# **Single Integrated Metadata Structure (SIMS)**

**Country: Greece** 

**Domain Name: Sea Fishery Monthly Survey** 

## **ELSTAT** metadata

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2. Introduction Contents

The Sea Fishery Survey is a wide range cencus type statistical survey, conducted on a monthly basis, whilst its results are released on an annual basis.

The mission of the Sea Fishery Monthly Survey is the collection of quantitative information, as well as the production of Sea Fishery statistics in a systematic manner, in order to determine the basic characteristics of the sector. The collection of data is carried out on a monthly basis at fishing vessel level, in order to generate data time series of various variables at NUTS 0 geographical level (Country level). Hence, the Sea Fishery Monthly Survey provides for a documentation basis for policy decision making relative to the Common Fisheries Policy (CFP) of the European Union for managing European fishing fleets and for conserving fish stocks.

3. Metadata update							
2.1 Metadata last certified	29/09/2016						
2.2 Metadata last posted	29/09/2016						
2.3 Metadata last update	29/09/2016						

## 4. Statistical presentation

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#### 4.1 Data description

The Sea Fishery Survey aims at compiling results, that refer to:

- the total number and engine horse power of the fishing vessels
- the tonnage of fishing vessels
- the quantity and value of catch by main species, by type of fishing gear and by fishing area
- the number of employed persons by type of fishing gear.

#### 4.2 Classification system

Geographical classification: the classification system used for the published results of the Sea Fishery Survey is the NUTS 0 (Greece total). pursuant to the Regulation (EC) 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS)

http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003R1059&from=EN

Fisheries areas classification: the implemented system for the published results of the Sea Fishery Survey, follows the classification and codification of FAO as imprinted in the Annex II of the Regulation (EC) No 216/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of nominal catch statistics by Member States fishing in certain areas other than those of the North Atlantic (recast) <a href="http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009R0216&from=EN">http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009R0216&from=EN</a>

Caught fish species classification: the implemented system for the published results of the Sea Fishery Survey, follows the classification and codification of FAO as imprinted in the Annex IV of the Regulation (EC) No 216/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of nominal catch statistics by Member States fishing in certain areas other than those of the North Atlantic (recast) http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009R0216&from=EN

Categorization of landed fish classification: the implemented system for the published results of the Sea Fishery Survey, follows the classification and codification of the Annex III of the Regulation (EC) No 1921/2009 of the European Parliament and of the Council of 18 December 2006 on the submission of statistical data on landings of fishery products in Member States and repealing Council Regulation (EEC) No 1382/91 http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006R1921&from=EN

#### 4.3 Sector coverage

The Sea Fishery Survey covers the total number of the motor propelled fishing vessels regardless of their engine horse power.

## 4.4 Statistical concepts and definitions

- 1. The statistical unit of this survey is the motor propelled fishing vessel which fishes individually, that is with its own means.
- 2. Fishing vessels are distinguished into three main categories:
  - a) overseas fishery vessels,
  - b) open sea fishery vessels,
  - c) inshore fishery vessels.

#### More specifically:

- a) The first category includes vessels fishing outside of the Mediterranean Sea, and usually in the Atlantic Ocean and Madagascar. The catches from these vessels are mainly frozen.
- b) The second category includes trawlers and small seiners and combined fishing vessels.
  - i. Trawlers are usually medium-sized vessels which use towed gillnets.
  - ii. *Small seiners* are fishing vessels, which usually use circling gillnets. Some of these vessels may use nets for common trawlers.
- c) The third category includes small "common trawlers" and "other fishing vessels".
  - i. Common trawlers are the vessels that usually use common fishing trawls (fishing nets).
  - ii. Other fishing vessels are all the vessels that are not included in either of the aforementioned categories. The category includes small fishing boats that use common fishing nets, long lines, gillnets, small circling nets, etc.
- 3. Fishing gear. fishing gear is distinguished into five main categories.
  - a) gillnets for trawlers of overseas fishery,
  - b) gillnets for trawlers of open sea fishery,
  - c) circling gillnets,
  - d) fishing nets of common trawlers and
  - e) other fishing gear such as small circling nets, common fishing nets, long lines, etc.

In case where a fishing vessel has used more than one category of fishing gear or a combination of fishing gears during a month or for a specific time period, then the fishing gear which has been used the most is taken into consideration for the survey.

- 4. Categories by species of catch: the catches are distinguished into three categories according to their quality: first, second and third class. From 1990 onwards, this distinction is based on specific and standard criteria applied to all kind of fishing, that is, for overseas, open sea and inshore fisheries. In addition, since 1990 the total value of catches is estimated on the basis of the average annual weighted selling prices by species, applied in the fishing piers all over Greece. The catch is distinguished into four main groups: a) fish, b) cephalopods, c) crustaceans and d) shellfish. Each of these groups is distinguished into separate species on the basis of biological criteria.
- 5. *Employment*: the total number of persons that have worked on the vessel is considered as employed personnel, irrespective of their specialty.
- 6. Fishing areas: it is the area where the largest quantity of catch is fished.

## 4.5 Statistical unit

The statistical unit is the motor propelled fishing vessels which is working independently.

### 4.6 Statistical population

15,456 fishing vessels.

## 4.7 Reference area (geographical area)

NUTS 0 Classification: Greece total.

#### 4.8 Time coverage

Sea Fishery Survey has been producing results on a monthly basis which are released on an annual

basis since 1964.

Data on the Sea Fishery Survey from 2008 onwards at NUTS 0 level (Greece total), are available in electronic form at the ELSTAT portal (<a href="http://www.statistics.gr">http://www.statistics.gr</a>) in two formats: a) in a format of published Press Releases (pdf files) and b) in the format of tabulated data classified in respective categories (excel files) and more specifically at:

http://www.statistics.gr/en/statistics/-/publication/SPA03/2015-M01

## 4.9 Base period

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## 5. Unit of measure Contents

- Values in Euro
- Quantities in metric tonnes
- Vessels in numbers

## 6. Reference period

Contents

Data on fishing activity are collected for every fishing vessel on a monthly basis by the local Customs Authorities. For each vessel, the fisher-men/women fill in a specialized statistical questionnaire where he/she has to record the total quantity of catch during the previous month or he/she has to record that the vessel was not working.

Nevertheless, for overseas fishing vessels, where the fishing trip may last two or more months, the aforementioned procedure cannot be fully implemented. In such cases, only one questionnaire is completed and the total quantity of catch is recorded for the month of arrival of the fishing vessel. If the fishing trip covers the period referring to the end of the current year and the end of the next year (2-year period), then the total quantity of catch is distributed in two years. No data are collected either for the trips of each fishing vessel or for the hours of fishing.

The questionnaire for each month is submitted within the first five days of the next month in the local Customs Authority of the port of registry. If the fishing vessel is far away from its port of registry, then the questionnaire is submitted to the closer Customs Authority.

### 7. Institutional mandate

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#### 7.1 Legal acts and other agreements

The Hellenic Statistical Authority (ELSTAT) is an independent Authority enjoying operational independence as well as administrative and financial autonomy. It is not subject to the control of governmental services or other administrative authority. Its operation is subject to the control of the Hellenic Parliament. The legal framework concerning the organization and operation of ELSTAT is as follows:

Law 3832/2010 (Government Gazette No 38, Issue A): "Hellenic Statistical System Establishment of the Hellenic Statistical Authority (ELSTAT) as an Independent Authority", as amended by article 90 paragraphs 8 and 9 of the Law 3842/2010 (Government Gazette No 58, Issue A): "Restoration of fiscal justice, confrontation of tax evasion and other provisions", by article 10 of the Law 3899/2010 (Government Gazette No 212, Issue A): "Urgent measures for the implementation of the assistance program of the Greek Economy", by article 45 of the Law 3943/2011 (Government Gazette No 66, Issue A): "Combating tax evasion, staffing of auditing services and other provisions falling within the competence of the Ministry of Finance", by article 22 paragraph 1 of the Law 3965/2011 (Government Gazette No 113, Issue A): "Operations Reform of the Consignment and Loan Fund, Public Debt Management Agency, Public Enterprises and Government bodies, the establishment of the General Secretary of Public Property and other provisions" and by article 51 of the Law 4021/2011 (Government Gazette No 218, Issue A): "Enhanced measures for the supervision and restructuring of Credit Institutions – Regulation of issues of financial nature – Ratification of the European Financial Stability Facility (EFSF) Framework-Agreement and its amendments and other provisions."

- Regulation on the Operation and Administration of the Hellenic Statistical Authority (ELSTAT), 2012 (Government Gazette 2390 B, 28.08.2012)
- Regulation on the Statistical Obligations of the agencies of the Hellenic Statistical System (Government Gazette 2469 B, 4.11.2011)
- Greek Commitment on Confidence in Statistics (Government Gazette 40 A, 29.02.2012)
- European Statistics Code of Practice adopted by the Statistical Programme Committee on 24 February 2005 and promulgated in the Commission Recommendation of 25 May 2005 on the independence, integrity and accountability of the national and Community statistical Authorities, after its revision, which was adopted on 28 September 2011 by the European Statistical System Committee.

The legal framework governing the organization and operation of ELSTAT is available at: <a href="http://www.statistics.gr/en/legal-framework">http://www.statistics.gr/en/legal-framework</a>

- Presidential Decree 226/2000 (Government Gazette No 195, Issue A): "Organization of the General Secretariat of the National Statistical Service of Greece". Regulation (EC) No 223/2009 of the European Parliament and of the Council, on the European statistics (Official Journal of the European Union L 87/164) as amended by Regulation (EU) 2015/759
- Article 14 of the Law 3470/2006 (Government Gazette No 132, Issue A): "National Export Council, tax regulations and other provisions".
- Article 3, paragraph 1c, of the Law 3448/2006 (Government Gazette No 57, Issue A): "For the further use of information coming from the public sector and the settlement of matters falling within the responsibility of the Ministry of Interior, Public Administration and Decentralization".
- Articles 4, 8, 9, 10, 12, 13, 14, 15 and 16 of the Law 2392/1996 (Government Gazette No 60, Issue A): "Access of the General Secretariat of the National Statistical Service of Greece to administrative sources and administrative files, Statistical Confidentiality Committee, settlement of matters concerning the conduct of censuses and statistical works, as well as of matters of the General Secretariat of the National Statistical Service of Greece.

### At European level

- Regulation (EC) 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS).
   http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003R1059&from=EN
- Regulation (EC) No 216/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of nominal catch statistics by Member States fishing in certain areas other than those of the North Atlantic (recast). http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009R0216&from=EN
- Regulation (EC) No 1921/2009 of the European Parliament and of the Council of 18 December 2006 on the submission of statistical data on landings of fishery products in Member States and repealing Council Regulation (EEC) No 1382/91.
   http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006R1921&from=EN

## 7.2 International agreements on data sharing

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## 8. Confidentiality

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## 8.1 Confidentiality policy

Issues concerning the observance of statistical confidentiality by the Hellenic Statistical Authority (ELSTAT) are arranged by articles 6, 7 and 8 of the Law 3832/2010, as amended by article 90 paragraph 8 of Law 3842/2010 and by article 10 of Law 3899/2010, as well as by article 8 of Law 2392/1996, which was brought back into force, in accordance with article 90 paragraph 8 of Law 3842/2010.

Furthermore, ELSTAT disseminates statistics in compliance with the statistical principles of the European Statistics Code of Practice and in particular with the principle of statistical confidentiality.

## 8.2 Confidentiality - data treatment

ELSTAT protects and does not disseminate data it has obtained or it has access to, which enable the

direct or indirect identification of the statistical units that have provided them by the disclosure of individual information directly received for statistical purposes or indirectly supplied from administrative or other sources. ELSTAT takes all appropriate preventive measures so as to render impossible the identification of individual statistical units by technical or other means that might reasonably be used by a third party. Statistical data that could potentially enable the identification of the statistical unit are disseminated by ELSTAT if and only if:

- a) These data have been treated, as it is specifically set out in the Regulation on Statistical Obligations of the agencies of the Hellenic Statistical System (ELSS), in such a way that their dissemination does not prejudice statistical confidentiality or
- b) the statistical unit has given its consent, without any reservations, for the disclosure of data.

The confidential data that are transmitted by ELSS agencies to ELSTAT are used exclusively for statistical purposes and the only persons who have the right to have access to these data are the personnel engaged in this task and appointed by an act of the President of ELSTAT.

ELSTAT may grant researchers conducting statistical analyses for scientific purposes access to data that enable the indirect identification of the statistical units concerned. The access is granted provided the following conditions are satisfied:

- a) an appropriate request together with a detailed research proposal in conformity with current scientific standards have been submitted:
- b) the research proposal indicates in sufficient detail the set of data to be accessed, the methods of analyzing them, and the time needed for the research;
- c) a contract specifying the conditions for access, the obligations of the researchers, the measures for respecting the confidentiality of statistical data and the sanctions in case of breach of these obligations has been signed by the individual researcher, by his/her institution, or by the organization commissioning the research, as the case may be, and by ELSTAT.

Information on Access to confidential data for scientific purposes is available at: http://www.statistics.gr/en/scientific provision data

The Statistical Confidentiality Committee (SCC) operating in ELSTAT, examines issues referring to the observance of statistical confidentiality. Within its competence is to recommend on:

- a) the level of detail at which statistical data can be disseminated, so as the identification, either directly or indirectly, of the surveyed statistical unit is not possible;
- b) the anonymization criteria for the microdata provided to users:
- c) the granting to researchers access to confidential data for scientific purposes.

The staff of ELSTAT, under any employment status, as well as the temporary survey workers who are employed for the collection of statistical data in statistical surveys conducted by ELSTAT, who acquire access by any means to confidential data, are bound by the principle of confidentiality and must use these data exclusively for the statistical purposes of ELSTAT. After the termination of their term of office, they are not allowed to use these data for any purpose.

## 9. Release policy

Contents

## 9.1 Release calendar

The release calendar fully meets legal requirements concerning the deadlines for the release of data by:

- meeting the legal and contract requirements concerning the deadlines for the transmission of the survey results,
- ensuring the longest possible time for data checking,
- ensuring additional time in case it is needed.

Regarding the contractual obligations of transmitting the results of the Sea Fishery Survey to the European Institutions, Member States are obliged to transmit the relevant results, 6 months after the end of the reference year to the competent authorities of Eurostat, in compliance with the Regulation (EC) No 1921/2009 of the European Parliament and of the Council of 18 December 2006 on the submission of statistical data on landings of fishery products in Member States and repealing Council Regulation (EC) No 1382/91 and Regulation (EC) No 216/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of nominal catch statistics by Member States fishing in certain areas other than those of the North Atlantic (recast).

Users can request data or other statistical analysis, by submitting an application to the Hellenic Statistical Authority, Statistical Information and Publications Division, 46, Pireos & Eponiton Str, P.O.Box 80847, GR-18510, Piraeus (tel (30)213-1352022, FAX: (30)213-1352312, e-mail: data.dissem@statistics.gr).

#### 9.2 Release calendar access

The annual announcements calendars of ELSTAT are accessible through the website of ELSTAT (<a href="http://www.statistics.gr/calendar">http://www.statistics.gr/calendar</a>).

#### 9.3 User access

Results are made available simultaneously to all interested parties through the update of the databases maintained at the websites of ELSTAT (<a href="http://www.statistics.gr">http://www.statistics.gr</a>) and Eurostat (<a href="http://ec.europa.eu/eurostat">http://ec.europa.eu/eurostat</a>).

## 10. Frequency of dissemination

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Annual.

#### 11. Dissemination format

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#### 11.1 News release

Annual Press Release publication of the results of the Sea Fishery Survey. The Press Releases are available in electronic form at the website <a href="http://www.statistics.gr/en/statistics/-/publication/SPA03/-">http://www.statistics.gr/en/statistics/-/publication/SPA03/-</a>

#### 11.2 Publications

The main results of the Sea Fishery Survey, besides the Press Releases and the relative Analytical Tables, are published in the electronic publications under the general title "Greece in figures" accessible via the website of ELSTAT http://www.statistics.gr/greece-in-figures

### 11.3 On-line database

Tabulated data are available through the website of ELSTAT <a href="http://www.statistics.gr/en/statistics/">http://www.statistics.gr/en/statistics/</a>/publication/SPA03/- as well as the website of Eurostat <a href="http://ec.europa.eu/eurostat/data/database">http://ec.europa.eu/eurostat/data/database</a>

## 11.4 Micro-data access

Users can request access to microdata by submitting an application to the Hellenic Statistical Authority, Statistical Information and Publications Division, 46, Pireos & Eponiton Str, P.O.Box 80847, GR-18510, Piraeus (tel (+30)213-1352022, FAX: (+30)213-1352312, e-mail: <a href="mailto:data.dissem@statistics.gr">data.dissem@statistics.gr</a>

## 11.5 Other

8 tables grouped in categories and accessible to all users for reference year 2015 Sea Fishery Survey results are made available through <a href="http://www.statistics.gr/en/statistics/-/publication/SPA03/-">http://www.statistics.gr/en/statistics.gr/en/statistics/-/publication/SPA03/-</a>

## 12. Accessibility of documentation

Contents

#### 12.1 Documentation on methodology

The principles of the documentation on the census methodology and the dissemination mode of the results of the Sea Fishery Survey 2013 are laid down in a relevant Decision issued by ELSTAT, taking into consideration international practices, guidelines and rules set out by Eurostat on the specific statistical theme:

- Regulation (EC) No 216/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of nominal catch statistics by Member States fishing in certain areas other than those of the North Atlantic (recast) http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009R0216&from=EN
- Regulation (EC) No 1921/2009 of the European Parliament and of the Council of 18 December 2006 on the submission of statistical data on landings of fishery products in Member States and repealing

Council Regulation (EEC) No 1382/91. http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006R1921&from=EN

- Regulation (EC) No 223/2009 of the European Parliament and of the Council, of 11 March 2009, on European statistics and repealing Regulation (EC, Euratom) No 1101/2008 of the European Parliament and of the Council on the transmission of data subject to statistical confidentiality to the Statistical Office of the European Communities
  - http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009R0223&from=EN
- European Statistics Code of Practice <a href="http://ec.europa.eu/eurostat/documents/3859598/5921861/KS-32-11-955-EN.PDF">http://ec.europa.eu/eurostat/documents/3859598/5921861/KS-32-11-955-EN.PDF</a>
- Quality Assurance Framework of the European Statistical System http://ec.europa.eu/eurostat/documents/64157/4392716/qaf\_2012-en.pdf/8bcff303-68da-43d9-aa7d-325a5bf7fb42
- ESS Quality Glossary http://ec.europa.eu/eurostat/ramon/coded\_files/ESS\_Quality\_Glossary.pdf
- ESS Handbook for Quality Reports <a href="http://ec.europa.eu/eurostat/documents/64157/4373903/01-ESS-Handbook-for-Quality-Reports-2014.pdf/d6152567-a007-4949-a169-251e0ac7c655">http://ec.europa.eu/eurostat/documents/64157/4373903/01-ESS-Handbook-for-Quality-Reports-2014.pdf/d6152567-a007-4949-a169-251e0ac7c655</a>
- Principles Governing International Statistical Activities
   <a href="http://unstats.un.org/unsd/methods/statorg/Principles\_stat\_activities/principles\_stat\_activities.pdf">http://unstats.un.org/unsd/methods/statorg/Principles\_stat\_activities.pdf</a>
- A brief Methodological Report on Sea Fishery data (cumulative 1991 onwards) is available at: http://www.statistics.gr/en/statistics?p\_p\_id=documents\_WAR\_publicationsportlet\_INSTANCE\_0qObW qzRnXSG&p\_p\_lifecycle=2&p\_p\_state=normal&p\_p\_mode=view&p\_p\_cacheability=cacheLevelPage& p\_p\_col\_id=column-
  - 1&p\_p\_col\_count=4&p\_p\_col\_pos=2&\_documents\_WAR\_publicationsportlet\_INSTANCE\_0qObWqzR\_nXSG\_javax.faces.resource=document&\_documents\_WAR\_publicationsportlet\_INSTANCE\_0qObWqzRnXSG\_In=downloadResources&\_documents\_WAR\_publicationsportlet\_INSTANCE\_0qObWqzRnXSG\_documentID=116539&\_documents\_WAR\_publicationsportlet\_INSTANCE\_0qObWqzRnXSG\_locale\_en\_

## 12.2 Quality documentation

According to the provisions of paragraph 12.1 Documentation on methodology the following quality reports are available at ELSTAT's website:

- Summary Quality Report for users, Sea Fishery Survey, Year 2015: http://www.statistics.gr/en/statistics?p\_p\_id=documents\_WAR\_publicationsportlet\_INSTANCE\_0qObW qzRnXSG&p\_p\_lifecycle=2&p\_p\_state=normal&p\_p\_mode=view&p\_p\_cacheability=cacheLevelPage& p\_p\_col\_id=column-
  - 1&p p\_col\_count=4&p p\_col\_pos=2&\_documents\_WAR\_publicationsportlet\_INSTANCE\_0qObWqzR\_nXSG\_javax.faces.resource=document&\_documents\_WAR\_publicationsportlet\_INSTANCE\_0qObWqzRnXSG\_ln=downloadResources&\_documents\_WAR\_publicationsportlet\_INSTANCE\_0qObWqzRnXSG\_documentID=116537&\_documents\_WAR\_publicationsportlet\_INSTANCE\_0qObWqzRnXSG\_local\_e=en
- Single Integrated Metadata Structure (SIMS), Sea Fishery Survey, Reference Year 2015, Greece, ELSTAT website

## 13. Quality management

Contents

## 13.1 Quality assurance

The Sea Fishery Survey aims at the assurance and continuous improvement of the quality of the produced statistics and the maintenance of the user's trust towards these statistics. Achievement of these goals, as described in the Quality Policy of ELSTAT, is sought through the following principle directions:

- Safeguard and substantiate the operational independence of ELSTAT
- Produce timely and relevant statistics using scientifically sound methods
- Establish and maintain users' trust in the reliability of the statistics
- Safeguard the trust of the statistical units who provide their confidential information for the production of the statistics.

The Quality Policy followed by ELSTAT is available at:

#### http://www.statistics.gr/documents/20181/2571f853-1e37-46da-9387-595bbe2a162b

Regarding the design of the questionnaire, the frequency of the survey and the type of the collected data the Sea Fishery Survey follows the quality standards laid down by Eurostat and ELSTAT in the relative legal framework. The collected questionnaires undergo completeness and quality checks as regards the information they contain. The final tables to be transmitted to Eurostat are both checked by ELSTAT and Eurostat.

Initial checks on data correctness and completeness in the filled questionnaires are carried out by the decentralized customs offices' personnel who are responsible for collecting them from the fishermen.

Thereinafter, a series of Information Technology (IT) and quality controls (logical, time series, extreme values, processing, etc., controls) are carried out by the personnel of the Primary Statistics Division of ELSTAT. In case where these controls reveal major changes, fluctuations or errors on caught fish species on quantities or on the fishing areas etc., an effort to communicate with the competent customs office and with the fishermen/women him/herself, is taking place for clarifications.

For the year 2015 the Sea Fishery Survey was carried out with the use of OCR readable imprinted questionnaires, which contributed in the more efficient production of results.

#### 13.2 Quality assessment

The Sea Fishery Survey produces high quality results because all the relevant rules of identifying and correcting errors are implemented. Eurostat, as soon as it receives the survey results from each Member State, proceeds with the final quality checks and in case it comes across to any problem, it notifies the relevant Member State for either correction or validation of the transmitted data.

14. Relevance <u>Contents</u>

#### 14.1 User needs

Basic users of the Sea Fishery Survey are: international organizations (Eurostat, FAO), the Ministry of Rural Development and Food, enterprises, chambers, universities, researchers, students, etc.

## 14.2 User satisfaction

The Library of ELSTAT conducts a user satisfaction survey, recording users' needs and the level of their satisfaction. For the needs of the Greek users, ELSTAT conducts a user satisfaction survey. The results of this survey are announced on the website of ELSTAT. For 2011, 2012, 2013, 2014 and 2015 the results of the user satisfaction survey are available at: <a href="http://www.statistics.gr/en/user-satisfaction-survey">http://www.statistics.gr/en/user-satisfaction-survey</a>

Moreover ELSTAT, since 2010, has established the organization of user conferences. In these conferences, representatives of institutions of public and private sector and of educational and research institutions participate. The user conferences provide an important opportunity for ELSTAT to gather comments and suggestions from users of statistics on the dissemination of statistical information, access to statistics from users and gaps in the produced statistics. The conclusions of the above conferences, as well as the results of the user satisfaction survey that is conducted by ELSTAT, constitute a very useful background for the compilation of multi-annual and annual statistical programs.

Information on the user conferences of ELSTAT are available at: <a href="http://www.statistics.gr/en/user-conference">http://www.statistics.gr/en/user-conference</a>

## 14.3 Completeness

The survey on Sea Fishery covers all variables stipulated in EU Regulations, as well as other variables for covering national needs.

## 15. Accuracy and reliability

Contents

#### 15.1 Overall accuracy

During the stage of logical checks, there is telephone communication with the competent Customs Authorities or even with the fishermen themselves in order to fill in the data in the questionnaires that are not fully completed.

## 15.2 Sampling error

## 1. Estimation of the survey variables

#### a) Symbols

h: code of the vessel category (h=1,... 4),

j : code of the fishing gear (j =1,....4),

k : code of fishing area (k=1,.....17),

y: a variable of the survey (e.g. quantity of catch),

Nh: number of vessels in category h,

Nhj: number of vessels in sub-category hj (sub-category j of the category h),

Nhjk: number of vessels in the fishing area hjk (area k, in the sub-category j belonging to the category h),

nh: the sample of vessels of category h,

nhjk: sample of vessels in fishing area hjk,

jki: vessel of the series i in the fishing area jk (i=1,...., njk),

Nj : number of vessels of category j (j =1,....4),

Njk: number of vessels of the sub-category j in the fishing area k,

nj: number of sample units in the sub-category j,

njk: number of sample units in area k of the sub-category j,

Yjk: sum of the variable y for all the vessels of the survey population in area k of the sub-category j,

Yj: sum of the variable y for all the vessels of the population in sub-category j,

Yhjk: sum of the variable y for all the vessels of the population of the area hjk,

Y: sum of the variable y for all the vessels of the population of the open sea and inshore fishery,

The variables of the survey in any month are calculated separately for every final stratum, which is defined by the variables fishing gear and fishing area.

The number of the vessels Njk of the final stratum jk is not available by the register and thus its is calculated according to the following procedure:

$$(1) \qquad \widehat{\mathbf{N}}_{hj} = \frac{\mathbf{N}_h}{n_h} \bullet n_{hj}$$

(2) 
$$\widehat{N}_j = \sum_h \frac{N_h}{n_h} \bullet n_{hj}$$

(3) 
$$\widehat{N}_{jk} = \frac{\widehat{N}_j}{n_j} \bullet n_{jk}$$

The raising factor for all the vessels of a final stratum in defined as follows:

$$w_{jk} = \frac{\widehat{N}_j}{n_j}$$

b) Yjk and Y are calculated according to the following formula:

$$\widehat{\mathbf{Y}}_{jk} = \mathbf{w}_{ik} \bullet \sum_{i=1}^{n_{jk}} \mathbf{y}_{jki}$$

$$\widehat{\mathbf{Y}} = \sum_{i} \sum_{k} \sum_{i} w_{ik} \bullet \mathbf{y}_{ik}$$

c) The total for the variable y is calculated by adding the corresponding numbers concerning inshore and open sea fishery and those for overseas fishery as follows:

$$\widehat{Y}_{total} = \widehat{Y}_{+} Y_{overseas}$$

where Yoverseas is the sum of y from all the vessels of overseas fishing.

The annual results are calculated on the basis of the sum of the monthly data.

### 2. Sampling errors

The variation of jkY ) is calculated according to the following formula:

$$V(\widehat{Y}_{jk}) = \frac{\widehat{N}_{jk} \bullet (\widehat{N}_{jk} - n_{jk})}{n_{jk}} \bullet s_{jk}^{2}$$

where:

$$S_{jk}^{2} = \frac{1}{n_{jk} - 1} \bullet \left[ \sum_{i} y_{jki}^{2} - \frac{\left(\sum_{i} y_{jki}\right)^{2}}{n_{jk}} \right]$$

The variation of Y ) is calculated by the formula:

$$V(\widehat{Y}) = \sum_{j} \sum_{k} V(\widehat{Y}_{jk})$$

In the above formula  $\ jkN$  ) was used instead of  $\ jkN$  , because for every month  $\cong jk$   $\eta$  stable  $\ jkN \Rightarrow$  )  $\cong$  stable  $\Rightarrow$  V (  $\ jkN$  ) )  $\cong$  0

The sampling error for  $\hat{Y}$  expressed as coefficient of variation (%) is calculated by the formula:

$$CV(\widehat{Y}) = \frac{\sqrt{V(\widehat{Y})}}{\widehat{Y}} \bullet 1$$

Table 1
Coefficient of Variation (%) of the quantity of catch, by species and by month

Code of species of catch		Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
8	3,4	3,1	3,2	3,3	4,7	10	8,5	8,8	13,3	3,1	3,1	3,2
9	10	9,4	11,4	9	9,4	27,8	31,9	26,4	34,2	10,3	8,3	7,2
10	26,4	25,7	41,8	27,4	22,2	27,9	15,4	20,2	27,6	24,5	29	30,1
11	8,6	6,5	5,9	6,1	8,8	13,1	11,9	12,1	12,7	6,5	5,5	5,2

12	13,1	11,6	15,7	14,4	17,6	13	16,4	34,3	18,2	15,2	14,5	10,1
13	61,8	32,3	11,1	8,1	6,3	7,1	6,2	9,4	6,1	8,9	17,1	45,2
14	5,8	6,6	6,4	6,7	6,7	7,4	7,6	7,8	8,5	6,9	7	6,9
15	8,7	6,7	8,8	8,3	6,5	7,6	15,4	10,9	9,9	8,9	8,3	21,6
16	20,5	17,2	31,6	19,3	23,3	53	26,5	18,8	18,8	16,7	21,5	20,8
17	23,8	34,9	28,3	34	41,7	34,8	34,1	31,8	37,4	25,5	43,3	55,2
18	18,3	15,5	18	36	26,8	47,8	33,1	40,2	56,9	25,2	18,7	19,4
19	13,5	13,7	14,8	15,7	14,3	20,2	21,5	28,5	57	22,1	11,2	9,2
20	11,8	17,4	7,2	6,9	8,1	6,5	9	8,5	6,8	6,8	6,4	21,6
21	17,9	17,7	12	13,6	16,1	20,4	18,5	16,2	15,6	10,7	8,1	11,4
22	34,9	13,2	30,8	18,6	12,4	9,3	9,5	10,2	14,6	16,3	24,7	27,9
23	4,5	3,9	4,1	4,2	5,6	7,8	7,9	8,5	14,8	5,5	3,9	3,5
24	7,4	7,4	7,8	8,9	9,2	8,5	7,3	6,8	7,6	7,6	6,9	6,6
25	7,1	5,8	6,6	7,7	7,3	8,9	10,2	7,7	7,8	5,6	5	5,7
26	26,2	24,3	29	38,8	17,3	17,6	18,8	18,7	19,6	24,2	23	20,8
27	6	6,2	5,3	7,7	7,7	17,9	24,1	39,5	25,1	5,9	5	4,7
28	25,7	20,6	13,8	13,7	9,1	14,5	31,4	18,9	12,2	11,3	17,6	14,2
29	13,3	12,1	12,9	12	10,6	13,2	14,6	13,9	16,5	13,7	12,4	15,3
30	11	11,4	14,3	12,9	9,9	15,3	15,8	13,2	15,1	15,3	13,5	11,3
31	4,7	4,2	4	4,8	4,8	4,2	4,3	3,2	3,1	4,1	3,2	2,9
32	12,7	21,9	14,7	37,2	18,5	31,5	21,7	19,2	21,4	21	15,9	34,3
33 34	19,3 40,9	42,7 23,5	22,5 26,7	29	23,7 21,1	42,6	60,2	60,4	61	14 31,8	14,6 28,9	14,6
35			26,7	22,7		18,7	19,8	17,5	20,1 19		,	38,2
36	40,6 35	28,4 62,3		15,4 56,3	13,5 51	14,9	15,7 33,7	15,9 34,2	67,7	15,4	18,1	18,7 52,6
37		4,3	30,4 4,8	5,4		38,8	28,7	26,5	15,5	65,1	19,2 5	5,2
38	4,9 7,6	11,8	7,4		8,9 12,9	14,6 63,3	41,9	39,5	37,2	4,8 10,2	8,8	7,6
39	10,8	47,1	11,9	10,9 11,8	15,7	27,5	46,7	42	35,9	10,2	10,9	14
40	19,6	17,8	19,9	54,8	13,8	15	15,3	11,6	12,5	14,6	13,3	18,6
41	36,8	31,2	24,5	24,6	19,2	24,8	37	39,1	31,6	26,7	37,1	41,7
42	42,5	40,8	38,9	29,3	54,5	62,5	74,1	83,9	84,3	35,7	33	48,3
43	27,5	20,6	42,2	15,1	17,9	27,1	17,8	13,1	15,5	17,7	27,2	20,9
44	17	10,4	10,3	10,2	11,9	18,1	16,4	21,9	18,8	11	11,7	9,2
45	14,3	9	27,5	12	11,3	15,2	11,8	23,1	28,9	17,6	9,8	10,6
46	27	19,6	11,4	9,6	7,1	9,1	10,5	10,1	9,8	10,9	13,8	39,1
47	7,1	6,7	30,8	8,4	10,5	12,1	16,6	15,8	18,5	12,8	31,9	14,7
48	17,4	15,9	12	11,2	16	20,9	20,1	13	20	12	13,5	11,9
49	13,1	12,5	11	9,7	9,8	7,9	8	5,4	6,4	10,4	10,8	10,9
50	14,6	35,2	16,5	16	15,3	25,1	13,7	13,1	17,8	11,1	10,2	12
51	19,4	21,7	24,6	25,6	22,7	40,2	38,1	26,1	39,1	26,4	14,1	16,9
52	41,4	18,4	17,5	12,5	18,1	16,3	15	14,5	22,2	19,2	13	35,1
53	7,5	7,5	7,9	5,4	5,2	6,1	5,7	7	3,9	6,7	6	6,5
54	14,8	14,3	7,8	10,3	13	15,7	15	18,1	10,1	22,1	24,8	10,6
55	37,6	29,3	30,7	31,7	23,9	4,5	56	24,6	26,1	32,9	18,9	21,4
56	8,1	8,1	8,3	10,9	12,8	34,3	30,8	65,5	39,9	8,6	9,2	7,3
57	14,8	11,6	15,1	15,8	22,5	18,1	18,8	17,1	15,7	12,1	15,2	15,3
58	7,8	5,4	4	4,5	5,4	4,6	4,9	4,6	8,5	8,7	4,7	3,6
59	32	39,8	21,7	17,6	12,4	15,2	18,6	13,9	23,2	19,9	31,9	47,7
60	17,7	13,3	11,4	8,4	12,8	12,2	12,3	11,9	18,8	10,6	9,1	9,8
61	61,3	27,6	41,4	54,2	50	59,8	54,2	60,9	47,6	36,9	57,7	40,1
62	12,5	10,9	11,7	11,6	12,9	28,7	23,5	30,6	31,9	9,9	9,8	10
63	3,6	2,9	2,9	3	3,9	2,7	2,9	3,6	2,5	2,6	3	2,5
65	7	6	6,2	5,6	7,9	24,8	27,3	19,8	23,5	12,8	6	6,8
66	7,3	6,7	9,5	12	2,5	15,8	18,7	10,4	1,9	6,4	5,8	6,3
67	8,2	7,7	7	7,2	9,6	42,5	52,7	53,4	46,8	6,7	6,4	5,9
68	5,8	5	3,7	4	6,4	6,5	6,9	9	2,4	5,4	6,7	6,3
69	4,2	3,9	4,5	5,5	7	7,9	6,7	5,4	9	5,2	4,1	4,3
71	23,6	25,2	12,9	9,8	1,3	9,5	10,5	18,1	0,2	37,7	38,1	44,4

72	6,3	4,6	5,5	5	6,1	19,9	17,1	57,4	3,3	8,6	3,9	3,8
73	4,7	4,6	3,9	4,9	5,3	6,7	5	5,7	3,7	6,5	4,8	5
74	29,9	21,5	27,8	27,9	26,4	31,5	30,5	36,5	53,9	52,8	24,8	21,4
75	8	8,9	9,5	7,7	8,4	18,3	29,6	16,4	26,9	11,3	7,3	8,6
77	24	24,9	23,4	21,3	23,1	18,3	21,2	28,7	84,3	85	22,1	27,8
78	77,9	84,4	84,3	57,8	44,2	34,1	34,6	34,6	33,7	42	68,7	62,2
79	0	0	0	83,5	0	0	0	0	0	0	85,5	58
80	48	46,1	39,7	83,5	0	0	0	83,9	84,3	0	55,7	53,8
81	42	27,8	29,5	41,1	62,7	40	64,7	33,1	42,1	36,5	43,1	33,2
Fish_8 _63	5,3	3	4,3	2,7	2,4	3,1	4,2	4,8	4,1	2,8	4,1	8
Cefalo pods_6 5_69	4	3,6	3,4	3,9	4,3	5,1	4,7	4,6	2,3	4,5	3,7	3,6
Crusta ceans _71_75	4,1	3,2	3,6	3,6	3,3	5,5	5	6,9	1,9	6,8	3	3
Shellfis h _77_81	21,9	19,6	18,9	21,3	23,6	18,6	19,7	25,6	27,2	31,3	19,9	38,9
Total	4,3	2,5	3,5	2,3	2,1	2,9	4	4,6	3,6	2,5	3,5	6,5

After having studied the coefficient of variation CV and the monthly quantity of catch by species, it is concluded that when the quantity of catch increases the Coefficient of Variation (%) declines exponentially and according to the following formula:

$$CV(\%) \cong \frac{440}{\widehat{Y}^{0,34}}$$

where  $\widehat{Y}$  is the estimation of the monthly quantity of catch.

The aforementioned formula does not apply for the species under the codes 13 (anchovy), 15 (bogue), 22 (chub mackerel) and 45(sardine).

#### 15.3 Non-sampling error

### a. Non-response errors

There are two kinds of non-response errors: a) non- response errors due to the refusal of the fishermen to fill in the questionnaire and b) non- response errors due to incomplete filling in of the questionnaire. Any non-sampling errors that may occur are due to the non-response of some fishing vessels. These errors cannot be estimated from the data of the sample, but only by using data from other statistical data sources. The comparison between the data of the survey and the corresponding data from ETANAL SA (Fishing Development Corporation S.A.) has shown that the non-sampling errors of the survey are not important. Similar techniques are also used in cases of incomplete filling in of the questionnaires.

### b. Coverage errors

The number of coverage errors is very small.

## c. Processing errors

These errors include codification errors, data entry errors, etc. and occur in the period between data collection and data analysis. In order to minimize these errors, the questionnaires are checked by competent employees of ELSTAT. In case major changes in the respective variables are identified, the competent fisherman or the local Customs Authorities are contacted for clarifications.

## 16. Timeliness and punctuality

Contents

#### 16.1 Timeliness

The results of the survey are available 6 months after the reference year of the data, in accordance with the

Regulation (EC) No 216/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of nominal catch statistics by Member States fishing in certain areas other than those of the North Atlantic (recast) as well as the Regulation (EC) No 1921/2009 of the European Parliament and of the Council of 18 December 2006 on the submission of statistical data on landings of fishery products in Member States and repealing Council Regulation (EEC) No 1382/91.

## 16.2 Punctuality

The results of the Sea Fishery Survey are produced strictly within the deadlines specified in the EU Regulations mentioned above.

## 17. Comparability

Contents

#### 17.1 Comparability - geographical

The basic purpose of the survey on Sea Fishery is to compile a common list of characteristics governed by common rules and methodological processes, thus ensuring harmonization of results and their geographical comparability among EU Member States.

## 17.2 Comparability over time

Data are compared longitudinally. When major changes are identified between two consecutive years, more checks are conducted in order to ensure correctness of data.

18. Coherence <u>Contents</u>

#### 18.1 Coherence cross-domain

The results of the survey are compared with the corresponding data of the Hellenic Ministry of Food and Agriculture, ETANAL SA (Fishing Development Corporation S.A.) and HCMR (Hellenic Centre of Marine Research).

## 18.2 Coherence - internal

All variables are coherent with each other.

#### 19. Cost and burden

Contents

-

20. Data revision Contents

#### 20.1 Revision policy

The revision policy of the Hellenic Statistical Authority (ELSTAT) defines standard rules and principles for data revisions, in accordance with the European Statistics Code of Practice and the principles for a common revision policy for European Statistics contained in the Annex of the European Statistical System (ESS) guidelines on revision policy.

http://www.statistics.gr/documents/20181/a49dca9a-dacf-4b52-b5df-b156216cb354

### 20.2 Revision practice

The released data are final and have been validated by Eurostat and ELSTAT. However, in cases where error/errors in the collected data are detected and determined on a later stage, then the data in the relevant tables are revised following the provisions of the Revision Policy instructions mentioned above.

## 21. Statistical processing

**Contents** 

#### 21.1 Type of Source data

The fishermen/women in charge of each fishing vessel fill in a printed questionnaire form.

#### 21.2 Frequency of data collection

Monthly

#### 21.3 Methodology for data collection

The questionnaire of the Sea Fishery Survey was designed in order to cover national as well as European Union's demands for statistical information included in the Regulation (EC) No 216/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of nominal catch statistics by Member States fishing in certain areas other than those of the North Atlantic (recast) as well as the Regulation (EC) No 1921/2009 of the European Parliament and of the Council of 18 December 2006 on the submission of statistical data on landings of fishery products in Member States and repealing Council Regulation (EEC) No 1382/91.

The collection of data for the Sea Fishery Survey is effectuated via filling in the relative printed questionnaire by the fisherman/woman responsible for each fishing vessel. The completed questionnaire is then submitted to the decentralized local customs offices for carrying out initial checks of their substantive competences pursuant to the internal legal framework. Thereinafter, the completed questionnaires are sent to the decentralized statistical services of ELSTAT, which are based at the capital of each regional unity (former prefecture), for further completeness and correctness controls. Following the completion of this second phase of controls, the completed questionnaires are sent to central offices of ELSTAT for the final controls, validation of the data and introduction of the data to the Integrated Information System of ELSTAT.

#### 21.4 Data validation

The questionnaires are codified and checked by the employees of ELSTAT in terms of completeness and coherence and are dully corrected. Data are validated concomitantly during data entry. The personnel of the competent Directorate of Primary Statistics of ELSTAT performs a series of quality controls (logical controls, time – series controls, extreme values controls, processing controls, etc.) in order to ensure excellent quality of the final data. Finally, the competent Division of Primary Statistics of ELSTAT validates the final results, which are presented in detailed tables.

## 21.5 Data set up

At a national level, 8 tables are compiled containing:

- 1. Number, horsepower and tonnage of motor propelled fishing vessels by category of fishery and type of fishing gear
- 2. Average annual employment, quantity and value of catch by type of fishing gear
- 3. Monthly quantity of catch by species of catch
- 4. Quantity of catch by fishing area
- 5. Quantity and value of catch by category of fishery and category of catch
- 6. Monthly quantity and value of catch by category of fishery and category of catch
- 7. Quantity and value of catch by category of catch and type of fishing gear
- 8. Quantity of catch by species of catch, category of fishery and type of fishing gear

The tabulated data mentioned above are available at:

http://www.statistics.gr/en/statistics/-/publication/SPA03/-

At a European level, the compiled table refers to the quantity and value of nominal caught fish according to the Regulation (EC) No 216/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of nominal catch statistics by Member States fishing in certain areas other than those of the North Atlantic (recast).

Relative data are available at: http://ec.europa.eu/eurostat/statistics-explained/index.php/Fishery\_statistics

#### 21.6 Adjustments

22. Comment Contents