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Country: Greece

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Domain name: Monthly Survey on Sea Fishery

ELSTAT metadata
Reference metadata
1. Contact
2. Metadata update
3. Statistical presentation
4. Unit of measure
5. Reference period
6. Institutional mandate
7. Confidentiality
8. Release policy
9. Frequency of dissemination
10. Dissemination format
11. Accessibility of documentation
12. Quality management
13. Relevance
14. Accuracy and reliability
15. Timeliness and punctuality
16. Comparability
17. Coherence
18. Cost and burden
19. Data revision
20. Statistical processing
21. Comment

1.	Contact		Top
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2. Metadata update Top

2.1 Metadata last certified	9/10/2009
2.2 Metadata last posted	9/10/2009
2.3 Metadata last update	9/10/2009

3. Statistical presentation Top

3.1 Data description

The main purpose of the monthly survey on sea fishing is to compile results on the number and engine power of the total of fishing vessels, their tonnage, the quantity and value of catch by main species and by kind of fishing gear, as well as on the number of employed persons by kind of fishing gear.

3.2 Classification system

Codes of fishing areas codes, FAO codes for catch, codes for the categories of catch

3.3 Sector coverage

The survey covers the motor propelled professional fishing vessels of 20 WP and over, as well as trawlers and small seiners irrespective of their engine power.

3.4 Statistical concepts and definitions

1. Statistical unit: the statistical unit is the fishing vessel, which is working independently. According to this definition, subsidiary vessels are not considered fishing vessels for the purpose of the survey.

2. Fishing vessel: Fishing vessels are distinguished into three main categories: a) vessels for overseas fishery, b) vessels for open sea fishery and c) vessels for inshore fishery. The first category includes vessels fishing outside of the Mediterranean Sea, in the Atlantic Ocean. The catches from these vessels get usually frozen. The second category includes trawlers and small seiners and combined fishing vessels. "Trawlers" are usually medium-sized vessels which use towed gillnets. "Small seiners" are fishing vessels, which usually use circling gillnets. Some of these vessels may use nets for common trawlers. "Combined fishing vessels" are the vessels that use both towed and circling gillnets. The third category includes small "common trawlers" and "other fishing vessels". "Common trawlers" are the vessels that usually use common fishing trawls (fishing nets). "Other fishing vessels" are all the vessels that are not included in either of the aforementioned categories. It is about small fishing boats that use common fishing nets, long lines, gillnets, small circling nets, etc. From 1970 onwards the survey on sea fishing does not cover, -except vessels that uses circling nets- fishing vessels with engine power less than 19 KW.

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 a fishing vessel has used during a month or for a specific time period more than one category of fishing gear or a combination of them, 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 the same year 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 category (fishermen or hand). The personnel refer to the persons employed with the most used fishing gear, as mentioned above.

6. Fishing areas: it is the area where the largest quantity of catch is fished.

3.5 Statistical unit

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

3.6 Statistical population

2,000 fishing vessels

3.7 Reference area

Greece total

3.8 Time coverage

The monthly survey on sea fishing has been producing results on a monthly basis since 1964.

3.9 Base period

4. Unit of measure   Top

Values in Euro, quantities in metric tonnes, vessels in numbers.

5. Reference period   Top

Data on fishing activity are collected for every fishing vessel on a monthly basis by the local Customs Authorities. For each vessel, the competent fisherman fills in a specialized statistical questionnaire where he has to record the total quantity of catch during the previous month or he 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 form its port of registry, then the questionnaire is submitted to the closer Customs Authority.

6. Institutional mandate   Top

6.1 Legal acts and other agreements

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 (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).
- 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*".
- 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.
- Presidential Decree 226/2000 (Government Gazette No 195, Issue A): "*Organization of the General Secretariat of the National Statistical Service of Greece*".
- 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) No 1921/2006 of the European Parliament and of the Council on the submission of statistical data on landings of fishery products in Member States and repealing Council Regulation (EEC) No 1382/91 and Regulation (EC) No 216/2009 of the European Parliament and of the Council on the submission of nominal catch statistics by Member States fishing in certain areas other than those of the North Atlantic

At national level

Since 1964 the National Statistical Service of Greece has been conducting a monthly survey on sea fishery by motor vessels. The legal framework of the survey was laid down by the joint ministerial decision No 30112/254/9-10-63 signed by the Ministers of Coordination, Finance, Industry and Mercantile Marine as it was amended by the joint ministerial decisions No 744/9-4-69 and No 53/B1/13-2-70 signed by the same Ministers.

6.2 Data sharing

No

7. Confidentiality

7.1 Confidentiality policy

The 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 the statistics in compliance with the statistical principles of the European Statistics Code of Practice and in particular with the principle of statistical confidentiality.

7.2 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.

- The Statistical Confidentiality Committee (SCC) operating in ELSTAT, examines issues referring to the observance of statistical confidentiality. Within its competence is to recommend on:
  - 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;
  - the anonymization criteria for the microdata provided to users;
  - the granting to researchers access to confidential data for scientific purposes.

8.	**Release policy**	

8.1 Release calendar

Member States are obliged to transmit the results of the survey 6 months after the end of the reference year.

8.2 Release calendar access

8.3 User access

Users can have access to the results of the survey, which are posted on the webpage of ELSTAT (http://www.statistics.gr).

9.	**Frequency of dissemination**	

Annually

10.	**Dissemination format**	

10.1 News release

No press release

10.2 Publications

A special publication entitled "*Sea fishery by motor propelled fishing vessels*", with the results of the Survey on sea fishery is published on an annual basis.

The first part of this publication contains data pertaining to the number of motor propelled fishing vessels, the quantity and the value of catches, as well as average annual employment data. Moreover, users can find aggregate and concise tables for the three last years, which offer comparable data.

More specifically the following comparative tables are available in the first part of the publication:

- Number of motor propelled fishing vessels, engine power and tonnage, by categories,

- Quantity and value of catch, by categories and kind of fishery,

- Quantity and value of catch, by categories and kind of fishing gear,

- Quantity of catch by principal species,

- Quantity of catch by fishing areas,

- Annual average employment, catch and value of catch, by kind of fishing tools.

The second part of the publication contains analytical tables, covering only the reference year of the survey, with data on the fishing vessels, production, employment and distribution of catch.

More specifically, the following tables figure in the second part of the publication:

A. FISHING VESSELS

- Distribution of motor propelled fishing vessels by categories and engine power groups.

- Distribution of overseas and open sea fishing vessels by GRT groups.

B. PRODUCTION

- Quantity and value of catch, by categories and kind of fishery,

- Quantity and value of catch, by categories and kind of fishing gear,

- Quantity of catch be main species and by category.

10.3 On-line database

http://www.statistics.gr/portal/page/portal/ESYE

10.4 Micro-data access

Users can have access to micro-data after the approval of the Statistical Confidentiality Committee.

10.5 Other

1. "Statistical yearbook of Greece"
2. "Concise statistical yearbook of Greece"
3. "Monthly Statistical Bulletin"
and at the link: http://dlib.statistics.gr/potal/page/portal/ESYE

11. Accessibility of documentation

11.1 Documentation on methodology

A brief methodological note in Greek and English is available at the links:
http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/A0201/Other/A0201_SPA03_MT_MM_00_1991_00_2

099_01_F_GR.pdf

http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/A0201/Other/A0201_SPA03_MT_MM_00_1991_00_2099_01_F_EN.pdf

11.2 Quality documentation

The Quality Reports on the Survey on Sea Fishery are available in Greek and English and they are going to be posted on the website of ELSTAT in the near future.

12.   Quality management

12.1 Quality assurance

The Survey on Sea Fishery is fully compliant with Eurostat's standards pertaining to the survey design, the frequency of the survey conduct, and the kind of collected information. The collected questionnaires undergo completeness and quality checks. The final tables are transmitted to Eurostat after having been checked by ELSTAT and Eurostat.

Furthermore, the data of the questionnaires are checked by the employees of the local Customs Authorities, which receive the questionnaires from the competent fishermen.

In cases where major changes are observed in the species, quantities of catch, or in the fishing areas, etc, there is an effort to communicate with the competent Customs Authority and the competent fishermen for clarifications.

In the near future, the paper questionnaires are going to be replaced by OCR readable questionnaires, thus significantly contributing to accelerating the procedure for producing the survey results.

12.2 Quality assessment

The survey produces high quality results since ELSTAT implements all the necessary rules for identifying and correcting the errors. As soon as Eurostat receives the survey results from each Member State it proceeds with the final quality checks and in case it identifies any problems it contact with the Member State for corrections or for verification of the submitted data.

13.   Relevance

13.1 User needs

Main users of the sea fishery survey are: European and international organisations (e.g., Eurostat, FAO) the Ministry of Rural Development and Food, universities, students, research centres, etc.

13.2 User satisfaction

ELSTAT carries out a users survey, which records users' needs and their satisfaction form the services provided. The data from this survey show that users are quite satisfied. The results of this users survey are posted on the portal of ELSTAT:
http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/library_news_letter.pdf

13.3 Completeness

ELSTAT compiles data for all the necessary variables, fully observing EU Regulations, as well as data on other characteristics fully responding to national needs.

14.   Accuracy and reliability

14.1 Overall accuracy

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

14.2 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),
   N_h : number of vessels in category h,
   N_{hj} : number of vessels in sub-category hj (sub-category j of the category h),
   N_{hjk} : number of vessels in the fishing area hjk (area k, in the sub-category j belonging to the category h),
   n_h : the sample of vessels of category h,
   n_{hjk} : sample of vessels in fishing area hjk,
    jki   : vessel of the series i in the fishing area jk (i=1,…., n_{jk}),
   N_j : number of vessels of category j (j =1,….4),
   N_{jk} : number of vessels of the sub-category j in the fishing area k,
   n_j : number of sample units in the sub-category j,
   n_{jk} : number of sample units in area k of the sub-category j,
   Y_{jk} : sum of the variable y for all the vessels of the survey population in area k of the sub-category j,
   Y_j : sum of the variable y for all the vessels of the population in sub-category j,
   Y_{hjk} : 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 N_{jk} of the final stratum jk is not available by the register and thus its is calculated according to the following procedure:

(1) $\widehat{N}_{hj} = \dfrac{N_h}{n_h} \bullet n_{hj}$

8

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

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

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

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

b) **Y_{jk} and Y are calculated according to the following formula:**

$$\widehat{Y}_{jk} = w_{ik} \bullet \sum_{i=1}^{n_{jk}} y_{jki}$$

$$\widehat{Y} = \sum_j \sum_k \sum_i w_{ik} \bullet y_{ik}$$

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 $Y_{overseas}$ 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 $\widehat{Y}_{jk}$ 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 $\widehat{Y}$ is calculated by the formula:

$$V(\widehat{Y}) = \sum_j \sum_k V(\widehat{Y}_{jk})$$

In the above formula $\widehat{N}_{jk}$ was used instead of N_{jk}, because for every month $\eta_{jk} \cong$ stable $\Rightarrow \widehat{N}_{jk} \cong$ stable $\Rightarrow V(\widehat{N}_{jk}) \cong 0$

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

$$CV(\widehat{Y}) = \frac{\sqrt{V(\widehat{Y})}}{\widehat{Y}} \bullet 100$$

Table 1

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

Code of species of the catch	January	February	March	April	May	June	July	August	September	October	November	December
08	3,4	3,1	3,2	3,3	4,7	10	8,5	8,8	13,3	3,1	3,1	3,2
09	10,0	9,4	11,4	9,0	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	29,0	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	13,0	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	7,0	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	3,3
16	20,5	17,2	31,6	19,3	23,3	53,0	26,5	18,8	18,8	16,7	21,5	20,8	24,4
17	23,8	34,9	28,3	34,0	41,7	34,8	34,1	31,8	37,4	25,5	43,3	55,2	14,7
18	18,3	15,5	18,0	36,0	26,8	47,8	33,1	40,2	56,9	25,2	18,7	19,4	7,5
19	13,5	13,7	14,8	15,7	14,3	20,2	21,5	28,5	57,0	22,1	11,2	9,2	6,0
20	11,8	17,4	7,2	6,9	8,1	6,5	9,0	8,5	6,8	6,8	6,4	21,6	4,0
21	17,9	17,7	12,0	13,6	16,1	20,4	18,5	16,2	15,6	10,7	8,1	11,4	4,5
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	5,0
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	1,6
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	2,2
25	7,1	5,8	6,6	7,7	7,3	8,9	10,2	7,7	7,8	5,6	5,0	5,7	2,1
26	26,2	24,3	29,0	38,8	17,3	17,6	18,8	18,7	19,6	24,2	23,0	20,8	7,8
27	6,0	6,2	5,3	7,7	7,7	17,9	24,1	39,5	25,1	5,9	5,0	4,7	2,1
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	5,8
29	13,3	12,1	12,9	12,0	10,6	13,2	14,6	13,9	16,5	13,7	12,4	15,3	3,9
30	11,0	11,4	14,3	12,9	9,9	15,3	15,8	13,2	15,1	15,3	13,5	11,3	3,9
31	4,7	4,2	4,0	4,8	4,8	4,2	4,3	3,2	3,1	4,1	3,2	2,9	1,2
32	12,7	21,9	14,7	37,2	18,5	31,5	21,7	19,2	21,4	21,0	15,9	34,3	7,4
33	19,3	42,7	22,5	29,0	23,7	42,6	60,2	60,4	61,0	14,0	14,6	14,6	8,9
34	40,9	23,5	26,7	22,7	21,1	18,7	19,8	17,5	20,1	31,8	28,9	38,2	6,9
35	40,6	28,4	23,0	15,4	13,5	14,9	15,7	15,9	19,0	15,4	18,1	18,7	6,6
36	35,0	62,3	30,4	56,3	51,0	38,8	33,7	34,2	67,7	65,1	19,2	52,6	34,1
37	4,9	4,3	4,8	5,4	8,9	14,6	28,7	26,5	15,5	4,8	5,0	5,2	2,0
38	7,6	11,8	7,4	10,9	12,9	63,3	41,9	39,5	37,2	10,2	8,8	7,6	3,6
39	10,8	47,1	11,9	11,8	15,7	27,5	46,7	42,0	35,9	10,6	10,9	14,0	9,5
40	19,6	17,8	19,9	54,8	13,8	15,0	15,3	11,6	12,5	14,6	13,3	18,6	20,3
41	36,8	31,2	24,5	24,6	19,2	24,8	37,0	39,1	31,6	26,7	37,1	41,7	9,6
42	42,5	40,8	38,9	29,3	54,5	62,5	74,1	83,9	84,3	35,7	33,0	48,3	18,2
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	8,0
44	17,0	10,4	10,3	10,2	11,9	18,1	16,4	21,9	18,8	11,0	11,7	9,2	3,9
45	14,3	9,0	27,5	12,0	11,3	15,2	11,8	23,1	28,9	17,6	9,8	10,6	6,1
46	27,0	19,6	11,4	9,6	7,1	9,1	10,5	10,1	9,8	10,9	13,8	39,1	3,7
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	5,9
48	17,4	15,9	12,0	11,2	16,0	20,9	20,1	13,0	20,0	12,0	13,5	11,9	4,6
49	13,1	12,5	11,0	9,7	9,8	7,9	8,0	5,4	6,4	10,4	10,8	10,9	2,9
50	14,6	35,2	16,5	16,0	15,3	25,1	13,7	13,1	17,8	11,1	10,2	12,0	5,1
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	8,2
52	41,4	18,4	17,5	12,5	18,1	16,3	15,0	14,5	22,2	19,2	13,0	35,1	9,1
53	7,5	7,5	7,9	5,4	5,2	6,1	5,7	7	3,9	6,7	6	6,5	1,7
54	14,8	14,3	7,8	10,3	13,0	15,7	15,0	18,1	10,1	22,1	24,8	10,6	5,5
55	37,6	29,3	30,7	31,7	23,9	4,5	56,0	24,6	26,1	32,9	18,9	21,4	4,9
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	4,6
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	5,4
58	7,8	5,4	4,0	4,5	5,4	4,6	4,9	4,6	8,5	8,7	4,7	3,6	1,8
59	32,0	39,8	21,7	17,6	12,4	15,2	18,6	13,9	23,2	19,9	31,9	47,7	17,8
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	3,6
61	61,3	27,6	41,4	54,2	50,0	59,8	54,2	60,9	47,6	36,9	57,7	40,1	13,8
62	12,5	10,9	11,7	11,6	12,9	28,7	23,5	30,6	31,9	9,9	9,8	10,0	3,9
63	3,6	2,9	2,9	3,0	3,9	2,7	2,9	3,6	2,5	2,6	3,0	2,5	0,9
65	7,0	6,0	6,2	5,6	7,9	24,8	27,3	19,8	23,5	12,8	6,0	6,8	3,0
66	7,3	6,7	9,5	12,0	2,5	15,8	18,7	10,4	1,9	6,4	5,8	6,3	1,6

67	8,2	7,7	7,0	7,2	9,6	42,5	52,7	53,4	46,8	6,7	6,4	5,9	2,7
68	5,8	5,0	3,7	4,0	6,4	6,5	6,9	9,0	2,4	5,4	6,7	6,3	1,6
69	4,2	3,9	4,5	5,5	7,0	7,9	6,7	5,4	9,0	5,2	4,1	4,3	1,5
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	1,9
72	6,3	4,6	5,5	5,0	6,1	19,9	17,1	57,4	3,3	8,6	3,9	3,8	2,2
73	4,7	4,6	3,9	4,9	5,3	6,7	5,0	5,7	3,7	6,5	4,8	5,0	1,6
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	9,5
75	8,0	8,9	9,5	7,7	8,4	18,3	29,6	16,4	26,9	11,3	7,3	8,6	3,1
77	24,0	24,9	23,4	21,3	23,1	18,3	21,2	28,7	84,3	85,0	22,1	27,8	7,5
78	77,9	84,4	84,3	57,8	44,2	34,1	34,6	34,6	33,7	42,0	68,7	62,2	17,4
79	0,0	0,0	0,0	83,5	0,0	0,0	0,0	0,0	0,0	0,0	85,5	58,0	55,6
80	48,0	46,1	39,7	83,5	0,0	0,0	0,0	83,9	84,3	0,0	55,7	53,8	22,0
81	42,0	27,8	29,5	41,1	62,7	40,0	64,7	33,1	42,1	36,5	43,1	33,2	13,1
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	1,2
CEPHALOPODS _65_69	4	3,6	3,4	3,9	4,3	5,1	4,7	4,6	2,3	4,5	3,7	3,6	1,2
CRUSTACEANS _71_75	4,1	3,2	3,6	3,6	3,3	5,5	5	6,9	1,9	6,8	3	3	1,3
SHELLFISH _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	10,4
Total	4,3	2,5	3,5	2,3	2,1	2,9	4,0	4,6	3,6	2,5	3,5	6,5	1,1

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).

14.3 Non-sampling errors

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.

Furthermore, there are some errors due to data processing. These errors are errors identified from the moment the data are collected until the time the data become available for further analysis, such as errors in data entry, etc. In order to minimize such errors, the questionnaires are checked by competent employees in the Central Statistical Office. In case the employees identify major changes in the quantity of catch or in other variables in comparison with the data from previous years, then they contact the competent fisherman in cooperation with the local Customs Authorities for clarifications.

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15. Timeliness and punctuality

15.1 Timeliness

The results of the survey are available 6 months after the reference year of the data, in accordance with the Regulations 216/2009 and 1921/2006.

15.2 Punctuality

Normally, the data are produced within the deadlines specified in EU Regulations.

16. Comparability

16.1 Comparability – geographical

The main purpose of the Survey on Sea Fishery is the compilation of a common list containing all the characteristics governed by common rules and methodological procedures, thus ensuring harmonisation of the results and geographical comparability among EU Member States.

16.2 Comparability over time

The methods for data collection and data processing, as well as the definitions of variables remain the same during the whole conduct of the survey, thus ensuring comparability longitudinally.

17. Coherence

17.1 Coherence cross-domain

The results of the survey are compared with the corresponding data of ETANAL SA (Fishing Development Corporation S.A.).

17.2 Coherence – internal

Specific variables are coherent with each other.

18. Cost and burden

19. Data revision

19.1 Revision policy

19.2 Revision practice

In case where an error is identified in the collected data, the data in the corresponding tables are revised.

20. Statistical processing

20.1 Source data

The fisherman in charge of every fishing vessel fills in a paper questionnaire.

20.2 Frequency of data collection

Annually

20.3 Data collection

The fisherman in charge of every fishing vessel fills in a paper questionnaire.

20.4 Data validation

20.5 Data compilation

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),

N_h : number of vessels in category h,

N_{hj} : number of vessels in sub-category hj (sub-category j of the category h),

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

n_h : the sample of vessels of category h,

n_{hjk} : sample of vessels in fishing area hjk,

 jki : vessel of the series i in the fishing area jk (i=1,…., n_{jk}),

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

N_{jk} : number of vessels of the sub-category j in the fishing area k,

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

n_{jk} : number of sample units in area k of the sub-category j,

Y_{jk} : sum of the variable y for all the vessels of the survey population in area k of the sub-category j,

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

Y_{hjk} : 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 N_{jk} of the final stratum jk is not available by the register and thus its is calculated according to the following procedure:

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

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

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

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

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

b) **Y_{jk} and Y are calculated according to the following formula:**

$$\widehat{Y}_{jk} = w_{ik} \bullet \sum_{i=1}^{n_{jk}} y_{jki}$$

$$\widehat{Y} = \sum_j \sum_k \sum_i w_{ik} \bullet y_{ik}$$

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 $Y_{overseas}$ 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.

20.6 Adjustment

21. Comment