Technical Report on the National Data Collection Program under Commission Regulation (EC) N° 1639/2001 as amended by Commission Regulation (EC) N° 1581/2004

ESTONIA 2007

Table of contents

1. Introduction

This document describes the results of the Estonian National Programme for collection of data in the fisheries sector in 2005. The programme has been developed and performed in accordance with the rules laid down in the *"Commission Regulation (EC) N^0 1639/2001 of establishing the Minimum and Extended Community Programmes for the collection of data in the fisheries sector and laying down detailed rules for the application of Council Regulation (EC) N^0 1543/2000"*, and STECF comments on the proposal.

The year 2007 is covered by the Technical Report.

2. Participating institutes

2.1. National correspondent

Estonia has assigned the Estonian Ministry of the Environment as the National Correspondent. Contact person is:

Kunnar Klaas
Estonian Ministry of the Environment
Narva mnt 7a
15172 Tallinn, Estonia
Phone: +372 62 60 714
Fax: +372 62 60 710
E-mail: kunnar.klaas@envir.ee

2.2. Participating institutes

Estonian Marine Institute, University of Tartu

10a Mäealuse Street

12618 Tallinn, Estonia

phone +372 6718901 (secretary)

fax +372 6718900

www.sea.ee

3. Precision levels

3.1. Required and achieved precision levels

Precision levels should be given on several parameters listed in the different modules in the Data collection regulation (DCR) EC No 1639/2001. Achieved level of precision, data source and calculation method used should be given in table 3.1. For several parameters, 100% of data were covered by sampling in 2007. For module I and discards, no agreed tools for calculation precision were suggested on an international level. Precision levels were therefore not calculated.

3.2. Methods used to calculate precision levels

Consultations with experts and our attempts to calculate precision levels indicate that (using the same dataset) outcome of the exercise vary a lot depending on the method used. Therefore, it seems to be of great importance to agree on what method to be used in national programmes, to receive comparable results between countries, before increasing the national effort of calculating CV´s on different parameters and stocks.

3.3 Other relevant issues

The final aim of the DCR is to provide high-quality data for stock assessment. There are three main sampling methods in use, but even the same method is used differently (in terms of stratification) even in neighbouring countries (WKSDFD, Workshop on Sampling Design Fisheries Data 2005). Therefore we suggest harmonizing the sampling program on a regional level. It will enable to combine data on the appropriate level of aggregation and to optimize the sampling strategy in terms of precision and cost.

4. Data transmission

4.1. Data transmitted

Overview of the data that were transmitted to international working groups, study groups, advisory committees, *ad hoc* expert groups, etc. is in Table 4.1.

In addition, data requested by the Commission (e.g. on discards) were transmitted.

4.2. Reasons for non-transmission of data

No non-transmission of data, when their transmission has been requested.

5. Module C - Fishing capacities

5.1. MP - Required and achieved sampling

All the relevant information was obtained from Estonian Fisheries Information System (EFIS) (https://kala.envir.ee/) which also includes the fishing vessel register.

All Estonian fishing vessels with the right to undertake commercial fishery (including all vessels < 10 m in length) are registered in the Fishing Vessel Register. The Fishing Vessels Register is a computerized database and includes the following information:

- Vessel type e.g. trawler, seiner
- Age of the hull.
- Dimensions of the vessel; GRT or GT, length.
- Engine power.
- Vessel owner.

According to EFIS, most of fishing vessels are less than 10 m in length.

5.2. MP - Deviations from aim

No.

5.3. EP - Required and achieved sampling

No data collection was carried out within the framework of the extended program.

5.4. Actions taken to avoid shortfalls

No.

6. Module D - Fishing effort

6.1. MP - Required and achieved sampling

Fuel consumption
Calculations of the average annual fuel consumption expressed in volume units for vessels in the respective segments (as defined in Appendix III) and the average cost will be dealt with in the collection of economic data on the fishing fleet.

Fishing effort by type of fishing method
Fishing effort defined as the sum of weighted (as defined in Appendix V) fishing days (as defined in D.1.a) with a particular fishing method (as defined in Appendix VIII) by specific area (Level 3 as defined in Appendix I) is (in most cases) available from data stored in the EFIS.

The effort defined as the sum of weighted (as defined in Appendix V) fishing days (as defined in D.1.a) with a particular fishing method (as defined in Appendix III) by area (Level 3 as defined in Appendix I) and vessel length category (as defined in Appendix IV) can obtained from data in EFIS.

Also, effort defined as the sum of weighted (as defined in Appendix V) fishing days (as defined in D.1a) with a particular fishing method (as defined in Appendix VIII) by division (as defined in Appendix I) and species (as defined in D.1a (iii) and as defined in Appendix VI) can be calculated from data in EFIS.

The following data are available for the year 2007:

DATA	**SOURCE**
Fuel consumption	Questionnaires
Fuel prices	Statistical Office of Estonia
Number of fishing days with a particular type of gear (as defined in Appendix III+IV)	Estonian Fisheries Information System (EFIS), based on log books, fishermen diaries
Catching area (as defined in Appendix I)	EFIS, based on log books, fishermen diaries
Period	EFIS, based on log books, fishermen diaries
Quantity by species (as defined in Appendix VIII)	EFIS, based on log books, fishermen diaries, sales notes; sampling data (EMI)
Vessel length (as defined in Appendix III)	EFIS, vessel register

The fishing effort is estimated for every quarter by mechanical processing of reported data (log books, sales notes, sampling, etc.). All segments are covered and the required precision level can obviously be achieved.

6.2. MP - Deviations from aim

No.

6.3. EP - Required and achieved sampling

No data collection was carried out within the framework of the extended program.

6.4. EP - Deviations from aim

Not applicable.

6.5. Action taken to avoid shortfalls

EFIS updating is still in progress (see section Databases).

7. Module E - Catches and landings

7.1. MP - Landings - Required and achieved sampling

Landings data (based on logbooks and fishermen diaries) for all MP and EP species, as well as for several other species are stored in EFIS. Also, sales notes data and first buyers' data are stored in EFIS. All fishing vessels, also vessels less than 10 m in length, are included in the database. There are separate modules for trawl fishery (in the Baltic Sea and in other regions), coastal fishery and (since 2005) for recreational fishery.

Commercial landings of all stocks relate to the total landed quantity and can be obtained by species sub-divided by catching area and by year and also by gear. For the fish stocks specified in Appendix XII to Commission Regulation (EC) No. 1639/2001, details of discards were studied in 2005-2007. No discard data (except for NAFO area) is included in EFIS as discarding has not been a normal procedure in the Estonian EEZ.

The geographical origin of catches and landings is reported al least at level 2, Appendix I, in Commission Regulation (EC) No. 1639/2001. For stocks included in Appendix XII of the regulation, the aggregation level meets the terms specified for the different areas.

The aggregated data meet the requirements in respect of accuracy stipulated in Chapter 3.E.1.c of the Commission Regulation.

The information in the Sales Notes database (a part of EFIS) is registered according to the provisions of Council Regulation (EC) No 2847/93 and No 104/2000.

It should be mentioned that all landings are recorded and there is no derogation for vessels less than 10 m. This means 100% coverage for all landings.

Details of the landed quantity are collected from fishermen and first-hand buyers in accordance with Council Regulation (EC) No. 2847/93. Data will reflect the Estonian landings in Estonia and abroad and transshipment to third country vessels as well as other countries´ landings in Estonia.

Details in respect of the value of the landed quantities sub-divided by species is available in the context of the economic data in accordance with Chapter 4.J.

For all stocks, the quantities landed in Estonia are available on monthly basis. The reported quantities will relate to the adjusted catch after having conducted a cross-checking of data from the log books, landing declarations, sales notes and sampling.

Herring and sprat trawl fishery is often a mixed fishery. Proportion of herring and sprat in landings was determined in every sampling of herring and sprat in 2007. Additionally, proportion of herring and sprat in catches was determined by cetacean observers onboard of fishing vessels.

7.2. MP - Landings - Deviations from aim

No.

7.3. EP - Landings - Required and achieved sampling

Monthly landings from stocks listed in Appendix XIII, as well as catches of salmon taken in estuaries and rivers of the Baltic Sea were collected from the same sources as in MP. Desegregation level: data have been collected on monthly basis, and by the geographical level 3 areas according to Appendix 1.

7.4. EP - Landings - Deviations from aim

No.

7.5. MP & EP - Discards - Required and achieved sampling

An overview of the planned and achieved numbers of sea-going observer trips per fleet segment or métier, the planned and achieved numbers of hauls analysed for discards, the proportions of fishing voyages sampled, and the species covered by discard sampling is given in standard table 7.1. Data on potential discards in coastal fishery, based on the analysis of whole catches of commercial catches and test fishing, is also included. Test fishing is a routine part of the Estonian NP, and separation of the part of the catch which should be discarded (undersized fish, damaged fish, species which fishery is not allowed) can be done.

Discard data for trawlers operating in the NAFO area were gathered by staff of the Estonian Marine Institute (specifically trained NAFO observers) on board of vessels, parallel to gathering other data for the National Programme. During 2007, length and age of discards was sampled only in shrimp fishery in NAFO 3M and 3L. In other (finfish) NAFO and NEAFC fisheries, discarding was very low (5 t of the total landings of 1800 t, or < 3%), and discarding mostly included "MZZ" species (the species not included in the lists of MP or EP species). In these fisheries, only quantities of discarded fish were registered.

7.6. MP & EP - Discards - Deviations from aim

No.

7.7. MP - Recreational - Required and achieved sampling

In general, catches of salmon, sea trout and cod by recreational fishermen are small. In the internet inquiry (October-November 2004, 1233 responses) only 2 persons reported the catch of cod, 31 – catch of salmon, 16 – catch of sea trout (in the case of salmon and trout, catches both in the sea and in rivers are included). The next inquiry will be performed in 2008.

Data on catches of cod, salmon and sea trout (as well as other species) by recreational fishermen in 2007 can be obtained from EFIS. Reporting of catches is mandatory since 2005. The proportion of recreational catch in the total catch was between 10-20% in the case of cod, sea trout, salmon and flounder. The following Table includes data for 2007:

Species	Commercial catch (coastal fishery), t	Recreational catch, t	Total, t	Recreational, %
MP species				
Cod	0,624	0,118	0,742	15,9
Eel	9,011	0,229	9,24	2,5
Salmon	5,544	1,008	6,552	15,4
Sea trout	12,341	2,665	15,006	17,8
Flounder	327,532	42,6	370,132	11,5
Baltic herring	6996,685	1,232	6997,917	0,0
Sprat	29,078	0,064	29,142	0,2

7.8. MP - Recreational - Deviations from aim

Length, weight and age composition of recreational catches was not studied in 2007, due to low volumes of catches and financial restrictions.

7.9. EP - Recreational - Required and achieved sampling

Data of the internet questionnaire (autumn 2004) and winter on-site census in Pärnu Bay (winters 2003/2004 and 2004/2005) showed that, among EP species, *Esox lucius* and *Perca fluviatilis* are caught by 25-30% of recreational fishermen (in counties attached to the sea), followed by *Sander lucioperca*, *Anguilla anguilla* (a MP species) and *Coregonus lavaretus* (1-3%). Winter under ice catches of *Perca fluviatilis* by recreational fishermen in Pärnu Bay (Gulf of Riga) are substantial and, according to 2003/2004 and 2004/2005 census, may reach several hundred tonnes annually and even

exceed the commercial catch. Furthermore, immature perch (under the legal minimum size) is prevailing in these catches. Recreational catches of perch and pike will be monitored in 2008.

Catches by recreational fishermen (angling data not included but this method is the most common in winter under ice fishery) in the Baltic Sea are available in EFIS. The total catch of MP and EP species in 2007 was as follows:

Species	Commercial catch (coastal fishery), t	Recreational catch, t	Total, t	Recreational, %
EP species				
Perch	1117,218	11,91	1129,128	1,1
Pikeperch	94,037	0,779	94,816	0,8
Pike	19,645	1,917	21,562	8,9
Whitefish	27,759	6,197	33,956	18,3

These data indicate that only in the case of whitefish, proportion of fish taken by recreational fishermen is substantial, but still only 6 t.

Actual catch of perch (several hundred tons as a estimate) and pikeperch are under estimated as angling data is not included in EFIS. Most of this volume is taken by anglers under ice in Pärnu Bay. However, due to climatic situation (short period of ice), angling in Pärnu Bay in winter 2007/2008 was much less intensive than normally.

7.10. EP - Recreational - Deviations from aim

Length, weight and age composition of recreational catches was not studied in 2007, due to low volumes of catches and financial restrictions. Under ice angling was not studied due to absence of ice and negligible under-ice fishery in winter 2007/2008.

7.11. Action taken to avoid shortfalls

No.

8. Module F - Catches per unit effort

8.1. MP - Required and achieved sampling

Catch per unit of effort (CPUE) data are in table 8.1.

Catch per unit of effort (CPUE) data from Estonian commercial fleets are used by two international scientific assessment groups:

1) CPUE of herring trapnet fishery in the Gulf of Riga is used by ICES.
2) CPUE of shrimp trawlers in NAFO area (3M, 3L) is used by NAFO SC.

CPUE data for herring trap-net fishery will be collected, as in previous years, according to the rules of ICES. CPUE data for shrimp trawlers were collected on monthly basis, as required by the shrimp assessment group of NAFO, on all vessels by observers employed by MI. Also, vessel parameters and gear type were registered.

CPUE data on salmon and sea trout smolt production was studied, as in earlier years, by electrofishing in rivers. In addition, smolt trapping was performed in the Pirita River in spring 2007 (as in 2005-06).

CPUE data for both Appendix XII species_(the MP-species) species (cod, herring, flounder, herring) and several Appendix XIII species (the EP-species – pikeperch, perch, pike, whitefish, turbot) were gathered in 8 permanent sampling areas (and additionally in several areas using financing from other sources) using gill nets. These permanent areas (in different regions of the Estonian coast) are fished, using standard methods (gill net survey) since 1991-97 (depending on the area) and the results of this test-fishing form the basis for scientific advice for coastal stocks in Estonia already for several years. Part of these data (gathered in an HELCOM reference area) is submitted to HELCOM (COBRA).

8.2. MP - Deviations from aim

No.

8.3. EP - Required and achieved sampling

No.

8.4. EP - Deviations from aim

No.

8.5. Actions taken to avoid shortfalls

No.

9. Module G - Scientific evaluation surveys

9.1. MP - Required and achieved Priority 1 surveys

9.1.1. Herring Acoustic Survey

Herring acoustic survey was performed, as in earlier years, in two parts (Table 9.1).

A) *Estonian-Latvian joint acoustic survey in the Gulf of Riga*
Aim: To obtain fishery-independent information on abundance and biomass as well as on distribution pattern of the Gulf of Riga herring.

Achievements: The planned survey was fully executed.

Data: collected data are stored in national databases in EMI and Latvian Fisheries Agency

- Acoustic track 519 Nm (see track map)
- no underwater TV tracks were planned and performed
- Fish hauls performed 15 (marked on track)
- No tagging were planned and performed
- Only standard methods were deployed

B) International Acoustic *Survey in the Sub-divisions 28, 29 & 32* (October 2007)

In earlier years, this survey was performed by EMI using a rented fishing vessel. In 2007 (as in 2006), Finland joined the survey, and the whole Gulf of Finland (except for the Russian zone) was covered using a rented Polish research vessel.

Aim: To obtain fishery-independent information on abundance and biomass as well as on distribution pattern of the pelagic stocks in Sd 28, 29 and 32 (part).

Achievements: The planned survey was fully executed.

Data: collected data are stored in national database in EMI as well as incorporated into the international BAD1 database.

- Acoustic track 519 Nm (see cruise map)
- no underwater TV tracks were planned and performed
- Fish hauls performed 25 (marked on track)
- No tagging were planned and performed

- Only standard methods were deployed

9.1.2. Baltic International Trawl Survey (BITS)

Aim: To obtain fishery-independent information on composition, and abundance and biomass as well as on distribution pattern of demersal stocks in Sd 28 and 29 (Table 9.1).

Achievements: The planned survey was executed in full scale.

Data: collected data are stored in national database in EMI as well as incorporated into the international DATRAS (ICES) database.

- no acoustical surveys were planned and performed
- no underwater TV tracks were planned and performed
- Fish hauls performed 10 (as planned)
- No tagging were planned and performed
- Only standard methods were deployed.

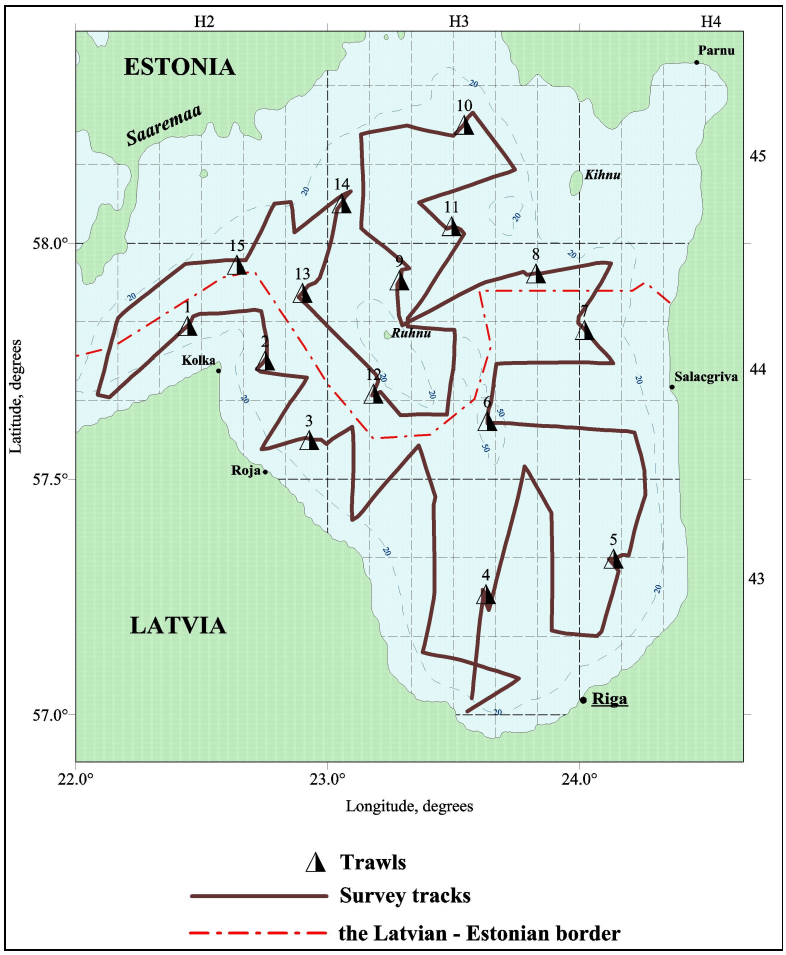

Fig. 9.1 Acoustic survey track and trawl positions in the Gulf of Riga, 2007.

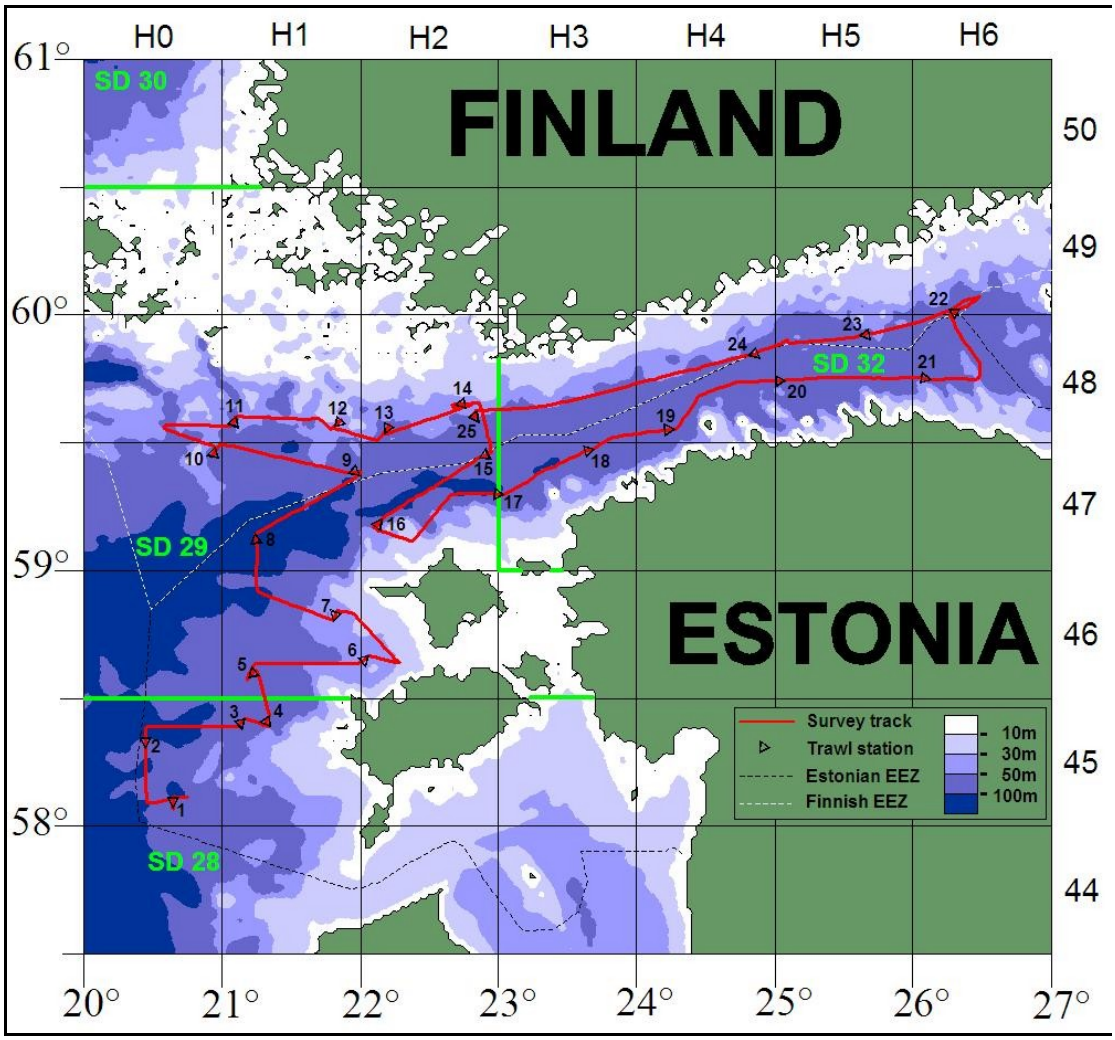

Fig. 9.2 Acoustic survey track and trawl positions in the NE-Baltic, 2007.

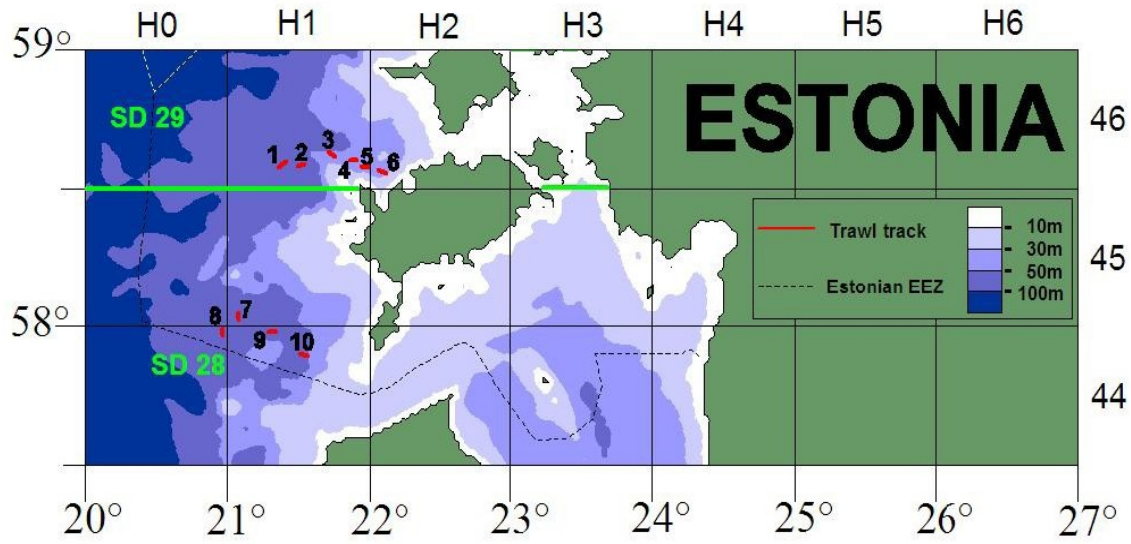

Figure 9.3. BITS_EST 2007 survey, location of trawling sites in 2007

9.2. MP - Deviations from aim

No.

9.3. EP - Required and achieved Priority 2 surveys

None.

9.4. EP - Deviations from aim

Not applicable.

9.5. Actions taken to avoid shortfalls

No.

10. Module H - Length and age sampling

10.1. MP - Landings - Required and achieved sampling

Details on the number of length and age measurements required (i.e. according to the provisions of the DCR), planned (i.e. according to the MSs NP proposal) and achieved, for all stocks listed in the NP Proposal and for some other (additional) stocks are in Table 10.1.

10.2. MP - Landings - Deviations from aim

Clupea harengus, Salmo salar, Salmo trutta and *Platichthys flesus* were over sampled; however, sampling was on the level of previous years. In the case of *Sprattus sprattus*, age was over sampled (200%; oversampling occurred also in previous years) as compared to the requirements of the DCR but sampling was less than initially planned in the 2007 NP. This reduction in age sampling was due to adjustments to sampling intensity of other Baltic states (average for the Baltic – oversampling 2.1 times of the DCR requirements, which is considered by the Baltic fisheries WG as “safe”).

At the same time, *Anguilla anguilla* was under sampled due to difficulties in obtaining samples (catches in 2007 were very low).

In NAFO area, some stocks not included in the 2007 NP were sampled. The same applies for NEAFC. Length and age sampling of these stocks was done in *ad hoc* basis, as these fishing trips (and catch composition) could not be foreseen during the submission of 2007 National Programme.

Length of *Pandalus borealis* was, as in 2005-06, over sampled. The reason is that 1) Estonia is the major shrimp fishing country in the area, 2) measuring of shrimp was included in the normal (routine) work plan of specifically trained NAFO observers (employed by EMI); this over sampling was covered from national sources (observers program).

Redfish and Greenland halibut age was also over sampled. However, this did not increase the cost of sampling (it was done by observers on board); age of these species is not read due to the lack of specifically trained people, but samples are available for interested laboratories. At the same time, length of redfish in NAFO 3M was substantially undersampled as compared to the 2007 NP. The reason is that redfish fishery was mostly conducted in other areas (NAFO 3O, NEAFC IIa and XII). These fisheries were also sampled for length and age (Table 10.1). The same applies for the Greenland halibut (most of sampling was done in NAFO 3LN fishery). Rays were not sampled for length. According to 2007 NP, we planned only preliminary survey of the elasmobranch fishery. Additional training of observers in species identification and sampling procedures of rays is needed.

10.3. EP - Landings - Required and achieved sampling

Details on the number of length and age measurements planned (according to the MSs NP proposal) and achieved, for all stocks listed in the NP Proposal are in Table 10.2.

10.4. EP - Landings - Deviations from aim

Coregonus lavaretus, Psetta maxima and *Esox lucius* were undersampled (as in 2005 and 2006). The reason is low level of commercial catches which lead to difficulties in obtaining samples. These species are mostly taken as by-catch, no directed fishery (except for whitefish – some directed gillnet fishery).

Perca fluviatilis and *Sander lucioperca* were over sampled; the sampling rate was similar to that in 2006 and earlier years. These are the most important commercial species (together with herring) in coastal areas of Estonia.

10.5. MP & EP - Discards - Required and achieved sampling

An overview of the numbers of length and age measurements achieved during the discard sampling programs in 2007 is in Table 10.3.

For the Baltic species, only "potential" discard data (undersized, damaged, not allowed to fish species) were obtained (based on the analysis of the whole catch); all catch (in the case of herring and sprat – sample) was measured and a part of the catch (to cover all length groups) was aged.

10.6. MP & EP - Discards - Deviations from aim

No.

10.7. Action taken to avoid shortfalls

No.

11. Module I - Other biological sampling

11.1. MP - Required and achieved sampling

An overview of the long-term sampling strategy with respect to "Other biological parameters" is in Table 11.1.

An overview of the achieved sampling for length at age (if applicable), sex ratios, sexual maturity and fecundity (if applicable) in the reference year are in tables 11.2. and 11.3.

11.2. MP - Deviations from aim

Data on sex ratios were also obtained for some stocks not included in the 2007 NP. This data is from fisheries, which could not be planned during submission of NP.

11.3. EP - Required and achieved sampling

An overview of the long-term sampling strategy with respect to Other biological parameters is in Table 11.4.

An overview of the achieved sampling for length at age (if applicable), sex ratios, sexual maturity in the reference year are in tables 11.5. and 11.6.

11.4. EP - Deviations from aim

No.

11.5. Action taken to avoid shortfalls

No.

12. Module J - Economic data on fishing vessels

12.1. MP - Required and achieved sampling

The information collected is set out in tabular form (Table 12.1).

The Estonian programme for section J was completed using two main sources of data.

1) The Estonian Fisheries Information System (EFIS). This database contains all relevant data: logbooks (trawling fisheries), fishermen's diaries (passive gears), effort landings, sales notes, average monthly first buyer prices, issued licenses etc.
2) Sample statistics compiled at the Estonian Marine Institute (MEI) on the base of questionnaires and interviews with the representatives of the fishing enterprises from a selected sample groups. Some data will be obtained also from Statistical Office of Estonia (e.g. price statistics on fuel).

Earnings of the fishing enterprises were calculated using the landings data, sales notes and first buyer prices registered in EFIS. For cost data, which is not subject to administrative control by the fisheries authorities, there is no need to build a comprehensive register or database. Instead it is more cost efficient to use a statistical sample, which was compiled in MEI. When selecting trawlers to be included into the sample group of a certain segment (see chapter 4.1.2), all vessels in these segments were divided into three subgroups based on the total catch per vessel. From all groups

(high, average and small catch per vessel) at least three vessels were randomly selected for the sample.

Description	Parameter	Source
Income	Total and per species	- Sales notes (EFIS) - Logbooks, diaries (EFIS)
Production costs	Crew Fuel Repair and maintenance Other operational costs	- Questionnaires (vessel owners, fishing enterprises) - Price statistics on fuel
Fixed costs	Average cost	- Calculated costs on replacement value
Financial position	Share of own / foreign capital	- Questionnaire (vessel owners)
Investment	Value	- Calculated replacement value
Prices/species	Value/quantities	- Logbooks, diaries (EFIS) - Sales notes (EFIS)
Employment	Number	- Questionnaire (vessel owners) - Calculated according to the average crew number per vessel (Estonian 12-40 m fleet consists of 6 distinct types of vessels)
Fleet	Number GT KW Age Gear used	- vessel register (EFIS) - Logbooks
Effort		- Vessel register (EFIS) - Logbooks, diaries (EFIS)

Data were collected for the following groups of vessels:

Trawlers 12 ≤ 24 m (Baltic Sea)
Trawlers 24 ≤ 40 m (Baltic Sea)
Trawlers ≥ 40 m (Atlantic)
Gillnetters (Baltic Sea)
Coastal vessels < 12 (Baltic Sea)

12.2. MP - Deviations from aim

Data on invested capital is based on replacement value, as also in earlier years. This approach has been used also in the Concerted Action Q5CA-2001-01502 (Economic Performance of Selected European Fishing Fleets). Insured value of vessels cannot be used, as many smaller boats are not insured. However, available data on insured value was also collected.

Database will be updated by autumn 2008 as not all companies could report their data by May 2008 (most of the data is available only from July 2008 onwards).

12.3. EP - Required and achieved sampling

Not included in the National Programme.

12.4. EP - Deviations from aim

No.

12.5. Actions taken to avoid shortfalls

No.

13. Module K - Data concerning the fish processing industry

13.1. MP – required and achieved sampling

Incomplete data obtained in 2007 do not allow trustworthy conclusions about fish processing industry.

In 2008 a questionnaire was elaborated to investigate an economic performance of fish processing enterprises. This questionnaire contains all data required in the minimum programme. In addition, official statistical data will be analysed.
The study focuses on collecting the following data:

Description	**Parameter**
Raw material	Total and by species
Income	Turnover
Production cost	Labour Energy Raw material Packaging Other running costs
Fixed costs	Average costs
Investment	Replacement/insurance
Prices/product	Value/tone
Employment	Numbers/FTE
Capacity utilisation	Estimated % of production capacity usage level

Data were asked for 2007. Due to the Estonian regulations all Estonian enterprises (including fish processing enterprises) must present their costs and earnings data about year 2007 (financial statements) to Estonian Tax and Customs Board by June 30, 2008. It is expected that after that fish processing enterprises will submit their answers to the questionnaires also to MEI. Taking account also the time needed to analyze the raw data, it can be expected that the statistics for evaluation the economic situation of fish processing industry will be available by October 2008.

13.2. MP – deviations from aim

No

13.3. EP – Required and achieved sampling

Not planned

13.4 EP – Deviations from aim

Not relevant

13.5 Action taken to avoid shortfalls

Currently, Estonia is seeking for competent researcher/institution to take responsibility of this part of DCR. Activities in this field fall out of the competence and interests of the Estonian Marine Institute.

14. Databases

14.1. Database development and data management

All fisheries data collected in frames of the National Programme as well as purely from national sources are stored in EMI in several separate databases. Currently, work is ongoing to join all databases of EMI (including fisheries databases) into a common system. As the first step, a meta-database of all available data (since the 1940s) is still under construction. This work is financed from other sources. Fisheries data for 2005 are in agreed format and easily accessible from the institute. Survey data and data of test fishing for 2007 are or will be shortly included in EFIS.

At the same time, serious efforts were made to improve the EFIS, Estonian Fisheries Information System (https://kala.envir.ee/). This system was transformed from the Ministry of the Environment to the Ministry of Agriculture since 1 January 2005. Some improvements are still needed, including more customer-friendly system to get reports, data submission control system (eg in some cases EFIS contains catch data for species which never occur in the particular region), more consistent entering of effort data (often, the duration of trawling or days from the last check of the passive gear are missing in the database, or is missing the number of passive gears - which is probably due to the fact that these mandatory data are not submitted in logbooks or fishermen diaries). The improvements are under the way.

15. National and international co-ordination

15.1. National co-ordination

No national coordination meeting was organised in 2007.

In this situation, Estonia decided not to organize the national coordination meeting in 2007, as only one institution (Estonian Marine Institute) is engaged in data collection and all problems were solved by phone and e-mail.

As for multi-annual programme for years 2009-2010 we are planning to organize coordination meeting before September 2008.

15.2. International co-ordination

See standard table 15.1 for the overview of the international co-ordination meetings (Planning Groups, Study Groups, Regional Co-ordination Meetings, etc.) and the work-shops that were attended, and of the inter-calibration exercises in which Estonia participated. Attendance was rather low due to financial restrictions.

15.3. Follow-up of RCM recommendations and initiatives

There was no NAFO coordination meeting in 2007. *The First regional coordination meeting for the Atlantic North West (NAFO area) (20-22 April 2005).*

Recommendation on NAFO vs. scientific observers: NAFO RCM recommends that … quality of the data for scientific purposes should be ensured.

Estonian NAFO observers were specifically trained in 2005 and 2006, to collect data on length and age distribution, bycatches, shrimp sexual maturity, and most of them are now used in collecting data for DCR. It should be mentioned that the Estonian NAFO observers are employed by the Estonian Marine Institute.

NAFO RCM recommends that sampling programmes be coordinated among countries between bilateral or multilateral agreements

No agreements have been made up to now with other countries. Due to the high coverage of vessels with trained observers and due to the high catch level of shrimp by Estonia, Estonia can take the leading role in collecting eg shrimp age and maturity data, as well as bycatch data in shrimp fisheries in the NAFO area.

The Regional Coordination meeting (RCM) for the Baltic Sea (RCM Baltic) (Riga, 15-19 October 2007) made several recommendations relevant mostly to 2008 (and later) National Programmes.

In section 4.1 (Regional sampling), MS are recommended that all upload data for the trawl fisheries targeting cod in the Baltic.

Estonian landings of cod are very small, taken mostly far from Estonia (and landed there), and currently these landings are not sampled. Sampling will be possible by EMI in case of appropriate financing.

Until robust international guidelines for analysis of logbook data is available RCM Baltic recommends that:
- at a trip level, or at a fishing operation level when possible, the retained part of the catch should be classified by target assemblage (demersal, freshwater, anadromous) and sorted by weight. The target assemblage that comes up at the first position should be considered as the target assemblage to report in the matrix.
- when logbook data is incomplete regarding the number of rigs for demersal trawls the fishing trips/fishing operations should be allocated to OTB.
- the selectivity devices Bacoma and T90 should be treated as one strata until it is possible to distinguish between them in the logbooks.
- Midwater otter trawls (OTM) are allocated to the OTM fishing activity even if they sometimes are operated very close to the bottom.

Estonia is aware of this recommendation.

In section 7 The RCM recommends that a call for a project in support of the CFP should be issued with the task to further investigate the use and required resolution of VMS data for the estimation of fishing activity and distribution. Small scale project should include tools for scientific analysis of VMS data.

Estonia supports this idea.

The RCM reiterates the 2006 recommendation that the competent national authorities shall be approached by national scientists in order to ensure an open access of VMS data for scientific purposes. RCM recall access to VMS data is included in proposed framework regulation to support the ecosystem approach.

Estonia supports this idea.

Section 8; Quality aspects economic data. The RCM Baltic recommends the description of the source of the information and when applying a sampling procedure a description of method and strategy has to be clearly described in the national programme to give useful information on quality of the obtained data. In the technical report there should then be a qualitative quality report containing a thorough description of the methods and strategies used and the characteristics of the gathered data.
The RCM Baltic recommends to not use the precision level as an indicator of heterogeneity but to rather use the mean value and standard deviation.

This recommendation will be followed in further national programmes.

15.4. Follow-up of SGRN recommendations

COMMENTS and QUESTIONS ON THE NATIONAL PROGRAMME FOR DATA COLLECTION FOR ESTONIA 2007 were answered and the program was adjusted according to recommendations.

16. List of acronyms and abbreviations

EFIS	Estonian Fisheries Information System (a computerized database in the Fisheries Department, Ministry of Agriculture)
EMI	Estonian Marine Institute
WGBFAS	Baltic Fisheries Assessment Working Group (ICES)
WGBIFS	Baltic International Fish Survey Working Group (ICES)
WGBAST	Baltic Salmon and Trout Working Group (ICES)