

rv BALTICA

POLISH NATIONAL PROGRAMME FOR THE COLLECTION OF FISHERIES DATA FOR 2011-2013

by SEA FISHERIES INSTITUTE IN GDYNIA



and
DEPARTMENT OF FISHERIES
MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT IN WARSAW



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Table of contents

Section	Description	Page
I	General framework	6
II	Organisation of the National Programme	6
II A	National organisation and coordination	6
II B	International coordination	8
II C	Regional coordination	8
III	Module of the evaluation of the fishing sector	8
III A	General description of the fishing sector	8
III B	Economic variables	8
III B 1	Data acquisition	8
III B 1 (a)	Definition of variables	8
III B 1 (b)	Type of data collection	10
III B 1 (c)	Target and frame population	10
III B 1 (d)	Data sources	11
III B 1 (e)	Sampling stratification and allocation scheme	11
III B 2	Estimation	11
III B 3	Data quality evaluation	11
III B 4	Data presentation	12
III B 5	Regional coordination	12
III B 6	Derogations and non conformities	12
-	Baltic Sea	12
III C	Biological metier related variables	12
III C 1	Data acquisition	13
III C 1 (a)	Codification and naming convention	13
III C 1 (b)	Selection of metiers to sample	13
III C 1 (c)	Type of data collection	16
III C 1 (d)	Target and frame population	17
III C 1 (e)	Sampling stratification and allocation scheme	17
III C 2	Estimation procedures	18
III C 3	Data quality evaluation	18
III C 4	Data presentation	18
III C 5	Regional coordination	19
III C 6	Derogations and non conformities	19
	North Atlantic	19
III C	Biological metier related variables	19
III C 1	Data acquisition	19
III C 1 (a)	Codification and naming convention	19
III C 1 (b)	Selection of metiers to sample	19
III C 1 (c)	Type of data collection	19
III C 1 (d)	Target and frame population	20
III C 1 (e)	Sampling stratification and allocation scheme	20
III C 2	Estimation procedures	20
III C 3	Data quality evaluation	20
III C 4	Data presentation	20
III C 5	Regional coordination	20
III C 6	Derogations and non conformities	20

	North Sea and Eastern Arctic	21
III C	Biological metier related variables	21
III C 1 (b)	Selection of metiers to sample	21
III C 6	Derogations and non conformities	21
	Other regions	21
III C	Biological metier related variables	21
III C 1	Data acquisition	21
III C 1 (a)	Codification and naming convention	21
III C 1 (b)	Selection of metiers to sample	21
III C 1 (c)	Type of data collection	22
III C 1 (d)	Target and frame population	22
III C 1 (e)	Sampling stratification and allocation scheme	22
III C 2	Estimation procedures	22
III C 3	Data quality evaluation	22
III C 4	Data presentation	22
III C 5	Regional coordination	23
III C 6	Derogations and non conformities	23
III D	Biological recreational fisheries	23
III D 1	Data acquisition	23
III D 1 (a)	Type of data collection	24
III D 1 (b)	Target and frame population	24
III D 1 (c)	Data sources	24
III D 1 (d)	Sampling stratification and allocation scheme	24
III D 2	Estimation procedures	25
III D 3	Data quality evaluation	25
III D 4	Data presentation	25
III D 5	Regional coordination	25
III D 6	Derogations and non conformities	26
	Baltic Sea	26
III E	Biological stock-related variable	26
III E 1	Data acquisition	26
III E 1 (a)	Selection of stocks to sample	26
III E 1 (b)	Type of data collection	27
III E 1 (c)	Target and frame population	27
III E 1 (d)	Sampling stratification and allocation scheme	28
III E 2	Estimation procedures	28
III E 3	Data quality coordination	28
III E 4	Regional coordination	28
III E 5	Derogations and non conformities	28
	North Atlantic	28
III E	Biological stock-related variable	28
III E 1	Data acquisition	28
III E 1 (a)	Selection of stocks to sample	28
III E 1 (b)	Type of data collection	28
III E 1 (c)	Target and frame population	29
III E 1 (d)	Sampling stratification and allocation scheme	29
III E 2	Estimation procedures	29
III E 3	Data quality coordination	29
III E 4	Regional coordination	29

III E 5	Derogations and non conformities	29
	North Sea and Eastern Arctic	29
III E	Biological stock-related variable	29
III E 1	Data acquisition	29
III E 1 (a)	Selection of stocks to sample	30
III E 5	Derogations and non conformities	30
	Other regions	30
III E	Biological stock-related variable	30
III E 1	Data acquisition	30
III E 1 (a)	Selection of stocks to sample	30
III E 1 (b)	Type of data collection	30
III E 1 (c)	Target and frame population	30
III E 1 (d)	Sampling stratification and allocation scheme	31
III E 2	Estimation procedures	31
III E 3	Data quality coordination	31
III E 4	Regional coordination	31
III E 5	Derogations and non conformities	31
III F	Transversal variables	31
III F 1	Capacity	31
IIIF11	Data acquisition	31
III F 1 2	Data quality evaluation	31
III F 2	Effort	31
IIIF21	Data acquisition	31
III F 2 2	Data quality evaluation	32
III F 2 3	Data presentation	32
III F 2 4	Regional coordination	32
III F 2 5	Derogations and non conformities	32
III F 3	Landings	32
IIIF31	Data acquisition	32
III F 3 2	Data quality evaluation	32
IIIF33	Data presentation	32
IIIF34	Regional coordination	32
IIIF35	Derogations and non conformities	32
III G	Research surveys at sea	32
III G 1	Planned surveys	32
III G 2	Modifications in the surveys	34
III G 3	Data presentation	34
III G 4	Regional coordination	34
III G 5	Derogations and non conformities	35
IV	Module of the evaluation of the economic situation of the aquaculture	35
	and the processing industry	
IV A	Collection of economic data for the aquaculture	35
IV A 1	General description of the aquaculture sector	35
IV A 2	Data acquisition	35
IV A 2 (a)	Definition of variables	35
IV A 2 (b)	Type of data collection	36
IV A 2 (c)	Target and frame population	36
IV A 2 (d)	Data sources	37
IV A 2 (e)	Sampling stratification and allocation scheme	37

IV A 3	Estimation	37
IV A 4	Data quality evaluation	37
IV A 5	Data presentation	37
IV A 6	Regional coordination	37
IV A 7	Derogations and non conformities	37
IV B	Collection of data concerning the processing industry	37
IV B 1	Data acquisition	37
IV B 1 (a)	Definition of variables	37
IV B 1 (b)	Type of data collection	38
IV B 1 (c)	Target and frame population	38
IV B 1 (d)	Data sources	39
IV B 1 (e)	Sampling stratification and allocation scheme	39
IV B 2	Estimation	39
IV B 3	Data quality evaluation	39
IV B 4	Data presentation	39
IV B 5	Regional coordination	39
IV B 6	Derogations and non conformities	39
V	Module of the evaluation of effects of the fishing sector on the marine	39
	ecosystem	
VI	Module for management and use of the data	40
VI A	Management	40
VI B	Use of the data	41
VII	Follow-up STECF recommendations	42
VIII	List of derogations	43
IX	List of acronyms and abbreviations	44
X	Comments, suggestions and reflections	45
XI	References	45
XII	Annexes	46

I. General framework

This document describes the Polish Programme for the collection of fishery data from the Polish fishery sector planned for 2011-2013. The programme has been developed in accordance with Council Regulation (EC) No 199/2008, Commission Regulation (EC) No 665/2008, Commission Decision (2008/949/EC) and "Guidelines for the submission of National Programme Proposals on the National Data Collection Programmes, Version 2009".

II. Organisation of the National Programme

II A. National organisation and coordination

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- 2. Institutions that contribute to the NP
- 2.1. Sea Fisheries Institute in Gdynia (SFI)

The SFI was established in 1921 to conduct research in marine biology. The Sea Fisheries Institute is supervised by the Fisheries Department of the Ministry of Agriculture and Rural Development. Areas of research at the SFI include fisheries biology, fisheries oceanography and marine ecology, fish processing technology, and fisheries economics.

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3. Planned national coordination meetings

It is planned to organize coordination meetings at the beginning of each year of implementation of NP. Topics: e-logbooks, VMS, ecosystem, notes, access to vessels, financial. Budget. Etc.

II B. International coordination and international scientific meetings

As in previous years Poland intends to participate in following meetings: PGCCDBS, Workshop on ecosystem indicators of discarding [WKEID], Workshop on Age Reading of Greenland Halibut [WKARGH], The Study Group on Salmon Age Determination [SGSAD] and in Expert Groups: ICES WGEEL, ICES WGBIFS, ICES WGBAST, ICES WGBFAS, ICES WGFAST. More details according to guidelines are presented in table II.B.1.

II C. Regional coordination

Poland is going to participate in three Regional Coordination Meetings: RCM for Baltic Sea, RCM for North Sea and East Atlantic and in RCM LDF for the long distant fleet. RCM Baltic and RCM NS&EA recommended to MS to use average landings figures over the years 2007-2008 as a the basis for ranking métiers within NP 2011-2013. RCM for other regions, where fishery is conducted by EU vessels and managed by FRMOs to which Community is contracting party or observer, did not define the reference period of average landings, and Poland used for reference landings from 2008 – 2009.

III B. Economic variables

III. Module of the evaluation of the fishing sector

III A. General description of the fishing sector

The mean catch size in 2007-2008 was about 130,000 tons. Polish catches are concentrated on the Baltic Sea (78%), Central Eastern Atlantic (7%), and the Atlantic Antarctic (5%). In addition to the Baltic Sea fleet (about 760 active fishing vessels in 2009), four distant trawlers fish demersal species (cod, haddock, halibut), pelagic fish (horse mackerel, mackerel, pilchards), and crustaceans (krill in the Antarctic Atlantic). Exploitation of Southern Pacific (horse mackerel) has begun in 2009. Targeted industrial catches (sprats for reduction) are conducted exclusively in the Baltic Sea, and in 2007-2008 they were about 25 thousand tons annually.

III B. Economic variables

Baltic Sea, North Sea and Eastern Arctic, and North Atlantic, Other RFMO regions

III B 1. Data acquisition

III B 1 (a). Definition of variables

Economic data regarding the fishing fleet will be gathered from administrative documents (fishing logs, landing declarations, first sale documents) and statistical questionnaires filled out by fishing vessel owners. These data are cover whole population. In case fishing vessel owner fail to return the statistical questionnaires (which was obligatory accountancy rules), the values of the missing parameters for the missing population will be determined based on averaged data from the questionnaires received. Questionnaires shall be returned by March 31st of a given year for

the preceding year. The verification and confirmation of this data for the year analyzed will be completed by September 30 of the subsequent year. Phone calls and personal meetings with the respondents in order to verify provided data as well as acquisition of outstanding information are planned.

The catches made by the Polish fishing fleet are conducted in one supra-region, which is why there is no issue of dividing costs among areas.

In order to ensure consistency with earlier provided data taking account specific situation of Polish fisheries, invested capital will be calculated based on premiums paid by government for scrapped vessels. This approach gives better value of capital invested in the sector compared to other indicators based on insurance value, book value or replacement value (actually reported by fishermen in questionnaires) which are usually even several times lower than the scraping premiums. Having in mind that about 50% of the fleet capacity has been already withdraw with public assistance and further 30% is intend to be reduced until 2013 it is considered that financial compensation have significant influence on capital value. This has as well influenced depreciation which is considered to be better reported through questionnaires.

Actually spent time on vessel according to logbook records and estimated time spent onshore (assisting unloading, vessel or nets reparations, etc.) will be taken into account for FTE calculations. Raw data about mean number of people employed (divided by full time, part time and seasonally working) will be taken from questionnaires provided by vessel owners. A methodology suggested by study FISH/2005/14 will be followed in order to provide final data.

Fuel efficiency will be calculated based on the mean fuel consumption per fishing day for a given gear category (Level 3). Based on this information as well as the number of fishing days, the cost of fuel for various fishing methods will be calculated. The quarterly catches according to fishing method and mean quarterly averages will by calculated based on the volume of quarterly catches according to fishing method, and the average quarterly price of fish from various gear groups (Level 3).

Variable group	Variable	Source	Estimation method/1
Income	Gross value of landings	Questionnaire RRW-19, first sale documents	Catch size
	Income from leasing out quota or other fishing rights	Not applicable	
	Direct subsidies	Questionnaire RRW-19, fisheries administration data	Number of vessels
	Other income	Questionnaire RRW-19	Number of vessel
Personnel costs	Wages and salaries of crew	Questionnaire RRW-19	Employment, Number of vessels
	Imputed value of unpaid labour	Estimation	
Energy costs	Energy costs	Questionnaire RRW-19	Fishing days
Repair and maintenance costs	Repair and maintenance costs	Questionnaire RRW-19	Number of vessels
Other operational costs	Variable costs	Questionnaire RRW-19	Fishing days
F == 1.020102 00000	Non-variable costs	Questionnaire RRW-19	Number of vessels
	Lease/rental payments for quota or	Not applicable	

	other fishing rights		
Capital costs	Annual depreciation	Questionnaire RRW-19	Number of vessels
Capital value	Value of physical capital: depreciated replacement value ¹⁰	Questionnaire RRW-19; bonus for scrapping vessels	Number of vessels
	Value of physical capital: depreciated historical value	Questionnaire RRW-19	Number of vessels
	Value of quota and other fishing rights	Not applicable	
	Investments in physical capital	Questionnaire RRW-19	Number of vessels
Investments			
Financial position	Debt/asset ratio	Questionnaire RRW-19	Number of vessels
Employment	Engaged crew	Questionnaire RRW-19, fishing vessel register	Number of vessels
	FTE National	Questionnaire RRW-19,	Number of vessels
	FTE harmonized	Questionnaire RRW-19, fishing logs	Number of vessels
Fleet	Number	Fishing vessel register; fishing logs	Comprehensive data
	Mean LOA	Fishing vessel register	Comprehensive data
	Mean vessel's tonnage	Fishing vessel register	Comprehensive data
	Mean vessel's power	Fishing vessel register	Comprehensive data
	Mean age	Fishing vessel register	Comprehensive data
Effort	Days at sea	Fishing logs	Comprehensive data
	Energy consumption	Questionnaire RRW-19	Fishing days
Number of fishing	Number of fishing	Fishing vessel register	Comprehensive
enterprises/units	enterprises/units		
Production value per	Value of landings per species	First sale document	Catch size/value
species	Average price per species	First sale document	Catch size/value

^{1/} uprising method. It is intend to get 100% coverage of collected data. In case of lower rate - estimation will be made based on averages for vessels that provided data and information known for a whole population for individual vessels i.e. volume of catches, fishing days, number of vessels within given segment.

III B 1 (b). Type of data collection

All data are intend to be collected or estimations to be made for a whole population on the basis of census data.

III B 1 (c). Target and frame population

The target population and the frame intend to be the same.

Clustering

Clustering will be necessary only in order to avoid having too many too small segments (not exceeding 10 units).

Passive gears 0-10m

Five vessels mostly using bottom trawl will be merged with passive gear 0-10m vessels consisting of 465 units. These five vessels accounted for about 5% of the total catches of the whole segment (2009) and are targeting similar species to other boats below 10 m length.

Drift and fixed netters 12-18m

One vessel of 18,9 meters length will be moved from drift and fixed netters 18-24m to drift and fixed netters 12-18m in order to avoid having segment with single vessel.

Demersal trawlers 12-18m

Seven vessels from demersal trawlers 10-12m segment will be merged with vessels from demersal trawlers 12-18m. These seven vessels accounted for about 5% of the total catches of the whole segment (2009) and are targeting similar species to other vessels from demersal trawlers 12-18m.

Vessels using hooks 12-18m

All vessels spending most of their time using longlines will be merged in one segment - vessels using hooks 12-18m. Three 18-19 meter length vessels and one 24,6 meter vessel length will be merged with 28 vessels of 12-18 meters length. All these vessels targeting similar species (salmon and sea trout).

Pelagic trawlers 24-40m

Five vessels below 24 meters (about 22 meters average) will be moved to 24-40 meters pelagic segments. Catches of these five vessels accounted for about 3% of the total catches in the segment.

Pelagic trawlers 40-

Due to small number of large vessels over 40 meters (4 units, deep-sea trawlers), all of them will be merged into one segment.

The problem of vessels operating in different supra region doesn't exist in Poland. There are no vessels operating on Baltic Sea and other regions

III B 1 (d). Data sources

Data sources are listed in table III B 1 (a) Definition of variables. There are two main sources for collection of the economic data. Most of the data are collected through questionnaires which are stored in a computer database. Catch, landings and sales, effort and capacity data are obtained from administrative database (Sea Fisheries Information System). These two database are linked and some comparable variables are cross-checked (volume and value of catches). But generally, it is an exceptional situation when data comes from different sources. In such cases data source which ensure higher coverage is taken first. Additional source of data is used in the situation when some information is missing. For example when income and prices for some species targeted by coastal fleet (less than 8 m) are not available from sales notes, then are taken from questionnaires.

III B 1 (e). Sampling stratification and allocation scheme

All data are intend to be collected or estimations to be made for a whole population on the basis of census data.

III B 2. Estimation

It is assumed that all fishing vessel owners obliged to return completed questionnaires will comply. However in case of non responses estimation will be made based on averages for vessels that provided data and information known for a whole population for individual vessels i.e. volume of catches, fishing days, number of vessels within given segment. If there is a lack of information from the whole population (100%), the data are estimated based on the average values of the sample calculated taking into account number of fishing vessels, number of fishing days, number of personnel or catch size (variables known for a whole population).

III B 3. Data quality evaluation

It is assumed that 100% responses is received. However due to non-response problem response rate will be used as indicator of accuracy. Defined as the ratio of number units for which data for at least same variables have been collected to the total number of units designed for data collection.

III B 4. Data presentation

Data will be available to end users in October after the reference year. One year is the time lag with respect to the reference year.

There is a confidentiality problem in respect to deep-sea fisheries. Low number of vessels belonging to deep-sea fleet segment (one for a company and two for another one), economic data for this segment is not reported

Clustering issue was discussed in chapter III B 1 (c). Target and frame population

III B 5. Regional coordination

No specific coordination initiatives with other countries are envisaged. Poland will participate in relevant RCM meeting.

RCM NS&EA Recommendations

Recomr	nendations	Planned responsive actions	
Econom	Economic variables: sampling strategy for the collection of economic variables		
The RCA 1. 2.	M NS &EA recommends the following: the inclusion of a methodology report, as proposed by SGECA, would provide significant benefits there would be merit in reviewing the SGRN guidelines as proposed by SGECA	Methodology of economic variables collection has been provided in NP. Additional, relevant information will be provided in Technical Report.	
Econom	nic variables: Clustering of fleet segments		
The RCA 1. 2. 3.	NS &EA recommends that Statistical legislation had a key role to play in guidance relating to clustering for confidentiality reasons The guidance drawn up by SGECA, setting out the different approaches should be followed Further work be undertaken at a regional level, e.g. Baltic Sea, through the RCMs; any harmonisation should be through guidelines rather than a statutory requirement The distant-water fleet for Baltic Sea MS should not be merged with others because of its distinct characteristics	Poland adhered suggested recommendations when clustering fleet segments.	

III B 6. Derogations and non conformities

Poland asks for derogation regarding publishing of data for deep-sea vessels as there are only 3-4 vessels in the segment. Small number of vessels in this segment makes reporting unable to keep confidence.

III C. Biological metier related variables

Poland is going to collect biological data for four regions: Baltic Sea (ICES Subdivisions 22-32), North Atlantic (ICES XIV) and other regions, where fishery is conducted by EU vessels and managed by RFMOs to which Community is contracting party or observer – CECAF and SPRFMO.

The Baltic Sea

III C 1. Data acquisition

(a) Codification and naming convention

Poland follows allocation rules used to fill in the matrix of metiers. Mesh size ranges and metier naming conventions according to RCM `s agreements have been used.

(b) Selection of metiers to sample

According to Appendix IV.1 of Commission Decision C (10121), the total number of potential metiers for Baltic fishing grounds is 46. Since these metiers apply to two fishing grounds (SD 22-24 and SD 25-32), in total there are 92 potential metiers as defined by Appendix IV.1. The ranking system used to select the metiers to be sampled was the one recommended for Baltic Sea fishing grounds, and selection was based on landings weight, effort, and value for 2007-2008. Landings and fishing effort were taken from Polish vessel registers, values from the first sales documents The final list of metiers that were selected by the ranking system for sampling, and those not selected but considered by Polish experts to be worth of sampling, are presented in Table III.C.1. and Table III.C.3.

Below a brief description of metiers picked up by the ranking system and selected for monitoring is presented.

Small pelagic fish target assemblage

Using ranking system (Table III.C.1), the following metiers were selected for sampling of the small pelagic fish (sprat and herring) assemblage on the fishing grounds in ICES SD 22-24 and ICES SD 25-32:

- ICES SD 22-24:
 - OTM_SPF_16-31_0_0
 - OTM SPF 31-89 0 0
 - GNS_SPF_32-109_0_0;
- ICES SD 25-32:
 - OTM SPF 16-31 0 0;
 - OTM_SPF_31-89_0_0
 - GNS_SPF_32-109_0_0

Moreover, basing on fish length distribution (which differs with fishing gear type, catch techniques, and net mesh sizes) additional metiers were selected for sampling of small pelagic fish by Poland. These were PTB and OTB for fishing grounds in SD 25-32, and FPO for both fishing grounds in SD 22-24 and SD 25-32:

- ICES SD 22-24:
 - *FPO_SPF_*>0_0_0;
- ICES SD 25-32:
 - FPO SPF > 0 0 0;
 - *OTB_SPF_32-104_0_0*;
 - PTB_SPF_32-104_0_0.

Fyke-nets (FPO_SPF>0_0_0) used in the Vistula Lagoon were selected for sampling, because of the specifics of the herring population that spawns there.

In the metiers listed above, the mesh size >= 32 mm refers to direct Baltic herring catches, while the 16-31 mm mesh size refers mostly to sprat catches. Sprat by-catch in directed herring fishery generally does not occur since mesh size is large enough to allow sprat to escape. However, sprat and herring do appear in autumn/winter simultaneously in the same catch, and sometimes even in similar proportion, mainly in industrial sprat fishery. In recent years, the by-catch of young herring in catches of sprat for human consumption was relatively low (on average <5% per year). Many Polish cutters use size-sorting machines during cruises to sort out sprat and herring that were below the minimum commercial size, when mesh size of 16-31 mm in the trawl codend is applied for the catches.

Due to the specific clupeids fishery characteristic described above, the number of sampling trips was allocated proportionally to landings from selected metiers for particular exploited stocks (fishing grounds).

Additional information on fishery conducted by specific metiers selected for sampling of small pelagic fish is presented below

```
Midwater otter trawl (OTM_SPF_16-31_0_0, OTM_SPF_32-89)
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Within all types of fishing gears active in 2007-2008 in the Polish commercial catches of small pelagic fish in all areas of the Baltic, the metiers OTM_SPF dominated in terms of landings, effort, and catch value (95%, 62%, and 93%, respectively).

It should be added, that the OTM_SPF_16-31_0_0 is typical mostly for Baltic sprat catches for both human consumption and fish meal production. In recent years the by-catch of herring in sprat commercial catches for human consumption has been relatively low (<5% on average per year), however, in so called industrial catches it can be occasionally 10-times higher.

The Polish fishery within the OTM_SPF_16-31_0_0 is active for Baltic sprat catches throughout the year, with a maximum from February to May and to a lesser degree in November-December. During the summer the Polish catches of sprat constitute only about 5% of the annual catches.

Sprat and by-catch of herring will be sampled during several at-sea observers' trips and by purchasing a random samples of about 30 kg/sample of the unsorted catch, including by-catch and potential discard, directly from the commercial cutters landed in ports.

Set gillnet targeting small pelagic fish (GNS_SPF_32-109_0_0)

A small-scale gillnet fishery targeting herring for human consumption is conducted in near-shore areas. The major proportion of the fishery is conducted in SD 24 (Pomorska Bay) and 26 (Gulf of Gdansk, Vistula Lagoon). The fishery mainly takes place during the spawning season of herring in the spring. The métier was selected due to high landings (almost 70% of all catches within this métier in the Baltic area). Samples will be collected by purchasing a random sample of about 30 kg of the unsorted catch, including by-catches and potential discard, directly from the fishing boat.

Trap net fisheries targeting small pelagic fish (FPO_SPF_>0_0_0)

Similar to gillnet fishery, this métier targets herring spring spawners in Pomorska Bay (SD 24) and Vistula lagoon (SD 26). This fishery takes place during the reproductive period and spawning migrations. High average two years effort was noted in SD 26. In total, 9 trips are planned to collect random samples from landings. By-catch within métier consist mainly of freshwater species.

Anadromous fish target assemblage

Set gillnet fisheries targeting anadromous fish (GNS_ANA_>157_0_0)

It is the coastal gillnet fishery targeting sea – trout (SD 25-26). The métier is selective on salmonids (mesh size) with accidental by-catch of freshwater species, depending on areas (lagoons, bays). Generally, that fishery is conducted whole year, excluding seasonal prohibition of salmonids fishery in July – August. For this metier, due to low and irregular catches, concurrent self-sampling by fishers will be implemented. Also during spawning migration, 9 trips to fishing harbour by SFI staff are planned.

Longline fisheries targeting anadromous fish (LLS_ANA_0_0_0).

Fishery concentrates in Sub-division 25 and 26, landing 90 % of Polish salmon (Salmo salar) catches. Seasonal peak appears in winter time, generally catches take place from November to April. The discard rate was found to be below 5 %, by-catch consisted mainly of cod and appeared as accidental. Samples will be collected during 8 at-sea observers trips.

Freshwater fish target assemblage

Set gillnet fisheries targeting freshwater species (GNS_FWS_> 0_0 _0)

This is small scale fishery in both Polish lagoons (Szczecin – SD24 and Vistula – SD26). Generally, it takes place whole year, excluding time of ice cover in winter. Main species are: pike, pike-perch and other freshwater, not listed in appendix VII. We plan to collect data from 14

fishing trips by concurrent observer at-sea sampling, to estimate potential discard rate and bycatch.

Trap net fisheries targeting freshwater species (FPO_FWS_>0_0_0)

It is fishery similar to GNS_FWS_>0_0_0, targeting perch, pike – perch, and also eel (Anguilla Anguilla). Main fishery takes place in Szczecin Lagoon – SD24, and Puck bay and Vistula Lagoon – SD 26). Our intention is to collect data from 14 fishing trips by concurrent one day atsea sampling. In case of eel, due to occasional catch, biological samples (frozen fish) will be collected by fishers and analyzed in SFI laboratory.

Demersal fish target assesmblage

In accordance with the ranking system the following metiers were selected to sample demersal fish target assemblage:

- Bottom trawl fisheries targeting demersal species (OTB_DEF_105_1_120)
- Set gillnet fisheries targeting demersal species (GNS_DEF_110-156_0_0)
- Longline fisheries targeting demersal species (LLS_DEF_0_0_0)

The demersal fish assemblage is constituted by cod and flounder, and (to a lesser extent) plaice and turbot. The indicated metiers will be sampled both in ICES SD22-24, and in ICES SD25-32. No additional metiers were selected for sampling, and no metier merging was applied. The distribution of the fishery indicates the fishing season of 10 months. Therefore, at least one sample was allocated per month, and in total 40 and 50 trips will be sampled in SD22-24 and SD25-32, respectively. For the OTB_DEF_105_1_120 and GNS_DEF_110-156_0_0 metiers, sea sampling is planned and will include landing and discard data collection. However, LLS_DEF_0_0_0 landings and discards (self-sampling strategy) will be sampled in harbours due to not sufficient room for observers on fishing boat.

(c). Type of data collection

Main sampling strategies:

Concurrent sampling of catches at sea

Data will be collected by staff from SFI by sampling on board of randomly chosen commercial fishing vessels. Information to be collected is:

- total weight of discard and landing by all species caught,
- separate length distributions of discard and landings by all G1,G2,G3 species caught. In the Baltic Sea this strategy will be primary applied to métiers: OTB_DEF_>105_1_120, OTM_SPF_16-31_0_0, OTM_SPF_>32-89_0_0, GNS_FWS_>0_0_0, FPO_FWS_>0_0_0, LLD_ANA_0_0_0

Concurrent sampling of landings at markets

Data will be collected by the SFI staff from randomly sampled landings in harbours. Information to be collected is:

- total weight of landing by all species caught,
- length distributions of landings by all species caught; if the fish are landed in commercial weight categories, separate length frequencies will be obtained by category.

In the Baltic Sea this strategy will be primary applied to métiers: GNS_DEF_110-156_0_0, GNS_SPF >32-109_0_0, FPO_SPF >0_0, GNS_SPF_32-109_0_0

Concurrent sampling of landings at markets combined with self-sampling by fishers

Data will be collected partly by SFI staff from randomly selected landings, and partly by professional fishers from métiers:

- LLS DEF 0 0 0 small vessels without place for SFI staff accommodation,
- GNS_ANA_>157_0_0 high effort does not correspond to high catches, in that case material for biological parameters (age scales) must be collected from as many fishing trips as possible.

Scheme 2 will be used for concurrent sampling, and in 10% of sampling events all species will be sampled.

(d). Target and frame population

For most of the selected metiers only one sampling frame was identified. However, for 2 metiers (OTB_DEF_>=105_1_120 and GNS_DEF_105-156_0_0) targeting demersal species, sampling frames were identified.

Frame populations for demersal fish represent trips allocated to metiers corresponding to the level 6. In addition, four metiers (OTB_DEF_>=105_1_120 and GNS_DEF_110-156_0_0 in SD 22-24, and OTB_DEF_>=105_1_120 and GNS_DEF_110-156_0_0 in SD 25-32) of the level 6, are further disaggregated as individual sampling metiers at the level 7 in order include cod and flounder specific fishing pattern which cannot be picked up having the same metier. Stratification of demersal fish sampling frames includes also the aspects of seasonality, division by fishing boats (artisanal fishery) and larger fishing vessels and also fishing ground. Trip allocation level is intended to use up the VMS system to indicate fishing fleet activity in a given time and area. In addition, information of vessels fishing gears and catch preference will be collected through fishermen associations and personal phone calls with skippers and vessel owners. Nevertheless, the selection of vessels to be sampled within a given metier and having collected the above mentioned information on fishing activity will be random. That system of sampling is expected to provide potentially representative estimate of fish distribution and fishing pattern.

Target population is considered as a single assessment unit which for cod corresponds to western and eastern Baltic cod stocks (ICES Sub-divisions 22-24 and 25-32 respectively

(e) Sampling stratification and allocation scheme

Following the minimum sampling requirements, the sampling effort allocation is at least one fishing trip per metier per month. For Baltic demersal species the intensity of fishing activity is evenly distributed throughout the year excluding the ban of fishing during spawning. Spatial and temporal distribution of sampling is presented in Table III.C.4

For all metiers and species to be sampled the intention is to allocate sampling following seasonality, intensity, and spatial distribution of fishery.

III C 2. Estimation procedures

Estimation of discards

Estimation of discards will be done by applying three different procedures of raising discard data from samples to the population level, as the quantity of both landings and effort data (fishing days and trips) are available at the population level. Data on landings by species, number of fishing trips, and number of fishing days of sampled fishing vessels will be compiled according to strata having the same elements: fishing fleet segments consisting of vessels having the same vessel length range – as defined in DCR, ICES sub-division, quarter and type of gear. Finally, the results of species discard estimates on the sampling level (represented by sampled vessels) estimated per strata will be raised to the population level, and these estimates will next be summed up in order to obtain total discards estimates on the population level.

Raising by landings

The sample discard ratio per stratum will be calculated by dividing the total weight of given species discards in the stratum by total weight of given species landings in the sampled stratum. The sample ratio per stratum will be raised by total landings of target species available on the landings stratum level defined as DCR fleet segment, fishing gear – level 1, quarter and ICES sub-division.

Raising by sampling unit

Raising by trips

Sample mean discards in the stratum will be calculated by dividing the sum of observed discarded quantity (weight) in sampled trips by number of trips sampled. The total discards in a given stratum will be obtained by raising sample mean discard obtained for trip in a given stratum by the known number of trips at the population level.

Raising by fishing days

The same approach will be applied to raising by fishing days method. Similarly to trips, sample mean discards in the stratum will be calculated by dividing the sum of observed discarded quantity (weight) in sampled fishing days by number of fishing days sampled. Sample mean discards will be raised by known number of fishing days at the stratum population level.

III C 3. Data quality evaluation

Bootstrap estimates of precision of derived from samples age distributions of cod, herring, sprat and flounder were conducted in previous years and indicated low CV in most important for stock assessment age groups. However, basic problems are still in ageing of cod and flounder. In case of cod two ageing school exists among Baltic countries, and little progress in resolving

differences has been made. In case of flounder new methodology recommended by workshop on flounder age reading (ageing from thin-sections) is planed to be applied.

III C 4. Data presentation

The data will be stored in national and ICES data-bases. The data will be fully available in first quarter of the year following the year of data collection. This includes full set of stock assessment data (age distribution of catches, catch at age in numbers and weight at age, maturity and sex ratio, discards estimates, results of bottom trawl surveys and acoustic survey). The WGBFAS and WGBFIS will be provided with all necessary data for stock assessment. In case of BITS survey conducted in quarter 1, the WGBFIS and WGBFAS will get the data within 4-6 weeks after the end of survey, so that the data may be used for Baltic stocks assessment conducted by ICES in April.

The data referring to waters outside the Baltic will also be presented to ICES stock assessment working group.

Some data, like length distribution of catches, may be provided very soon after they have been collected.

III C 5. Regional coordination

Recommendation	Answer
RCM Baltic endorses RCM NS&EA	Poland follows the recommendation
recommendation of MS to use the average	
landing figures over the years 2007-2008 as the	
basis for ranking métiers within the NP 2011-	
2013	

III C 6. Derogations and non conformities

No derogations and non conformities.

North Atlantic

(a) Codification and naming convention

Poland follows allocation rules used to fill in the matrix of metiers. Mesh size ranges and metier naming conventions according to RCM North Atlantic agreements were used.

(b) Selection of metiers to sample

According to Appendix IV.3, only one Polish metier exists in NA area (OTB_DEF_>120_0_0), and it will be sampled in 2011-2013.

This fishery is directed on Greenland halibut (*Reinhardtius hippoglossoides*) and it takes place in Eastern Greenland waters (ICES V and XIV). Main fishing season is in March-June and October – November. By-catch consists of small numbers of redfish and grenadier. Quota is not allocated to Poland, and one sampling trip/year will depend on quota exchange between Poland and EU members states in consecutive years.

(c). Type of data collection

Sampling strategy chosen for NA sampling is concurrent sampling of catches at sea.

Data will be collected by staff from SFI by sampling on board of commercial vessel operating in relevant area.

Information to be collected is:

- total weight of discards and landings by all species caught,
- separate length distributions of discard and landings by G1, G2, G3 species.

(d). Target and frame population

Only one frame for this metier was indentified.

(e) Sampling stratification and allocation scheme

For three expected fishing trips one sampling trip is planned. It is expected that all important biological characteristics of that fishery will be sampled.

III C 2. Estimation procedures

Estimation of discards will be done by raising discard data by fishing days. Sample mean amount of discards will be calculated by dividing the sum of observed discarded quantity (weight) in sampled fishing days by number of fishing days sampled. Next, mean sample discards will be raised by total number of fishing days to the population level.

III C 3. Data quality evaluation

This metier is represented by one fishing vessel and Poland will sample about 25 % of all fishing trips.

III C 4. Data presentation

Data sets will be ready in 1q of next year after sampling, and it will be delivered to ICES NWWG.

III C 5. Regional coordination

ICES areas V,XIV are currently coordinated by RCM NS&EA.

Recommendation	Answer
RCM NS&EA recommends MS to use the	Poland follows the recommendation

III C 6. Derogations and non conformities

No derogations and non conformities.

North Sea and Eastern Arctic

(b) Selection of metiers to sample

In case of North Sea and Eastern Arctic, two metiers were identified (OTB_DEF_>120_0_0, one in ICES area I&II, and one in area IV). Poland asks for derogation from sampling that metier (point III.C.6).

III C 6. Derogations and non conformities

Derogation	Justify
Sampling of metier OTB_DEF_>120_0_0 targeting cod in ICES I&II area	Only one trip per year by one commercial vessel is conducted. Landings take place in Iceland, therefore there is no obligations to sample. Discarding in ICES area I&II is prohibited.
Sampling of metier OTB_DEF_>120_0_0 targeting seithe in ICES IV area	Only one trip per year by one commercial vessel is conducted. Landings take place in Norway/Iceland, therefore there is no obligations to sample. Discard rate is less than 10%.

Other regions (CECAF &SPRFMO)

(a) Codification and naming convention

Poland follows allocation rules used to fill in the matrix of metiers. Mesh size ranges and metier naming conventions according to RCM distance fishery (2010) have been used.

(b) Selection of metiers to sample

According to Appendix IV Poland is represented by vessels fishing for small pelagic fish in areas managed by RFMO's: CECAF (Central East Atlantic) and SPRFMO (South Eastern Pacific). Fishery in CECAF area started in 2008, so for ranking purpose average values of landings and effort were taken from 2008-2009 for this area. The fishery in SPRFMO area started in 2009.

Metier codification will be as follows: OTM_SPF_>40_0_0

In CECAF Polish small pelagic fishery is conducted on the basis of EU – third countries agreement (Morocco and Mauritania), which regulate number of licenses or volume of Olympic TAC. Catches take place whole year. Poland will sample one trip/year. Main species are: Atlantic horse mackerel and Atlantic mackerel.

In SPRFMO Polish catch quota consist of about 25 % of EU TAC. Small pelagic fishery takes place from March to October. Target species is Chilean jack mackerel and as a by-catch Chub mackerel. SPRFMO convention requirements are to cover 10% of total fishing effort by at-sea observer's trip. Poland will sample more than 10 % of effort in fishing days.

(c). Type of data collection

Sampling strategy chosen for Other regions sampling is concurrent sampling of catches at sea.

Data will be collected by staff from SFI by sampling on board of commercial vessel operating in relevant area. Information to be collected is:

- total weight of discards and landings by all species caught,
- separate length distributions of discard and landings by G1, G2, G3 species.

(d). Target and frame population

Only one frame for this metier was indentified.

(e) Sampling stratification and allocation scheme

One sampling trip per area/year is planned.

III C 2. Estimation procedures

Estimation of discards will be done by raising discard data by fishing days. Sample mean discards will be calculated by dividing the sum of observed discarded quantity (weight) in sampled fishing days by number of fishing days sampled. Sample mean discards will be raised by known number of fishing days to the population level.

III C 3. Data quality evaluation

This metier is represented by two fishing vessel and Poland will sample over 10% of its fishing effort (SPRFMO).

III C 4. Data presentation

Data sets will be ready in 1q of next year after sampling, and they will be delivered to relevant to areas commissions and working groups.

III C 5. Regional coordination

Other regions are currently coordinated by RCM long distance fishery, first meeting took place in 2010 and there are no official recommendation so far.

III C 6. Derogations and non conformities

No derogations and non conformities

III D. Biological recreational fisheries III D 1. Data acquisition

In Appendix IV of the Commission Decision (2008/949/EC) adopting a multiannual Community programme for the collection, management and use of data in the fisheries sector, three species (cod, salmon and eel) require investigations in Polish recreational fisheries. Recreational fishing for salmon takes place accidentally in rivers and open sea angling in Polish waters does not occur. Eel recreational fishing will be investigated within the framework of Polish Eel Management Plan following Council Regulation 1100/2007 adopting Eel Management Plan (EMP) to be prepared by all Member States. Consequently, in currently prepared national sampling programme, investigations on eel recreational fisheries is a subject for derogation.

However, recreational fishing for cod, which is mainly carried out by anglers in open sea offshore waters (>20m) equipped with fishing rods with artificial lure, has been developing very rapidly for approximately 10 recent years. Cod offshore recreational fishing is conducted all year-round with a peak of activity between May-October. Cod inshore (<20 m) angling season conducted with small boats is much shorter due to safety reasons (June-August). Management regimes include size limit for cod which is 38 cm and bag limit is 7 fish per day. Undersized fish must be discarded. No seasonal restrictions are applied for recreational fishing for cod, although commercial fishermen must respect summer ban for cod (July-August). There are regulations concerning number of hooks attached to artificial lure of the fishing rod. Fishing licenses are required. They are issued for individual persons or for the boat owner who needs to specify how many anglers his vessel can accommodate. Licenses are issued for two weeks period or one year. Anglers are not required to evidence their cod catch. There are no regulations in terms of fishing effort. The role of cod angling is the dominating one in Polish marine recreational fisheries and is still increasing. That is confirmed by the data on number of vessels exploited in recreational

fishing and the number of anglers participating in cod at sea angling trips as registered by Maritime Offices along the Polish coast. The by-catch of other species in cod recreational fisheries (mainly flatfishes, herring, and others) is less than 0.5% in weight.

Although the number of cod anglers is not precisely known, the number of anglers participating in sea going trips recorded by Maritime Offices in 2008 was approximately 135,000 (this figure might include single anglers who made several trips to sea). Roughly estimated total catch of cod in 2008 using a simple approach (product of number of anglers recorded by Maritime Offices and the average mass of cod fished by angler or the catch for fishing vessel during on-board observed trips) amounted to approximately 800 tonnes (7% of Polish cod limit).

III D 1 (a). Type of data collection

Probability sample on-board angling trips survey is the main type of data collection to be applied for cod recreational fisheries.

III D 1 (b). Target and frame population

Area frame

Polish waters within ICES Sub-divisions 25-32 (eastern Baltic cod stock) is the most important area for recreational fishing. Information on number of fishing trips and number of anglers aboard is provided by Maritime Offices.

List frames

There is no requirement to be a member of any angling association if fishing recreationally for cod. Therefore there is no ready to use database registry of anglers available to conduct any off-site surveying method. There is a register of fishing licenses issued by Fishing Inspection Offices. Licenses are issued for individual persons or for the boat owners for two weeks period or one year (name and address is obligatory). Since most frequently licenses are issued for boat owner who needs to specify how many anglers aboard the boat can carry, therefore in that case no information regarding anglers is available. Many of cod anglers are tourists who came for vacation at the seaside. The lack of register does not allow for distinguishing between visiting or resident anglers. Maritime Offices data is only precise information in terms of boat owners addresses but anglers' addresses are not recorded. Until now, neither off-site survey methods nor on-site survey have been used. On-site survey method at sea is planned to be applied during the same on-board observer trips when the catch and biological data on angled cod is collected

III D 1 (c). Data sources

Data on number of angling boats, number of fishing trips and number of anglers participating in each fishing trip recorded by Maritime Offices is the main source of information that has been previously and will be used to monitor recreational fishing activities in Poland. Additionally, each year, data on the size of catch of anglers on a fishing boat randomly selected as well as biological data (length and age composition, weight of each fish caught by angler) will be collected at sea by scientific staff during on-board observer fishing trips. In addition, on-site survey method (personal interviews with anglers) at sea is planned to be applied during the same on-board observer trips when the catch and biological data on angled cod is collected.

III D 1 (d). Sampling stratification and allocation scheme

It is planned to collect data on the number of fishing trips and number of anglers from registers of seven Maritime Offices. To this end, seven trips to Maritime Offices are planned in each year of the period 2011-2013 in order to computerize the hand-written Maritime Office registers.

.It is planned to conduct 12 on-board observer trips each year of the period 2011-2013. Each month of the given year will be covered by one on-board observer trip in order to study fish composition changes throughout the year. During the trips concurrent sampling will be carried out involving measuring of all the fish angled and some part of the cod catch will be biologically sampled

III D 2. Estimation procedures

Magnitude of cod recreational catches will be estimated by applying two different procedures of data raising since the quantity of both: number of anglers and effort information (fishing trips) will be available at the population level (total number of anglers and fishing trips in a given year registered by Maritime Offices). Finally, the results of cod recreational catch collected on the sampling level (represented by planned twelve on-board observer fishing trips) will be raised to population level.

Raising by trips

Sample mean catch of cod in the sampled fishing vessels will multiplied by the known number of trips at the population level.

Raising by anglers

The same approach will be applied to raising by number of anglers. Similarly to trips, sample mean catch of cod by angler in the sampling fishing vessels will multiplied by the known number of anglers at the population level.

Sampling will be considered separately for discarded and retained cod. Quarterly time resolution will be applied in estimating total catch of angled cod. No stratum identification of angling vessels will be considered as the variety of vessels involved in cod recreational fisheries is too large. Space resolution will take into account basic angling area - ICES Sub-divisions 25-32.

III D 3. Data quality evaluation

Population level data available include total number of angling trips and a number of anglers participating in sea-going trips as registered by Maritime Offices in a given year. In 2008, 9509 angling trips were recorded, while the number of anglers in the same year amounted to 135 000. Sampling level in 2008 represented 5 on-board observer trips and 72 anglers. Starting with the new 2011-2013 National Sampling Programme it is planned to conduct more trips (12 a year) in order to estimate recreational catch and effort by quarter. This estimation will additionally be supported by the results collected during the interviews with anglers during the same on-board observer trips.

III D 4. Data presentation

Data on estimated total catch of cod taken in recreational fisheries during the sampling year will be publicly available in the mid of the next year.

III D 5. Regional coordination

Recommendation	Answer
The RCM Baltic recommends that MS follow the request for participation in the WKSMRF (Workshop on Sampling Methods for Recreational Fisheries), given in the ICES resolution. LM endorses the recommendation and extends it to all MS participating to the workshop RCM recommends to MS to follow the guidelines outlined in the WKSMRF workshop while setting up their national sampling programmes. Further, RCM supports the recommendation made by WKSMRF to establish a Planning Group on Recreational Fisheries Surveys [PGRFS]. The proposed terms of reference of this group and the justification are given in the report of WKSMRF.	Poland has participated in workshop WKSMFR. Guidelines outlined in WKSMRF were used when action with recreational fishery was planned.
The problem of the number of foreign recreational fishermen who are fishing in the MS and their importance for the total recreational catch of salmon, eel and cod was discussed and could preferably be taken care of in the suggested Planning Group. Where applicable, RCM encouraged the national institutes to include in to the surveys even foreign catches of the citizens of their country. That might apply especially to nationwide surveys.	During the interviews with anglers on-board observer trips that issue will be addressed.

III D 6. Derogations and non conformities

Derogation	Justify
Salmon recreational fishery.	Recreational fishing for salmon accidentally
	takes place in rivers while open sea angling in
	Polish waters does not occur.Results of research
	project conducted by Sea Fisheries Institute in
	2009 based on personal field observations and
	official records in fishing harbors along Polish
	coast did not show evidence of recreational fishery
	for salmon. (Radtke 2010)
	Eel recreational fishery will be investigated

Eel recreational fishery.	within the framework of Polish Eel
	Management Plan following Council
	Regulation 1100/2007 adopting Eel
	Management Plan (EMP).

III E. Biological stock-related variable

III E 1. Data acquisition

The Baltic Sea

(a). Selection of stocks to sample

Stocks to be included in the sampling scheme for the Baltic region are listed in the table III.E.1.

The Polish fleet exploits two cod stocks in the Baltic Sea which inhabit areas SD 22-24 and SD 25-32. Although both stocks will be sampled for biological variables, much higher sampling effort will be exerted on the stock in SD 25-32 as catches there are a few times higher than those of the stock in SD 22-24. For both stock Polish share in UE TAC is higher than 10%.

Flatfish stocks for biological variables sampling were selected according to the requirements of Appendix VII of Commission Decision 2008/949/EC (flounder, plaice and turbot in SD 22-32). Data will be collected from catches conducted in SD 24, 25, and 26, which are basic for Polish flatfish catches.

Poland fleet exploits two herring stocks in the Baltic Sea, which inhabit SD 22-24 and SD 25-32. The Polish share of total EU herring landings and EU TAC is over 10% in both areas. Sampling for biological parameters such as age, weight, sex-ratio, and maturity cover SD 24, 25, and 26.

For assessment purposes, ICES distinguishes one sprat stock in the Baltic, namely that in the ICES Sub-divisions 22-32. This stock will be sampled in the ICES Sub-divisions 24, 25, 26 and also in the ICES Sub-divisions 27, 28 and 29. In the previous years Polish catches of Baltic sprat were concentrated in the ICES Sub-divisions 25-26, which covered 92% of annual catch in 2008. However, in the 2009 the distribution of Polish sprat catches changed, and 24% of annual catches originated from the ICES Sub-divisions 27-29.

The stock of European eel (*Anguilla anguilla*) will be sampled mainly in Polish brackish waters. Mean catches of this species have been declining and are currently estimated at approximately 40 tons. However, the implementation of the eel stock management plan in accordance with EC regulation no. 1100/2007, requires to monitor commercial catches of eel.

The salmon and migratory sea trout stocks will be monitored in ICES sub-divisions 25 and 26. Current catches are 60 and 200 tons, respectively.

Freshwater species: perch (*Perca fluviatilis*) and pike – perch (*Zander lucioperca*) will be sampled in brackish and near-shore waters. Total landings of above species equal to about 1000 tons.

(b). Type of data collection

Data will be collected both on board of fishery boats and cutters in the Baltic and trawlers in waters outside the Baltic. In addition, length distribution and biological variables will be sampled in harbours. The mixture of Probability Sample Survey and Non-Probability Sample Survey will generally be applied to sample data from cutters, trawlers, and fishing boats.

(c). Target and frame population

In majority of cases target and frame populations are the same. In case of demersal stocks, sampling of the identified frame populations will provide data for the whole target populations.

(d). Sampling stratification and allocation scheme

For all stocks indicated in Table III E.2 age, weight, and sex ratio will be recorded. In addition, for cod and herring maturity will be estimated as Polish survey with rv Baltica is conducted in month close to spawning period. For other species maturity records from Baltica survey do not much well with spawning time and will be only useful for maturity estimation. Anyway, data for maturity will be collected from commercial catches but these may not be fully representative for younger ages in the catches.

III E 2. Estimation procedures

Age Length Keys (ALKs) and length distributions will be used to estimate age distribution of catches and catch-at-age in numbers. Age distributions will usually be provided by quarters and major gears used in the given stock fishery. Weight, maturity, and sex -at-age will also be estimated using ALKs for weighting estimated parameters at age and length,

III E 3. Data quality evaluation

The aim of the sampling is to provide data with precision as indicated in Commission Decision 10121 of 18.12.2009. It is expected that for cod, herring, sprat, and flounder the precision level 3 will be achieved, i.e. average length and weight at age will be estimated with CV of less than 2.5%. Similarly, maturity and sex ratio will be estimated with required precision for above species. Poland uses and will use three methods for estimation of the precession levels of biological parameters as follow: tools of COST, CV from SMALK and bootstrap. These methods will be use progressively to check precession levels reached for biological variables.

III E 4. Regional coordination

Polish DCF running in the Baltic Sea is coordinated regionally by RCM Baltic Sea. So far, Poland do not have any bilateral or multilateral agreements.

III E 5. Derogations and non-conformities

No derogations and non-conformities.

North Atlantic

III E 1. Data acquisition

(a). Selection of stocks to sample

Stock to be included in the sampling scheme for the NA is listed in the table III.E.1.

The Polish fleet exploits Greenland halibut stock in ICES XIV subarea, cod in ICES I&II subareas, and seithe in ICES IV. Only Greenland halibut was chosen for sampling (age, weight, sex-ratio), because Polish landings are more than 10% of EU average. Derogations justification for other stocks is presented in point III E.5.

(b). Type of data collection

Data will be collected from randomly selected units.

(c). Target and frame population

Target populations and frame populations are the same, since Greenland halibut in ICES IXV belongs to one stock with similar growth rate and weight parameters. One sampling trip per year will be conducted.

d). Sampling stratification and allocation scheme

Greenland halibut is G1 species in appendix VII, sampling will be conducted for age, weight and sex ratio. Currently there is no possibility for sampling maturity, as no specific Polish survey is conducted in the area.

III E 2. Estimation procedures

Age Length Keys (ALKs) and length distributions will be used to estimate age distribution of catches and catch-at-age in numbers. Age distributions will be provided by year in Greenland halibut stock fishery. Weight, maturity, and sex -at-age will also be estimated using ALKs for weighting estimated parameters at age and length.

III E 3. Data quality evaluation

Overall regional coverage and the required sampling numbers to reach the precisions levels aimed at by the DCR is a subject of the RCM NS&EA agreements and Poland will meet the precision target.

III E 4. Regional coordination

ICES areas V,XIV are currently coordinated by RCM NS&EA.

Recommendation	Answer
The RCM NS&EA recommends to MS to refer to the table in Annex 5 of its report for elaborating maturity sampling programmes, when drafting their National Programme proposals 2011-2013	No recommendation according to Greenland halibut in ICES XIV is given.

III E 5. Derogations and non-conformities

No derogations and non-conformities.

North Sea and Eastern Arctic

(a). Selection of stocks to sample

Polish fleet exploits cod in ICES areas I&II, and seithe in ICES IV. Derogation justification for stocks is presented in point III E.5.

III E 5. Derogations and non-conformities

Derogation	Justify
Sampling biological parameters of cod in ICES areas I&II	Polish quota corresponds to less than 10% of EU TAC. Exemption rule is justified.
Sampling biological parameters of seithe in ICES area IV	No TAC is given to Poland. Catches depend on quota exchange, but on average landings are less than 10% of Community share. Exemption rule is justified.

Other regions (CECAF &SPRFMO)

III E 1. Data acquisition

(a). Selection of stocks to sample

Stocks to be included in the sampling scheme for the Other regions are listed in the table III.E.1.

CECAF – Atlantic horse mackerel (*Trachurus trachurus*), Atlantic mackerel (*Scomber scombrus*)

SPRFMO – Chilean jack mackerel (*Trachurus murphyi*), chub mackerel (*Scomber japonicus*)

(b). Type of data collection

Probability Sample Survey was chosen, in which data are collected from randomly selected units of a Population.

(c). Target and frame population

Target populations and frame populations are the same.

(d). Sampling stratification and allocation scheme

Samples will be collected during one fishing trip. It is expected that all important biological characteristics of that fishery will be sampled.

III E 2. Estimation procedures

Age Length Keys (ALKs) and length distributions will be used to estimate age distribution of catches and catch-at-age in numbers. Age distributions will be provided by year for each small pelagic stock in relevant fishery. Weight, maturity, and sex -at-age will also be estimated using ALKs for weighting estimated parameters at age and length

III E 3. Data quality evaluation

Overall regional coverage and the required sampling numbers of biological parameters to reach the precisions levels aimed by the DCR will be a subject of the RCM LDF in 2011.

III E 4. Regional coordination

Other regions are currently coordinated by RCM long distance fishery, first meeting took place in 2010 and no official recommendations exist.

III E 5. Derogations and non-conformities

No derogation and non-conformities

III F. Transversal variables

III F 1. Capacity

III F 1 1. Data acquisition

Data will come from the national register of fishing vessels. Assigning a given vessel to a fleet segment will be based on information derived from fishing logbooks. The data will be collected from all active vessels (those which conducted catches on at least one day per year) as well as from inactive vessels (those which do not conduct catches, but which are registered).

III F 1 2. Data quality evaluation

The data collected will refer to the entire population; there is no need for data sampling.

III F 2. Effort

III F 2 1. Data acquisition

The information regarding catch effort will originate from the fishing vessel register, catch logbooks, and monthly reports of fishing boats, which are collected exhaustively. All fishing vessels in excess of 8 meters are required to record data in fishing logbooks. All fishing vessels under 8 meters are required to submit monthly catch declarations that include information regarding daily catches and fishing effort (catch size, area, fishing time, number and type of gears deployed).

Full information is available no sampling or estimations are envisaged.

III F 2 2. Data quality evaluation

MS shall describe the methods used to assure the quality of the collected data (validation rules and consistency among different variables).

In case where effort variables are collected through surveys, information on data quality should be given in terms of accuracy (bias and target precision levels).

III F 2 3. Data presentation

Final data should be available by the end of April.

III F 2 4. Regional coordination

Not applicable.

III F 2 5. Derogations and non conformities

Not expected.

III F 3. Landings

III F 3 1. Data acquisition

Information regarding landings will come from fishing logbooks and first sale documents. All fishing vessels exceeding 8 meters are required to record data in fishing logbooks and submit declarations of first sale and landings. Fishing vessels under 8 meters are required to submit monthly fishing declarations including information regarding daily catches including details on regions fished and species caught.

III F 3 2. Data quality evaluation

Data will cover the whole population.

III F 3 3. Data presentation

Final data should be available by the end of April.

III F 3 4. Regional coordination

Not applicable.

III F 3 5. Derogations and non conformities

Not expected

III G. Research surveys at sea

III G 1. Planned surveys

Investigations of the temporal-spatial distribution and abundance of cod, flounder, herring and sprat in the bottom zone of the southern Baltic (within the Polish EEZ) has been carried out by the Sea Fisheries Institute in Gdynia since 1977. The SFI has employed the r.v. "Baltica" (41-m long stern trawler) for conducting the Baltic International Trawl Surveys (BITS) and the Baltic International Acoustic Surveys (BIAS) since 1995 till present. In the framework of BITS surveys, from 1999 the standard ground-trawl type TV-3#930 has been applied by r.v. "Baltica", and the scheme of spatial distribution and timing of the randomly selected bottom control-catches were designed and co-ordinated by the ICES Baltic International Fish Survey Working Group (WGBIFS). The WGBIFS also co-ordinated the August-October BIAS surveys.

The main aim of the BITS Q-1 and BITS Q-4 surveys (realised by the SFI in February-March and November, respectively) is estimation of abundance of Baltic cod and flounder, and to some extent also clupeids in the Polish parts of the ICES Sub-divisions 25 and 26. The influence of principal hydrological parameters (temperature, salinity, oxygen content) on fish distribution is taken into account and control hauls are repeated in another location when low oxygen level is recorded..

The main goal of the BIAS survey, is estimation of abundance and spatial distribution of herring and sprat using acoustic measurements. For estimation of species composition the control hauls are performed and samples are collected to record length, age, sex, maturity and feeding (stomach fullness) of fish. Basic hydrological parameters are recorded and taken into account when interpreting survey results.

At the begining of the BIAS surveys the standard procedure regarding the SIMRAD EK-60 echosounder calibration (recently nearby the Högö Island (the Swedish EEZ) with a close technical cooperation of the SIMRAD Company specialist and the Institute of Marine Research in Lysekil observer) is repeated every autumn.

Typical maps of research surveys by r/v BALTICA are included in Annex 1.

The methodology of both bottom trawl and acoustic surveys is agreed upon within ICES WGBIFS (http://www.ices.dk/reports/SSGESST/2009/WGBIFS/wgbifs09.pdf). The group undertakes analysis of the survey results, and plans and coordinates future surveys. The manuals for bottom-trawl and acoustic survey in the Baltic were prepared by the group

 $(\underline{http://www.ices.dk/reports/SSGESST/2009/WGBIFS/Addendum\%201.\%20BITS\%20Manual2009.pdf} \ and$

http://www.ices.dk/reports/SSGESST/2009/WGBIFS/Addendum%202.%20WGBIFS%20Bias%20Manua 109.pdf_) and Polish surveys are conducted according to these manuals.

The species composition and biological parameters of fish are obtained from randomly selected bottom control-catches during the BITS survey or pelagic hauls, curried out at the location indicated during the BIAS survey. In the first type of survey, the standard rigging cod ground trawl type TV-3#930 (without bobbins and additional chains connected with the footrope), with 10-mm mesh bar length in the codend is applying and a standard vertical fish-sounder monitored the trawling depth and a bottom condition. Every control-haul is preceded by the basic hydrological parameters measurements, made continuously from the sea surface to a bottom. Hydrological stations are inspected with the Neil-Brown CTD-probe combined with the rosette sampler (the bathometer rosette). Oxygen content is determined by the standard Winkler's method. The WGBIFS "Manual for the Baltic International Trawl Surveys (BITS)", version 2009-04-03" (see the ICES WGBIFS 2009 Report – Addendum 1) is applied during the BIAS survey realization.

In the BIAS type of survey, the herring small-meshes pelagic trawl, type WP53/64x4 (with 6-mm mesh bar length in the codend) is applying. The trawl sonar type WESMAR TCS 700E is applied for controlling the catch depth and a net opening. The ichthyological and acoustic sampling stratification is based on the ICES statistical rectangles, with range of 0.5 degree in latitude and 1 degree in longitude, in given the ICES Sub-division and the clupeids stock present vertical distribution pattern on a transect. The intention is to carrying out at least two control-hauls per the ICES statistical rectangle. The basic hydrological parameters measurements are conducted after fish catches and the very same instruments like in the BITS survey are applied. The SIMRAD EK-60 split beam scientific echosounder with both frequencies, i.e. 38 and 120 kHz as well as the hull-mounted transducer of the beam angle (ATHW) equal to 7.06° x 7.20° are applied for echosounding as a standard technical device. The WGBIFS "Manual for the Baltic International Acoustic Survey BIAS", version 0.81; 2009-04-03" (see the ICES WGBIFS 2009 Report – Addendum 2) and the SIMRAD Company manual for technical devices are used during the BIAS survey realization.

The row data collected during above surveys are stored in the Sea Fisheries Institute database (NPZDRpl) in national format and data are uploaded after every survey to the ICES databases type DATRAS (BITS surveys data) and to FishFrame (BIAS survey data). The above-mentioned databases are managed by the ICES Secretariat (the ICES Data Center). The hydrological measurements results from the BITS and BIAS surveys are annually uploaded to the ICES database (the ICES Data Center). The aggregated acoustic and biological data originated from the BIAS surveys are also stored in the BAD-1 format of international database – managed by assigned the WGBIFS experts. General descriptions of research surveys realised by the SFI are systematically uploaded to the ROSCOP database – managed by the ICES Secretariat.

The SFI has the data from research surveys (from 1995 onwards) to calculate ecosystem indicators 1-4. The data may be used for calculations when clear methodology for estimation is agreed on and presented to the MS.

The SFI intends to conduct the following research surveys with r/v "Baltica" within National Programme for Data Collection:

- the BITS Q1 surveys, within 16 days in February 2011, 2012 and 2013,
- the BITS Q4 surveys, within 12 days in November 2011, 2012 and 2013,
- the BIAS surveys, within 18 days in September/October 2011, 2012 and 2013.

The number of planned fish control-catches and hydrological stations and area covered with echosounding will be on the level from 2009-2010.

III G 2. Modifications in the surveys

At present no deviations from agreed within WGBIFS survey methodology is expected.

III G 3. Data presentation

The surveys research reports will be presented at the annual meetings of the WGBIFS. The selected raw data from surveys (requested e.g. by the WGBIFS and the Baltic Fisheries Assessment Working Group) will be available for users from ICES database, one - two months after survey realisation. The surveys general descriptions within the ROSCOP database format will be accessible about two weeks after survey – on the request to the ICES Secretariat (the ICES Data Center). The surveys brief technical-reports and a general description of each survey will be delivered to the Polish Maritime Fisheries Inspectors Office Headquarters in Gdynia.

III G 4. Regional coordination

International coordination by the ICES – Baltic International Fish Survey Working Group (WGBIFS)

Recommendations	Answer
The group recommends that during the BITS surveys each country samples the relevant DCF Group 2 species for maturity and sexratio, either by direct sexing or applying sexmaturity-age-length keys.	Recommendation will be followed
The group recommends sampling flounder regularly for sex, maturity, age and length and applying the slicing and staining or the burning and breaking methods to determine the age. Reading whole otoliths is considered obsolete.	Recommendation will be followed

III G 5. Derogations and non conformities

No derogations.

IV. Module of the evaluation of the economic situation of the aquaculture and the processing Industry

IV A. Collection of economic data for the aquaculture

IV A 1. General description of the aquaculture sector

The Polish aquaculture sector includes approximately 600 land based farms that breed and rear fish for commercial purposes. Approximately 400 of these specialize in carp production, while the remainder rear rainbow trout. More than half of these facilities breed and rear more than one species, for example brook and silver carp, grass carp, sturgeon, sea trout. 7 fish farms breed and rear Atlantic salmon fry for restocking using two techniques "Hatcheries and Nurseries" and "Combined".

In 2009, aquaculture production was about 36.4 thousand tons. Of this, there were 16.9 thousand tons of trout, 17.0 thousand tons of carp, and 2.5 thousand tons of other species. Sea catches in 2009 was about 211.9 thousand tons. Of this, there were 131.2 thousand tons catches of the Baltic Sea and 80.7 thousand tons of deep-sea catches.

IV A 2. Data acquisition

IV A 2 (a). Definition of variables

All the economic variables set out in Appendix X of Commission Decision 2008949/EC will be addressed in the questionnaire:

- Income:
 - -Turnover -per species;
 - -Subsidies -includes direct payments, e.g. compensation for stopping trading, refunds of fuel duty or similar lump sum compensation payments; excludes social benefit payments and indirect subsidies, e.g. reduced duty on inputs such as fuel or investment subsidies;
 - -Other income.
- Personnel costs:
 - Wages and salaries, including social security costs;
 - Imputed value of unpaid labour —in small aguaculture plants a profit will be calculated as the imputed value of unpaid labour of the owner.
- Energy costs
- Raw material costs
 - -Livestock costs
 - -Feed costs
- Repair and maintenance costs
- Other operational costs including packaging costs.
- Capital costs
 - -Depreciation of capital depreciation of fixed assets and intangible fixed assets will be calculated in accordance with annual depreciation rates listed in Appendix 1 of Law of 9 November 2000 to amend the Income Tax Act of individuals and amending certain other laws.
 - -Financial costs will be calculated on the basis of value of assets, interest on the national five-year Government bonds and inflation.
- Extraordinary costs, net (extraordinary profit from the financial impact of random events that are difficult to predict- extraordinary expenses such as negative financial impact of random events that are difficult to predict).
- Capital value total value of fixed and current assets at the end of the year.
- Net Investments purchase and sale of assets during the year.
- Debt all business liabilities, including credits and loans at the end of the fiscal year.
- Raw material volume in tonnes

- -Livestock
- -Fish Feed
- Volume of sales per species in tones.
- Employment number of persons employed by gender.
- Annual worked time in hours, by gender, to calculate FTE based on the Polish reference level for FTE in the reference year. In Poland the full-time basis is regulated in the Labour Law and in general cannot exceed 8 hours per day, which gives an average of 40 hours in a five-day working week. For example in 2009 in Poland the work year for one worker occupying a paid full time job, was defined as 2024 hours= 253 working days x 8 hours and consume one FTE. One employees working part-time for 1012 hours consume 0.5 FTEFTE -National. By gender

IV A 2 (b). Type of data collection

The study will be census and the questionnaires will be send to all fish farms that breed and rear Atlantic salmon fry for restocking.

IV A 2 (c). Target and frame population

The study will include fish farms that breed and rear Atlantic salmon fry and cooperate with the Panel for Restocking appointed by the Minister of Agriculture and Rural Development to stocking Polish marine areas and the maintenance and conservation of diadromous fishes in the surface inland waters. In 2009, there were 7 such land based farms. 5 of them apply Hatcheries and Nurseries, and 2 of them Combined fish farming techniques.

In accordance with the provisions of Chapter IV, Part A, point of 2.2. Commission decision of 6 November 2008 (2008/949/WE) collecting data for freshwater species is not mandatory.

IV A 2 (d). Data sources

A questionnaire will be used to collect all data. Copy of questionnaire is included in an annex.

IV A 2 (e). Sampling stratification and allocation scheme

IV A 3. Estimation

It is assumed that all rearing facilities and fish farms will return completed questionnaires.

If not, to estimate non-responses fish farms data will be used information on the total stocking amount of salmon fry, obtained from the Panel on Restocking. Based on average figures obtained from the questionnaires will be evaluated for economic variables non-response fish farms.

IV A 4. Data quality evaluation

Unit response rate will be used as indicator of accuracy. Defined as the ratio of number units for which data for at least same variables have been collected to the total number of units designed for data collection.

IV A 5. Data presentation

To end users data will be available at the end of the NP-year, one year is the time lag with respect to the reference year.

According to article 38 Law issued on 29 June 1995 on official statistics it shall not be allowed to publish or disseminate obtained in statistical surveys of official statistics statistical information which can be linked or can identify natural persons or individual data characterizing business entities, especially if the aggregated data consist of less than three entities or the share of one entity in the compilation is higher than the three-fourths of the total.

IV A 6. Regional coordination

The national data collection program does not entail any regional program coordination with other Member Countries regarding aquaculture.

IV A 7. Derogations and non conformities

Not applicable.

IV B. Collection of data concerning the processing industry

IV B 1. Data acquisition

IV B 1 (a). Definition of variables

The study will be performed with questionnaires that include all economic parameters included in Appendix XII of Commission Decision 2008/949/EC:

All the economic variables set out in Appendix X of Commission Decision 2008949/EC will be addressed in the questionnaire:

- Income:
 - -Turnover:
 - -Subsidies -includes direct payments. Excludes social benefit payments and indirect subsidies;
 - -Other income.
- Personnel costs:
 - Wages and salaries, including social security costs;
- Imputed value of unpaid labour —in small processing firms a profit will be calculated as the imputed value of unpaid labour of the owner;
 - Energy costs -expenses for electricity, water, heating and other forms, fuel, and gases
 - Raw material costs purchase of fish and other raw material for production
 - Other operational costs including packaging costs, contracted services such as cleaning fish, transportation, storage, waste removal, etc.), incurred costs such as property and vehicle taxes, property insurance, replacing used work garments, etc.;
 - Capital costs
 - -Depreciation of capital depreciation of fixed assets and intangible fixed assets will be calculated in accordance with annual depreciation rates listed in Appendix 1 of Law of 9 November 2000 to amend the Income Tax Act of individuals and amending certain other laws.
 - -Financial costs will be calculated on the basis of value of assets, interest on the national five-year Government bonds and inflation.
 - Extraordinary costs, net (extraordinary profit from the financial impact of random events that are difficult to predict- extraordinary expenses such as negative financial impact of random events that are difficult to predict).
 - Capital value total value of fixed and current assets at the end of the year.

- Net Investments purchase and sale of assets during the year.
- Debt all business liabilities, including credits and loans at the end of the fiscal year.
- Employment Average number of persons employed by gender.
- Annual worked time in hours, by gender, to calculate FTE based on the Polish reference level for FTE in the reference year. In Poland the full-time basis is regulated in the Labour Law and in general cannot exceed 8 hours per day, which gives an average of 40 hours in a five-day working week. For example in 2009 in Poland the work year for one worker occupying a paid full time job, was defined as 2024 hours= 253 working days x 8 hours and consume one FTE. One employees working part-time for 1012 hours consume 0.5 FTE.

IV B 1 (b). Type of data collection

The study will be census and questionnaire with economic variables will be sent to all processing firm.

IV B 1 (c). Target and frame population

The study will include all legal business entities, including legal personalities and organizational units without legal personality and individuals operating fish and other aquatic animal processing facilities that are listed as meeting the standards of Council Regulation (EC) no. 853/2004 of April 29, 2004, which sets forth detailed requirements regarding hygiene in foodstuffs of animal origin, Appendix IIII Section VIII Fisheries Products. Also included will be entities listed as qualified to make direct sales in accordance with the regulation of the Minister of Agriculture and Rural Development of December 29, 2006 regarding veterinarian requirements during the production of products of animal origin for direct sale (Journal of Laws of 2007. No. 5, pos. 38). Participation in the study is obligatory for all fish processing facilities according to the regulation of June 29, 1995 on public statistics (Journal of Laws. No. 88, pos. 439, with later amendments). The population cover enterprises whose main activity is defined according to the Eurostat definition under NACE Code 10.20: 'products'. 'Processing and preserving of fish, crustaceans and mollusks' and also enterprises that carry out fish processing but not as a main activity.

IV B 1 (d). Data sources

A questionnaire will be used to collect all data. Copy of questionnaire is included in an annex.

IV B 1 (e). Sampling stratification and allocation scheme

IV B 2. Estimation

It is assumed that all processing facilities obliged to return completed questionnaires will comply.

The estimation of the economic variables of the firms that do not have sent the questionnaires for the reference year, but in the database of the Poland-NP are data from questionnaires submitted in previous years, will be based on available data and the rate of change in the reference year compared to previous years calculated on the basis of the submitted questionnaires.

IV B 3. Data quality evaluation

Unit response rate will be used as indicator of accuracy. Defined as the ratio of number units for which data for at least same variables have been collected to the total number of units designed for data collection.

IV B 4. Data presentation

To end users data will be available at the end of the NP-year, one year is the time lag with respect to the reference year.

According to article 38 Law issued on 29 June 1995 on official statistics it shall not be allowed to publish or disseminate obtained in statistical surveys of official statistics statistical information which can be linked or can identify natural persons or individual data characterizing business entities, especially if the aggregated data consist of less than three entities or the share of one entity in the compilation is higher than the three-fourths of the total.

IV B 5. Regional coordination

The national data collection program does not entail any regional program coordination with other Member Countries regarding fish processing.

IV B 6. Derogations and non conformities

Not applicable.

V. Module of the evaluation of effects of the fishing sector on the marine ecosystem

Fisheries independent research survey data are needed for calculations of indicators 1-4. Recorded species, their length, weight, age, maturity and abundance contribute to the calculation of ecosystem indicators and their availability is specified below.

Indicators 1-3.

No	Indicator name	Area	Years	Surveys
1	Conservation status of fish species	27.3.d.24	1992-2010,	BITS1q, BITS4q
2	Proportion of large fish	27.3.d.25	but	
3	Mean maximum length of fishes	27.3.d.26	standard gear	
			for all	
			research	
			vessels in	
			Baltic Sea	
			were usef	
			since 2000	

Indicator 4

No	Indicator name	Area	Years	Surveys
4	Size at maturation of exploited	27.3.d.24	1992-2010	BITS1q, BITS4q,
	fish species	27.3.d.25		BIAS
		27.3.d.26		

Indicators 5-7 are presented in table V.1. These indicators are based on VMS data. SFI has access do VMS system and to download needed data.

Indicator 8, "Discarding rates of commercial exploited species", will be based on recorded data about catches and discards during sampling at sea by observers.

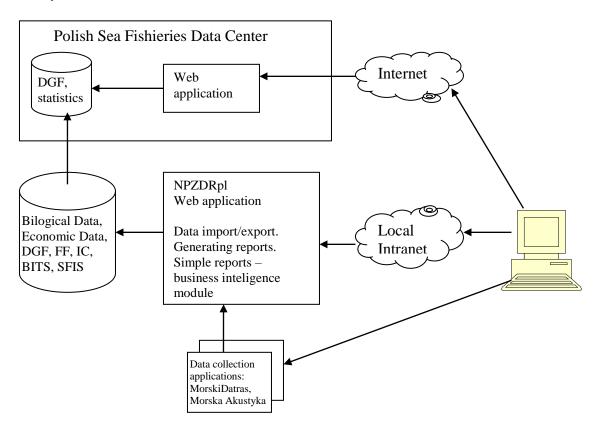
Indicator 9, "Fuel efficiency of fish captured"

Fuel efficiency will be calculated based on the mean fuel consumption per fishing day for a given gear category (Level 3). Based on this information as well as the number of fishing days, the cost of fuel for various fishing methods will be calculated. The quarterly catches according to fishing method and mean quarterly averages will by calculated based on the volume of quarterly catches according to fishing method, and the average quarterly price of fish from various gear groups (Level 3).

VI. Module for management and use of the data

VI a. Management

Structure of the databases are presented below. It includes core database NPZDRpl accessing by local intranet and Polish Data Center accessing by internet. Raw biological and economical datasets, some detailed data and research surveys data are hosted in database NPZDRpl. Aggregated data and metadata are mainly stored in DGF database



Technical measures to protect the data validation / data transformation process includes:

- Symantec Backup Exec System Recovery Starter Kit Standard License 1
- Symantec Backup Exec System Recovery Server Standard License 5
- Symantec Backup Exec 12.0 + Agents
- F-Secure Anti-Virus

- Library type IBM, Model3581-L3H, LTO Ultrium 3 * 8
- Windows Server 2003 Standard
- SERVER NPZDR #1 IBM Model X346,
- SERVER NPZDR #2, HP Model, PROLIANT DL360G5
- Windows Server 2003 Standard, connected to server MIR_NAS
- SQL Server 2000 + 20 licenses CAL

The works with establish the Polish central website servicing as deposit of the DCF data, acc. to Comm Reg. 655/2008. are in finally stage. Website will be in operation in 2010.

The information data about of all requests for fishery data/or transmission data will be store in Recording table. This table is incorporated in construction of the web page.. All parameters stated in Article 9, 2a and 2b will be inside table.

Biological data from commercial fisheries and form research surveys are entered to database by two steps. First, all new data are entered by samplers to "waiting room", next administrators of the data are doing checking, talking to samplers, and if data needed any correction they do it. Finally data are release to database by species-oriented administrators. Similar process is running with economic data. Detailed and aggregated data are produced by administrators of the data and main checking means is compare its with historical data and with looking again to raw data and possibly correct them. Most of economic historical data are close to changes.

Landing data, notes data and VMS data are recorded in databases running by Fishery Monitoring Center of MARD. SFI has direct access to above data. In SFI database NPZDRpl are stored historical data from previous years.

VI.b. Use of the data

VI.A.1.1 Users

Users are at the top of the system. The users are mainly form quarter of SFI in Gdynia and from branch of SFI in Swinoujscie. Users have access to data from the central database NPZDRpl, located in Gdynia, using intranet, or VPN method The access is restricted to registered users, with different levels of competencies.

VII. Follow-up STECF recommendations

Recommendation	Responsive actions
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SGRN, EVALUATION OF THE 2008 TECHNICAL REPORTS - GENERAL COMMENTS	Polish database is operational
SGRN would like to note that several MS have stated that their databases are still under construction; however a number of years have passed since the start of the data collection regulation (2002 or 2005 depending on MS). SGRN points out those databases should have been fully developed by now, except for minor updates due to new reporting obligations. MS are asked to confirm that their data bases are operational.	
SGRN Evaluation of Nat. Prog. 2009-2010,	Poland will use the provided tools for precision
General Comments on the National Programme	analyses.
Several MS referred to the COST project results due in 2009, before starting the statistical analysis procedures for sample optimisation. SGRN consider this as a feasible strategy to ensure standardization across MS. The COST project will finish in May 2009 and will then be reviewed. SGRN advise MS that there are many basic methods available to conduct sample optimisation and encourage MS to use these.	

VIII. List of derogations

Poland requests the following derogations:

Short title of derogation	NP Proposal section	Derogation approved or rejected	Year of approval or rejection of past requests for derogations
To remove obligation	III.D	Salmon recreational fishery.	
for collection data for		Recreational fishing for salmon	
Polish recreational		accidentally takes place in	
fisheries for salmon.		rivers and open sea angling in	
		Polish waters does not occur	
To remove obligation	III.D	Eel recreational fishery will be	
for collection data for		investigated within the	

Eel recreational fishery. Sampling of metier OTB_DEF_>120_0_0 targeting cod in ICES I&II area	III.C	framework of Polish Eel Management Plan following Council Regulation 1100/2007 adopting Eel Management Plan (EMP). Only one trip per year by one commercial vessel is conducted. Landings take place in Iceland, therefore there is no obligations to sample. Discarding in ICES area I&II is	
Sampling of metier OTB_DEF_>120_0_0 targeting seithe in ICES IV area	III.C	prohibited. Only one trip per year by one commercial vessel is conducted. Landings take place in Norway/Iceland, therefore there is no obligations to sample. Discard rate is less than 10%.	
Sampling biological parameters of cod in ICES I&II subareas	III.E	Only Polish quota correspond to less than 10% of EU TAC. Exemption rule is justified.	
Economic variables – data publishing	III.B	Due to statistical confidentiality, it is not possible to publish data on the economic results of the deepsea vessels (this segment of the fleet is comprised of 3-4 vessels). Moreover distinct technical parameters of these vessels, don't let merge the vessels with other segments (e.g., PTS-24-40)	
Sampling biological parameters of seithe in ICES IV subarea	III.E	No TAC is given to Poland. Catches depend on quota exchange, but on average landings are less than 10% of Community share. Exemption rule is justified.	

IX. List of acronyms and abbreviations

DCR/DCF	Council Regulation (EC) No 199/2008
	Commission Regulation (EC) No 665/2008
	Commission Decision (2008/949/EC)
ICES HAWG	ICES
ICES NWWG	ICES North Western Group
ICES WGBFAS	ICES Baltic Fisheries Assessment Working Group
ICES WGBAST	ICES Baltic Salmon and Trout Working Group
MARD	Ministry of Agriculture and Rural Development in Warsaw
SFI	Sea Fisheries Institute in Gdynia
DATRAS	Database Trawl Survey
FISHFRAME	Fisheries & Stock Assessment Data Framework
BAD1	Baltic Acoustic Database 1
BAD2	Baltic Acoustic Database 2
LM	Liaison of RCMs
RCM	Regional Co-ordination Meeting
NPZDRpl	Polish database for hosting of DCF fishery biological and economical data

X. Comments, suggestions and reflections

XI. References

Radtke K., Dąbrowski H. 2010. Połowy sportowo-rekreacyjne dorszy – trzy lata później (in Polish). Wiadomości Rybackie, Morski Instytut Rybacki, Gdynia. No 7-8(176):8-10

XII. Annexes

1. Typical research survey maps

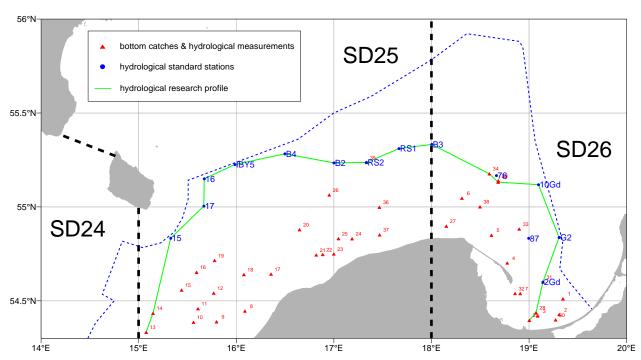


Fig. 1. Location of the fish control-catches curried out during the r.v. "Baltica" BITS-Q1 survey (February 2010), with the standard cod bottom trawl type TV-3#930 and hydrological stations inspected within the Polish EEZ (blue dashed line).

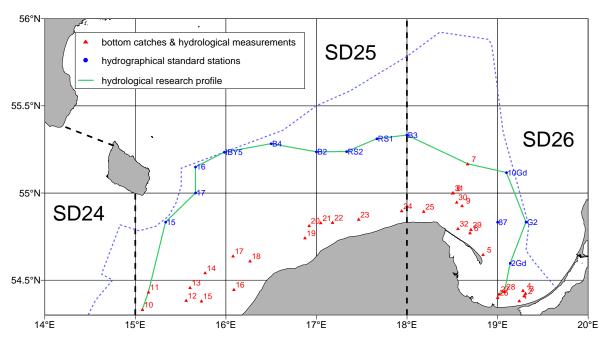


Fig. 2. Location of the fish control-catches curried out during the r.v. "Baltica" BITS-Q4 survey (November/December 2009), with the standard cod bottom trawl type TV-3#930 and hydrological stations inspected within the Polish EEZ (blue dashed line).

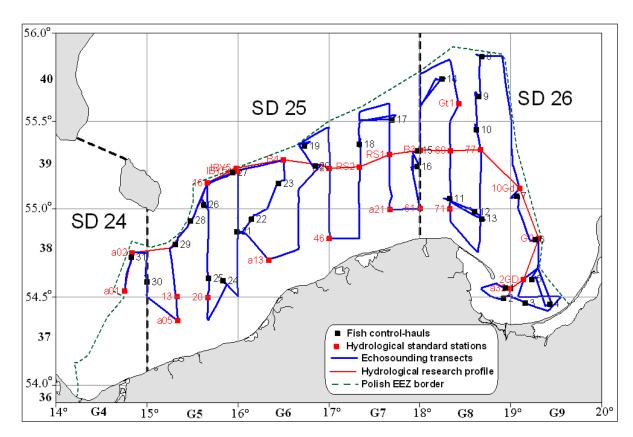


Fig. 3. Location of the acoustic transects, and the fish control-catches curried out during the r.v. "Baltica" BIAS survey (October 2009), with the herring small-meshes pelagic trawl, the hydrological standard stations and the hydrological research profile monitored in the southern Baltic (within the Polish EEZ) in October 2009.

2. Indicative cost 2011-2013

- EURO -

Year	Planned eligible expenditure	Maximum Community contribution
2011	1 046 307,04	523 153,52
2012	1 081 331,52	540 665,76
2013	1 135 706,80	567 853,40
TOTAL	3 263 345,36	1 631 672,68

^{* -} to be inserted into the National Programme

Echange rate ECB 22.03.2010

3,925