

National Programme 2006 – THE NETHERLANDS

(detailing the state of completion of the aims set at the time of the drawing-up of the minimum programme and of the extended programme)

by

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1 Introduction

This document presents the proposal for the Dutch national programme for the collection of data in the fisheries sector in 2006. The programme has been developed in accordance with the rules laid down in the *Commission Regulation (EC) N^o 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^o 1543/2000*, amended by *Commission Regulation (EC) N^o 1581/2004 amending Regulation (EC) No 1629/2001*, this combination hereafter in this programme called the “Data Collection Regulation” (DCR).

In addition, a planning of the costs of the programme has been prepared following guidelines given in a *Council Decision of 29 June 2000 on a financial contribution from the Community towards the expenditure incurred by Member States in collecting data, and for financing studies and pilot projects for carrying out the common fisheries policy (2000/439/EC)*. The planning of the costs are presentend in separate spreadsheets using the revised formats for 2006 forwarded by the Commission.

The Community programmes as described in the DCR consists of a number of modules. In the following chapters a report is given of the activities will be carried out by the Netherlands related to this Regulation. This report is structured by chapter corresponding with the modules in the Regulation. Within each chapter a distinction has been made between the work carried out in the minimum programme and in the extended programme.

The lay-out of the NP for 2006 from the Netherlands has been changed compared to previous years and the format, provided by de Commission for the Technical Report for 2004, was used. This format has been adusted to accommodate for the different contents between the proposal and a technical report. The new format facilitates the comparsion of submitted NP and technical report over the same data year.

2 National correspondent and participating institutes

2.1 National correspondent

The Netherlands has assigned the Dutch Directorate of Fisheries (DV) as the National Correspondent. The correspondent is Edwin Meeuwsen. The Directorate is also acting as co-ordinator for the implementation of the Data Directive in the Netherlands.

2.2 Participating institutes

The programme will be carried out in close co-operation between the following partners:

- 1) The Dutch Directorate of Fisheries (DV). The Directorate is a section in the Ministry of Agriculture, Nature Conservation and Food Qualtiy and performs control and

authority exercises at the commercial fisheries and the recreational and game fisheries. This partner also acts as national coordinator.

- 2) LEI B.V. (Institute of Agricultural Economics). This institute is a private research institution, part of the Wageningen University and Research Centre. LEI B.V. is responsible for collection of agricultural and fisheries economics statistics in The Netherlands and
- 3) The Netherlands Institute for Fisheries Research (RIVO). This institution is a private research institution, as part the Wageningen University and Research Centre. The research focus on biology, chemistry, microbiology and technology of the Dutch fishery industry, including aquaculture. The institute provides knowledge and expertise to the needs of policy makers, nature conservation agencies and the Dutch fishery industry.

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3 Precision levels

3.1 Required precision levels

The DCR defines three levels of precision in chapter 1B in the Annex. Some quantitative targets required by the DCR also require to meet a defined level of precision when they are not based on total information and are estimated by samples. If the targets are based on all observations no indication of level of precision is required.

Dutch fleet, effort and landing statistics are based on complete logbook information and no level or precision will be provided here. The level of precision for biological parameters and discard estimates will be provided in 2006 for the first time, pending on the development of the methodology. Presently, the proposal for biological sampling of landings is based on targets in Appendix XV in the DCR. For a number of stocks an indicative precision level is given based on preliminary estimates given in the Technical Report of 2004.

With regard to the economic information, the relation between the size of the random sample and the total population determines precision of this information. However, for the collection of this information LEI is obliged to rely on the voluntary willingness of the fishing

companies to provide access to their accounts. The sample therefore cannot be considered as truly random. Still in view of the size of the sample, which exceeds 25% of the population, sufficient reliability can be expected. Technical characteristics of the sample will be compared regularly with the technical characteristics of the population (or segments) in order to allow an explicit evaluation of the representative ness.

Table 1 lists the requirements in the regulation with regard to the level of precision.

3.2 Methods used to calculate precision levels

Methods used to calculate precision levels have not been decided yet. Since all countries experience problems with the interpretation and calculation of the level of precision as described in the Regulation, the ICES Planning Group on Commercial Catch, Discards and Biological Sampling (PGCCDBS), which deals with the international coordination of some elements of the Regulation, initiated an international workshop which has dealt with this subject. This Workshop on Sampling and Calculation Methodology for Fisheries Data (WKSDFD) met in Nantes (France) in February 2004 and a follow up meeting on the same subject in the Workshop on Sampling Design for Fisheries Data (WKSDFD) took place in Pasaia (Spain) in February 2005. The results of these meetings were discussed at PGCCDBS in March 2005 and it was concluded that although progress was made in the development of precision methodology and software, progress was too slow and the present development of was not ready for implementation and that a significant amount of effort is needed in to complete this development. At this meeting the representatives of the Commission indicated that it was important that precision estimates to be provided by the different MS should be based on the same methodology since this would make the estimates comparable.

For a number of stocks precision estimates have been calculated for the age composition of the landings 2004 using bootstrap technique. The methodology was developed in the EMAS project. The results are presented in the Technical Report of Activity over 2004 by the Netherlands. Since the precision is closely linked to the sampling level, it is expected that precision will not vary much between years if the sampling strategy remains unchanged. In those cases the level of expected precision is indicated in the relevant part of this NP.

4 Data transmission

Only data, supportive to support the Common Fisherhy Policy (CFP), are included in the DCR. The data collected in the NP will be submitted to national and international management bodies and international organisations which provide management advice to the CFP. Amongst these the most important are ICES working- study- and advisory groups, STECF and STECF subgroups and EU-Norway *ad hoc* expert groups. At request of the Commission, data will be made available to other groups.

In most cases data transfer of catch data and economic data will be restricted to data collected in the previous year (2005). Survey data will be provided for all available years including the year of the reflecting the NP (2006).

5 Module C - Fishing capacities

5.1 MP - Required and proposed sampling

Data required are tonnage (gross tonnage), the maximum continuous engine power and the age of the vessel calculated on the basis of the age of the hull at a level of aggregation as defined in Appendix III of the DCR.

In the Netherlands, these data are available in a database containing national logbook data. This database is held by DV. This database is updated in principle on a daily basis and contains, among others, the data about:

- Vessel name, vessel number
- Vessel type
- Age of the hull
- Dimensions of the vessel; GT, length, width, draught
- Engine power (kW)
- Fishing ground, area and square
- Registration of fishing days
- Gear type employed

The database contains exhaustive data for all vessels flying the Dutch flag including vessels < 10 m on a trip basis. Information required on fishing capacity, as specified in Annex III of the DCR can be extracted at any time based on total registered activity.

5.2 EP - Required and proposed sampling

The DCR allows to collect additional parameters on capacity in the extended programme. No proposal will be submitted by the Netherlands to collect additional information in this module.

6 Module D - Fishing effort

6.1 MP - Required and proposed sampling

Within the MP, the DCR requires the collection of the following parameters and levels of aggregation.

- (i) fuel consumption expressed in volume and cost to make it possible to estimate the average fuel consumption per vessel within each segment as defined in Appendix III, on an annual basis
- (ii) fishing efforts by type of technique defined in Appendix VIII on a quarterly basis and, according to level 3 of geographical disaggregation defined in Appendix I In addition to the overall effort, the contribution of each segment defined in Appendix III shall be individualised

- (iii) specific fishing efforts by type of technique associated with stocks of special interest as in (ii) and according to level 3 of geographical disaggregation defined in Appendix I.

With the exception of fuel consumption all requested information on fishing effort can be provided based on exhaustive data. The data is already collected through EC-regulations on logbooks, etc. and the implementation of a control-regulation concerning the common fisheries policy and more explicit regulations of information on catches by Member States. This set of regulations prescribes that all vessels used for commercial fishery are obliged to keep logbooks of the fishery. The only exception from these rules are vessels with a total length less than 10 m. However, in the Netherlands, these vessels also have a obligation to submit logbook and their activities are included in the national logbook database.

All the information is stored in the national logbook database (VIRIS) which is held by DV and includes among others the following information:

- name of the vessel
- departure and arrival date and time from harbour
- type of gear
- name and quantity of species landed
- number of fishing days
- fishing position (area and square)

The information in the logbook database is registered according to the provisions of Commission Regulation (EC) No 2807/83 and No 2847/93. The information on fishing effort is merged with other fishery dependent data and stored in the VIRIS as described in Section 14 in this report.

Information on fuel consumption will be collected separately within the data collection programme according to Chapter 12.

6.2 EP - Required and proposed sampling

The DCR allows to collect additional parameters on fishing effort in the extended programme. No proposal will be submitted by the Netherlands to collect additional information in this module.

7 Module E - Catches and landings

7.1 MP - Landings - Required and proposed sampling

The DCR requires to estimate the commercial landings for all stocks, distinguishing the geographical origin of the catches according to level 2 of geographical disaggregation of Appendix I. For the stocks mentioned in Appendix XII, commercial landings will be disaggregated as indicated in that Appendix.

From the national logbook database a summation of overall all annual commercial fish and shellfish landings can be provided by all species and areas according to required level. The

information is based on exhaustive data and also included landings in the Netherlands by vessels flying a foreign flag. The information is restricted to species caught for human consumption since there are no fisheries for reduction purposes in the Netherlands

For stocks mentioned in Appendix XII, commercial landings can be disaggregated as indicated in that Appendix. Landings by weight of each segment identified in Appendix III can be provided by species and quarter and, as regards the geographical origin of the catches, at the level of geographical disaggregation 2 according to Appendix I.

The value of the landings is not available in the logbook database. However, whenever needed, these data can be calculated based on the price data by species and quarter provided by the LEI.

A table with conversion factors which will be applied in 2006 will be presented in the Technical Report covering the year 2006. In the past few years, this table has remained unchanged.

7.2 EP - Landings - Required and proposed sampling

The information collected for species and areas defined in the MP will also be collected for combinations of species and areas which are classified in the DCR in the EP. This information is also obtained through the logbook system and stored in the national database.

7.3 MP & EP - Discards - Required and proposed sampling

Estimates on discards and confidence levels of these estimates will be provided based on observation on board of commercial vessels. The estimates will be restricted to the two major Dutch fisheries in the North Sea: the beam trawl fleet and the pelagic trawlers. The discard sampling programme is described in section 10.4.

7.4 MP - Recreational - Required and proposed sampling

A two year pilot study, initiated in 2005 to estimate the amount of catches by the recreational fishery in the Netherlands will be continued in 2006. Cod is caught by recreational anglers, fishing from the shoreline or from boats. The amount of catches is unknown and the pilot study is designed to make a quantitative estimate. The pilot study is based on interviews.

7.5 EP - Recreational - Required and proposed sampling

No proposal will be submitted by the Netherlands to collect additional information in this module.

8 Module F - Catches per unit effort

8.1 MP - Required and proposed sampling

This module covers the collection of data concerning the catches per unit of effort and/or effective effort of specific commercial fleets. The content of this module has been fixed by

STECF in spring 2003. STECF recommends that all cpue time series used in assessments should be eligible in this programme

In recent years, ICES WG have abandoned the use of commercial cpue series for many stocks, because they are considered to be biased due to stricter enforcement of quota regulations resulting in change of behaviour in the fleets. The amount of work expected in this module is therefore limited. Cpue time series can be provided for all species based on exhaustive logbook information on landings and effort as required in the DCR.

For those stocks, which may require Dutch cpue data in assessments, (age disaggregated) cpue times series will be provided to the relevant ICES working group.

8.2 EP - Required and achieved sampling

The use of the cpue data requirements in the MP of the DCR is predominantly restricted to single species assessments. Evaluation of technical measures, recovery- or rebuilding plans and fleets based measures require cpue data on a lower level of aggregation. The EP covers the production of indexes of abundance or of effective effort on the basis of detailed catch and effort data coming from the commercial fleets.

The NP includes an activity to update the catch, effort and cpue data on a less aggregate level than is required in the MP for a number of selected species on an annual basis. These data are extracted from the logbook database and stored on a rectangle basis in an Excel database. Table 3 specifies the selected species and the level of aggregation.

9 Module G - Scientific evaluation surveys

All MS are obligated to undertake scientific research at sea to evaluate the abundance and distribution of stock independently of the data provided by the commercial fisheries in the case of stocks mentioned in of the Data Directive. The research vessels surveys qualifying for the NP of the MS are listed in Appendix XIV of the DCR. The Netherlands will undertake or participate in 10 surveys in the North Sea, Divisions VIIId,e and the Atlantic Ocean. Nine of the below described surveys are of priority 1 and are thus a part of the minimum programme. The herring larvae surveys is classified as priority 2. All surveys described in this programme are internationally co-ordinated. The proposed surveys for 2006 are the same as those carried out in 2005. The surveys are carried out by RIVO using the following research vessels

- R/V TRIDENS, a stern trawler with a loa of 74 meters operating in off-shore waters. RIVO uses R/V TRIDENS when conducting the International Bottom Trawl Survey (IBTS), the International Beam Trawl Survey (BTS) and the Herring Acoustic Survey (ACOHER)
- R/V ISIS, a stern trawler with a loa of 26 meters operating mainly in coastal waters for conducting the International Beam Trawl Survey (BTS), Demersal Young Fish Survey (DFS) and the Sole Net Survey (SNS).
- R/V STERN, a stern trawlers with a loa of 20 meters operating in the Wadden Sea when conducting the Demersal Young Fish Survey (DFS).
- R.V. SCHOLLEVAAR, a stern trawler with a loa of 20 meters operating in the Scheldt Estuary when conducting the Demersal Young Fish Survey (DFS).

During the surveys, collection of biological parameters, eligible under Module I of the DCR, will be carried out routinely. The collection of these data is included in the survey budgets.

9.1 MP - proposed priority 1 surveys

9.1.1 IBTS

This international survey is carried out twice a year, one survey is conducted in the first quarter and a second survey in the third quarter. The Netherlands participates only in the first quarter survey with the Tridens (25 days at sea). The survey is co-ordinated by the ICES IBTSWG and performed in collaboration with research vessels from France, Norway, England, Germany, Denmark, Scotland and Sweden.

This trawl survey provides stock abundance indices and recruit estimates for herring, sprat, roundfish and Norwegian pout stocks in the North Sea, the Skagerrak and the Kattegat. Also a stock index for herring is provided by a larvae index which is collected by this survey using a plankton net during the night. The data are used predominantly by the ICES Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak and the ICES Herring Assessment Working Group of the Area South of 62°N. In addition similar information is obtained for a large number of non-commercial fish species.

The survey is carried out as a bottom trawl survey deploying a GOV trawl during daylight hours as a standard aboard all research vessels involved. In addition to the trawl-surveys, a Method Isaac Kidd (MIK) trawl is deployed during night hours to estimate the abundance of fish larvae, in particular herring- and sprat larvae. Hydrographical data is collected with a CTD. The sampling procedure and the level of precision are defined in the Manual for the International Bottom Trawl Surveys.

Data is stored in an international database at ICES and revised before usage in the relevant ICES Working Groups.

9.1.2 NS Herring Acoustic survey

The purpose of this international survey is to provide acoustic abundance estimates of herring and sprat in the North Sea, which are used in the assessments of these stocks. In addition biological parameters are collected on the maturity and weight at age used in the stock assessment of this species. The Netherlands participates in this survey with the Tridens (20 days). The Dutch contribution to the survey is during the 2nd and 3rd quarter and consists of a calibration part (2 days at sea) and an acoustic abundance estimate of herring stocks (18 days at sea) in the North Sea and VIa. The survey is carried out in collaboration between Denmark, Norway, Scotland, Germany, and The Netherlands and is co-ordinated by the ICES PHERS.

The acoustic survey using a Simrad EK500 echosounder. In addition, trawl hauls are made to identify the species composition of the acoustic recordings. The herring are length measured and weighted aboard and sent to the laboratory in IJmuiden for further examinations such as sex, maturity, age, and spawning type. Hydrographical data is collected using a CTD.

The results of the survey used by the ICES Herring Assessment Working Group of the Area South of 62°N.

The sampling procedure and the level of precision are defined in the Manual for the Herring Hydro Acoustic Surveys ICES CM 1994/H:3. Data is stored in a database kept at the Marine Laboratory Aberdeen (UK) and is used by the relevant ICES Working Group (HAWG).

9.1.3 Mackerel egg survey

The survey is undertaken during the 2nd quarter once every three years in western waters (Gulf of Biscay, West of Ireland and Scotland) and in the North Sea in the year following the survey in the western waters. In 2004 a survey has been carried out on the western component of the stock. In 2005 a survey in the North Sea was carried out. No survey will be carried out in 2006.

9.1.4 SNS

The purpose of this survey is to obtain recruitment estimates for 1- and 2- group plaice and sole in the North Sea. The survey is carried in the 3rd quarter by R.V. ISIS during 10-12 days in the coastal waters of The Netherlands, Germany and Denmark. The station grid consists of 10 lines of stations (4-9) perpendicular or parallel to the coastline of these countries. The survey is carried out since 1969 with a light 6 meter beam trawl.

The sampling procedure are defined in a survey manual. Otoliths of plaice and sole are taken for age determination. Data is stored in a database kept at RIVO (Netherlands) and is used by the relevant ICES Working Group (WGNSSK).

9.1.5 BTS

The beam trawl survey is carried out once a year, in the 3rd quarter with the R/V TRIDENS (20 days) and the smaller R/V ISIS (25 days). The primary purpose of the survey is obtain indices of stock abundance for plaice and sole in the North Sea. In addition information of abundance and the distribution of other demersal species are obtained

The sampling procedure and the level of precision is described in the survey manual and reviewed and updated regularly by the ICES WGBEAM. The survey is also co-ordinated by this Working Group and performed in collaboration with research vessels from Belgium, France, England and Germany, Denmark. The survey is carried out as a beam trawl survey deploying different type of beam trawls in different areas. In the Netherlands, both vessels use the same standard 8 meter beam trawl and is carried out during daylight hours.

Data is stored in a database kept at RIVO (Netherlands) and is used by the relevant ICES Working Group (WGNSSK).

9.1.6 DFS

The survey is carried out in September/October. Three vessels participate for the Netherlands. R.V. ISIS operates in the North Sea along the coast of the Netherlands, Germany and Denmark. R.V. STERN operates in the Wadden Sea and R.V. SCHOLLEVAAR operates in the Scheldt Estuary. Similar surveys will be carried out in Belgium, Germany, and England. All beam trawl surveys are co-ordinated by the ICES WGBEAM. The sampling procedure is defined in a survey manual.

The main purpose of this survey is to provide abundance estimates of juvenile plaice and sole (0-group and 1-group) recruiting to the North Sea stocks and of brown shrimps (*Crangon crangon*). In addition the survey provides information of changes in the abundance of other species in the nursery areas where the surveys are carried out.

The survey is using a 6 meter shrimp trawl in the North Sea and a 3 meter shrimp trawl in the estuaries. The sampling procedure is defined in a survey manual. Otoliths of plaice and sole are taken routinely for age determination.

Data is stored in a database and revised before usage in the relevant ICES Working Group. Combined indices of derived from separate national surveys are used in the assessment.

9.1.7 ASH

The Netherlands participates in the international survey as part of an consortium of a group of EU Member States consisting of Denmark, Germany, United Kingdom, Ireland, Sweden, and the Netherlands. The other non EU surveypartners are Norway, Iceland, Faeroes and Russia.

The purpose of the survey is to provide acoustic abundance estimates of herring and blue whiting in the Norwegian Sea, which are used in the assessments of these stocks. In addition to the acoustic measurements, made with a Simrad EK500 echosounder, trawl hauls are made to identify the species composition of the acoustic recordings. The herring are length measured and weighted aboard and biological characteristics are collected such as sex, maturity, age, and spawning type. Also hydrographical data are collected.

The survey is held in the 2nd quarter and consists of a calibration part and an acoustic abundance estimate of Atlanto Scandic (or Norwegian Spring spawning) herring in the North Sea and Norwegian Sea. In 2006, For the EU MS COUNTRYX will provide a vessel and provide accommodation for scientists of the other MS. The operational costs of the vessels are shared by the members of the consortium applying an allocation key proportional to national share of the EU TAC. COUNTRYX will claim the EU contribution to the costs of the vessel for all countries combined.

Data is stored in a database kept in the Marine Institute in Bergen (Norway) and is used by the relevant ICES Working Group (WGNPBW).

9.1.8 Acoustic blue whiting survey

The survey has been included in the priority 1 surveys in the revision of the DCR in 2004. The Netherlands and Ireland participated in the international survey as part of an consortium of a group of Member States consisting of Denmark, United Kingdom, Ireland, Spain, France and the Netherlands. The survey is held in March and consists of a calibration part and an acoustic abundance estimate of blue whiting on the spawning ground west of Ireland. In 2006, the survey will be carried out on by the same consortium. Within the Management Committee of the Cie, the partners of the consortium have agreed to base the cost sharing on the average of the percentages of the national catch reported in the years 2000-2004 to the EU. Countries with a percentage of less than 5% of the EU catch are excluded from the cost sharing. At the time of submission of the NP no cost sharing percentages were available. Also no final decision has been taken on the participating vessels.

The purpose of the survey is to provide acoustic abundance estimates of the spawning stock of blue whiting which are used in the assessments of these stocks.

The sampling procedure are determined and the survey is co-ordinated by the ICES Planning Group on Northeast Atlantic Pelagic Ecosystem Surveys (PGNAPES).

The acoustic survey using a Simrad EK500 echosounder is carried out by Norway, Russia and Faroes in collaboration with the EU consortium. In addition, trawl hauls are made to identify the species and size composition of the acoustic recordings. Length and weight are measured on board and biological characteristics are collected such as sex, maturity, age, and spawning type. Hydrographical data is collected using a CTD.

Data is stored in a database kept in the Marine Institute in Bergen (Norway) and used by the ICES Working Group (WGNPBW).

THE BUDGET PROPOSED FOR THIS SURVEY IS PRELIMINARY, SINCE NO UPDATED INFORMATION ON COSTSHARING IS AVAILABLE AND BECAUSE FINAL DECISION HAVE TO BE MADE ABOUT THE AMOUNT OF SHIPTIME IN 2006. THE PRELIMINARY BUDGET IN THE FINFORMS IS BASED ON THE NP OF 2005.

9.2 EP - Proposed priority 2 surveys

9.2.1 Herring Larvae Survey

The aim of the survey is to estimate the adult population of herring in the southern North Sea, in particular the so called Downs component which is separated from the other components in winter in the English Channel. The abundance of young herring larvae is a reliable index for spawning stock abundance.

The survey will be carried out in 2 periods of the year by R.V. TRIDENS: around week 39-40 in the North Sea and in week 4 and 51 in the English Channel. The larvae surveys are done in collaboration between Norway, Germany, and the Netherlands. Like the international acoustic herring survey this survey is co-ordinated by the ICES PGHERS. The sampling procedure and the level of precision are defined in the Manual for the Herring Hydro Acoustic Surveys.

Herring larva are collected using a Gulf III plankton sampler. The larvae are staged according an agreed procedure. Hydrographical data is collected using a CTD. Data is stored in a database (Germany) and revised before usage as an index for spawning stock abundance in the assessment of this stock by the ICES Herring Assessment Working Group of the Area South of 62°N.

10 Module H - Length and age sampling

The Implementation Regulation gives the instruction that biological sampling of catches must be performed in order to evaluate the composition in length and where appropriate in age of landings and discards for all stocks specified in Annex XV and Annex XII respectively in the Implementation Regulation and for some species also other biological samplings, specified in Annex XVI. MP - Landings - Required and proposed sampling.

The Dutch sampling levels are calculated from the mean landings over 2002-2004 that are landed in the Netherlands by both Dutch and foreign vessels. However, based on a bilateral agreement with Germany the Dutch sampling levels are changed, because Germany wished to sample part of their landings by their observers on board of German freezer trawlers and because Germany wished to sample the Dutch landings in Germany of herring and blue whiting. Table 4 shows the catches that are reduced from and added to the Dutch sampling scheme based on this bilateral agreement.

Biological samplings of landings must be carried out when the Dutch share of the EU TAC or when total landings of a certain species, listed in the revised Annex XV of the DCR, exceed certain thresholds defined in Chapter III, section H (1) (d) 1) and 2) of the DCR. This Annex also defines the level of sampling required, which is in principle proportional to the landings. In the revised DCR sampling levels can be adjusted to aim for a precision defined as level 1 in the DCR. In principle the Dutch sampling scheme aims for complying with the sampling targets defined in this Annex.

The actual sampling scheme, to be applied in 2006 may deviate from the proposed scheme, pending on changes in quota in 2006 compared to the average over the period 2002-2004.

The purpose of the biological sampling of catches is to estimate the number of fish and their mean weight at age of the landings made in Dutch harbours. The sampling will be performed by segments and the data will ultimately together with data on landings sampled by other nations give the basic input data when analysing the historical exploitation of the stocks and further be the foundation when carrying out assessments on the stocks.

All biological sampling data will be stored in a central database at RIVO. Data security is ensured by common standards. Data collection and data entry is conducted at the RIVO laboratory in IJmuiden. To maintain data integrity and performance of the database a data manager will maintain the database.

10.1 The Dutch standard sampling schemes

All sampling- and measurement-procedures are described in a manual. The standard sampling procedure will be to carry out sampling on a quarterly basis by ICES division in all the main harbours where fish is landed. Samples will be collected randomly and the number of samples will reflect the fishery activity. For each stock the intended sampling level is given in Appendix III (as outlined in the Implementation Regulation) for landings made by both Dutch- and other Member States flagged vessels, which land in the Netherlands.

Basically five different biological sampling systems are presently in operation in the Netherlands

- type 1: (combined age-length samples) a defined number of fish is collected from each size grade of the landing of a vessel. These fish are measured and aged, providing an Age Length Key by size grade. Also other biological data are collected such as weight, maturity, and sometimes fecundity. Raising (by stratum: quarter, sex, area, fleet) of the total sampled weight in a size grade to the total landings in this grade provides an age and length composition of this size grade. The combination of all raised size grades provides an total age and a length composition of the stratum.

- type 2: (combined age-length sample from unsorted catch from pelagic freezer trawlers) On selected pelagic freezer trawlers, members of the crew, trained by RIVO staff, take unsorted samples (20-23 kg) of the catch by species, which are delivered to RIVO frozen. From each sample the length composition is measured and 25 fish are selected for representative biological sampling. The age- and length compositions of the vessels are raised to the total landings of the fleet within by stratum (fleet, quarter, sex). Since freezer trawlers make fishing trips of 4-6 weeks and visiting several ICES divisions, several samples from different areas can be obtained from the same trip. Often it is not known in advance which fishing areas the vessel will visit. This complicates the planning of samples per area as proposed. In practice the planning of the biological sampling for species sampled type 2 is therefore not area-based, but trip based, aiming for obtaining samples from all areas visited by the vessel during the trip.
- type 3: (separate age and length samples) a sample of fish, covering all size classes is collected from the landing of a vessel. The same biological characteristics as in type 1 are defined. In addition a representative length sample of the landings of the vessel is measured. The sampled ALK applies to the raised length composition provides an age composition of the landings of the vessel. The age- and length compositions of the vessels are raised to the total landings of the fleet within by stratum (fleet, quarter, sex)
- type 4: measurement of the length composition of the catch by size category (only length measurements).
- type 5: measurement of the length composition of the catch by size category. However, in addition weight, sex and maturity are recorded (no ageing possible). This type of sampling is applied to *Nephrops* and rays and skates in the North Sea.

The samples are either analysed in the harbour or send to the fishing laboratory, where all measurements, including biological measures, are performed. The standard measures are:

- length in cm
- weight in grammes
- age in years
- maturity stage (4 stages: immature, mature (developing), spawning and spent (recovering))
- sex

In addition vessel, gear, and fishery statistics (total landings, catch position) are recorded. The ageing is performed according to standardised described methods.

10.2 MP - Landings - Deviations from aim

In many cases the DCR requires about twice as many length measurements as age estimations. For a number of stocks the number of age measurements or length measurements in the Dutch NP is higher than required. This is caused by the Dutch sampling system. The following two paragraphs give an explanation for this.

Demersal flatfish species are landed and sold at the fish markets, where samples have been taken. In most demersal sampling schemes the number of age readings and length measurements are linked or the same. For sole, plaice, lemon sole, turbot and brill representative samples are bought by market category and processed at the laboratory. All fish

in these market categories are measured and aged. This implies for these species that number of age readings is equal to number of length measurements, while the DCR is generally requiring a larger number of length measurements than age readings.

Pelagic species like herring, mackerel, horse mackerel, blue whiting and argentine are caught by pelagic stern trawlers, frozen on board and landed directly to freezer stores. Frozen samples of unsorted fish of approximately 20 kg are collected for RIVO on board by trained crew members on selected vessels. These ships should collect at least one sample per species per week per ICES Division. RIVO has limited control on the origin of the samples, because it is not known in advance towards which species fishing will be directed and which areas will be visited. All the fish within these samples are measured and then a representative age sample of 25 fish is taken. This way of sampling for age and length results in most cases in a higher number of length measurements than required by the DCR.

For roundfish (cod and whiting) the Netherlands maintained the sampling levels for length and age measurements as were used before the introduction of the Implementation Regulation.

10.2.1 sole (IVa-c)

Soles are mainly caught in the ICES Divisions IVb and c and are landed fresh. Almost all landings are taken in a mixed beam trawl fishery for sole and plaice using 80 mm mesh size.

Standard sampling procedure as described in 10.1 type 1. The standard fixed sampling scheme will be maintained. In addition gonad weights are measured in spawning time (April-July). The proposed sampling is expected to lead to a precision of level 1.

10.2.2 plaice (IVa-c)

Plaice are caught in ICES Sub-area IV and are landed mainly by beam trawlers in a mixed fishery for sole and plaice using 80 mm mesh size or a directed beam trawl fishery using 100 mm mesh-sizes.

Standard sampling procedure as described in 10.1 type 1. The standard fixed sampling scheme will be maintained. In addition gonad weights are measured in spawning time (December-March). The proposed sampling is expected to lead to a precision of level 1.

10.2.3 brill (IVa-c, VIId)

Brill is mainly caught as by-catch in the beam trawl fishery. Standard sampling procedure as described in 10.1 type 1. In addition gonad weights are measured in spawning time. Because of the large number of age groups in the landings, it is likely that the required level of precision will not be met with the minimum sampling requirements. Therefore, a standard fixed sampling scheme of 2 samples per month is proposed. Due to the high value of brill and in order to reduce the sampling costs, the samples are resold in the fish market after the otoliths have been taken.

10.2.4 turbot (IVa-c, VIId)

Turbot is mainly caught as by-catch in the beam trawl fishery. Standard sampling procedure as described in 10.1 type 1. In addition gonad weights are measured in spawning time. Because of the large number of age groups in the landings, it is likely that the required level of

precision will not be met with the minimum sampling requirements. Therefore, a standard fixed sampling scheme of 2 samples per month is proposed. Due to the high value of turbot and in order to reduce the sampling costs, the samples are resold in the fish market after the otoliths have been taken.

The characteristics of the turbot stock and the applied sampling scheme on this stock are comparable to plaice for which a precision of level 1 is attainable at a sampling scheme of about 4000 fish a year. For turbot, the proposed sampling amounts to about 1100 fish a year and comprises more age groups than plaice. At the proposed sampling scheme it is still expected that the precision of the turbot sampling will be lower than level 1.

On request of the UK, the sampling programme includes the sampling obligations of the landings of turbot in the UK. These amount to the measurement of 15 extra fish.

10.2.5 lemon sole (IVa-c, VIId)

Lemon sole is mainly caught as by-catch in the beam trawl fishery. Standard sampling procedure as described in 10.1 type 1.

10.2.6 cod (IVa-c, VIId)

Cod is landed all year round exclusively for direct human consumption and is subject to a recovery plan. About half of the landings originates from bycatches in the beam trawl fishery. The rest is landed mainly by pair and twin trawlers. The proposed sampling is expected to lead to a precision of level 1.

Standard sampling procedure as described in 10.1 type 3. The standard fixed sampling scheme applied in previous years is well above the minimum requirement.

10.2.7 whiting (IVa-c, VIId)

Whiting is landed all year round exclusively for direct human consumption. About 50 % of the landings originate from bycatches in the beam trawl fishery. Mainly pair trawlers land the rest.

Standard sampling procedure as described in 10.1 type 3.

10.2.8 red mullet (IVa-c, VIId)

Included for the second time in the NP. Sampling type 4. A standard fixed sampling scheme of 1 sample per quarter is proposed.

10.2.9 sea bass (IVa-c, VIId)

Included for the second time in the NP. Sampling type 3. A standard fixed sampling scheme of 2 samples per year is proposed (in the two quarters when sea bass is landed).

10.2.10 rays and skates (IVa-c, VIId)

The Dutch landings in 2002-2004 were 687 tonnes consisting of a mixture of different species. The main species landed are roker and spotted ray. In addition 105 tonnes was landed in the Netherlands by foreign vessels. Skates are mainly caught as by-catch in the beam trawl

fishery. Given the small numbers by species landed by a vessel it will often not be possible to measure the requested number of fish by sample. Alternatively it is proposed to measure more smaller samples of the separate species. Since 2004 onwards other biological parameters are collected routinely (length, weight, sex and maturity). Standard sampling procedure as described in 10.1 type 5 and stratified by size category.

10.2.11 nephrops (IVa-c)

The main fishery is in management area H, mainly in functional unit 5, where the Netherlands took over 50% of the total international landings in recent years, obliging the Netherlands to sample this stock. Nephrops is exploited in a seasonal fishery by a few specialised vessels. Length distributions refer to carapace-length. Since 2004 onwards other biological parameters are collected routinely (length, sex, weight).

Standard sampling procedure as described in 10.1 type 5 and stratified by size category.

10.2.12 Atlanto-Scandian Herring (IIa)

Atlanto-Scandian herring is landed during spring only for human consumption purposes in the Netherlands by pelagic freezer trawlers using gear with a mesh-size of 35 mm.

Standard sampling procedure as described in 10.1 type 2.

10.2.13 herring (IV, VIId)

Part of the landings are Downs herring and are caught in VIId. The Downs herring are assessed as part of the North Sea stock but a separate TAC is set for this stock component. Most of the herring is caught by large freezer trawlers operating also in other areas such as Vb, VIaN, VIb, VIaS, VIb,c, VIg,h,j,k.

Standard sampling procedure as described in 10.1 type 2. The proposed sampling is expected to lead to a precision of level 1.

The TACs and national quota of herring in the North Sea and Division VIId. have increased considerable in recent years. Because of this, the amount of sampling on this stock has increased over the past few years and would further increase in 2006. According preliminary estimates of the precision level (see Technical Report of Activities over 2004) based on EMAS, precision level 1 has been attained for a number of years at historical sampling levels. Therefore it is proposed not to increase the amount of sampling any further and the sampling scheme for 2005 will be maintained in 2006.

10.2.14 horse mackerel (IV, VIId)

The landings partly originating from the western stock component and sampling is included in the figures given for the areas combined. Horse mackerel are mainly landed by freezer trawlers. North Sea horse mackerel is also exploited in Division VIId.

Standard sampling procedure as described in 10.1 type 2.

10.2.15 horse mackerel (VI, VIIa-c, e-k, VIIIabde, XII, XIV)

Horse mackerel occurs in several management areas but they are assessed as one stock, with the exception of horse mackerel in Division VIId which is combined with the North Sea. The landings apply to all areas except the North Sea, but mainly originate from area VII. Large Dutch freezer trawlers are landing horse mackerel for human consumption all year round.

Standard sampling procedure as described in 10.1 type 2. The proposed sampling is expected to lead to a precision less than level 1.

10.2.16 mackerel (IV)

The Dutch landings in IV are mainly originating from the western stock component. There is only an obligation for length sampling. This is the same stock as occurs in the other ICES areas and sampling of this stock has been combined with that area. Mackerel is mainly landed by freezer trawlers, a small amount from the North Sea is landed fresh.

Standard sampling procedure as described in 10.1 type 2.

10.2.17 mackerel (IIa, Vb, VI, VIIa-c, e-k, VIIIabde, XII, XIV)

Mackerel occurs in several management areas but they are assessed as one stock. The threshold for age sampling is just not met. Nevertheless, given the large amount of landings by foreign vessels landed in the Netherlands, sampling for age will be continued. Mackerel is landed all year round mainly by large Dutch freezer trawlers only for human consumption.

Standard sampling procedure as described in 10.1 type 2. The proposed sampling is expected to lead to a precision less than level 1.

10.2.18 blue whiting (IIa, Vb, VI, VIIa-c, e-k, VIIIabde, XII, XIV)

Blue whiting occurs in several management areas but they are assessed as one stock. Blue whiting landings by large Dutch freezer trawlers is landed only for human consumption mainly in the 1st half of the year.

Standard sampling procedure as described in 10.1 type 2.

10.2.19 argentines (VIa)

Argentines landings mainly originate from area VIa. Argentines are landed by large Dutch freezer trawlers. They have been included in the MP since 2005

Standard sampling procedure as described in 10.1 type 2.

10.2.20 redfish (all areas)

Redfish landings in the Netherlands mainly originate from freezer trawlers under German flag. In the bilateral agreement between Netherlands and Germany it was agreed that Germany would take care of sampling of the redfish landings in the Netherlands (see Table 4).

10.2.21 eels (IVa-c)

On request of the Commission, no proposal has been put forward for the sampling of eel yet. Later in 2005, a group of experts will advise the Commission on sampling targets. The Commission has indicated to allow the MS to adjust their NP later in 2005 or early 2006, after the sampling targets have been agreed.

10.2.22 other species (IV)

Other species, such as haddock, saithe, hake, anglerfish, sprat and megrim, are landed in small amounts and do not qualify for sampling according to the criteria set in the DCR.

10.3 EP - Landings - Deviations from aim

10.3.1 dab (IVa-c)

Dab is the most common flatfish in the North Sea and mainly caught as by-catch in the beam trawl fishery. Standard sampling procedure as described in 10.1 type 3. Instead of the extensive length sampling required by Annex XV of the Regulation, it is proposed to continue the existing sampling scheme for length and age. Therefore, a standard fixed sampling scheme of two length and one age samples per month is proposed.

10.4 MP & EP - Discards - Required and proposed sampling

The DCR requires that discards should be monitored for the stocks in Appendix XII (MP) and Appendix XIII (EP) in order to estimate the average volume of the annual catches by weight per three-year period, by type of technique defined in Appendix III, except for the stocks for which Appendix XII specifies another disaggregation rule. Data related to annual estimates of these discards must lead to a precision of level 1. However, if Member States can not reach this level of precision or only at excessive costs, they can obtain a derogation from the Commission to reduce the precision level, sampling frequency or to implement a pilot survey provided this request is fully documented.

The various elements of the collection of discard data are described in different modules in the DCR. Module E defines the estimates of catches, module H deals with the age and length compositions of the catches and module I deals with the collection of other biological parameters. The sampling criteria are based on the expected bycatch of the species (by the MS) and may lead to different sampling requirements by species. The species are also divided over separate lists for the minimum and extended programme (Appendices XII and XIII in the DCR). Table 2 gives an overview of the species and areas for which discard estimates have to be made according to the DCR. Furthermore this table indicates the number of samples to be taken. Apart from estimating the total amount of discards (see 7.3), the sampling of age- and length distributions and other biological parameters is included in the Dutch discard sampling programme.

Like in most MS, the Dutch discard sampling programme is fleet based and not species/stock based. Observer trips and number of hauls, to be measured, cover all species in the sampled fleets and no distinction in sampling effort will be made between MP and EP species. Therefore, the different elements in the Dutch discard sampling programme are presented as an integrated package in the NP (unchanged from in previous years).

Collection of discard data in Dutch fisheries was initiated in 1968 on *ad hoc* basis and since 1999 on a regular basis in the beam trawl fishery, which is the most important Dutch fishery in the North Sea. The monitoring of discards in the beam trawl fishery since 1999 has been carried out as an international study supported by the Commission and since the introduction of the Directive in this programme. As in the previous years, discard sampling by the Netherlands in 2006 will be restricted to the two most important fleet segments, the beam trawl fleet fishing for flatfish in the North Sea and pelagic trawlers fishing for herring, mackerel, blue whiting and horse-mackerel in various areas (IV, VI, VII, VIII and international waters). In the past years, these fleets are responsible for over 90% of the national landings.

10.4.1 Discards beam trawl fishery

The discard sampling programme will be continued in 2006 with 10 discard trips having an average duration of one week (5 days). Sampling will be coordinated by a Discard Steering Group which consists of representatives of the Ministry, Fishing Sector and RIVO, which meets several times a year. The task of this group is to develop and evaluate the sampling plans and to perform a quality check of the sampled data of the beam trawl fleet in the North Sea also with respect to representatives of the programme.

10.4.2 Discards pelagic fishery

A similar Steering Group with the same task has been established for discard sampling on the pelagic freezer trawlers. Vessel trips have a duration varying between 3 and 8 weeks. The fishery is very flexible and can be directed to different métiers (combination of species) in different management areas during the same trip. Usually discard samples from several areas can be obtained during one trip. Due to capacity restraints the sampling in previous years was restricted to 6 trips. This number of trips is too low to obtain representative information for all métiers. Therefore for 2006 the number of sampling trips is increased to 12. In the calculation of the budget and average of 26 days (based on trip duration in 2001) has been used.

10.4.3 Discard sampling procedures

All Dutch discard sampling in the North Sea follows the rules laid down in the international agreed sampling manual established under EU study 98/097: "Discard Monitoring". In this document all aspects of "at sea sampling" are covered (including: selection procedures for selecting fishing trips, description of sub-sampling procedures, recording of data, safety at sea etc). The same sampling procedure will be practised in other areas.

The two fisheries differ considerably by area with respect to trip duration, number of stations per trip and handling of the catch. In the North Sea trips with vessels operating beam trawls are often 5 days at sea, while trips with pelagic trawlers, operating in distant waters, last mostly 4-6 weeks. Because of differences in these fisheries, different sampling procedures may be applied. If possible, information on discards as well as landings will be sampled from each station. Manuals for sampling procedures have been produced and will be updated when necessary.

The sampling will be stratified on:

- ICES Division/Sub-division (if possible);
- Quarter

- within the pelagic vessels a distinction will be made on fisheries directed to herring, mackerel, horse mackerel and blue whiting.

In principle, the vessels to be monitored will be selected randomly from a large number of vessels identified in close co-operation with the Steering Groups. The Dutch law gives no provision to oblige vessels to take observers onboard. Therefore, the vessels cannot be sampled truly random from the whole fleet. Also, not all vessels have accommodation to take observers on board. The selection of vessel will therefore be made from a list of vessels of which beforehand agreement has been sought on the acceptance of observers on board and which have accommodation to take observers on board.

All sampling of discards will normally be done on board during normal active fishery by observers trained and employed at RIVO. The sampling includes the collection of

- technical information on the vessels and gears used;
- technical information on the fishing operation (position, time and haul duration);
- total weight of discards and landings by all species caught;
- separate length distributions of all discarded species and length distributions of landings by all relevant species caught
- Otoliths (for age determination) and individual mean weight per cm-length group of selected species.

All data recorded in connection with the collection of discards will be included in a added to the biological database held at RIVO (section 14.1.3).

11 Module I - Other biological sampling

11.1 MP & EP- Required and proposed sampling

The DCR requires that sampling programmes should be carried out to estimate the growth curves by length and by weight, the relations between age/length and maturity, and the relation between age/length and fecundity must be provided for all stocks and aggregation levels mentioned in Appendix XVI, including for those stocks which are not subject to an annual estimation of the age composition of the catches. The validity of existing data used for biological parameters estimation must be checked every three to six years as defined in Appendix XVI. Member States must update these parameters if needed. For the Norway lobster (*Nephrops*), Greenland halibut, deep sea shrimps (*Pandalus borealis*), plaice, sole and hake, the growth curves and maturity ogives are established separately for males and for females.

In addition biological sampling programmes of the landings must be implemented to estimate the share of the various stocks in these landings for: herring in the Skagerrak, Kattegat, and eastern North Sea separately, wild and reared salmon in the Baltic Sea, the various species of skates and rays in areas IV and VII.

Member States should perform their sampling scheme for sex ratio from their commercial catches. However, in cases in which this task is impossible, samples obtained during scientific surveys may be used.

The NP of the Netherlands does not include a separate proposal to carry out other biological sampling in Module I. The collection of these data is included in the Modules G (surveys) and H (age and length compositions landings and discards) as they are routinely collected for these Modules.

Table 7 and Table 8 (taken from the Technical Report) give an overview of the long-term sampling strategy with respect to 'Other biological parameters'. For each parameter (length at age as an index for growth, sex ratios, sexual maturity and fecundity) and year, 'X' is entered if data collection has taken place or is planned. Annually all species are sampled for length and age except Nephrops and skates (no ageings). Annually all species are sampled for gender. Annually all species are sampled for maturity except Nephrops. Fecundity is only estimated for horse mackerel during the triennial egg surveys. Routinely also weight at age (not included in the tables) is recorded.

Precision levels will be provided as soon as international agreed methodology becomes available (see also section 3).

All biological data are stored in a central database at RIVO linked to its original destination. Data security is ensured by common standards. Data collection and data entry is conducted at the RIVO laboratory in IJmuiden.

12 Module J - Economic data by group of vessels

12.1 MP - Required and proposed sampling

The DRC requires that detailed economic information is collected from a representative sample of the fleet as registered in the official vessel register.

In the Dutch cutter fleet, however, a large number vessels participate occasionally or never in the sea fishery. A large part of these vessels merely exist because of administrative reasons (e.g. to store licences, capacity, or ITQ). Because their effort and catches are too low to be considered an economic activity and their total effort and catches are negligible, compared to those of the other vessels within the fleet, detailed economic data has not been gathered from these vessels within the economic sampling program. In order to distinguish between economically inactive and active vessels we use a lower threshold for economic active vessels of 50000 Euro on gross revenue. Based on this threshold, the active fleet, the population for the detailed economic data gathering included 373 cutters and 17 industrial vessels in 2004.

Segmentation of the Dutch fleet, showing inactive and active vessels.

length class	0-12		12-24		24-40		>40		Total
Active/inactive	inactive	active	inactive	active	inactive	active	inactive	active	
Beam trawl	21		19	179	3	52	1	100	375
Demersal trawl and seine	21		7	15	2	17			62
Pelagic trawl and seine	5		7					17	29
Dredges	2		7		99		36		144
Polyvalent	74	1	22	3	3		1		104
Drift and fixed nets	20		2						22
Pots and traps	95	1	32	5	3		1		137
Polyvalent	24		24		1				49
Total	262	2	120	202	111	69	39	117	922

For the active part of the fleet, the Dutch programme for section J covering the information for the Community Programme as defined in Appendix XVII and XVIII of the Reg. 1543/2000, will be implemented through the on-going LEI survey of the Dutch cutter fleet. The results will be further completed and cross-checked with the data from the Directorate of Fisheries (Fleet Register and Logbook Database).

Depending on the indicator, information is collected on trip by trip or on annual basis. Together with the Logbook database seasonal patterns can be distinguished down to months or even weeks.

Furthermore six different fisheries 'métiers' are distinguished: beam trawling for flatfish, otter trawling, pair trawling for roundfish, pair trawling for herring, shrimp trawling and other fisheries. Because these fisheries 'métiers' are more specific than the gear types specified in the regulations, aggregated data can be provided for these groups. Registration of the vessel number and homeport allows regional subdivision. Registration of the horsepower and the length allows distinction between various size groups.

Investments are valued, based on the actual purchase price whenever possible. In case this is not possible insurance value is used as a proxy of the replacement value, or the value of the investment is estimated based on standards or expert knowledge this last possibility is only seldom used.

The collection of the data in the Dutch cutter fleet, described above, allows fully complying with the requirements of the regulation with respect to the definition of the economic parameters as discussed in the workshop on economic indicators, held in Paris in May 2004 (IFREMER, 2004).

As there is no obligation for the fishermen to provide economic data and as many fishermen are reluctant to provide data, gathering data by means of questionnaires would probably lead to a high non-response. The use of a panel in which data are collected from fishermen for a longer time period takes care of this problem of non-response. This way of data sampling might lead to bias in the sampled data. Over the past three years, however, the sample has been proven to be representative for the fleet segments based on the technical characteristics (vessel length, tonnage, engine power, vessel age, motor age), the effort (total, spatial and temporal distribution) and the catch (total and species composition) in different studies on the quality of the data. These quality checks are carried out annually and may lead to adjustments

in the panel in groups that are not found representative. Within these restrictions, new panel members are selected at random from the population to deal with a natural turnover of about 10%.

In the period 2003-2004, precision levels required by the regulation were not met by the economic data recording system for vessels using demersal trawls and seines under 24m. In 2005 sampling effort will be increased in this segment to comply with the DRC standards. Given the fact that the number of vessels in this segment does not increase rapidly in the coming years, this will lead to lower standard errors for the estimates of the economic parameters.

The segment of pelagic trawlers over 40 m is special with respect to the low number of companies involved. Because of privacy reasons, complete economic and catch information has been gathered for this segment in stead of taking a sample. This information is in accordance with the EU data regulation, except for the indicator own/foreign capital. As there are only 4 operators in this segment, the problem of confidentiality of published information is serious and will have to be dealt with appropriately.

In order to attain economic information from the inactive vessels, in 2005 a pilot study is carried out to estimate their characteristics (technical characteristics, investment, fishing activity, income) and to provide a better understanding why these vessels are not be taken into account in the detailed economic data collection system. The pilot study will also provide methodology to estimate the economic parameters for the inactive vessels. This will be based on existing information on catch and effort, technical characteristics and quota ownership. In 2006 economic parameters for the inactive vessels will be estimated based on this methodology. The resulting information on the inactive vessels can then be combined with the information from the data collection system on the active vessels to come up with the estimates of the economic indicators for the total fleet.

12.2 MP - Deviations from aim

With the above noted adjustments the data collection programme will meet the requirements set by the DRC.

12.3 EP - Required and proposed sampling

The LEI method of data collection integrates minimum and extended programme. Data is collected at the lowest level (i.e. single vessel on trip basis) so that subsequent aggregations are possible in various dimensions like fleet segments, time, region, etc. The costs of the minimum and extended programme cannot be uniquely separated. For the purposes of this proposal it is therefore assumed that 67% of the costs could be earmarked as minimum programme and 33% as extended programme.

According to the DCR the fleet segmentation might be more detailed in the extended program. The segment of beam trawl vessel between 24 and 40 metres is highly heterogeneous, both in technical characteristics as well as in economic and fishing performance. This is mainly due to the fact that many vessel longer than 24 metres are in fact eurocutters. Therefore variability in this segment is large and the segment is stratified further based on the engine power as specified in the extended program, according to appendix IV of the EC regulation. All other segments will be defined in accordance with the minimum program.

12.4 EP - Deviations from aim

The DCR requires collection of data on the educational level of the crewmembers. This information will be derived from existing information on functions of the crew and the officially required education level for each of the ranks as explained in the report of 2002.

13 Module K - Data concerning fish processing industry

13.1 MP - Required and proposed sampling

Based on a pilot study carried out in 2002 on the possibilities of gathering data concerning the processing industry, the collection programme will include the following:

- General information concerning the processing industry will be gathered from Statistics Netherlands.
- Additional information will be gathered quarterly through an electronic survey of 40 companies, involved in the LEI fish monitor panel.
- In collaboration with the Dutch Fish Product Board and Statistics Netherlands ways studied that could improve data collection.

As the information from the Statistics Netherlands database is available with a time lag of two years, a model will be build to estimate the economical data of the latest year.

Since 2003, collection of information on fish processing, fish trade has been carried out by reviewing data collected by the National Statistical Office (CBS). Micro data of fish processing businesses have been analyzed in order to test representatively of the sample. Several analysis have been made to achieve a better understanding of the dataset: compilation of 1993-2003 time series, statistical tests to study the degree of variation as regards the company size in terms of turnover and number of employed, allocation of individual companies to specific sub-sectors depending on quota or non-quota species, comparison of aggregated data to public statistics. This work will be continued in 2005.

Given the reservation of the sector against additional data collecting (see results of pilot study reported in 2003) and in spite of the limitations of the data provided by SN (2003), it was decided that working with the data of SN is the best way to go forward. This has implications on the type of work to be done in next years. The major tasks will be to further analyze and process secondary data by scientists in stead of surveys conducted by technicians. This will change the daily cost rate.

The work in 2006 will build on the dataset developed in 2003 to 2005. It will focus on construction of models that link the processing sector's costs and earnings structure that appears from the dataset to up-to-date statistics on landings, landings value and international trade statistics. The models will also include estimations of the price flexibilities of the species

that are of major concern for national fleets. The models will be used to estimate costs and earnings data in recent years but they provide also a tool to assess the impact of future TAC changes.

13.2 MP - Deviations from aim

14 Databases

14.1 Database development and data management

The NP of the Netherlands has not applied for financial support from the EC for the development of databases. National data collected under the DCR are kept by the participating partners in separate databases:

14.1.1 LNV database

LNV operates an ORACLE based relational database VIRIS (Visserij Registratie en Informatie Systeem). VIRIS holds all logbook information from vessels landing fish in the Netherlands and vessels flying the Dutch flag. The database contains data on landings, effort, inspection results and vessel characteristics since 1988 and is updated daily. Part of the data is subject to a regulation protecting the privacy of individual company results.

14.1.2 LEI database

All economic data are held in databases at LEI. These data used to be stored in several relational databases, but this system is currently under transition to a central object orientated database (ARTIS). ARTIS was developed at LEI for the collection and analysis of all its economic data. Data from the following years will be added routinely to ARTIS. In the near future, the historical data will also be loaded into this database after they have been "quality checked".

14.1.3 RIVO database

All biological data are held in a database at the Netherlands Institute for Fisheries Research.. The datacenter of RIVO is an ORACLE based relational database (FRISBE). FRISBE was developed in 2000 to contain all biological data collected by RIVO over the years. Presently FRISBE holds all fish survey data (including benthos) and biological data from discard- and landing sampling programmes, including historical data.

Data from herring larvae- and egg survey are presently held in Excel spreadsheets.

14.1.4 International databases

Most of the data collected at national level are part of international sampling programmes. In these cases, national data have been sent to the research institute/organization which keeps a master

copy of the data of all countries involved. The following data are kept in international databases.

ICES holds a copy of the IBTS data. The international mackerel egg survey database is maintained by Aberdeen. The international herring larvae survey database is maintained by Kiel. Herring larvae sampled during the IBTS are maintained by DIFRES. The data on Atlanto-scandic herring are stored in a database maintained by the Institute of Marine Research in Bergen (Norway)

15 National and international co-ordination

15.1 National co-ordination

The NP can be divided in three subtasks which are split over the three partners. The collection of national catch- and fleet statistics is carried out by DV. RIVO is responsible for the collection of biological data and LEI collects the economic data. Collection of information on fishing capacity, fishing effort, economic and landings statistics are carried out entirely on a national basis. Biological information on catches, information collected by research vessels and information on discards are in most cases co-ordinated internationally (ICES) and carried out in close co-operation with research institutes in Member States.

The NP is co-ordinated by a steering group consisting of the partners and chaired by the National Correspondent. The main task of the group is to monitor progress of the annual data collection and to ensure that National Programmes and Technical Reports are produced timely. Also developments arising from the Management Committee for Fisheries and Aquaculture are discussed in this group. Pending on the agenda of the meeting additional experts can be invited. Usually there are three to four meetings each year.

15.2 International co-ordination

International co-ordination takes place through the Regional Coordination Meetings (RCM), established by the Commission in 2004. The aim of these meetings is to promote cooperation between the different MS in order to obtain a full international coverage of the DCR. In 2006 two RCM's will be attended (North Sea and NE Atlantic stocks).

Further PGSCCDBS remains responsible for quality aspects of sampling. This meeting will be attended. This planning group organises a number of workshops. Only the workshop on ageing of horse mackerel will be attended by the Netherlands. The Netherlands will also organise this workshop

All surveys are coordinated internationally by existing ICES planning groups. These planning groups will be attended by the Netherlands.

Economic coordination meetings and meetings for the preparation of the revision of the DRC will be attended by the Netherlands.

The actual decision on the details (terms of reference, duration and venue) of these coordination meetings in 2006 are not available yet.

The coordination sheet of the finforms of the minimum program gives an overview of the international co-ordination meetings (Planning Groups, Study Groups, Regional Co-ordination Meetings, etc.) and the workshops that will be attended, and of the inter-calibration exercises and ring-tests in which the Netherlands will participate.

15.2.1 Agreements with other countries

Agreements have been made with Germany and the UK on the age- and length sampling of landings. The Dutch sampling levels of the landings are calculated from the mean landings over 2002-2004 that are landed in the Netherlands by both Dutch and foreign vessels. However, based on a bilateral agreement, made in March 2005, with Germany, the Dutch sampling levels are reduced, because this country wished to sample part of their landings by their observers on board of German freezer trawlers. Table 4 shows the numbers of samples that have to be reduced from the Dutch sampling scheme. The UK has requested to take over the sampling responsibility for landings of turbot in the UK. These are now included in the Dutch NP of 2006.

15.3 Other relevant issues

Presently no formal coordination takes place on sampling of discards. It is hoped that a first step can be made at the next meetings of the RCM in 2005. This could lead to an adjustment of the present programme.

16 List of acronyms and abbreviations

ACOHER	Herring Acoustic Survey in the North Sea
ARTIS	Database with economic data maintained by LEI
ASH	Atlanto-scandic herring acoustic survey
BTS	Beam Trawl Survey
DCR	Data Collection Regulation
DFS	Demersal Fish Survey
DIFRES	Danish Institute for Fishery Research
DVis	Dutch Directorate of Fisheries
EP	Extended Programme
EMAS	Evaluation of MArket Sampling strategies (EU project CFP 98/075)
FRISBE	Database with biological data maintained by RIVO
IBTS	International Bottom Trawl Survey
IBTSWG	International Bottom Trawl Survey Working Group
ICES	International Council for Exploitation of the Sea
HLS	Herring Larvae Surveys in the North Sea
LEI	Institute of Agricultural Economics
LNV	Ministry of Agriculture, Nature Conservation and Food Quality
MP	Minimum Programme
NDCP	National Data Collection Programme
ORACLE	Relational Database computer software
RIVO	Netherlands Institute for Fisheries Research
SNS	Sole Net Survey
STECF	Scientific, Technical and Economic Committee for Fisheries
STECF-SGRN	Research Needs and Data Collection (subgroup from STECF)
PGCCDBS	ICES Planning Group on Commercial Catch, Discards and Biological Sampling
PGHERS	Planning Group for Herring Surveys
PGNAPES	Planning Group on Northeast Atlantic Ecosystem Surveys
WGBEAM	Working Group on Beam Trawl Surveys
VIRIS	Visserij Registratie en Informatie Systeem (Database with logbook entries in the Netherlands, maintained by DV)
WGMEGS	Working Group on Mackerel and Horse mackerel Egg Surveys
WKSCMFD	Workshop on Sampling and Calculation Methodology for Fisheries Data
WKSDFD	Workshop on Sampling Design for Fisheries Data

17 Comments, suggestions and reflections

The following points may require a revision of the Dutch NP later in the year because inadequate information was available at the deadline of submission to make a final proposal.

- No research proposals have been included for eels. The Commission will request the MS to adjust their NP for 2006 later in the year when research topics on eel have been defined. Later in 2005, a group of experts will advise the Cie on sampling targets. These could lead to adjustments in activity described in the NP in the modules dealing with statistics, survey, age/length sampling and biological parameters. It could also be requested to include eel sampling as a pilot study.
- There has been no coordination yet on the participation of the blue whiting survey in 2006. Also no data were available to calculate the cost sharing of the survey between MS. A preliminary budget has been submitted, which may have to be revised later

18 References

EU 2000. Council Regulation (EC) No 1543/2000 of 29 June 2000 establishing a Community framework for the collection and management of the data needed to conduct the common fisheries policy.

EU 2000. Council Decision of 29 June 2000 on a financial contribution from the Community towards the expenditure incurred by Member States in collecting data, and for financing studies and pilot projects for carrying out the common fisheries policy (EC) No 439/2000

EU 2001. Regulation (EC) No 1639/2001 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) No 1543/2000

EU 2004. Council Regulation (EC) No 1581/2004 of 27 August 2004 amending Regulation (EC) No 1639/2001 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) No 1543/2000

Pastoors, M. A., C. M. O'Brien, S. Flatman, C. D. Darby, D. Maxwell, E. J. Simmonds, H. Degel, M. Vinther, P. Sparre and E. Vanderperren (2001). Evaluation of market sampling strategies for a number of commercially exploited stocks in the North Sea and development of procedures for consistent data storage and retrieval (EMAS). Final report, RIVO, CEFAS, DIFRES, SOAEFD, CLO-DZ. CFP 98/075.

19 Annex 1 tables

Table 1 Summary tabel Precision levels

Summary table Precision levels				Country	Netherlands	MP+EP
				Reference year	2006	
Module	Type of data	MP/EP	Required level of precision	Data sources and data collection methods to be used	Calculation method to be used	
C	Fleet capacity		All or Level 3	logbooks		
D	Fuel consumption		All or Level 2			
	Fishing effort		All or Level 2	logbooks		
	Species-specific fishing effort		All or Level 1	logbooks		
E	Landings		Level 1, 2 or 3, depending on management type	logbooks		
	Discards		Level 1	Observer at sea sampling		
	Recreational fisheries		Not specified			
F	CPUE data series		Not specified	logbooks		
G	Surveys		Not specified			
H	Age compositions of stocks under a Recovery Plan		Not specified, Level 2 from 2006 onwards	market sampling		
	Age compositions of other mandatory stocks		Not specified Level 1 from 2006 onwards	market sampling		
I	Length & weight at age for species that can be aged		Level 3	market sampling/surveys/discards		
	Length & weight at age for species that cannot be aged		Level 2	market sampling/surveys/discards		
	Sexual maturity		Level 3	market sampling/surveys/discards		
	Fecundity		Level 3	surveys		
	Sex ratios		Level 3	market sampling/surveys/discards		
J	Economic data fishing vessels		Level 1			
K	Data processing industry		Not specified			

Table 2 Calculation of Dutch discards sampling effort requirements by species and area

Species	Area	NL-flag landings in NL 2004	beforehand		yearly discard sampling required	sampling frequency rules			nos fish aged per ample	sample frequency		nos fish aged
			% discard weight	% discard numbers		length measur- ment	age readings	nos fish meas. per sample		length samples	nos fish measured	
Anglerfish	IVa-c	56	<10	<20	N	200	200	25	25			
Brill	IVa-c	820	<10	<20	N	200	200	25	25			
Cod	IVa-c	1,740	>10	<20	Y	200	200	50	25	9	435	218
Crangon	IV VIIId		>10	>20	Y	not defined						
Dab	IVa-c	4,984	>10	>20	Y	100	0	25	0	50	1246	0
Haddock	IVa-c	105	>10	>20	Y	200	200	50	25	1	26	13
Herring	IVa,b	67,526	>10	>20	Y	1000	1000	50	25	68	3376	1688
Herring	IVc, VIIId	28,636	>10	>20	Y	1000	1000	50	25	29	1432	716
Herring	Vb, VIaN, VIb	8,231	>10	>20	Y	1000	1000	50	25	8	412	206
Herring	VIaS, VIb,c	657	>10	>20	Y	1000	1000	50	25	1	33	16
Herring	VIIg,h,j,k	1,911	>10	>20	Y	1000	1000	50	25	2	96	48
Horse mackerel	IVa-c	30,410	>10	>20	Y	1000	1000	100	25	30	3041	760
Horse mackerel	VI,VII,VIII,XII,XIV	37,080	>10	>20	Y	1000	1000	100	25	37	3708	927
Lemon sole	IVa-c	360	>10	>20	Y	200	200	25	25	2	45	45
Mackerel	IVa-c	5,781	>10	>20	Y	1000	1000	50	25	6	289	145
Mackerel	IIa,Vb,VI,VII,VIII,XII,	21,748	>10	>20	Y	1000	1000	50	25	22	1087	544
Nephrops	IVa-c	923	<10	>20	Y	50	0	400	0	18	7384	0
Plaice	IVa-c	23,560	>10	>20	Y	500	500	50	25	47	2356	1178
Skates	IVa-c	567	>10	>20	Y	500	0	25	0	1	28	0
Sole	IVa-c	12,868	<10	<20	N	200	200	50	25			
Sole	VIIa	0	<10	<20	N	50	50	200	50			
Turbot	IVa-c	1,781	<10	<20	N	200	200	25	25			
Blue Whiting	IVa-c	51	>10	>20	Y	1000	1000	50	50	0	3	3
Blue Whiting	Vb,VI,VII,XII,XIV	77,135	>10	>20	Y	1000	1000	50	25	77	3857	1928
Whiting	IVa-c	1,129	>10	>20	Y	200	200	50	25	6	282	141

Table 3 Aggregation levels for cpue on rectangle basis of selected species/fleets (EP)

Variables	
COUNTRY	country of registration vessel
GEAR	fishing gear (see below)
HPCLS	engine power (see below)
YEAR	year of landing
QUARTER	quarter of landing
MONTH	month of landing
RECT	ICES rectangle
SPECIES	(see below)
CATCH	landings in tonnes
CPUE_D	CPUE in kg / day at sea
CPUE_H	CPUE in tonnes / HP corrected day at sea
EFFORT	days at sea
HPEFFORT	HP corrected day at sea
VALUE	landings x average price

Species	
SOL	sole
PLE	plaice
COD	cod
WHG	whiting
HER	herring
MAC	mackerel
HOR	horse mackerel
NEP	Nephrops
BWL	blue whiting
ARG	argentinians

Fishing Gear	
OTB	Otter bottom trawls
TBB	Beam trawls
TBS	Beam trawls Shrimps
DRB	Boat dredges
PTB	Pair bottom trawls
SDN	Danish seines
SSC	Scottish seines
OTM	Otter midwater trawls
PTM	Pair midwater trawls
PS	Purse seiner
LL	Long lines
LLS	Long lines (set)
LLD	Long lines (drifting)
GN	Gillnets
GNS	Gillnets (standing)
GND	Gillnets (drifting)
GTR	Trammel nets
LHP	Hand- and pole-line
FPO	Pots
MIS	Other fishing gear

Engine Power (HP)
1-260
261-300
301-800
801-1500
1501-2000
2000-9999
other

Table 4 Calculations of average landings (basis for the age and length measurments for 2006) (unit tonnes)

Table 4 Calculations of average landings (basis for the age and length measurments for 2006) (unit tonnes)										AGREEMENT NL - DEU		
Species	Area	Landings in the Netherlands								DEU responsible for sampling DEU landings in NL	NL reponsible forsampling NL landings in DEU	NL responsible for sampling landings
		2002	NL-flag 2003	2004	2002	Other-flag 2003	2004	NL-flag 2002-2004	Other-flag 2002-2004			
Sole	IVa-c	12,100	12,618	12,868	1,503	1,640	2,199	12,529	1,781	747	0	13,563
Sole	VIIa	0	0	0	2	1	0	0	1		0	1
Plaice	IVa-c	28,851	27,111	23,560	18,745	16,772	18,568	26,507	18,028	3,300	0	41,235
Brill	IVa-c, VIId	966	985	820	176	207	248	924	210		0	1,134
Turbot	IVa-c, VIId	1,923	1,919	1,781	829	698	764	1,874	764		0	2,638
Dab	IVa-c, VIId	4,976	4,984	5,008	2,141	2,018	2,196	4,989	2,118		0	7,108
Flounder	IVa-c, VIId	3,545	3,190	3,728	278	311	357	3,488	315		0	3,803
Lemon sole	IVa-c, VIId	418	383	360	674	573	468	387	572		0	959
Witch	IVa-c, VIId	1	0	2	7	8	1	1	5		0	6
Megrim	IVa-c, VIId	9	7	10	20	22	12	9	18		0	27
Cod	IVa-c, VIId	4,685	2,336	1,740	1,852	1,572	1,225	2,920	1,550	420	0	4,050
Whiting	IVa-c, VIId	2,474	1,650	1,129	474	472	395	1,751	447		0	2,198
Haddock	IVa-c, VIId	363	187	104	528	311	257	218	365		0	583
Hake	IVa-c, VIId	23	26	22	65	53	52	24	57		0	80
Saithe	IVa-c, VIId	6	8	2	19	107	145	5	90		0	96
Anglerfish	IVa-c, VIId	79	54	56	228	109	97	63	145		0	208
Red mullet	IVa-c, VIId	332	408	804	73	46	79	515	66		0	581
Red mullet	VIIe, VIIla-b	16	29	59	1	0	0	18	0		0	18
Sea bass	IVa-c, VIId	103	168	192	4	5	7	154	5		0	160
Skates	IVa-c, VIId	806	688	567	94	125	95	687	105		0	792
Scallop	VIId	129	190	239	34	20	41	186	32		0	218
Nephrops	IVa-c	969	954	923	188	148	285	949	207		0	1,156
Herring Atl.Scand.	IIa	7,489	8,949	24,153	236	706	906	13,530	616	454	1,389	15,082
Herring	IVa,b	32,343	46,250	67,526	49,753	57,671	45,832	48,706	51,085	18,457	600	81,935
Herring	IVc, VIId	23,246	36,771	28,638	14,910	15,600	17,539	29,551	16,016		0	45,568
Herring	Vb, VIaN, VIb	4,581	2,951	8,231	7,047	6,460	2,605	5,255	5,371	1,608	0	9,017
Herring	VIaS, VIId,c	633	657	0	0	540	0	430	180		0	610
Herring	VIIg,h,j,k	922	1,014	1,911	1,042	981	930	1,282	984		0	2,267
Horse mackerel	IVa-c, VIId	12,219	25,065	30,410	5,624	6,821	11,643	22,565	8,029	3,460	0	27,134
Horse mackerel	VI,VIIa-c,e- k,VIIIabde,XII,XIV	44,987	44,014	37,080	34,835	34,365	24,485	42,027	31,228	10,934	0	62,322
Mackerel	IVa-c, VIId	11,891	7,155	5,781	9,572	10,844	7,133	8,276	9,183		0	17,459
Mackerel	IIa,Vb,VI,VIIa-c,e- k,VIIIabde,XII,XIV	21,565	22,134	21,748	45,029	41,106	35,106	21,816	40,414	15,238	0	46,991
Blue Whiting	IVa-c, VIId	374	1,345	51	550	38	200	590	262		0	852
Blue Whiting	IIa,Vb,VI,VIIa-c,e- k,VIIIabde,XII,XIV	35,251	55,917	77,135	19,042	30,122	36,200	56,101	28,455	17,849	6,033	72,739
Argentines	All	4,216	2,610	10,662	161	164	1,216	5,829	514	462	0	5,881
Redfish	I, II	4	88	33	0	10	2	42	4	46	0	0
Redfish	IVa-c	4	1	0	188	1	1	2	63	65	0	0
Redfish	Va, XII, XIV	0	0	0	0	1,081	0	0	360	360	0	0
Sprat	IVa-c, VIId	169	504	119	99	734	13	264	282		0	547

Table 5 Sampling requirement according the DCR

Sampling requirements according Commission Regulation 1639/2001

Species	Area	Total EU TAC 2,005	Dutch TAC 2,005	Dutch TAC in %	Landings to be sampled by the Netherlands	Length sampling required	Age required NL	Tonnes of fish for 1 length sample	Tonnes requiring 1 age sample	Nos fish per length sample	Nos fish per age sample
Sole	IVa-c	18,320	13,784	75.2	13,563	Y	Y	200	200	50	25
Sole	VIIa	960	150	15.6	1	N	N	50	50	200	50
Plaice	IVa-c	57,370	22,066	38.5	41,235	Y	Y	500	500	50	25
Brill	IVa-c, VIId	1,368	760	55.5	1,134	Y	Y	200	200	25	25
Turbot	IVa-c, VIId	3,182	1,767	55.5	2,638	Y	Y	200	200	25	25
Dab	IVa-c, VIId	11,726	7,264	62.0	7,108	Y	N	100	0	25	0
Flounder	IVa-c, VIId	6,274	3,887	62.0	3,803	N	N				
Lemon sole	IVa-c, VIId	6,457	802	12.4	959	Y	Y	200	200	25	25
Witch flounder	IVa-c, VIId	43	5	12.4	6	N	N				
Megrim	IVa-c, VIId	1,740	22	1.3	27	N	N	500	500	50	25
Cod	IVa-c, VIId	22,659	2,619	11.6	4,050	Y	Y	200	200	50	25
Whiting	IVa-c, VIId	19,800	1,513	7.6	2,198	Y	N	200	200	50	25
Haddock	IVa-c, VIId	51,321	408	0.8	583	N	N	200	200	50	25
Hake	IVa-c, VIId	1,496	50	3.3	80	N	N	100	0	25	0
Saithe	IVa-c, VIId	69,600	152	0.2	96	N	N	200	200	50	25
Anglerfish	IVa-c, VIId	10,314	276	2.7	208	N	N	200	200	25	25
Red mullet	IVa-c, VIId				581	Y	N	200	0	50	0
Red mullet	VIIe, VIIla-b				18	N	N	1000	0	50	0
Sea bass	IVa-c, VIId				160	Y	N	200	0	50	0
Skates	IVa-c, VIId	3,220	462	14.3	792	Y	N	500	0	25	0
Scallop	VIId				218	N	N	200	0	50	0
Nephrops	IVa-c	21,350	575	2.7	1,156	Y	N	50	0	400	0
Herring Atl.Scand.	IIa	78,541	9,630	12.3	15,082	Y	Y	1000	1000	50	25
Herring	IVa,b	305,557	56,745	18.6	81,935	Y	Y	1000	1000	50	25
Herring	IVc, VIId	74,293	34,704	46.7	45,568	Y	Y	1000	1000	50	25
Herring	Vb, VIaN, VIb	29,440	3,291	11.2	9,017	Y	Y	1000	1000	50	25
Herring	VIaS, VIId,c	14,000	1,273	9.1	610	Y	N	1000	1000	50	25
Herring	VIIg,h,j,k	13,000	802	6.2	2,267	Y	N	1000	1000	50	25
Horse mackerel	IVa-c, VIId	40,616	4,469	11.0	27,134	Y	Y	1000	1000	100	25
Horse mackerel	VI,VIIa-c,e-k,VIIIabde,XII,XIV	133,223	46,096	34.6	62,322	Y	Y	1000	1000	50	25
Mackerel	IVa-c, VIId	17,067	470	2.8	17,459	N	N	1000	1000	50	25
Mackerel	IIa,Vb,VI,VIIa-c,e-k,VIIIabde,XII,XIV	217,477	20,190	9.3	46,991	Y	N	1000	1000	50	25
Blue Whiting	IVa-c, VIId	122,024	359	0.3	852	N	N	1000	1000	50	25
Blue Whiting	IIa,Vb,VI,VIIa-c,e-k,VIIIabde,XII,XIV	474,333	119,216	25.1	72,739	Y	Y	1000	1000	50	25
Argentines	All	6,757	4,305	63.7	5,881	Y	Y	1000	1000	200	100
Redfish	I, II	1,500	0	0.0	0	N	N	500	0	100	0
Redfish	IVa-c				0	N	N	100	0	25	0
Redfish	Va, XII, XIV	15,513	3	0.0	0	Y	Y	100	500	100	50
Sprat	IVa-c, VIId	250,000	2,877	1.2	547	N	N	2000	2000	50	50

Table 6 Proposed age and length sampling of Landings by the Netherlands in 2006

Table 6 Proposed age and length sampling of Landings by the Netherlands in 2006			Sampling according Appendix XV of the DCR				PROPOSED DUTCH 2006SAMPLING incl. foreign fleets ACCORDING DUTCH SAMPLE SIZE SYSTEM							
Species	Area	Landings to be sampled by the Netherlands (t)	Estimated LENGTH samples	Estimated AGE samples	Estimated LENGTH measured	Estimated AGE determin.	nos fish measured	nos fish aged	Nos fish measured per sample	Nos fish aged per sample	nos length samples	nos age samples	note	
Sole	IVa-c	13,563	68	68	3391	1695	3500	3500	50	50	70	70		
Plaice	IVa-c	41,235	82	82	4124	2062	4200	4200	60	60	70	70		
Brill	IVa-c, VIId	1,134	6	6	142	142	960	960	40	40	24	24		
Turbot	IVa-c, VIId	2,638	13	13	330	330	1080	1080	45	45	24	24		
Dab	IVa-c, VIId	7,108	71		1777	0	1800	300	75	25	24	12	EP	
Lemon sole	IVa-c, VIId	959	5	5	120	120	120	120	30	30	4	4		
Cod	IVa-c, VIId	4,050	20	20	1012	506	2000	2000	50	50	40	40	RecP	
Whiting	IVa-c, VIId	2,198	11		550	0	2000	1200	50	50	40	24		
Red mullet	IVa-c, VIId	581	3		145	0	150	150	25	25	6	6		
Sea bass	IVa-c, VIId	160	1		40	0	50	50	25	25	2	2		
Skates	IVa-c, VIId	792	2		40	0	1500		30		50	0		
Nephrops	IVa-c	1,156	23		9245	0	9600		400		24	0		
Herring Atl.Scand.	IIa	15,082	15	15	754	377	1389	400	87	25	16	16		
Herring	IVa,b	81,935	82	82	4097	2048	1351	1750	193	25	70	70		
Herring	IVc, VIId	45,568	46	46	2278	1139	5772	925	156	25	37	37		
Herring	Vb, VIaN, VIb	9,017	9	9	451	225	1575	225	175	25	9	9		
Herring	VIaS, VIIb,c	610	1		31	0	150	25	150	25	1	1		
Herring	VIIg,h,j,k	2,267	2		113	0	150	25	150	25	1	1		
Horse mackerel	IVa-c, VIId	27,134	27	27	2713	678	4239	675	157	25	27	27		
Horse mackerel	VI,VIIa-c,e-k,VIIIabde,XII,XIV	62,322	62	62	3116	1558	13233	1575	210	25	63	63		
Mackerel	IVa-c, VIId	17,459			0	0	1475	425	87	25	17	17		
Mackerel	IIa,Vb,VI,VIIa-c,e-k,VIIIabde,XII,XIV	46,991	47		2350	0	3723	1175	79	25	47	47		
Blue Whiting	IVa-c, VIId	852			0	0			50	25	0	0		
Blue Whiting	IIa,Vb,VI,VIIa-c,e-k,VIIIabde,XII,XIV	72,739	73	73	3637	1818	12572	1825	172	25	73	73		
Argentines	All	5,881	6	6	1176	588	2084	600	87	25	24	24		

Table 7

Summary table Long-term planning Other biological parameters												Country		Netherlands		MP					
												Reference year		2006							
Species	Area / Stock	Length at age					Sex ratio					Sexual maturity					Fecundity				
		2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006
Sole	IVa-c	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Not applicable				
Plaice	IVa-c	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Brill	IVa-c, VIId	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Turbot	IVa-c, VIId	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Lemon sole	IVa-c, VIId	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Cod	IVa-c, VIId	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Whiting	IVa-c, VIId	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Skates	IVa-c, VIId						X	X	X	X	X	X	X	X	X	X					
Nephrops	FU5						X	X	X	X	X										
Herring	IIa	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Herring	IVa-c, VIId	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Herring	Vb, VIaN, VIb	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Horse mackerel	IVa-c, VIId	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Horse mackerel	IIa, VI, VIIa-c,e-k, VIII	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		
Mackerel	IVa-c, VIId	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Not applicable				
Mackerel	IIa, VI, VIIa-c,e-k, VIII	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Blue whiting	IIa, VI, VIIa-c,e-k, VIII	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					

Summary table Long-term planning Other biological parameters											Country		Netherlands		MP						
											Reference year		2006								
Species	Area / Stock	Length at age					Sex ratio					Sexual maturity					Fecundity				
		2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006
argentines	all				X	X				X	X				X	X					

Table 8

Summary table Long-term planning Other biological parameters											Country		Netherlands		EP						
											Reference year		2006								
Species	Area	Length at age					Sex ratio					Sexual maturity					Fecundity				
		2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006
dab	IV	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
argentines	all	X	X	X			X	X	X			X	X	X							