below 2 t of gross registered tonnage - they only account for 10% of the GT. Their landings amount to 17.5% in catch and 27.4% of value.

Landings from this segment in 2011 amounted to 36,000 t with a +9% increase compared to 2010. Due to the small size of vessels, fishing activities are highly affected by weather conditions; 12 more fishing days were registered in 2011 on a national average (134 days per vessel, up from 122 in 2010).

On a less positive note, the average price on a national basis declined by 1.4%, but still remained the highest amongst all fishing gears (8.10 €/kg compared to 8.21 in 2010). On the contrary, prices in Sicily showed a slight increase (6%), reaching 9,13 €/kg (+5.7%), the highest value of all macro-areas; prices fell by 6% in the Thyrenian sea and were stable in the Adriatic and Ionian seas.

Catch is dominated by cuttlefish, which amount to 3,069 t and 8.4% of the total volume of landings in this segment and generate 31 million euro and 10.5% in revenue. This species declined considerable especially in Veneto and Emilia Romagna, amounting to a loss of 725 t and 3.6 million euro.

Octopus landings amount to 2,600 t and contribute to 7.1% of the total in quantity and 6.3% in revenue, followed by snails (6.3% of the total

production), sole (5.4%) and hake (4%).

Geographically, the Tyrrhenian Sea holds the highest number of vessels (3,560), landings (14,178 t) and revenue (112.7 million euro, which amount to over 10% of all fishing activities in Italy). The main species in catch composition is octopus (with 1,711 tonnes, 12% of landings and 9.6% of revenue), followed by hake (6.4% of landings and 9% revenue) and cuttlefish (5% in quantity and 6.7% in value).

Around 2,400 vessels operate in the Adriatic Sea; their production in 2011 was 11,500 t generating 94.4 million euro. Snail, a traditional product in the area, is the main species amounting to 19.6% in catch, followed by cuttlefish (13.7%) and mantis shrimps (10.5%). Revenue is generated by cuttlefish (15%), soles (14.7%), snails (13%) and mantis shrimps (11.4%).

Small-scale fishery in Sicily is carried out by 2,054 boats, with landings just short of 6,300 tonnes generating 57.3 million euro in revenue. Traditionally this segment targets large pelagic fish like swordfish, albacore tuna and dolphinfish, which represent a large share of landings and revenue. Dolphinfish accounts for 10.2% of the total landings in this segment, though its economic impact does not rise above 6.1% due to the low average price hovering around 5€/kg. Swordfish landings (441 t) have increased since 2010. Amongst the other species harvested, cuttlefish accounts for 6.7% in volume and represent the main source of revenue with 5.8 million euro, 10.2% of the total. Anchovy landings with small driftnets (called “menaide”), mainly set on the eastern side of the island, fell abruptly by 51% in 2011; they now represent 5.5% of the landings (down from 11.8% in 2010) and 4% of revenue.

The Ionian fleet is composed of 800 boats, with a total volume of landings of 4,700 tonnes. The average productivity per boat was higher than in other regions, due to much higher activity rates in 2011 with 170 fishing days per vessel compared to 134 of the entire segment. Catch composition is made of bogue, octopus and cuttlefish.

	2004	2005	2006	2007
Valori assoluti / Absolute value				
Catture/Landings in volume (t)	47.515	44.076	45.299	42.744
Ricavi/Landings in value (mln €)	340,65	338,88	381,42	333,23
Prezzi/Landings prices (€/kg)	7,17	7,69	8,42	7,80
Valori medi per battello e giornalieri/ Average value by vessel and by day at sea				
Catture annue per battello/ Yearly landings in volume by vessel (t)	5,1	4,8	4,8	4,7
Catture giornaliera/Landings in volume by day at sea(kg)	35,8	36,9	35,8	37,7
Ricavi annui per battello/Yearly landings in value by vessel (000€)	36,34	36,79	40,65	36,58
Ricavi giornalieri/Landings in value by day at sea (€)	257,02	283,83	301,60	293,52

	2008	2009	2010	2011
Valori assoluti / Absolute value				
Catture/Landings in volume (t)	32.827	38.396	33.559	36.620
Ricavi/Landings in value (mln €)	258,48	302,59	275,58	296,4
Prezzi/Landings prices (€/kg)	7,87	7,88	8,21	8,10
Valori medi per battello e giornalieri/ Average value by vessel and by day at sea				
Catture annue per battello/ Yearly landings in volume by vessel (t)	3,7	4,3	3,8	4,2
Catture giornaliere/Landings in volume by day at sea(kg)	33,2	33,4	31,4	31,1
Ricavi annui per battello/Yearly landings in value by vessel (000€)	29,14	34,28	31,33	33,64
Ricavi giornalieri/Landings in value by day at sea (€)	261,42	263,02	257,85	251,88

Table 6.1.13.3 – Productivity and Economic Key indicators, small scale fishery, 2004-2011

Source: Mpaaf-Irepa

Tri alpha cod	Kg		EURO		Share		Price	
	2010	2011	2010	2011	KG 2011	Euro 2011	PRZ 2010	PRZ 2011
CTC	3.891.413	3.172.495	35.863.458	32.319.840	7,18%	9,10%	9,22	10,19
SWO	3.279.796	3.044.890	36.510.829	34.842.491	6,89%	9,81%	11,13	11,44
OCC	1.865.751	2.673.521	13.823.972	18.996.660	6,05%	5,35%	7,41	7,11
GAS	1.579.282	2.323.333	11.384.058	12.794.007	5,26%	3,60%	7,21	5,51
HKE	2.051.070	1.975.348	20.962.851	21.235.422	4,47%	5,98%	10,22	10,75
MTS	1.235.746	1.409.496	9.373.338	12.192.205	3,19%	3,43%	7,59	8,65
ALB	1.047.394	1.225.959	4.729.031	4.999.484	2,78%	1,41%	4,52	4,08
MUL	582.623	1.147.321	1.920.791	2.744.918	2,60%	0,77%	3,30	2,39
DOL	1.410.557	1.121.150	4.620.789	5.207.828	2,54%	1,47%	3,28	4,65
SPC	641.928	1.109.980	3.783.063	6.729.404	2,51%	1,90%	5,89	6,06

MUR	1.262.090	1.106.928	17.203.998	14.889.893	2,51%	4,19%	13,63	13,45
SCO	848.072	1.088.849	8.082.655	10.202.103	2,46%	2,87%	9,53	9,37
SFS	1.069.824	1.072.182	3.779.497	4.270.023	2,43%	1,20%	3,53	3,98
BOG	561.506	997.452	1.581.048	2.568.575	2,26%	0,72%	2,82	2,58
SOL	839.298	970.246	16.035.091	19.873.961	2,20%	5,60%	19,11	20,48
JAX	757.922	891.173	1.849.118	2.033.573	2,02%	0,57%	2,44	2,28
BON	808.024	767.508	3.060.276	3.127.745	1,74%	0,88%	3,79	4,08
SRG	610.250	734.945	8.278.392	9.712.158	1,66%	2,74%	13,57	13,21
COE	484.746	606.800	1.615.626	2.152.813	1,37%	0,61%	3,33	3,55
ANE	931.525	603.705	4.071.303	3.601.802	1,37%	1,01%	4,37	5,97
SIL	463.333	557.271	3.882.146	3.087.033	1,26%	0,87%	8,38	5,54
SSB	491.830	536.286	4.369.646	5.151.682	1,21%	1,45%	8,88	9,61
LTA	453.568	465.373	1.177.960	1.110.297	1,05%	0,31%	2,60	2,39

Table 6.1.13.4 – Main species landed from the small fishing (73% of the total)

Source: Mpaaf-Irepa

6.1.14 LTU – Lithuania

- What is the importance of SSCF?

Year 2012
Region Baltic Sea

Vessel Length	Number of vessels (Fishing fleet register)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings (t)	%	Total value of landings	%
0-10m.	95	70	61	66	4882	57	2441	66	343	2	327368	5
10-12m.	10	7	6	6	560	7	329	9	138	1	146728	2
above 12m.	31	23	26	28	3121	36	908	25	16345	97	6620822	93
Total	136	100	93	100	8563	100	3678	100	16826	100	7094918	100

Table 6.1.14.1 – Lithuania, Baltic Sea, 2012

Table one reflects the situation of SSCF in the Baltic Sea. There are more vessels with a length less than 10 metres than there are of larger vessels. However, the value and weight of landings associated with smaller vessels equates to just five percent and two percent respectively. On average, small-scale Lithuanian vessels account for approximately 3 to 5 percent of Baltic Sea cod and 95 to 97 percent of salmon caught from stocks that are subject management plans. Due to technical reasons, the amount of fishing vessels operating in the Baltic Sea changes year by year. The commercial fishing operations inside a 12 mile zone of the Baltic Sea is carried out by all small-scaled active boats of 3–12 meters in length. Those vessels never spend more than 24 hours at sea from the time of departure until their arrival back in port. According to Council Regulation (EC) Nr 1098/2007 request to operators, that fishing on vessels with a length more than 8 metres in the Baltic Sea, is obligated to complete logbooks.

- Data sources for Transversal variables by type of variables (Effort, Specific effort (gear characteristics), Landings) and for each part of the fleet (SSCF, LSF)

Year	2012				
Region	Baltic Sea				
Vessel Length	all	Transversal data variables estimated			
Data Source	Type	Effort data			
		Capacity data	Fishing effort data	Additional effort data	Landings data
Fishing Fleet Register	Census				
Logbooks	Census				
Monthly reports**	Census				

** -for vessels of 0-8 m in length

Table 6.1.14.2 – Lithuania, Baltic Sea, 2012

All small-scaled vessels that are registered with the Lithuania Fleet Register operate within the Baltic Sea region. There is a legal requirement for the vessel's operator to complete the national logbooks and to include the following information: Dates of start and finish of fishing; Fishing gear's mesh size and length or number of hooks used and the amount of catch by species. Summarised efforts and landing's data are provided to The Fisheries Service on a monthly basis. Once collated, The Fisheries Service enters the data into the IFDIS database. Data can be aggregated in response to DCF requirements.

- Methodology (census, sampling methods and raising strategies) used to produce transversal data in response of DCF requirements with a special focus on the small-scale fisheries

For data collection, Lithuania uses census methodology. Monthly reports of landings and sale notes data are cross-referenced and where anomalies in the data are identified, the vessel's operator provides a logbook that can be cross-checked with monthly report data as well as complete them in verified data flow. The IFDIS database tool provides indicators of data quality and completeness in compliance with the Council Regulation (EC) No 1224/2009 and Commission Implementing Regulation (EU) No 404/2011 requests, checks the data format. As well Lithuania is developing more advanced verification by analysing several records of a dataset into detail, using statistical methods, or cross-checking data from different sources. In addition, there are procedures in place to check for receipt of reports from operators and in the case non-receipt, those operators are fined and must provide the data later. No large fleet allows plying in place and verify restricted establishments of data providing.

6.1.15 LVA – Latvia

Key Points: Small-scale fishery (SSCF) is cultural tradition for coastal communities. It has more social and ethnographic character than significant economic importance (5% from overall Latvian landings in the Baltic Sea). Usually fishermen work seasonally due to heavy weather and ice conditions in winter. This is the main reason for strict limitation of catches. Vessels less than 12 meters operate mainly in coastal zone (12 miles zone) and are obliged

to fill and submit coastal logbook monthly. If these vessels work offshore (behind 12 miles zone) they are obliged to submit their logbook daily. All data from coastal and offshore logbooks are monthly entered and stored in national database.

- **What is the importance of SSCF?**

Year		2012		Region		Baltic Sea						
Vessel Length	Number of vessels (Fishing fleet register)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings (t)	%	Total value of landings	%
less than 12m.	630	89	207	74	10891	56	7442	54	2849	5	1211316	5
above 12m.	76	11	72	26	8610	44	6271	46	54603	95	22629946	95
Total	706	100	279	100	19501	100	13713	100	57452	100	23841262	100

Table 6.1.15.1 – Latvia, Baltic Sea, 2012

706 ships are registered in the Fleet register: less than 12 meters - 630 (89%). There were 207 active vessels under 12 meters (33%) in commercial fishery in the year 2012. Coastal catches cover 5% from overall landings and 56% from overall effort.

SSCF in Latvia has more social contribution than economical. We mentioned according to definition that “active vessel” is the vessel which had at least one day-at-sea during the year (Commission Decision 2010/93/EU). Latvian SSCF have no an importance for ecosystem management.

- **Data sources for Transversal variables by type of variables (Effort, Specific effort (gear characteristics), Landings) and for each part of the fleet (SSCF, LSF)**

Year		2012		Region		Baltic Sea	
Vessel Length		<8m.		Transversal data variables estimated			
Data Source	Type	Effort data					
		Capacity data	Fishing effort data	Additional effort data	Landings data		
Fishing Fleet Register	Census/sampling						
Coastal Logbooks	Census/Sampling						
Declarations*	Census/Sampling						

* for cod and vessels less than 10m.

Table 6.1.15.2.1 – Latvia, Baltic Sea, <8m., 2012

All SSCF vessels are obliged to fill coastal logbooks. Vessels less than 10 meters are obliged to submit declarations only for cod.

Brief description of the particular declarative form used to follow the SSCF: At first page following information is presented: month, fishing place (Gulf of Riga or coast of Baltic Sea), municipality, license owner information, name of fisherman, type, count, and length of allowed gears, catch limits for cod, personal information on inspector who checks and collects logbooks. At the second page is presented information about: date of catch, number of days at sea, vessel ID, catches by species; for salmon, rainbow trout and sea trout - weight and count of fishes.

Year	2012	Transversal data variables estimated			
Region	Baltic Sea				
Vessel Length	>=8m.				
Data Source	Type	Effort data		Landings data	
		Capacity data	Fishing effort data		
Fishing Fleet Register	Census/sampling				
Logbooks	Census/Sampling				
Declarations*	Census/Sampling				

* for cod and vessels less than 10m.

Table 6.1.15.2.2 – Latvia, Baltic Sea, <8m., 2012

- **Methodology (census, sampling methods and raising strategies) used to produce transversal data in response of DCF requirements with a special focus on the small-scale fisheries**

All SSCF catches are fully covered by logbooks. Strengthening of control measures is undesirable and even harmful.

- **Qualitative assessment about data consistency and accuracy**

Logbook is official document with fisherman signature. All Latvian fishing vessels are included in Fleet Register.

- **Other Comments/Suggestions**

Comments about quality of data for vessels up to 10m: the data of logbook cover capacity and a lot of effort variables. Other transversal variables are fully covered by sale notes and questionnaire form “Fishery-1” of Central Statistical bureau.

6.1.16 MLT – Malta

- What is the importance of SSCF?

Year		2012		Region		Mediterranean Sea						
Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings (kg)	%	Total value of landings (€)	%
0-10m.*	923	87	677	86	26922	80	26907	92	534258	24	2959021	23
10-12m.	55	5	42	5	1589	5	701	2	221264	10	1590370	13
above 12m.	82	8	65	8	5165	15	1628	6	1448337	66	8087397	64
Total	1060	100	784	100	33676	100	29236	100	2203859	100	12636788	100

Table 6.1.16.1.1 – Malta, Mediterranean Sea, 2012

Is-there an important contribution of the SSCF to some species assessed internationally or species subject to management plan: *Lampuki*, *lampara* and *bluefin tuna*.

Number of active/inactive vessels of the small-scale fleet is determined, according to activity registered either in the catch assessment survey, market sales notes or direct sales. A vessel recorded as participating in a fishing activity in either one of the above sources during the year is considered as active. Table below represent the number of active and inactive vessels in each of the vessel length classes in 2012.

Vessel Length	Activity	Number of vessels
0-10m.	Active	677
	Inactive	246
10-12m.	Active	42
	Inactive	13
Above 12m.	Active	65
	Inactive	17

Table 6.1.16.1.2 – Number of active and inactive vessels in each of the vessel length classes in 2012

- Data sources for Transversal variables by type of variables (Effort, Specific effort (gear characteristics), Landings) and for each part of the fleet (SSCF, LSF)

Data Source	Type	Capacity data				
		Vessel Length	No of vessels	kW	GT	Avg age
Fishing Fleet Register	Census/Sampling	0-10m.	923	47066,94	1845,45	26,21
	Census	10-12m.	55	7532,02	515,9499974	26,36
	Census	above 12m.	82	23318,65	5687,139	28,7
	Total		1060	77917,62	8048,53	26,41

Data Source	Type	Vessel Length	Fishing effort data							
			No of vessels	Days at sea	Hours fished ¹	Fishing days ²	kW*fishing days ³	GT*fishing days ⁴	Number of trips	Soaking time ⁵
Catch Assessment Survey	Sampling	0-10m.	923	26922	-	50515,673	2356950,611	97882,906	26907	417640
Logbooks	Census	10-12m.	55	1589	-	1333,000	190005,310	13311,920	701	13610
Logbooks	Census	above 12m.	82	5165	20691	4098,000	1260239,215	290164,308	1628	28622
Total			1060	33676	20691	55946,673	3807195,136	401359,134	29236	459872

(1) Dredges and trawls, (2) refer to fishing days by gear, (3) refer to kW*fishing days by gear, (4) refer to GT*fishing days by gear, (5) Passive gears only

Data Source	Type	Vessel Length	Additional effort data			
			No of vessels	Total length of nets ⁶	Number of hooks ⁷	Number of pots and traps
Catch & Effort survey	Sampling	0-10m.	923	5913184	3132067	13041077
Logbooks	Census	10-12m.	55	193000	1933074	-
Logbooks	Census	above 12m.	82	5400	4518800	-
Total			1060	6111584	9583941	13041077

(6) Nets only, (7) Hooks and Lines only

Data Source	Type	Landings data			
		Vessel Length	No of vessels	Total weight of landings (kg)	Total value of landings (€)
Catch & Effort survey	Sampling	0-10m.	923	534258	2959021
Logbooks	Census	10-12m.	55	221264	1590370
Logbooks	Census	above 12m.	82	1448337	8087397
Total			1060	2203859	12636788

Table 6.1.16.2.1 – Malta, Mediterranean Sea, 2012

- Methodology (census, sampling methods and raising strategies) used to produce transversal data in response of DCF requirements with a special focus on the small-scale fisherie

Description of catch and effort assessment survey of the small-scale fleet: The Catch and Effort Assessment Survey (CAS) was developed with the objectives to provide monthly catch and effort estimates for the small-scale fleet, which do not have a logbook system and data is not gathered in an exhaustive way.

The sampling survey consists of a multivariate questionnaire sampling survey. The target population is made up of the vessels under 10 metres length overall registered in the Maltese fishing fleet register that includes full-time commercial vessels (MFA) and part-time commercial vessels (MFB). The sample is (stratified) randomly selected every quarter. The sampling unit is a single vessel which is randomly selected from the Vessel Register. The sample consists of 10% of the respective population and is stratified randomly selected from the fleet segments from the fleet vessel register.

Collection of data: Data is collected by field recorders employed by the Fisheries department. The interviews are conducted with the vessel owners every week either in ports or at home. Information on catches, effort in fishing days, by type of gear, fishing areas and activity can be obtained. This methodology of obtaining data overcomes the difficulty of acquiring data from the fish market and other official sources for the small scale fishery which can have many errors due to various reasons such as the underestimation in information on landings declared in the invoices for fiscal reasons and erroneous names attributed to fish species which are difficult to identify. Furthermore data on effort is not usually reported in sales vouchers. The data obtained from the sample is then raised to the population.

The questionnaire: The questionnaire is composed of two separate sheets. The first sheet is to be filled on a weekly basis whereas the second sheet is filled in on a monthly basis.

The sheets contain general information such as:

- Vessel registration number
- Month and year

The first sheet contains weekly information on:

Number of fishing days

Number of fishing trips

Number of fishing days per gear

Number of fishing trips by gear

Gears used

Species caught (according to the gear used)

Target species by gear

Weight of species caught in kg by gear

Name of discard species

Gear of discard species

Weight of discard species in kg

The second sheet contains monthly information on:

- Gear used
- Average number of units per trip
- Information on size of gear (L*H of net, No of hooks, etc)
- Type of mesh (Square/Diamond)
- Size (mm) or type name of mesh or hook
- Average number of fishing operations / average number of FADs fished
- Average fishing time in hrs (soaking time)
- Fishing area code
- Average number of crew on board / trip

Organisation of the collection of information: After the vessels to be sampled have been randomly selected, a letter is sent from our end to the fishers selected to notify them of their inclusion in the sample and to establish an interview plan. Periodically, training courses for the data collectors are organised to update them on possible new developments and to further their knowledge on aspects linked to the sampling design, and species and gear identification.

Stratification: To be able to obtain the best possible stratification of the fleet, the criteria of season and of the fleet segmentation as described in Appendix IV of Commission Decision EC 93/2010 was used, and include registration class (MFA/MFB), length segment and fleet segmentation based on the gears registered in the fleet register.

Sampling rate: The sampling rate varies according to the number of vessels in each fleet segment and when the number of vessels in a segment is low a census approach is performed.

<i>Fleet segment</i>	<i>Sample number</i>	<i>Comments</i>
<i>< 5 vessels</i>	<i>Census</i>	<i>All year round</i>
<i>6 – 50 vessels</i>	<i>Census</i>	<i>All divided per quarter</i>
<i>51 – 99 vessels</i>	<i>50%</i>	<i>Divided per quarter</i>
<i>> 100 vessels</i>	<i>50 vessels</i>	<i>Divided per quarter</i>

Table 6.1.16.2.2 – Sampling rate applied according to the number of vessels in each fleet segment

Estimating procedures: From the vessels sampled, data on catch and effort is raised to the total fleet population of vessels less than 10 metres length overall. Raising is based on a weighting factor attributed to the total fleet segment. Finally, both datasets of vessels less than 10m and vessels over 10 metres are combined to obtain an estimate of the total.

Data validation: To avoid shortfalls data collected from the catch assessment survey was cross-checked with data coming from market sales notes and direct sales vouchers. Sometimes information collected is also cross-checked directly with the fisherman.

6.1.17 NLD – The Netherlands

6.1.18 POL – Poland

6.1.19 PRT – Portugal

- What is the importance of SSCF?

Year 2012

Region North Atlantic - Azores

Vessel Length	Number of vessels (Fishing fleet register)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings	%	Total value of landings	%
0-10m.*	578	73,4	509	75,6	NA		26 544	72,6	2 517 705	21,2	9 909 826	28,5
10-12m.	96	12,2	87	12,9	NA		6 367	17,4	2 408 593	20,3	7 534 546	21,6
above 12m.	113	14,4	77	11,4	NA		3 649	10,0	6 955 460	58,5	17 373 061	49,9
Total	787	100	673	100	NA		36 560	100	11 881 757	100	34 817 432	100

Table 6.1.19.1.1 – Portugal, North Atlantic - Azores, 2012

- Data sources for Transversal variables by type of variables (Effort, Specific effort (gear characteristics), Landings) and for each part of the fleet (SSCF, LSF)

Year **2012**
 Region **North Atlantic - Azores**

Vessel Length		Transversal data variables estimated			
Data Source	Type	Capacity data	Effort data		Landings data
			Fishing effort data	Additional effort data	
Fishing Fleet Register	Census	X			
Sales notes ¹	Census		X		X
Questionnaires	Sampling		X	X	X

¹ Fishing Effort data from sales notes: Number of trips

Table 6.1.19.2 – Portugal, North Atlantic - Azores, vessels less than 10m., 2012

Year **2012**
 Region **North Atlantic - Azores**

Vessel Length		Transversal data variables estimated			
Data Source	Type	Capacity data	Effort data		Landings data
			Fishing effort data	Additional effort data	
Fishing Fleet Register	Census	X			
Logbooks	Census		X	X	X
Sales notes ¹	Census		X		X
Questionnaires	Sampling		X	X	X

¹ Fishing Effort data from sales notes: Number of trips

Table 6.1.19.3 – Portugal, North Atlantic - Azores, vessels 10-12m., 2012

Year	2012				
Region	North Atlantic - Azores				
Vessel Length	above 12m	Transversal data variables estimated			
Data Source	Type	Effort data			
		Capacity data	Fishing effort data	Additional effort data	Landings data
Fishing Fleet Register	Census	X			
Logbooks	Census		X	X	X
Sales notes ¹	Census		X	X	X
Questionnaires	Sampling		X	X	X

¹ Fishing Effort data from sales notes: Number of trips

Table 6.1.19.4 – Portugal, North Atlantic - Azores, vessels above 12m., 2012

- **Methodology (census, sampling methods and raising strategies) used to produce transversal data in response of DCF requirements with a special focus on the small-scale fisheries**

See Annex 2.4.7.

6.1.20 ROM – Romania

6.1.21 SVN – Slovenia

- What is the importance of SSCF?

Year **2011**
Region **Mediterranean Sea and Black Sea**

Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings in tons	%	Total value of landings	%
0-6m.*	84	45	27	32	2217	29	1478	25	11	2	100483	4
6-12m.	80	43	40	47	3670	48	2682	46	64	9	399891	16
above 12m.	22	12	18	21	1773	23	1727	29	644	90	2037276	80
Total	186	100	85	100	7660	100	5887	100	720	100	2537650	100

Table 6.1.21.1.1 – Slovenia, Mediterranean Sea and Black Sea, 2011

Year **2012**
Region **Mediterranean Sea and Black Sea**

Vessel Length	Number of vessels (Fishing fleet reg.)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings in tons	%	Total value of landings	%
0-6m.*	81	46	33	38	3014	40	1968	36	18	5	137432	10
6-12m.	78	45	38	43	3293	43	2285	41	56	17	356230	26
above 12m.	16	9,1	17	19	1295	17	1256	23	256	78	860969	64
Total	175	100	88	100	7602	100	5509	100	329	100	1354631	100

Table 6.1.21.1.2 – Slovenia, Mediterranean Sea and Black Sea, 2012

- Data sources for Transversal variables by type of variables (Effort, Specific effort (gear characteristics), Landings) and for each part of the fleet (SSCF, LSF)

Year	2011/2012				
Region	Mediterranean Sea and Black Sea				
Vessel Length	all	Transversal data variables estimated			
Data Source	Type	Effort data			
		Capacity data	Fishing effort data	Additional effort data	Landings data
Fishing Fleet Register	Census				
Logbooks	Census				

Table 6.1.21.2 – Slovenia, Mediterranean Sea and Black Sea, 2011/2012

- **Methodology (census, sampling methods and raising strategies) used to produce transversal data in response of DCF requirements with a special focus on the small-scale fisheries**

All Slovenia vessels have to fulfil the logbooks regardless of their LOA. All Slovenia vessels are performing fishing activities only in FAO area 37.2.1 (GFCM GSA 17). Source for landings data are always logbooks, other data are form Fishing Fleet Register. Landings data are crosschecked with first sale data.

6.1.22 SWE – Sweden

- What is the importance of SSCF?

The contribution of the Swedish SSCF to the total landings for species assessed internationally is generally very low, even though cod, flounder and herring among other species, can be main target species for smaller vessels. However, for two species subject to individual management plans, eel and salmon, the SSCF play an important role.

Comprehensive statistics including total No of vessels for different vessel length segments are compiled in Table 6.1.22.1.1-2. Note that in the Swedish fishing fleet register, all vessels are considered as active. This is because the national regulations require renewal of vessel permits every fifth year and only active vessels obtain the permit. It should also be noted that many of the fishermen have more than one vessel registered, often a large vessel together with one or several smaller. Concerning No of vessels, days at sea and No of trips, the SSCF in Sweden account for the largest share and this is despite the climate in northern Europe with harsh winters and, in the Baltic, several months of heavy ice conditions every year.

Another aspect of the SSCF is that the coastal fisheries play an important role in the Swedish national environmental quality objectives, e.g. “A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos”, e.g. bringing a beneficial regional policy perspective. Also, the impact of the SSCF on coastal ecosystems in a management sense should be addressed. There is a risk that local coastal populations of fish and shell fish might be overexploited, even though the species at stock level are managed in a sustainable way. Another risk could be the impact of the SSCF on nursery areas along the coast. However, the majority of Swedish small-scale fishermen fish in private owned waters which is an incitement for sustainable usage. In this context, note that most often selective gears are used by the SSCF. Also, discarded fish and shell-fish from passive gears, especially pound nets, trap nets and fyke nets, are presumed to have very high survival rates.

Table 6.1.22.1.1 – Sweden, Baltic Sea, 2012

Year	2012											
Region	Baltic Sea											
Vessel Length	Number of vessels (Fishing fleet register)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings (kg)	%	Total value of landings (SEK)	%
0-8 m	224	39	224	39	18793	40	18625	44	739189	0	22384977	3
8-10 m	129	22	129	22	9176	20	9782	23	1093199	1	18110500	3
10-12 m	125	21	125	21	7702	17	7692	18	2949721	2	43912124	6
above 12 m	104	18	104	18	10905	23	6592	15	161315371	97	632875881	88
Total	582	100	582	100	46576	100	42691	100	166097480	100	717283482	100

Table 6.1.22.1.2 – Sweden, North Sea and Eastern Arctic, 2012

Year		2012										
Region		North Sea and Eastern Arctic										
Vessel Length	Number of vessels (Fishing fleet register)	%	Number of active vessels	%	Total Days at Sea	%	Total Number of trips	%	Total weight of landings (kg)	%	Total value of landings (SEK)	%
0-10 m	288	65	288	65	16033	51	15909	54	687622	9	42567526	13
10-12 m	67	15	67	15	5212	17	5363	18	1072579	15	44089984	13
above 12 m	90	20	90	20	10236	33	8374	28	5549254	76	248747933	74
Total	445	100	445	100	31481	100	29646	100	7309455	100	335405443	100

- *Methodology (census, sampling methods and raising strategies) used to produce transversal data in response of DCF requirements with a special focus on the small-scale fisheries*

Transversal data are collected by census according to prevailing EU regulations. Data are then stored at the Swedish Agency for Marine and Water Management (SwAM), which is the authority responsible for implementing these regulations. This does not hold for the effort variable “fuel consumption”, together with other cost related variables demanded under DCF, where instead a survey (questionnaire) is undertaken to collect these variables. Information on data sources is presented in Tables 6.1.22.2.1-5.

In the Baltic region, crews of all vessels 8 meters or longer are obliged to fill in the EU logbook (with an exception for vessels in SD 29-32 not targeting cod and who are using passive gears and not landing abroad). In the North Sea and Eastern Arctic region, the logbook requirement holds for all vessels 10 meters or longer. For vessels less than 8 (Baltic) or 10 (North Sea and Eastern Arctic) meters, it is possible to fill in the EU logbook on a voluntary basis.

Regarding effort data, the time in an area is calculated for vessels with EU logbook using spatial data stored trip by trip based on the best available information from VMS, AIS, effort reports, inspection (sighting etcetera) and/or logbook.

All Swedish vessel crews filling in the logbook are required to register on a haul by haul basis (mandatory to fill in all landings together with discarded species for each species of 50 kg or more). The information regarding seal-induced damages in the EU logbook is taken into account when the Swedish authorities disburse funds from the wildlife damage appropriation to affected fishermen.

For vessels not carrying an EU logbook, there is a requirement to fill in a national coastal journal every month (or more frequently), where data are reported at an aggregated level. At the end of each calendar month, it is compulsory to report to SwAM no later than two days after the last day of the current month. For vessels targeting salmon, data on landings have to be reported electronically every 48 hours. For other vessel operators it is possible to choose filling in the journal either on paper or electronically.

Information collected in the national coastal journal includes activity, gear capacity, days at sea/fishing sea (calendar day, not 24 hour period), approximate position, landings and seal-induced damages. It is also possible to supplement information on discard. To monitor the escalating conflict between the fisheries and the seal population, especially in the Baltic, is of great importance and here, the information regarding seal-induced damages is essential. However, effort data collected in the Swedish coastal journey are not always reported at a sufficient detailed level to be useful in various precise analyses.

Comprehensive validations are made during the database entry for data from both logbooks and coastal journals to evaluate data quality. Besides, trip information in logbooks is crosschecked to verify catch and catch area.

Regarding response rate, it is mandatory for all vessel crews to report data and until this obligation is fulfilled, reminders and finally legal implications will follow. Therefore, official statistics have nearly full coverage and no raising strategies are carried through.

- **Data sources for Transversal variables by type of variables (Effort, Specific effort (gear characteristics), Landings) and for each part of the fleet (SSCF, LSF)**

Table 6.1.22.2.1 – Sweden, Baltic Sea, less than 8m, 2012

Year	2012	Transversal data variables estimated			
Region	Baltic Sea	Effort data			
Vessel Length	0-8 m	Capacity data	Fishing effort data	Additional effort data	Landings data
Data Source	Type				
National EU Fishing Fleet Register	Census	yes	yes		
EU Logbook ^{1, 2}	Census		yes	yes	yes
Spatial data sources ³	Census				
Landing declaration	Census				yes
National coastal journal	Census		yes	yes	yes
Sales notes	Census				yes
Survey (fuel consumption)	Census			yes	

Table 6.1.22.2.2 – Sweden, Baltic Sea, 8-10m, 2012

Year	2012	Transversal data variables estimated			
Region	Baltic Sea	Effort data			
Vessel Length	8-10 m	Capacity data	Fishing effort data	Additional effort data	Landings data
National EU Fishing Fleet Register	Census	yes	yes		
EU Logbook ^{2, 4}	Census		yes	yes	yes
Spatial data sources ³	Census				
Landing declaration	Census				yes
National coastal journal	Census		yes	yes	yes
Sales notes	Census				yes
Survey (fuel consumption)	Census			yes	

Table 6.1.22.2.3 – Sweden, Baltic Sea, above 10m, 2012

Year	2012	Transversal data variables estimated			
Region	Baltic Sea	Effort data			
Vessel Length	above 10 m	Capacity data	Fishing effort data	Additional effort data	Landings data
National EU Fishing Fleet Register	Census	yes	yes		
EU Logbook ²	Census		yes	yes	yes
Spatial data sources ³	Census				
Landing declaration	Census				yes
Survey (fuel consumption)	Census			yes	

Table 6.1.22.2.4 – Sweden, North Sea and Eastern Arctic, less than 10m, 2012

Year		2012			
Region		North Sea and Eastern Arctic			
Vessel Length		0-10 m			
		Transversal data variables estimated			
Data Source	Type	Effort data			
		Capacity data	Fishing effort data	Additional effort data	Landings data
National EU Fishing Fleet Register	Census	yes	yes		
EU Logbook ^{1, 2}	Census		yes	yes	yes
Spatial data sources ³	Census				
Landing declaration	Census				yes
National coastal journal	Census		yes	yes	yes
Sales notes	Census				yes
Survey (fuel consumption)	Census			yes	

Table 6.1.22.2.5 – Sweden, North Sea and Eastern Arctic, above 10m, 2012

Year		2012			
Region		North Sea and Eastern Arctic			
Vessel Length		above 10 m			
		Transversal data variables estimated			
Data Source	Type	Effort data			
		Capacity data	Fishing effort data	Additional effort data	Landings data
National EU Fishing Fleet Register	Census	yes	yes		
EU Logbook ²	Census		yes	yes	yes
Spatial data sources ³	Census				
Landing declaration	Census				yes
Survey (fuel consumption)	Census			yes	

¹ All vessels trawling or fishing with purse seine. All vessels landing abroad. Possible for vessels to choose using EU logbook instead of national coastal journal.

² Additional information (haul by haul records)

³ For EU logbook vessels, best available information from VMS, AIS, logbooks, effort reports and/or inspection (sighting etc).

⁴ Vessels in ICES SD 29-32 not targeting cod are excluded, if fishing with passive gears and not landing abroad.

6.2 Conclusions of the review

The collection of transversal data for vessels < 10 meters requires a regional approach.

In the Mediterranean Sea the vessels < 10 meters represent an important share of the total fleet not only in terms of number of vessels and employment but even in terms of contribution to total landings and total revenues. In addition, the **sampling approach** is the data collection strategy applied as it is considered the most cost effective. It is the same case in the overseas regions. In other European regions (Baltic sea, Atlantic Ocean and North Sea), the vessels < 10 meters represent usually a high share of the total fleet in terms of number of vessels but its contribution to the total production could be negligible. In these regions, transversal data are mainly collected through a **census approach** using declarative forms (coastal logbooks, monthly reports, landings declaration, monthly declarative forms, sales notes, ...) covering all the trips and adapted to the SSCF sectors.

The group observed that logbooks were used in some MS to collect transversal data for vessels not under logbook obligation. In the Baltic region, logbooks are mandatory for vessels > 8 meters. Nevertheless, in many countries, adapted declarative forms are used to collect data on SSF. The group agreed that, generally, logbooks are not adapted to the special features of small vessels. Some MS apply statistical techniques to treat the non responses and to estimate the share of information not collected through the declarative forms. The group considered that the assessment of the completeness and quality of declarative forms was an issue that would require much attention by MS.

Some further analysis showed that in the segment of vessels < 10 meters there exists a great concentration in terms of landings. In some areas less than 15% of the vessels of this segment summed up 50% of the total landings of the segment (figure 1). This is also true in terms of number of annual fishing days. The group considered that this issue should be further analysed in order to reduce bias in total estimates and to optimise precision and cost efficiency of the data collection (see also PGECON 2013 report).

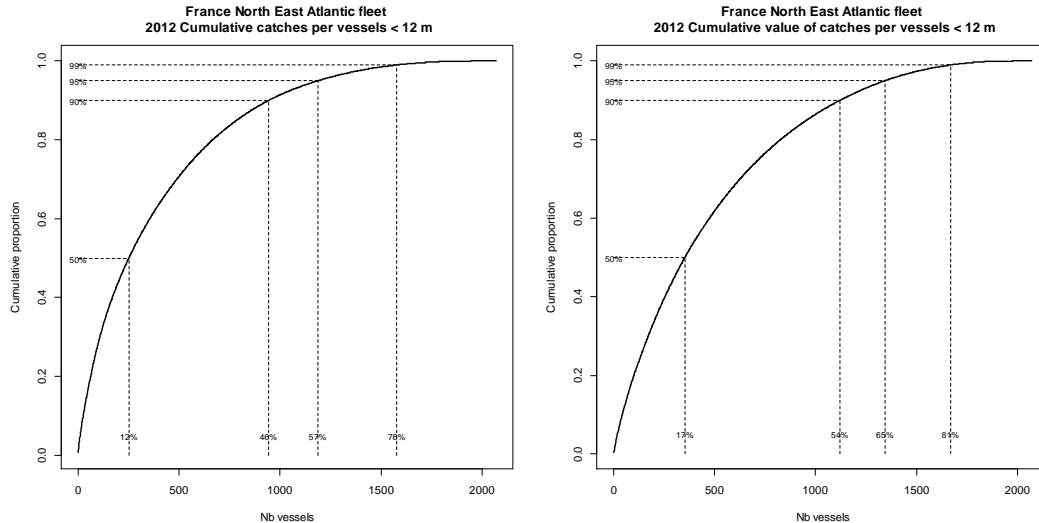


Figure 6.2.1: cumulative catches (left panel) and value of the catches (right panel) for the French North Atlantic SSF

7. Input of modern techniques (CCTV, mobile phone apps or geolocalization data) to improve the estimated statistics.

The PGCCDBS suggested that the group should have a special focus on the input that modern techniques such as CCTV or mobile phone apps could have for reporting fishing activities. The group enlarged this recommendation to all modern techniques including those collecting geo-localization data and discussed the input that such modern techniques could have to improve the estimated statistics.

A France scientific project named RECOPECA (see annex2) has been presented during the workshop. It consists in fitting out a sample of voluntary fishing vessels with sensors recording data on fishing effort, catches and physical parameters. Specific devices have been developed to be fixed up on fishing gears, self powered, autonomous, affordable and able to run without any intervention of the fisherman neither trouble for the fishing activity. A specific sensor allows to record physical parameters (temperature and salinity) at the bottom and along the water column, pressure (and thus depth) and duration of immersion. Another specific sensor, hauler revolution counter, has been specified to equip the hauler of passive gear (gill-nets, pots or lines) and record the number of turns, from which is deduced the number or length of passive gears hauled at each fishing operation. An on-board scale has also been developed to record catches per species and fishing operation.

Each sensor has been equipped with a radio device transferring the data to a receiver on-board, called “concentrator”. This box contains a GPS device and a GPRS card for the transmission of data at land once the vessel is within range of GPRS network.

This near-real time monitoring system has been implemented onboard around 70 vessels, representative of different metiers, fleets and sectors.

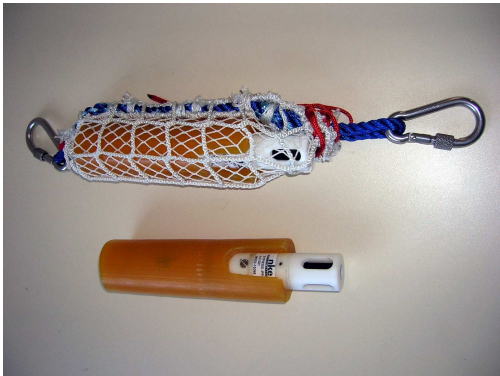


Figure 7.1 Temperature-conductivity-depth sensor



Figure 7.2 The hauler revolution counter fixed in a gill-net hauler



Figure 7.3 Recopesca weigh-scale (pan and command module)

Generic algorithms (*AlgoPesca* software) have been developed to process GPS data. It consists in identifying the fishing trip, including the date and port of the beginning and the end of the fishing trip, the fishing and streaming period and the different fishing sectors. The process is based on the analysis of the vessel's speed and the distance for the nearest port.

Other algorithms have been carried out to process data from the sensors implemented onboard and on the gears, especially the depth and duration of immersion, to rebuild precisely the different fishing operations of the trip. These analyses are also used to gain information on fishing practices and speed, valuable to properly define the parameters of the algorithms based only on GPS data.



Figure 7.4 Concentrator of data onboard

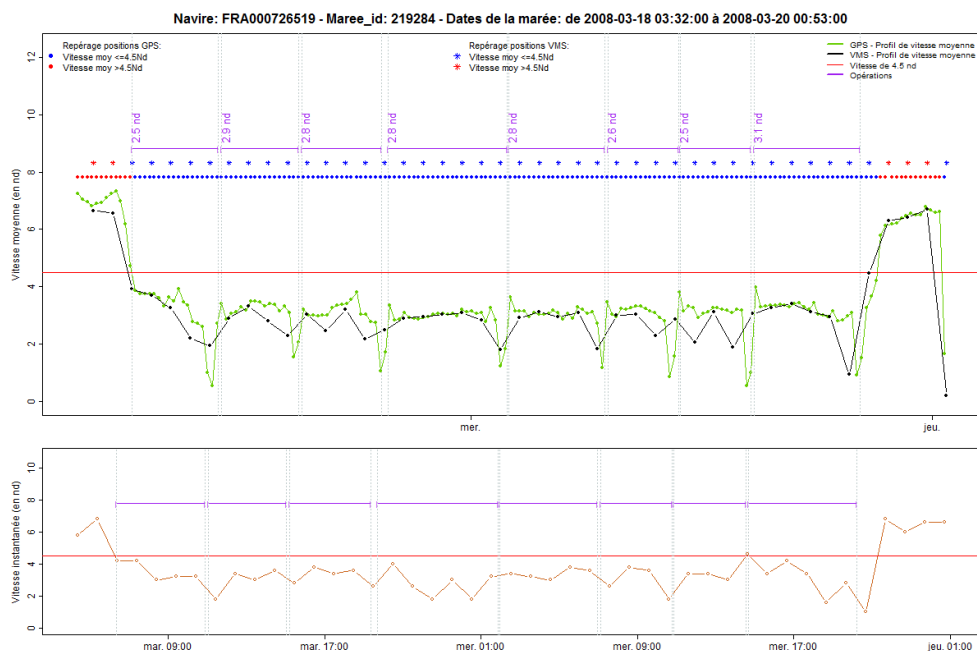


Figure 7.5 Example of graphs produced by the Recopesca application for a trawler fishing trip between March 18 and 20 March.

The first graph shows the average speed profile calculated on the basis of GPS positions (green curve) and average speed profile from VMS positions (available only for vessels over 15m, black curve). The red line indicates the threshold of 4.5 knots used to distinguish fishing and steaming periods. The dates of GPS and VMS recordings are represented respectively by dots and asterisks: blue when the average speed between two points is less than 4.5 knots, and red when the average speed is more than 4.5 knots. The purple segments indicate fishing operations, based on the deep profile of sensors positioned on the gear. Above each purple segment is shown the average speed of the vessel when the gear is at the bottom. The second graph shows the profile of instantaneous speed (provided by the VMS only) and includes the purple segments of fishing operations.

French Ministry of Fisheries is also setting up a project to provide 850 voluntary vessels with a GPS to have a large database of geo-localization data in order to ameliorate estimates and enhanced knowledge of the French fleets.

Denmark presented two different systems that have been tested and where one of the systems is now mandatory to use in mussel dredge fisheries. The other system has been used when conducting scientific trials on fully documented fishery and how catch quota management can be implemented.

Denmark has been using a GPS and sensor system that has been obligatory for common mussel fishers in the Limfjorden since March 2012. 39 Danish boats have been equipped with a near-real time monitoring system to facilitate the enforcement of closed areas in a certain region. This system has proven to be effective, cost-efficient and easy to operate on a daily routine. The Anchor Lab Black Box R100 system has been developed in Denmark by Anchor Lab, Copenhagen and consists of an easy-to-mount box sporting GPS, GSM (for data transmission), a memory card and analogue ports for connecting trawl sensors like pressure and rotation sensors. Based on the data gained, insight is provided in the fishing activities in a certain area through maps, as well as overviews of sensor activities to discriminate fishing from e.g. steaming and processing. The following images provide a basic insight in system work flow and examples of the output.

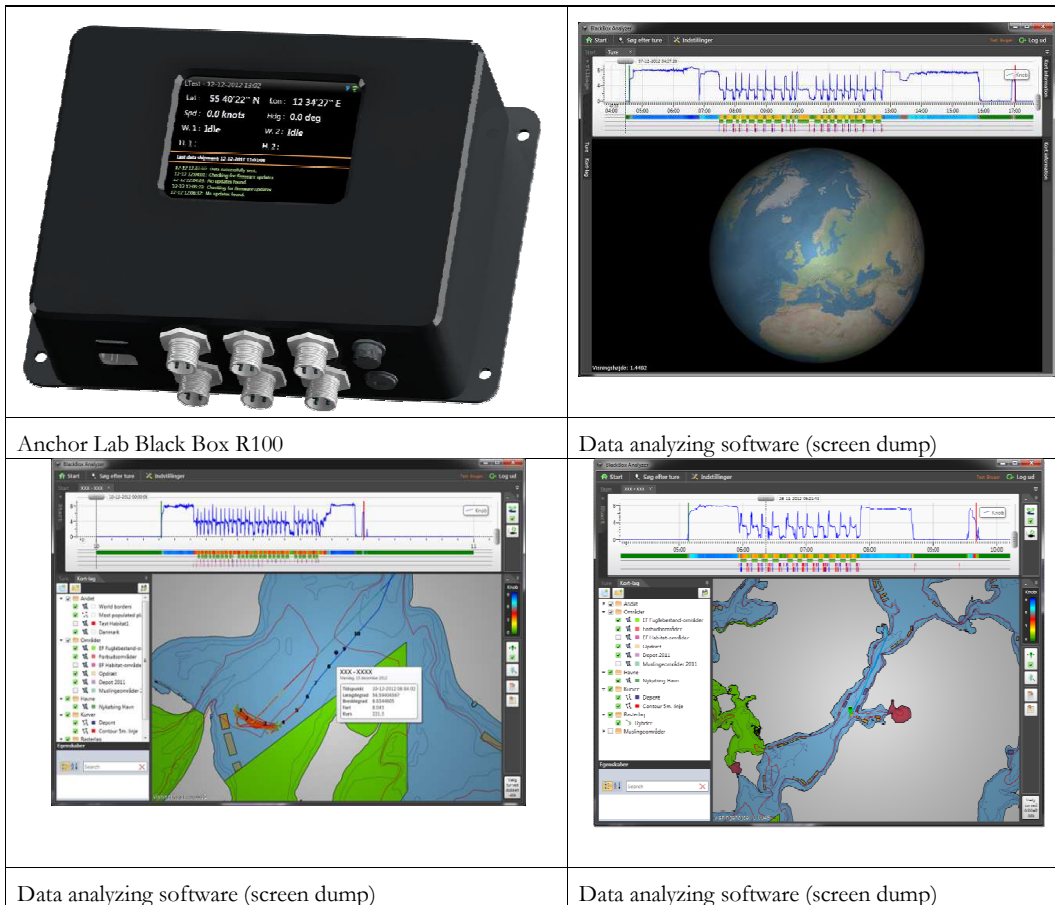


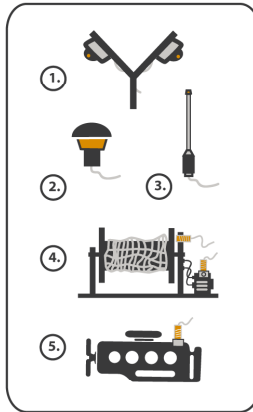
Figure 7.6 Basic insight in system work flow and examples of the output of GPS and Sensor system used in Denmark to follow mussel dredge fisheries.

A new electronic monitoring system has been developed Anchor Lab. This system is based on the Black Box system R100 including up to 8 IP cameras. A description of the system is shown below.

BlackBox VX Surveyor

A modern monitoring system

- ★ High frequency recording of position, sensor and CCTV video data.
- ★ Integration and enrichment of other on-board systems, eg. traceability and e-logbook applications.
- ★ Automatic and customizable transmission of position and selected sensor data in near real-time.



1. High resolution IP cameras
2. Precise position & speed via GPS
3. Multi-band communication (GSM, Sat, Wifi)
4. Operation sensors (winches, hydraulic)
5. Efficiency sensors (eg. fuel consumption)

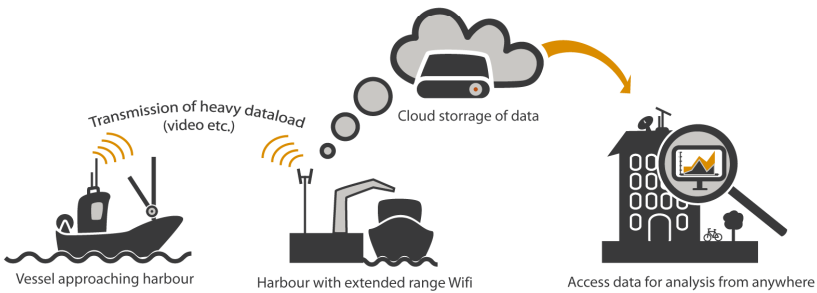


Figure 7.7 BlackBox VX Surveyor

An electronic monitoring system comprised of a GPS, a hydraulic pressure sensor, a winch rotation sensor and up to eight CCTV cameras has also been tested in Denmark. The system has been developed by Archipelago Marine Research Ltd. Victoria, Canada.

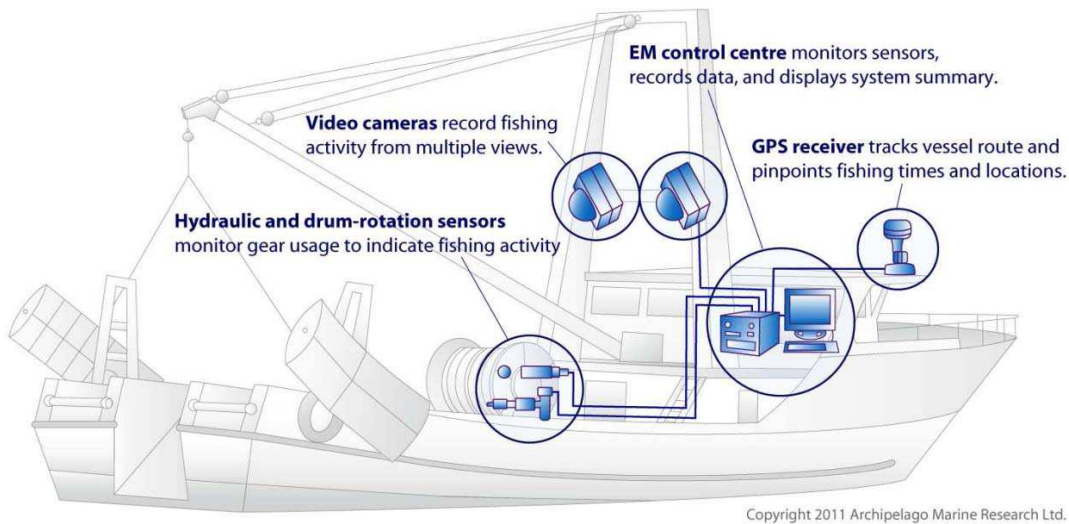


Figure 7.8 Archipelago system

The Archipelago system has been tested in order to see whether system can be used to verify fishers recording in the logbook and whether discarding can be detected.

Both systems can easily be used to record temporal and spatial distribution of the fisheries at very scale as GPS data is recorded every 10 second. These data is therefore useful when managing MPA's, spatial management, the CFP and the MSFD.

Trials using the Archipelago system are carried out in Scotland, England, Germany, the Netherland, USA, Australia, New Zealand and it is used as a control tool in British Columbia, Canada fisheries.

In fact, the modern techniques have had recently a growing interest all around the world. For example, in the 7th International Fisheries Observer & Monitoring Conference (8-12 april 2013, Vina Del Mar, Chile), two sessions (3a & 3b) were dedicated to this issue with the following objectives:

Session 3a: *What are the future trends in fisheries monitoring programs?*

Objective: *There is growing interest in the use of electronic monitoring (EM), often based on the notion that this may be a more cost effective and practical option. Over the past decade, EM has been tested across a wide variety of fisheries and, while the user base is expanding, examples of implemented EM programs are still very limited, suggesting that there are challenges in getting traction with this approach. The purpose of this session is to examine different test cases to better understand implementation issues and lessons learned.*

Session 3b: *What are the future trends in fisheries monitoring programs?*

Objective: *There is growing interest in the use of electronic monitoring (EM), i.e., video monitoring, often based on the notion that this may be a more cost effective and practical option. However, EM can include other electronic technologies such as E-logbooks, handheld devices for data entry, and data collection software. The purpose of this session is to examine other electronic technologies used to collect and analyze observer data.*

In this context, the group discussed the inputs such methodology could have to best assess the SSCF fishing sectors. The group focussed especially on the input that new geo-localization data (as VMS or GPS data extended to the fleet segment of vessels less than 12m) could have for CFP and spatial management. The group concluded that the usefulness of such information could not be ignored and that these technical instruments must be supported in the next DC-MAP by helping the implementation of pilot or trial studies. The group suggested that an incentive approach instead of a top down approach should be promoted. Moreover, the group recommended member states to work together in the future, e.g. on extension/improvement of open source applications and development of tools to process data.

8. Minimum requirement to answer the different regulations

The new CFP and its financial instruments

The small-scale coastal fleets assume a priority importance in the new CFP. In the proposal for a new regulation of the European Parliament and of the Council on the common fisheries policy COM (2011) 425, the Commission considers that the CFP should contribute to increased productivity, a fair standard of living for the fisheries sector including small scale fisheries, stable markets, ensure the availability of resources and that supplies reach consumers at reasonable prices.

The Commission, in developing its proposal, has taken due account introduction of more market-based instruments while taking into consideration the specific characteristics of small-scale fleets.

The social and economic importance of small-scale coastal fleets and aquaculture in certain regions calls for specific measures for these fleets. The measures should support green, smart and inclusive growth and should contribute to sustainable, low-impact fishing and aquaculture, innovation, income diversification, reconversion, improvement of science and a culture of compliance.

The main tool of the new CFP to achieve its objectives is the new European Maritime and Fisheries Fund (EMFF). Compared to the European Fisheries Fund (EFF), the EMFF brings about a fundamental change of approach to public funding to the fisheries sector through a focus on collective actions and on the viability of coastal areas rather than fleet subsidies benefiting mostly vessel owners. Therefore, the EMFF proposes to eliminate most of the current fleet measures and instead use this part of the funding for achieving economic viability of the fleets and aquaculture sector (innovation, value added and marketing) and for the promotion of the development and diversification of areas depending on fishing. The EMFF focuses on people, particularly small scale fishermen and on coastal areas depending on fishing.

The focus on small scale fishermen is achieved by the inclusion of dedicated measures (such as business advisory services), by a higher aid intensity and by the creation of the link between the financial allocation and the share of these fleets.

Management Plan in the Mediterranean Sea

Article 19 of Reg. (EC) 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea obliges each Member State to prepare a Management Plan for the fishing segments including specific local management plans for the small scale fishery.

Each national Management plan should contain:

- a. the state of conservation of a fish stock or stocks;
- b. the biological characteristics of a fish stock or stocks;
- c. the characteristics of the fishing activities which result in fish stocks being caught;
- d. the economic impact of the measures on the fishing activities concerned.

Therefore, complete data on the small scale fishery should be available.

Marine Strategy Framework Directive (MSFD)

The Marine Strategy Framework Directive (MSFD) adopted in July 2008 aims at achieving or maintaining a good environmental status of the Marine Environment by 2020 at the latest. It is the first legislative instrument in relation to the marine biodiversity policy in the European Union, as it contains the explicit regulatory objective that "biodiversity is maintained by 2020", as the cornerstone for achieving good environmental status. It enshrines in a legislative framework the ecosystem approach to the management of human activities having an impact on the marine environment, integrating the concepts of environmental protection and sustainable use. In order to achieve the objective the Member States have to develop Marine Strategies which serve as Action Plans and which apply an ecosystem-based approach to the management of human activities. An important point is the regional cooperation required at each stage.

The Commission Decision on criteria and methodological standards on good environmental status (GES) of marine waters in the framework of Article 9 (3) of the MSFD contains a number of criteria and associated indicators for assessing good environmental status, in relation to the 11 descriptors of good environmental status.

For the descriptor 3: "Population of commercial fish / Shell fish", good knowledge of the SSCF is essential as they are an integral part of the European coastal zone and as they are assessed to have a great impact on local ecosystem.

Natura 2000

Natura 2000 is the centerpiece of EU nature & biodiversity policy. It is an EU wide network of nature protection areas established under the 1992 Habitats Directive. The aim of the network is to assure the long-term survival of Europe's most valuable and threatened species and habitats. It is comprised of Special Areas of Conservation (SAC) designated by Member States under the Habitats Directive, and also incorporates Special Protection Areas (SPAs) which they designate under the 1979 Birds Directive. Natura 2000 is not a system of strict nature reserves where all human activities are excluded. Whereas the network will certainly include nature reserves most of the land is likely to continue to be privately owned and the emphasis will be on ensuring that future management is sustainable, both ecologically and economically. The establishment of the network of protected areas also fulfils a Community obligation under the UN Convention on Biological Diversity. Natura 2000 applies to Birds Sites and to Habitats Sites, which are divided into biogeographical regions. It also applies to the marine environment.

In the context of emergence of many NATURA 2000 sites in the marine environment, improving knowledge about SSCF will be of a great importance as these segments of fleet are estimated to have an important impact on local ecosystem.

Marine Protected Area

One of the most frequent approaches to the sustainable management of fragile coastal ecosystems is the creation of marine protected areas (MPAs). National Marine Protected Area Center defines MPA as areas where natural and/or cultural resources are given greater protection than the surrounding waters. So, Marine protected areas, like any protected area, are regions in which human activity has been placed under some restrictions in the interest of conserving the natural environment, its surrounding waters and the occupant ecosystems, and any cultural or historical resources that may require preservation or management. Marine protected areas' boundaries will include some area of ocean, even if it is only a small fraction of the total area of the territory.

Many marine protected area are currently in force within the European coastal zone. In this context improving knowledge about SSCF is of major importance as their activity in such area is frequently very high and has to be assessed.

Conclusion and control regulations:

In relation with the aforementioned regulations and requirements, the group agreed that it can be essential to estimate the fishing activities of SSCF or the fleet segment of vessels <10m. This should be regionally assessed in detail by RCGs, as initially recommended. Its relative importance should be assessed in terms of annual fishing days, volume and value of catches. Impact on ecosystem and spatial distribution of effort can be of major importance. The group agreed that there could be differences between regions and that a regional approach has to be supported.

The control regulation provisions (see annex 2) have been presented during the workshop. It was clear that transversal data were mandatory under this regulation (Council Regulation 1224/2009 and its implementation regulation Commission Regulation 404/2011) as in the fleet register regulation (Council Regulation 26/2004) including the fleet segment less than 10m. Control regulation gives also provisions for implementing a sampling scheme when “census” approach could not be applied.

The group discussed the issue and agreed on the following conclusion reported in the report of STECF EWG 13-02:

The collection of transversal data is partly included in other EU regulations (Control Regulations: Council Regulation (EC) 1224/2009 and Commission Implementation Regulation (EU) 404/2011). As a general principle duplication of data collection requirements should be avoided. It needs to be ensured, however, that data collected under other regulations is available to DC-MAP end users where relevant (see end user section). If the quality of the data collected under other regulations does not meet the requirements in the DC-MAP (see section 9) collection of the data concerned could be included in the DC-MAP. Before such a measure is taken it should be investigated if it is possible to improve the quality in the primary data source. If that is not possible the EWG 13-02 suggests that the Commission and Member States consider if it is feasible to use the DC-MAP as primary data source to avoid duplication of collection requirements. To this end it would be useful to have in the DC-MAP flexibility to use data collected under other regulations and vice versa (see section on recreational fisheries below).

9. Proposals for new DC-MAP requirements

The group considered that the present DCF requirements for the vessels < 10 meters are too much detailed and that a broad range of information required by the current DCF has not been used so far.

In addition, the group considered that the collection of very detailed effort variables was cost-inefficient in the case of no logbook obligation, considering the specificity of the fleet.

The group reviewed the present requirements (appendix VIII of EC Commission Decision 93/2010) and proposed the following list of transversal data to be collected for vessels < 10 meters.

Table 9.1 - List of transversal data to be collected for vessels less than 10 meters

Heading	Variable	Unit	Description	Coverage	Activity segmentation	Reference Period
Capacity	Number of vessels	Number	Total number of vessels	Community Fishing Fleet Register	Fleet segment	
	GT	Number	Total GT of the vessels in the segment	Community Fishing Fleet Register	Fleet segment	
	kW	Number	Total kW of the vessels in the segment	Community Fishing Fleet Register	Fleet segment	

	Vessel Age	Number	Average AGE of the vessels in the segment	Community Fishing Fleet Register	Fleet segment	
Effort	Days at sea	Day	any continuous period of 24 hours (or part thereof) during which a vessel is present within an area and absent from port;	Active vessels	Fleet segment and gear (level 3)	Quarterly
	Number of trips	Number	Fishing trip: means any voyage by a fishing vessel from a land location to a landing place, excluding non-fishing trips (a trip by a fishing vessel from a location to a land location during which it does not engage in fishing activities and during which any gear on board is securely lashed and stowed and not available for immediate use);	Active vessels	Fleet segment and gear (level 3)	Quarterly
	GTDays	GT.Day	Derived variable from calculated Days at sea by vessel (by segment) multiplied by each vessel gross tonnage (average GT of the segment).	Active vessels	Fleet segment and gear (level 3)	Quarterly

	kWDays	kW.Day	Derived variable from calculated Days at sea by vessel (by segment) multiplied by each vessel gross tonnage (average kW of the segment).	Active vessels	Fleet segment and gear (level 3)	Quarterly
	Number of vessels	Number		Active vessels	Fleet segment and gear (level 3)	Quarterly
Landings	Value of landings totals and per species	Euro	Value of landings total and per species	Active vessels	Fleet segment and gear (level 3)	Quarterly
	Live weight of landings	Tons	Live weight of landings total and per species. Weight in kg or tonnes declared on landing.	Active vessels	Fleet segment and gear (level 3)	
	Prices by species	Euro/kg	Price per kg of species landed	Active vessels	Fleet segment and gear (level 3) Level of processing	Quarterly

The inclusion of the variable ‘number of vessels’ by gear in the list of basic data requirements for vessels < 10 meters was deeply discussed by the group and no final conclusion was reached. Some participants considered that this variable was essential to assess the activity of these vessels, to define the sampling scheme for the collection of other transversal data and to calculate raising factors for biological sampling of these fleets. However, some other participants argued that the variable ‘number of vessels’ by gear was not giving additional information with respect to the other effort variables (such as for instance the days at sea) and it could be difficult to estimate.

The data requirements illustrated in the previous table should be integrated in the context of the new DC-MAP governance that will be implemented to allow a certain degree of flexibility in the system. The table includes the core mandatory requirements. In addition to this, RCGs could suggest the inclusion of other additional variables or a more detailed level of aggregation.

End users should be able to request additional information for specific métiers and specific component of vessels < 10 meters. This additional information could be related to the disaggregation level (spatial, technical and temporal) and/or to the collection of more detailed effort variables (soaking time, number of nets, etc.). However, RCGs should assess the feasibility to collect such additional information. End users needs and possible impact on data collection programs should be reviewed in the Regional Coordination Groups.

Apart from the basic information presented in the table, RCGs should be responsible for the management of the additional list of transversal variables and of the more detailed level of aggregation.

In addition to the variables listed in the previous table, the group considered that an indicator of the spatial distribution of the effort deployed by vessels < 10 meters could be of high interest for scientific and management purposes. This indicator should give information on the changes in the distribution of fishing activity resulting from catch controls, effort controls or technical measures (including MPA established in support of conservation legislation) and to the development of any other human activities that displace fishing activity (e.g. aquaculture farms). Fishery independent tools (electronic device) should be used (see paragraph 5) to collect such information. The group suggested the inclusion in the DC-MAP of a provision for pilot studies coordinated at regional level to propose the methodology and to assess the cost for collecting information on the spatial distribution of the effort deployed by vessels < 10 meters.

10. Propose guidelines to produce the different types of transversal variables for the vessels under 10m

Discussions during the workshop together with the presentations made by the participants made it possible to conclude that there are two different types of data collection methodologies currently applied to estimate transversal data of vessels less than 10 meters:

- In the Mediterranean and Overseas Regions a sample survey is applied because it is considered more cost effective and it allows the assessment of reliability of final estimates through the application of sampling techniques. Moreover, the implementation of declarative forms like logbooks for vessels < 10 meters appears to be inappropriate considering the characteristics of this fleet and would imply high costs for data inputs and data control considering the big number of vessels and fishing trips
- In other European regions, a declarative approach is used. In some cases logbook or coastal registers are cross checked with sales notes to verify the completeness of the information received. Some countries apply statistical techniques to treat the non respondents and to estimate the share of activity not covered by logbook.

The group considered that additional work is needed to:

- Suggest best practices for sampling scheme
- Propose methods to assess and to present to end users the completeness and the reliability of the declarative forms.

Both best practices and methods for data quality assessment should then be included in the Master Reference Register in line with other variables and as suggested by STECF EWG 13-02.

The group also considered that the present control regulation (EC Regulation n. 1224/2009) prescribes the use of sampling schemes for vessels < 10 meters⁵. Moreover, it is stated that *'each Member State shall establish a sampling plan based on the methodology adopted by the Commission and transmit it every year by 31 January to the Commission indicating the methods used for the establishment of this plan. The sampling plans shall be, as far as possible, stable over time and standardised within relevant geographical areas'*.

The Commission Implementing Regulation (EU) No 404/2011, Article 57, specifies that *'the sampling plans shall be drawn up in accordance with Annex XVI and that the size of the sample to be inspected shall be*

⁵ Article 16 EU Regulation 1224/2009, Fishing vessels not subject to fishing logbook requirements, Each Member State shall monitor, on the basis of sampling, the activities of fishing vessels which are not subject to the requirements specified in Articles 14 and 15 in order to ensure compliance by these vessels with the rules of the common fisheries policy

determined on the basis of risk? The group argued that the methodologies for sampling plan under the control regulation should be reviewed in order to assess if they are appropriate for DC-MAP requirements.

11. Final conclusions and recommendations

Definition of SSCF:

The group discussed the definition of the SSCF. SSCF is sometimes defined as vessels less than 12m. (DCF and Kavala definition, management plan ...) , but for the data collection purposes, the group agreed to focus on vessels less than 10m as they are not under logbooks requirement.

Regional approach:

The group agreed that there could be differences between regions and that a regional approach has to be supported. In the next DC-MAP regional approach will be associated with more active end-user definition of needs. End-users have to define and justify what data is necessary to support scientific advice in support of the CFP. The group agreed that the future forum preferable could be more active and more influential RCG.

Concentration of the SSCF fishing sector:

The group observed that there is a great heterogeneity in terms of volume/value of landings as well as fishing days in the SSCF fishing sectors. The group considered that this issue needs to be analysed more thoroughly in order to reduce bias in the total estimates. The group suggested that ICES or STECF is consulted to give advice on how to distinguish sub population to optimise precision and cost efficiency of the data collection.

Way to collect transversal data inside the SSCF fishing sector:

The group discussed the way to collect transversal data within the SSCF fishing sector.

Two approaches could be used:

- A “census” type with a declarative form (coastal logbooks, monthly reports, landings declaration, monthly declarative forms, sales notes ...) adapted to the SSCF.
- A “sampling” type with a statistical approach for transversal data (stratified vessels sampling, catch assessment survey ...).

The group recommended that the choice between the two options should be based on cost efficiency and reliability/quality of data.

Guidelines for appropriate sampling schemes should be developed by an expert group and made available to MS.

The group considered that the assessment of the completeness and quality of declarative forms was an issue that would require much attention by MS.

Quality level of data:

Data for the vessels less than 10m (< 8m in Baltic) are not covered by logbooks. Whatever the mean to assess and collect statistic information on these fleet segment (census or sampling), the quality of the data has to be assessed.

Input of modern techniques (CCTV, mobile phone apps or geolocalization data) to improve the estimated statistics:

The group agreed that these technical instruments provide detailed information on effort with high spatial resolution and could be supported in the next DC-MAP. The group suggested that an incentive approach instead of a top down approach should be promoted. The group encouraged member states to work together in the future, e.g. on improvement of open source application and on development of tools to process such data.

Control Regulation and DC-MAP quality level of data asked:

The group discussed under which regulation the transversal data should be collected to avoid duplication of collected data in different regulations.

The group readdressed the conclusions of the STECF EWG 13-02 meeting about transversal variables:

The collection of transversal data is partly included in other EU regulations, especially the so called control regulations (Council Regulation (EC) 1224/2009 and Commission Implementation Regulation (EU) 404/2011). As a general principle duplication of data collection requirements should be avoided and different schemes be harmonised as far as possible on the EU level or as a minimum on the regional level. It needs to be ensured, however, that data collected under other regulations is available to DC-MAP end users where relevant and that the data collected has the required quality. If the quality of the data collected under other regulations does not meet the requirements in the DC-MAP collection of the data concerned could be included in the DC-MAP. Before such a step is taken it should be investigated if it is possible to improve the quality in the primary data source. If that is not possible the EWG 13-02 suggests that the Commission and Member States consider if it is feasible to use the DC-MAP as primary data source to avoid duplication of collection requirements. To this end it would be useful to have in the DC-MAP flexibility to use data collected under other regulations and vice versa.

Minimum requirements to answer the different regulations:

The group discussed the different regulations where complete data on SSF should be available: New CFP (protects small-scale vessels sector), Management Plan in the Mediterranean Sea, Marine Strategy Framework Directive (MSFD), Natura 2000, Marine protected area ...

In relation with the aforementioned regulations and requirements, the group agreed that it can be essential to estimate the fishing activities of SSF in terms of annual fishing days, volume and value of catches. Impact on ecosystem and spatial distribution of effort can be of major importance. This should be regionally assessed in detail by RCGs, as initially recommended.

Proposals for new DC-MAP requirements:

The group discussed the requirements that have to be part of a renewed EU Regulation (future DC-MAP) and made a proposal for a core set of variables. The group proposed also tables to be filled by all member states to progress further on this issue. The task of filling the tables has been given to all NC in preparation of the forthcoming STECF meeting reviewing DC-MAP part 2 (starting 10 June).

The group considered that an indicator of the spatial distribution of the effort deployed by vessels < 10 meters could be of high interest for scientific and management purposes. Fishery independent tools (electronic device) should be used to collect such information. The group suggested the inclusion in the DC-MAP of a provision for pilot studies coordinated at regional level to propose the methodology and to assess the cost for collecting information on the spatial distribution of the effort deployed by vessels < 10 meters.

12. List of Participants

First name	Surname	Country	eMail	Organization	Title	21-mai	22-mai	23-mai
Jørgen	Dalskov	Denmark	jd@aqu.dtu.dk	DTU Aqua	Biologist	×	×	×
John	Kjersgaard	Denmark	jkj@naturerhverv.dk	Danish AgriFish Agency	Manager Statistician	×	×	×
Anssi	Ahvonen	Finland	Anssi.Ahvonen@rktl.fi	FGFRI	Manager		×	×
Pekka	Korhonen	Finland	Pekka.Korhonen@rktl.fi	FGFRI	Statistician	×	×	×
Susanne	Tärnlund	Sweden	susanne.tarmlund@slu.se	SLU AQUA	Biologist	×	×	×
Sven	Stötera	Germany	sven.stoetera@ti.bund.de	Thünen Institute for Baltic Sea	Biologist	×	×	×
Jörg	Berkenhagen	Germany	joerg.berkenhagen@ti.bund.de	Thünen SeeFisher	Economist	×	×	×
Maksims	Kovsars	Latvia	Maksims.Kovsars@bior.gov.lv	Fish. Ressources research dep.	Statistician	×	×	×
Lina	Kairyte	Lithuania	Lina.Kairyte@zuv.lt	Fisheries Service	Chief specialist	×	×	×
Rimantas	Dapsys	Lithuania	Rimantas.Dapsys@zuv.lt	Fisheries Service	Senior specialist	×	×	×
Sebastien	Demanèche	France	sdemanec@ifremer.fr	IFREMER	Statistician	×	×	×
Joel	Vigneau	France	joel.vigneau@ifremer.fr	IFREMER	Biologist	×	×	×
Fabienne	Daures	France	fabienne.daures@ifremer.fr	IFREMER	Economist	×	×	×
Olivier	Guyader	France	olivier.guyader@ifremer.fr	IFREMER	Economist	×	×	
Marie-Bénédicte	Peyrat	France	marie-benedicte.peyrat@developpement-durable.gouv.fr	DPMA	Manager	×		
Evelina	Sabatella	Italy	e.sabatella@nisea.eu	SIBM-MIPAAF	Economist	×	×	×
Lucio	Labanchi	Italy	labanchi@irepa.org	IREPA	Biologist Statiscian	×	×	×
Roberto	D'ambra	Italy	r.dambra@libero.it	UNIMAR	Biologist		×	×
Dalia	Reis	Portugal	dreis@uac.pt	DOP/UAC	Biologist	×	×	×

Annex 1: Agenda

Tuesday, 21 May 2013:

10:00-10:30 Welcoming the participants and opening of the general meeting.

Adoption of the agenda and arrangements of the workshop. *(ES & SD)*

10:30-11:30 Invited key speaker presentation. Olivier Guyader (Small Scale Coastal Fisheries in Europe)⁶. Discussion *(ES)*

11:30-12:00 Coffee Break

12:00-13:00 ToRa) Review the data collection practices (data sources, sampling methods and raising strategies) used to produce transversal variables by Member States in response to the DCF requirements with a special focus on the small-scale fisheries. (10-15' presentation + 10' discussion by Member State attending the meeting) *(SD)*

13:00-14:00 Lunch (*Ifremer Nantes Cafeteria*)

14:00-16:00 Follow up ToRa) *(SD)*

16:00-16:30 Coffee Break

16:30-18:30 ToRa) First conclusion : Review and comparison of the different methodologies used by Member states by type of variables and by fleet segment to produce transversal variables. Assessment of their consistency and accuracy notably regarding the EU fishing fleet register. Discuss the regional approach. *(ES)*

Wednesday, 22 May 2013:

9:00-9:30 ToRa) Discuss the input of moderns techniques (CCTV, mobile phone apps or geolocalization data) to improve the estimates calculated. *(SD)*

9:30-11:30 ToRa) Final conclusion and draft of the workshop report. *(SD)*

11:00-11:30 Coffee Break

11:30-13:00 ToRb) Review the different regulations (CFP, MSFD, Water directive, ...) in application and the minimum requirements associated for transversal data in small scale fisheries. *(ES)*

13:00-14:00 Lunch (*Ifremer Nantes Cafeteria*)

14:00-16:30 Follow-up ToRb). Link these requirements with the different options listed previously and asses their consistency and accuracy. *(ES)*

16:30-17:00 Coffee Break

17:00-19:00 ToRb) Final conclusion (Agree on methodological approaches and common references for addressing the issues raised in ToRa) and to link the requirements reviewed in ToRb)) and draft of the workshop report. *(SD)*

20:30 Meeting dinner in Nantes. (*registration the first day of the workshop*)

⁶ Guyader Olivier, Berthou Patrick, Koustikopoulos C., Alban Frederique, Demaneche Sebastien, Gaspar M, Eschbaum R, Fahy E, Tully O, Reynal Lionel, Albert A (2007). **Small-scale coastal fisheries in Europe. Final report.** <http://archimer.ifremer.fr/doc/00000/6348/>

Guyader Olivier, Berthou Patrick, Koutsikopoulos Constantin, Alban Frederique, Demaneche Sebastien, Gaspar M. B., Eschbaum R., Fahy E., Tully O., Reynal Lionel, Curtil Olivier, Frangoudes Katia, Maynou F. (2013). **Small scale fisheries in Europe: A comparative analysis based on a selection of case studies.** Fisheries Research, 140, 1-13. Publisher's official version : <http://dx.doi.org/10.1016/j.fishres.2012.11.008>. Open Access version : <http://archimer.ifremer.fr/doc/00118/22934/>

Thursday, 23 May 2013:

9:00-10:30 ToRc) Based on the previous discussions : propose common definitions, understanding and interpretation of the DCF Decision 2010/93/EU and suggest modifications, if needed, in view of future rewriting of the Decision in line with the current and on-going DC-MAP developments (link with the community control system regulation). Draft of the workshop report. *(ES)*

10:30-11:00 Coffee Break

11:00-12:00 ToRc) Based on the previous discussions : propose guidelines to produce the different types of transversal variables for small-scale fisheries in line with the current and on-going DC-MAP developments (link with the community control system regulation). Draft of the workshop report. *(SD)*

12:00-13:00 Conclusions, adoption of the report, end of the meeting. *(ES & SD)*

13:00-14:00 Lunch *(Ifremer Nantes Cafeteria)*

Annex 2: Presentations

Annex 2-1: Introduction

Annex 2-2: The future of Data collection_Differences DCf-DCMAP

Annex 2-3: Invited key speaker presentation (Olivier Guyader, SSCF in Europe)

Annex 2-4: ToRa – Country sections

Annex 2-4-1: ToRa – Germany

Annex 2-4-2: ToRa - Denmark

Annex 2-4-3: ToRa – Finland

Annex 2-4-4: ToRa - France

Annex 2-4-5-1: ToRa – Italy – Itsystem

Annex 2-4-5-2: ToRa – Italy – Sampling Plan

Annex 2-4-6: ToRa - Latvia

Annex 2-4-7: ToRa - Portugal

Annex 2-4-8: ToRa - Sweden

Annex 2-5: ToRa – Moderns Techniques

Annex 2-5-1: ToRa – Moderns Techniques - Introduction

Annex 2-5-2: ToRa – Moderns Techniques – Ex.France

Annex 2-5-3: ToRa – Moderns Techniques – Ex.Denmark

Annex 2-6: ToRb

Annex 2-6-1: ToRb – CFP – MSFD – Mediteranean Management Plan

Annex 2-6-2: ToRb – New CFP and presente legislation

Annex 2-7: Presentation STECF-ewg13-05

Mis en forme