



REPUBLIC OF SLOVENIA
6/2016/354
THE MINISTRY OF AGRICULTURE, FORESTRY
AND FOOD OF THE REPUBLIC OF SLOVENIA
FOOD AND FISHERIES DIRECTORATE

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Fisheries Division

Dunajska cesta 22, 1000 Ljubljana

T: +386 1 478 90 25

F: +386 1 478 90 21

E: gp.mkgp@gov.si

www.gov.si/en/

Ministry of Agriculture Forestry and Food of the Republic of Slovenia
and
Fisheries Research Institute of Slovenia

Commission Implementing Decision (EU) 2016/1701

on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) No 199/2008 (recast).

Commission Implementing Decision (EU) 2016/1251

of 12 July 2016 adopting a multiannual Union programme for the collection, management and use of data in the fisheries and aquaculture sectors for the period 2017-2019.

Commission Implementing Decision (EU) 2016/1701

laying down rules on the format for the submission of work plans for data collection in the fisheries and aquaculture sectors.

Commission Implementing Decision (EU) 2018/1283

laying down rules on the format and timetables for the submission of annual data collection reports in the fisheries and aquaculture sectors.

Slovenia Annual Report for data
collection in the fisheries and
aquaculture sectors
2020

Version 1.0



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European Maritime
and Fisheries Fund



Republic of Slovenia

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SECTION 1: BIOLOGICAL DATA

Pilot Study 1: Relative share of catches of recreational fisheries compared to commercial fisheries

General comment: This box fulfils paragraph 4 of Chapter V of the multiannual Union programme and Article 2 and Article 4 paragraph (3) point (a) of the Decision (EU) 2016/1701.

General comment: This box is applicable to the Annual Report. This box is intended to provide information on the results obtained from the implementation of the pilot study.

1. Aim of pilot study

No pilot study is planned.

Since 2017 a statistical methodology for estimating catch data from recreational fisheries was developed in cooperation between Statistical Office of the Republic of Slovenia and Ministry of Agriculture, Forestry and Food. Sources for the recreational fisheries data are 1. Data received on the basis of annual licenses for sport fishing; 2. Data received on the basis of an annual licenses for the recreational fishing with spear gun; 3. Data received on the basis of daily and weekly licenses for recreational fisheries; 4. Data received from the organised sport competitions.

Based on this data and data from logbook for commercial fisheries (all vessels have to fulfill the logbooks) a relative share catches of recreational fisheries compared to commercial fisheries can be easily done.

2. Duration of pilot study

/

3. Methodology and expected outcomes of pilot study

/

(max 900 words)

Brief description of the results obtained (including deviations from planned and justifications as to why if this was not the case).

4. Achievement of the original expected outcomes of pilot study and justification if this was not the case.

No pilot study is was planned.

5. Incorporation of results from pilot study into regular sampling by the Member State.

No pilot study is was planned.

(max 900 words)

Text Box 1D: Recreational fisheries

General comment: This box fulfills paragraph 2 point (a) (iv) of Chapter III of the multiannual Union programme and Article 2, Article 3 and Article 4 paragraph 1 of the Decision (EU) 2016/1701. This box is applicable to the Annual Report. This box is intended to provide information on the design, implementation and analysis of all components of sampling schemes/ surveys that are listed in Table 1D.

1. Description of the target population

The target population and the elements of this target population accessibility, need to be defined and described in this section. In the case of Recreational Fisheries, the target population could be whole population of resident anglers, charter boats etc. This will permit to evaluate if all sectors contributing to the total catch, are included in the survey.

In 2008 Slovenia adopted the rule (Official Gazette of RS, no. 64/08 from 27. 6. 2008 – Rules on leisure sea Fishing) where every non-commercial fisherman (except the ones fishing from the shore) has to report the retained catch and effort separated by species.

2. Type of survey

In Table 1D, the methodology or type of survey used must be included, but any information about the design is missing.

Table 5A in the Work Plan allows to identify if the sampling design is documented and where it can be found. Are the surveys identified correctly in table 5A and information about sampling design provided under this table?

If the answer is No: information on the design should be included in this section of the Annual Report (e.g.: stratification, selection of PSU, is sampling probability base etc.).

Data on recreational fisheries at sea are composed of the following data sources:

- data received on the basis of annual licenses for sport fishing;
- data received on the basis of an annual licenses for the recreational fishing with underwater gun;
- data received on the basis of daily and weekly licenses for recreational fisheries;
- data received from the organized sport competitions, and;
- data received on the basis of the monitoring of the recreational fishing from the coast for which authorisation is not required.

The Republic of Slovenia conferred a public mandate to the Sea Sport Fishing Federation of Slovenia for issuing the licenses and permits for sport fisheries at sea. Sea Sport Fishing Federation of Slovenia is also responsible for collecting data on sport fisheries at sea and dissemination of the data to the MAFF.

Fishermen which are holders of the annual sport fishing licenses are after the end of the season (31. December) obliged to return the completed fishing permits with recorded dates of the fishing days, fish species caught, number of fish, weight of fish and fishing time, to the MAFF.

3. Data Quality

Information about non-responses and refusals is found in the Work Plan, Table 5A. Are non-responses and refusals recorded in table 5A?

If the answer is No: information on recordings of non-responses and refusals should be included in this section of the Annual Report.

In 2017 Slovenia for the first time took into account all types of recreational fisheries on sea and also all available data from 5 different types of recreational fisheries. It was demonstrated in comparison to previous years that with this method Slovenia obtained better data on recreational fisheries that in the past. The same

happened also in 2018. And Slovenia performed calculations for the data that were not received from the returned licenses. Some data were based on the returned licenses and also other data were delivered from it and from on field surveys. However Slovenia is aware that there is always room for the improvement and for better assessment of the recreational fisheries and we will put effort also in the future to improve out data collection methodologies and data quality on the field of the recreational fisheries in order to guide and perform the work in the data collection activities related to the recreational fisheries.

4. Data Analysis and processing

Information about data processing is found in the Work Plan, Table 5A. Are the editing and imputation methods documented and identified?

Yes, all editing and imputation methods are documented and identified.

If the answer is No: information on estimation procedures should be included in this section of the Annual Report, following the questions below:

Does the estimation procedure follow the survey design?

NA

Has the precision of the estimates been calculated and documented?

NA

(max. 900 words per survey)

SECTION 1: BIOLOGICAL DATA

Text Box 1E: Anadromous and catadromous species data collection in fresh water

General comment: This box fulfills paragraph 2 points (b) and (c) of Chapter III of the multiannual Union programme and Article 2 of the Decision (EU) 2016/1701.

General comment: This box is applicable to the Annual Report.

Method selected for collecting data.

Anadromous and catadromous species data collection in fresh water will not be performed due to following reasons:

1. *Anguilla anguilla* is protected species in Slovenia and it is not fished.

In Slovenia eel (*Anguilla Anguilla*) is protected species by the Decree on protected wild animal species, OJ 46/2004 and other amendments. With this Decree listed animals in Annex 1 are protected and habitats of animals listed in Annex 2 are also protected. Decree establish the protection of endangered species of wild fauna and flora, prescribes code of conduct, special protection arrangements and measures for protection and preservation of habitats of animal species with the intention to maintain favourable level of conservation of the species. It is prohibited to intentionally damage, kill, take from nature, catch, take and retain or agitate eels. It is also prohibited to have eels in captivity, to transport, to sell or trade eels taken from the nature.

In Slovenia eel is present in Adriatic hydrographic basin (west part of Slovenia indicated with blue and purple colour). In a part of catchment area of 2 very small rivers of Rižana and Dragonja that are located in south west part of Slovenia and in a part of catchment area of river Soča (purple colour that flows in Adriatic sea through Italy).

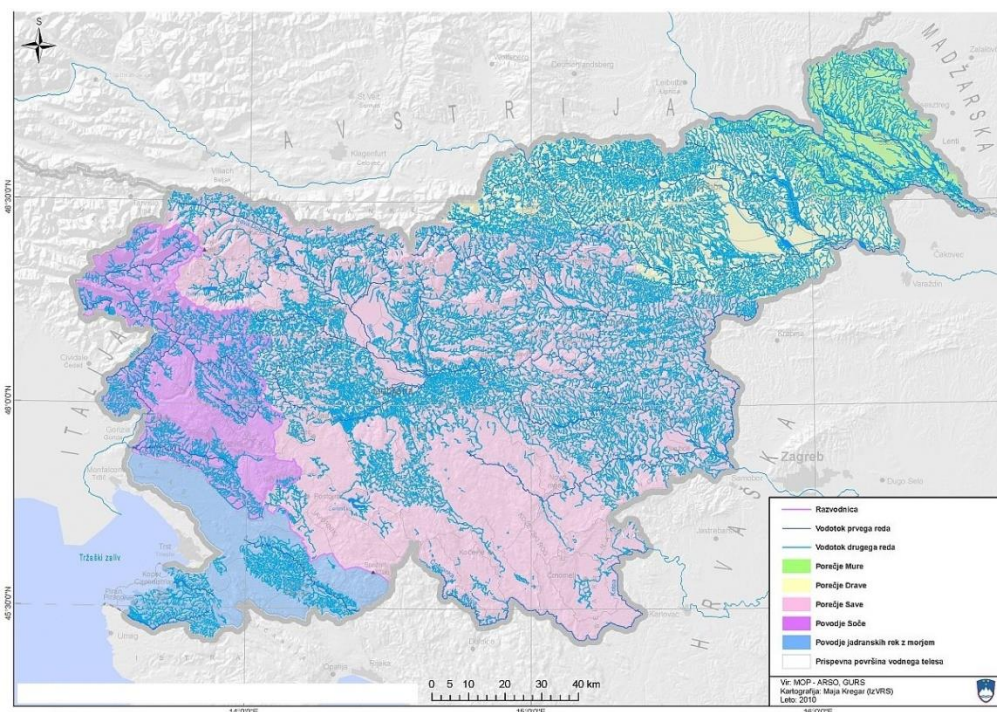


Figure 1: Rivers catchment areas of Slovenia. (Map source: Ministry of the Environment and Spatial Planning).

Therefore eel is not fished neither by commercial neither by recreational fisherman.

In year 2008 and 2019 Slovenia informed the European Commission that European eel (*Anguilla anguilla*) has been protected on the national level since 2004 via the Decree on protected wild animal species (Official Journal of the RS, No 46/2004). On the basis of this Decree, the fishing of eels in Slovenia is completely prohibited; it is also prohibited to intentionally harm, poison, kill, take from nature, hunt, catch or disturb the specimens of European eel.

These letters have been submitted to the Commission to exempt Slovenia from the obligation to submit an eel management plan in accordance with Regulation (EC) No 1100/2007. The Commission has responded favourably to the information and justifications provided by Slovenia.

Because of this Slovenia can not collect data on eel as specified in EU MAP III.2.c. In cases of incidental catch of eel in freshwater or marine fisheries, the data on number and weight are regularly recorded. Incidental catches are very rare and all are recorded in Biological database of the Fisheries research Institute of Slovenia – BioS Web (<http://www.biosweb.org/index.php?task=map&tid=144>).

2. *Salmo salar* is not present in Slovenian waters.

3. *Salmo trutta* in Slovenia is represented by subspecies *Salmo trutta fario*, which is landlocked in Slovenian rivers and not anadromous.

Based on the above mentioned facts Slovenia clearly presented basis for the exemption from the anadromous and catadromous species data collection in fresh waters. Based on the Tabel 1E of the commission delegated decision (EU) 2019/910 of 13 March 2019 establishing the multiannual Union programme for the collection and management of biological, environmental, technical and socioeconomic data in the fisheries and aquaculture sectors. For European eel Slovenia was exempted from the obligation to submit an eel management plan in accordance with Regulation (EC) No 1100/2007 and there are no management units defined. For Salmon and Sea trout they are not present in Slovenian waters and Slovenia is outside areas of natural distribution of Salmon and Sea trout and no inland waters of Slovenia are exiting in the Baltic Sea.

(max 250 words per Area)

Were the planned number achieved? No

If answer is No, Member State shall explain why not, and what measures were taken to avoid non-conformity.

For explanation see above: Method selected for collecting data.

(max 500 words per Area)

SECTION 1: BIOLOGICAL DATA

Text box 1F: Incidental by-catch of birds, mammals, reptiles and fish

General Comment: This box fulfils paragraph 3 point (a) of Chapter III of the multiannual Union programme and Article 2 of the Decision (EU) 2016/1701. This box is applicable to the Annual Report. This box is applicable only for those sections where Member States have reported that they have been carrying out regular sampling. Results and deviations for Pilot studies should be reported under Pilot Study 2.

1. Results

In 2020 we sampled 12 trips onboard with three different fishing gears. Set gillnets, trammel nets and bottom trawlers. Purse seiners were not fishing in 2020 and we collected only 3 samples from landings of other fishing gears. In all of the sampling trips there were 2 records of by catch of birds and no of reptiles or mammals. We only registered by catch of fish species. Non target species of fish in the nets are regular except sometimes in the nets with biggest mesh sizes used for turbot fishing.

2. Deviations from Work Plan

Apart from the number of samples achieved, there were no deviations from the work plan. Slovenia is still recording ALL species of fish – from the retained catch and discard. As for the number of samples - Slovenia started to stimulate captains that are willing to accept experts for the purpose of biological samplings onboard, by renting the actual space on the vessel. Situation is improving but it is still difficult to combine fishing season, appropriate weather conditions, period of maintenance for boats and availability of experts.

3. Data quality

Observers on-board of Slovenian vessels are present in every operation connected with landed organisms and every sample is recorded by recorded GPS track/points (trawlers or set nets), whole landing is photographed, special photos are made for rare or interesting organisms. Observers are present while fishermen sort the retained catch and discard where every species of fish is recorded by numbers and biomass. Retained catch is also recorded by length classes if fishermen sort them that way. A lot of effort is put into the sampling schemes and Slovenia is following the instructions from workshops on that matter (last one was “Workshop on optimization of biological sampling at sample level”; Portugal, Lisbon, 20.06. - 22.06.2017). So far observers didn’t notice any use of mitigation devices during samplings up to the current date.

Slovenian observers are present in the complete hauling process (trawlers –setting, trawling, lifting) and during lifting of the set nets. Generally trawling hauls last 1-3 hours and set nets are set for 12- 24 hours only. Dimensions of the nets are controlled every time (incl. codend). Gathered data are stored in the Fisheries Research institute database – BIOS. Data Quality issues: Samples cannot be saved in the database without filling up all the required fields/parameters that are determined in the sampling protocols. Fields in the database are protected by limited windows of values that are preventing entering wrong data to a certain degree.

(max 900 words)

Pilot Study 2: Level of fishing and impact of fisheries on biological resources and marine ecosystem

General comment: This Box fulfills paragraph 3 point (c) of Chapter III of the multiannual Union programme and Article 2 and Article 4 paragraph (3) point (b) of the Decision (EU) 2016/1701.

General comment: This box is applicable to the Annual Report. This box is intended to provide information on the results obtained from the implementation of the pilot study.

Following the 2016 Recommendation of RCM Med&BS-LP on pilot studies for the assessment of incidental catches of birds, mammals, reptiles and fish and the 2017 Recommendation of the RCG Med&BS on pilot studies on incidental catch of vulnerable species, the RCG Med&BS 2017 has agreed to carry out the following pilot studies:

- 2018: Pilot study for assessing incidental catches of vulnerable species from bottom trawlers
- 2019: Pilot study for assessing incidental catches of vulnerable species from longlines
- 2020: Pilot study for assessing incidental catches of vulnerable species from set nets (gillnets).

The proposed metiers and year of sampling are in agreement with the GFCM planned incidental catch sampling programme which will be performed in the period 2018-2020 (Mid-term strategy (2017–2020) towards the sustainability of Mediterranean and Black Sea fisheries).

1. Aim of pilot study

The aim of the pilot studies is to assess the impact of main fisheries on the vulnerable species and to collect accurate information on these species in terms of quantities, gears, temporal and spatial areas.

2. Duration of pilot study

Each pilot study related to selected metier will have a duration of one year.

3. Methodology and expected outcomes of pilot study

In overall, the methodology that will be followed for collecting data on incidental catch includes the collection of data from:

- Observer programmes for the identified fleet
- Logbook completion by fishers
- Interviews with fishers.

The guidelines for monitoring incidental catch of vulnerable species and processing the collected data, will be based both on the outputs of the EU MARE/2014/19 project for the Med&BS, and the GFCM guidelines on incidental catch (under preparation). Data to be collected will include: identification of species, number and weight (when possible) of individuals, gear specifications, location and timing of catches.

Expected outcomes

With the implementation of the planned pilot studies, it is expected that accurate information will be collected on the species incidentally caught, as well as their quantities, locations and the timing of such catches. This information will increase the knowledge on incidental catch in the region. Based on the results, systematic monitoring programme may be proposed for certain metiers/areas.

The knowledge gained under the pilot study and possible future systematic sampling will be very useful for the formulation of possible management measures for minimising incidental catch of vulnerable species in the region.

(max 900 words)

Brief description of the results obtained (including deviations from planned and justifications as to why if this was not the case).

4. Achievement of the original expected outcomes of pilot study and justification if this was not the case

In 2020 Pilot study for assessing incidental catches of vulnerable species from set nets (gillnets) has been performed. Data processing is still in progress.

5. Incorporation of results from pilot study into regular sampling by the MS

Data processing is still in progress.

(max 900 words)

SECTION 1: BIOLOGICAL DATA

Text Box 1G: List of research surveys at sea

General comment: This box fulfills Chapter IV of the multiannual Union programme and Article 2 and Article 7 paragraph (3) of the Decision (EU) 2016/1701. It is intended to specify which research surveys at sea set out in Table 10 of the multiannual Union programme will be carried out. Member States shall specify whether the research survey is included in Table 10 of the multiannual Union programme or whether it is an additional survey.

General comment: This box is applicable to the Annual Report. This box should provide complementary information on the performance of the surveys, the results and their main use.

International bottom trawl survey in the Mediterranean - MEDITS

1. Objectives of the survey

Objective of International bottom trawl survey in the Mediterranean (MEDITS) is to produce biological data on the demersal resources in the Mediterranean Sea.

The aim of the survey is to monitor demersal species (spatial and temporal distribution, abundance indices) in the sea fishing area of the Republic of Slovenia following the MEDITS Instruction Manual.

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

The survey is performed in one day with the MEDITS bottom trawl net, performing two samplings in sea fishing area of the Republic of Slovenia.

All captured fish that are not target species are counted and weighed altogether, MEDITS survey target species are taken to our laboratory, weighed, measured, and their sex and sexual maturity are determined. Therefore ecosystem indicators 4 are collected. The data are stored in the national database.

Manual and map: <https://www.sibm.it/MEDITS%202011/principale%20project.htm>

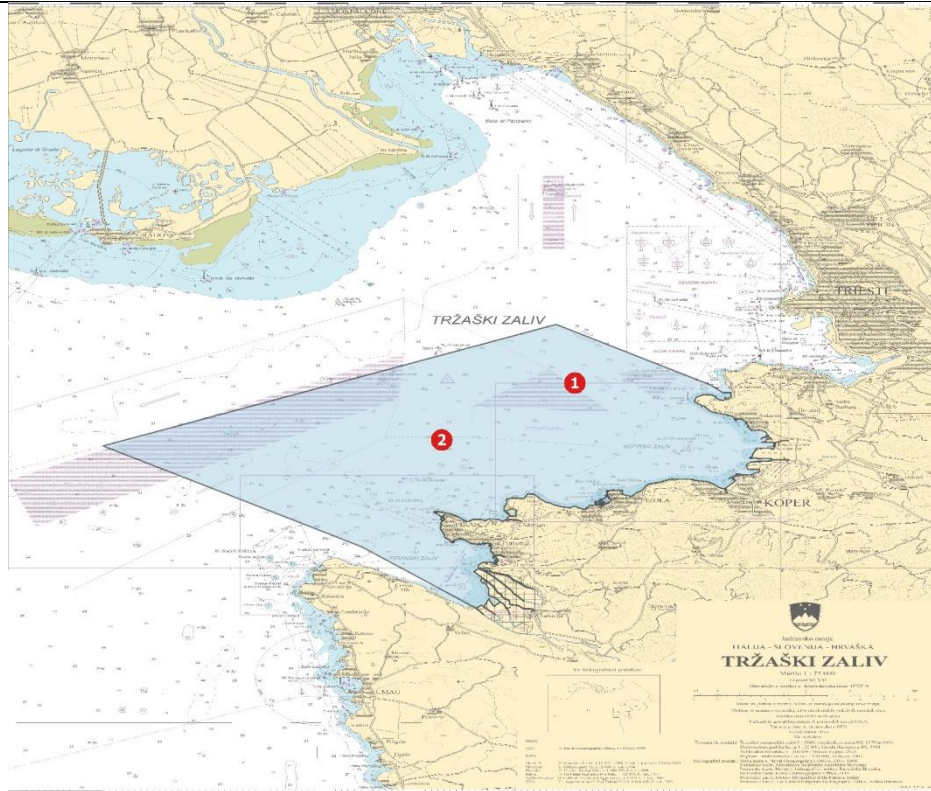


Figure 2: Slovenian MEDITS Survey. (Source: Fisheries Research Institute of Slovenia)

Land and maritime border between the Republic of Slovenia and the Republic of Croatia is determined based on the final and binding arbitration award of 29th June 2017 (in accordance with the Arbitration agreement between the government of the Republic of Slovenia and the Government of the Republic of Croatia signed on 4 November 2009). On 29 June 2017 the Arbitral Tribunal rendered its final Award determining the territorial and maritime border between Slovenia and Croatia which is binding, in accordance with the Arbitration Agreement and with general principles of international law.

The award determined the maritime border with exact coordinates. This allows it to be immediately enforced and depicted on maps. Slovenia expects that this maritime border (determined by the valid and binding award) is depicted on all maps in the framework of the European Data Collection Framework where maritime borders are to be depicted.

3. For internationally coordinated surveys, describe the participating Member States/vessels and the relevant international group in charge of planning the survey

The survey is performed in one day. Slovenian scientists are present during entire survey on the vessel, all specimens are taken and analysed by Slovenian scientist. For details see manual.

4. Where applicable, describe the international task sharing (physical and/or financial) and the cost sharing agreement used

MEDITS is conducted in less than 1 day. Samples are taken and analysed by Slovenia. Costs of the vessel, vessel crew, scientist and data analysis, storage, handling, processing and reporting are paid by Slovenian data collection programme.

5. Explain where thresholds apply

NA

(max. 450 words per survey)

1. Graphical representation (map) showing the positions (locations) of the realized samples. Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.

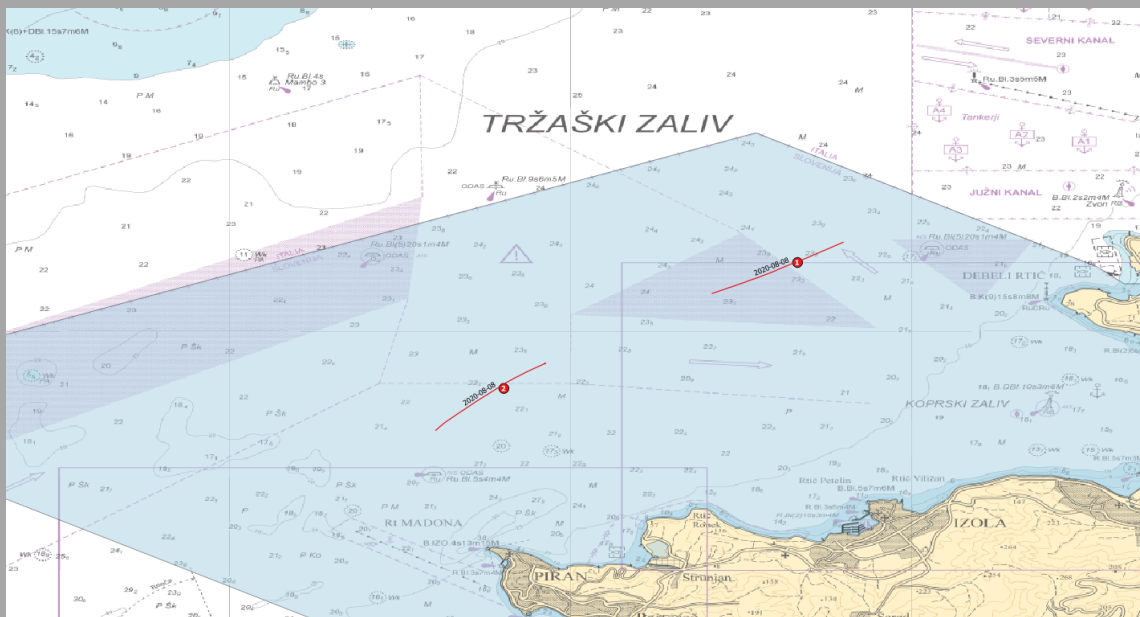


Figure 2: Slovenian MEDITS Survey. (Source: Fisheries Research Institute of Slovenia)

2. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group.

Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

https://www.sibm.it/MEDITS%202011/docs/MEDITS_2019_report.pdf

3. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

International level: regional fish stock assessment.

National level: trends in abundance indexes, length distribution, LW relationship etc.

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

(max 450 words per survey)

General comment: This box fulfills Chapter IV of the multiannual Union programme and Article 2 and Article 7 paragraph (3) of the Decision (EU) 2016/1701. It is intended to specify which research surveys at sea set out in Table 10 of the multiannual Union programme will be carried out. Member States shall specify whether the research survey is included in Table 10 of the multiannual Union programme or whether it is an additional survey.

General comment: This box is applicable to the Annual Report. This box should provide complementary information on the performance of the surveys, the results and their main use.

MEDiterranean International Acoustic Survey - MEDIAS

1. Objectives of the survey

Mediterranean International Acoustic Survey (MEDIAS). The aim of the echo-survey is to monitor small pelagic species (spatial and temporal distribution, abundance indices) in the sea fishing area of the Republic of Slovenia following the MEDIAS protocol.

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

All captured fish that are not target species are determined, counted and weighted altogether, following the MEDIAS protocol. MEDIAS survey target species are counted and weighted, measured, their sex is determined, their sexual maturity is determined and up to 10 specimens from each length class are prepared for otolith reading in the laboratory in Ancona.

Data (echo-track) is stored in the Italian database for the joint survey of northern Adriatic Echo-survey, and the results of two samples of fish caught in Slovenian waters are (besides Italian) also stored in the Slovenian database.

Manual and maps: <http://www.medias-project.eu/medias/website/handbooks-menu.html>.



Figure 3: MEDIAS Survey in Adriatic Sea. (Source: <http://www.medias-project.eu/medias/website/maps.html>)

Land and maritime border between the Republic of Slovenia and the Republic of Croatia is determined based on the final and binding arbitration award of 29th June 2017 (in accordance with the Arbitration agreement between the government of the Republic of Slovenia and the Government of the Republic of Croatia signed on 4 November 2009). On 29 June 2017 the Arbitral Tribunal rendered its final Award determining the territorial and maritime border between Slovenia and Croatia which is binding, in accordance with the Arbitration Agreement and with general principles of international law.

The award determined the maritime border with exact coordinates. This allows it to be immediately enforced and depicted on maps. Slovenia expects that this maritime border (determined by the valid and binding award) is depicted on all maps in the framework of the European Data Collection Framework where maritime borders are to be depicted.

3. For internationally coordinated surveys, describe the participating Member States/vessels and the relevant international group in charge of planning the survey

The survey is performed in one day by echo-sounding the track of the protocol for Northern Adriatic including two samplings with MEDIAS pelagic trawl net in sea fishing area of the Republic of Slovenia.

MEDIAS is covered by Mediterranean EU Member States (Spain, France, Italy, Malta, Slovenia, Croatia and Greece).

4. Where applicable, describe the international task sharing (physical and/or financial) and the cost sharing agreement used

MEDIAS is conducted in less than 1 day. Costs of the vessel, vessel crew, scientist and data analysis, storage, handling, processing and reporting are paid by Slovenian data collection programme. Italy takes in charge analysis and reporting of the data of all the samples collected. Costs of Slovenian scientist participating in the survey are paid by Slovenia.

5. Explain where thresholds apply

NA

(max. 450 words per survey)

4. Graphical representation (map) showing the positions (locations) of the realized samples. Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.



Figure 3: Acoustic sampling in Slovenian territorial waters was performed according to the systematically defined transects. (Source: <http://www.medias-project.eu/medias/website/maps.html>)

5. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group.

Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

<http://www.medias-project.eu/medias/website/meetingrep/Meeting-reports/>

6. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

International level: regional fish stock assessment.

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

(max 450 words per survey)

General comment: This box fulfills Chapter IV of the multiannual Union programme and Article 2 and Article 7 paragraph (3) of the Decision (EU) 2016/1701. It is intended to specify which research surveys at sea set out in Table 10 of the multiannual Union programme will be carried out. Member States shall specify whether the research survey is included in Table 10 of the multiannual Union programme or whether it is an additional survey.

General comment: This box is applicable to the Annual Report. This box should provide complementary information on the performance of the surveys, the results and their main use.

Adriatic Rapido Trawl Survey - SOLEMON

1. Objectives of the survey

SOLEMON, rapido trawl survey in the Northern Adriatic Sea (SoleMon). The aim of the survey is to monitor benthic species (spatial and temporal distribution, abundance indices) in the sea fishing area of the Republic of Slovenia following the SoleMon protocol.

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

The catches of the two gears towed simultaneously are analysed separately for “RAPIDO A” and “RAPIDO D”. The whole catch of each gear is weighted and sorted for all finfish species, rays, sharks, cephalopods and commercially important shellfish and crustaceans, total weight by species is collected. A sub sample for the epibenthos/benthos species and debris (shells, litter, wood, etc.) is analysed fresh on board, weight and number is recorded for each of the individuals identified to the lowest taxonomic level possible.

Manual and map: SoleMon - Rapido trawl survey in the Northern Adriatic Sea; Instruction manual; Version 3; November 2017.

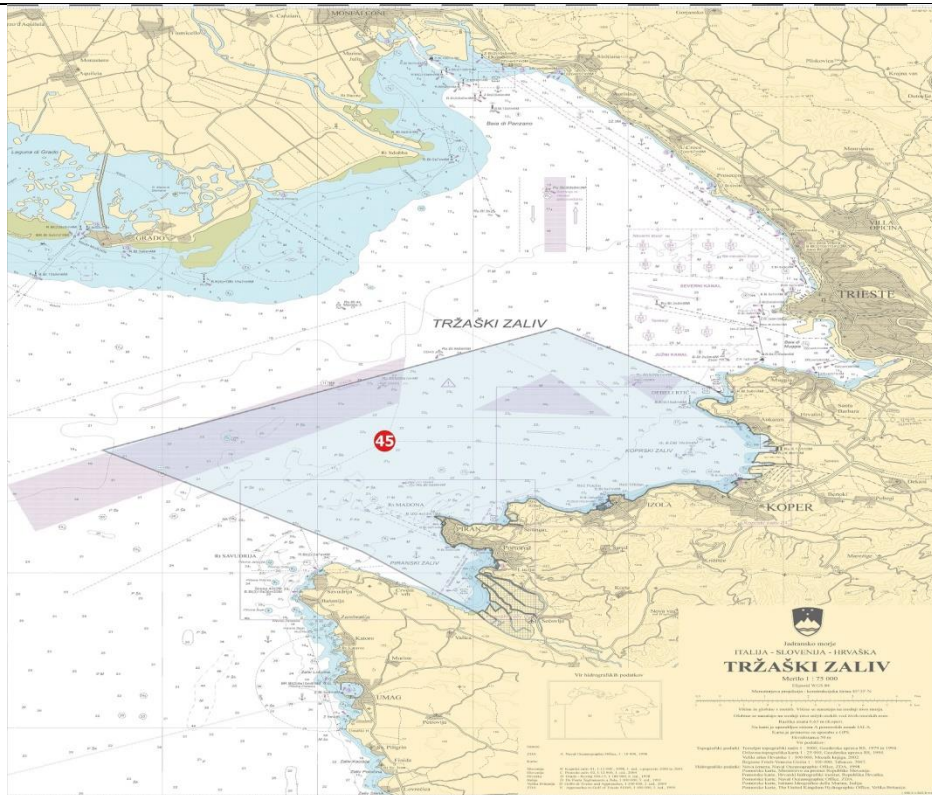


Figure 4: Slovenian SOLEMON Survey. (Source: Fisheries Resarch Institute of Slovenia)

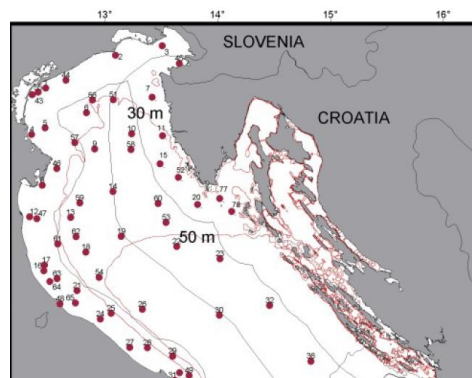


Figure 5: SoleMon hauls positons in GSA 17, (Source: SoleMon - Rapido trawl survey in the Northern Adriatic Sea; Instruction manual; Version 3; November 2017)

Land and maritime border between the Republic of Slovenia and the Republic of Croatia is determined based on the final and binding arbitration award of 29th June 2017 (in accordance with the Arbitration agreement between the government of the Republic of Slovenia and the Government of the Republic of Croatia signed on 4 November 2009). On 29 June 2017 the Arbitral Tribunal rendered its final Award determining the territorial and maritime border between Slovenia and Croatia which is binding, in accordance with the Arbitration Agreement and with general principles of international law.

The award determined the maritime border with exact coordinates. This allows it to be immediately enforced and depicted on maps. Slovenia expects that this maritime border (determined by the valid and binding award)

is depicted on all maps in the framework of the European Data Collection Framework where maritime borders are to be depicted.

3. For internationally coordinated surveys, describe the participating Member States/vessels and the relevant international group in charge of planning the survey

The survey is performed in one day by rapido trawl in sea fishing area of the Republic of Slovenia.

SoleMon is covered by Mediterranean EU Member States (Italy, Slovenia and Croatia).

4. Where applicable, describe the international task sharing (physical and/or financial) and the cost sharing agreement used

SoleMon is conducted in less than 1 day. Costs of the vessel, vessel crew, scientist and data analysis, storage, handling, processing and reporting are paid by Slovenian data collection programme. Italy takes in charge analysis and reporting of the data of all the samples collected. Costs of Slovenian scientist participating in the survey are paid by Slovenia. Slovenian data on SOLOMON survey are merged, analysed and reported together with the Italian data by Italy.

5. Explain where thresholds apply

NA

(max. 450 words per survey)

7. Graphical representation (map) showing the positions (locations) of the realized samples. Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.

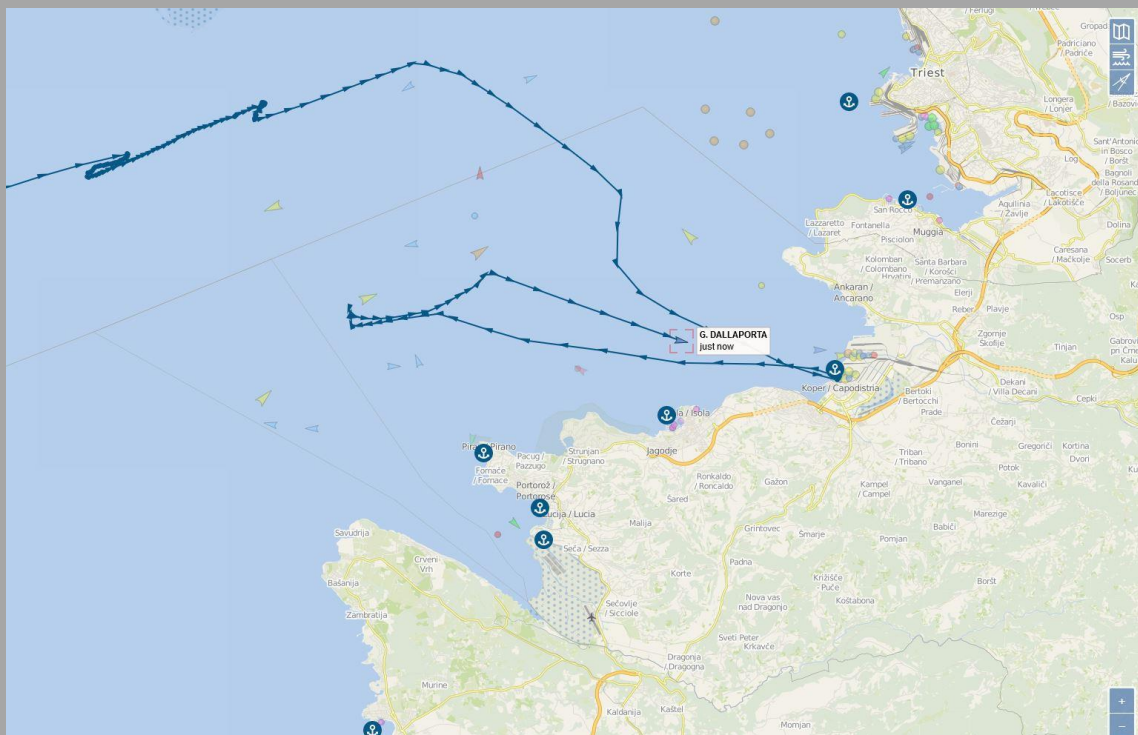


Figure 4: Slovenian SOLEMON Survey. (Source: AIS data)

8. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group.

Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

<https://www.cnr.it/sites/default/files/public/media/navi/Dallaporta2018/SOLEMON.pdf>

9. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

International level: regional fish stock assessment.

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

(max 450 words per survey)

General comment: This box fulfills Chapter IV of the multiannual Union programme and Article 2 and Article 7 paragraph (3) of the Decision (EU) 2016/1701. It is intended to specify which research surveys at sea set out in Table 10 of the multiannual Union programme will be carried out. Member States shall specify whether the research survey is included in Table 10 of the multiannual Union programme or whether it is an additional survey.

General comment: This box is applicable to the Annual Report. This box should provide complementary information on the performance of the surveys, the results and their main use.

Monitoring of fisheries resources with otter bottom trawl in the fishing sea of the Republic of Slovenia - OTBSLO.

1. Objectives of the survey

The aim of the survey is to monitor exploitation of demersal species in Slovenian waters independent and irrespective of data available on commercial fisheries. This data serve as the basis of monitoring of the state of demersal stock and ensuring of sustainable fish stock exploitation in the sea fishing area of the Republic of Slovenia

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

Sampling is performed by Fisheries Research Institute of Slovenia and conducted with hired fishing vessel 4-times per year at the three systematically pointed places in Slovenian waters (in total 12 hauls). All catches are sorted on board. Organisms of all categories are counted, weighted and identified to the lowest taxonomic level possible. Fishes, cephalopods and crustaceans are taken in the laboratory, where individual specimen are measured for: body length, weight, sex and sexual maturity.

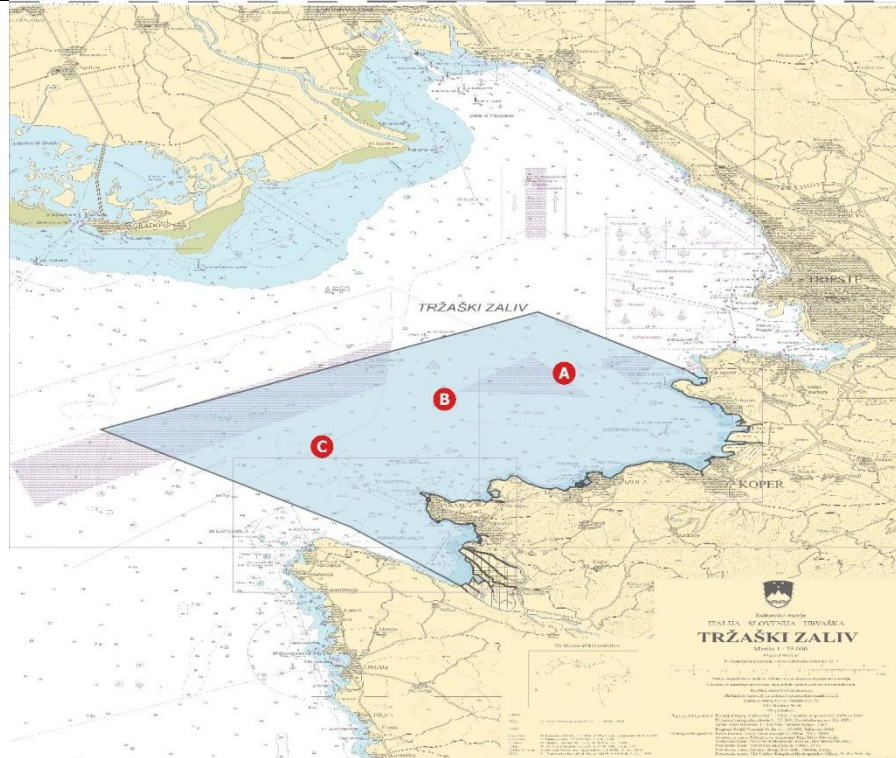


Figure 6: Slovenian monitoring of fisheries resources with otter bottom trawl in the fishing sea of the Republic of Slovenia – OTBSLO Survey. (Source: Fisheries Research Institute of Slovenia)

Land and maritime border between the Republic of Slovenia and the Republic of Croatia is determined based on the final and binding arbitration award of 29th June 2017 (in accordance with the Arbitration agreement between the government of the Republic of Slovenia and the Government of the Republic of Croatia signed on 4 November 2009). On 29 June 2017 the Arbitral Tribunal rendered its final Award determining the territorial and maritime border between Slovenia and Croatia which is binding, in accordance with the Arbitration Agreement and with general principles of international law.

The award determined the maritime border with exact coordinates. This allows it to be immediately enforced and depicted on maps. Slovenia expects that this maritime border (determined by the valid and binding award) is depicted on all maps in the framework of the European Data Collection Framework where maritime borders are to be depicted.

3. For internationally coordinated surveys, describe the participating Member States/vessels and the relevant international group in charge of planning the survey

The survey is performed in every quarter of the year by otter bottom trawl in the fishing sea of the Republic of Slovenia.

4. Where applicable, describe the international task sharing (physical and/or financial) and the cost sharing agreement used

NA

5. Explain where thresholds apply

NA

(max. 450 words per survey)

10. Graphical representation (map) showing the positions (locations) of the realized samples. Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.

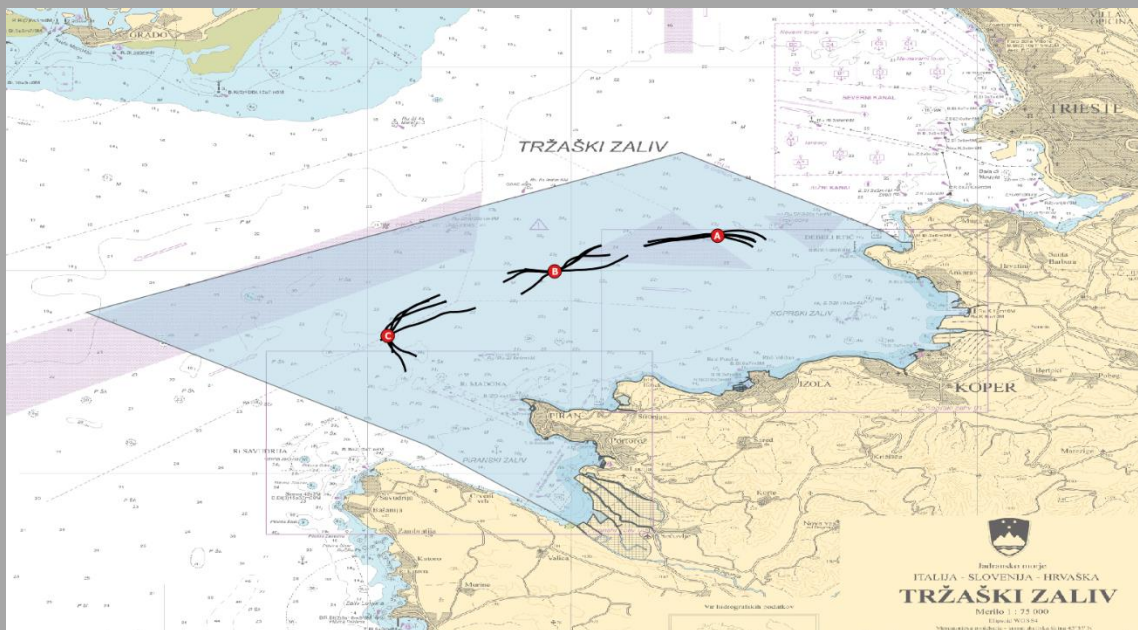


Figure 6: Slovenian monitoring of fisheries resources with otter bottom trawl in the fishing sea of the Republic of Slovenia – OTBSLO Survey (Source: Fisheries Research Institute of Slovenia).

11. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group.

Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

NA

12. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

National level: trends of indexes of abundance, length distribution of specimens, sex, gonad maturity, LW relationship etc.

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

(max 450 words per survey)

General comment: This box fulfills Chapter IV of the multiannual Union programme and Article 2 and Article 7 paragraph (3) of the Decision (EU) 2016/1701. It is intended to specify which research surveys at sea set out in Table 10 of the multiannual Union programme will be carried out. Member States shall specify whether the research survey is included in Table 10 of the multiannual Union programme or whether it is an additional survey.

General comment: This box is applicable to the Annual Report. This box should provide complementary information on the performance of the surveys, the results and their main use.

Monitoring of catch composition with otter bottom trawl (type "volantina") in the specific stretch between 1.5 and 3 nautical miles from the coast in Slovenian waters – OTB VOL

1. Objectives of the survey

The aim of the survey is to monitor catch composition of demersal species in in the specific stretch between 1.5 and 3 nautical miles from the coast in Slovenian waters with focus on species from Annex III of Council Regulation (EC) No 1967/2006 and cephalopods. This data serve for monitoring of derogation in terms of the minimum distance from the coast and the minimum sea depth for "volantina" trawlers fishing in the territorial waters of Slovenia demonstrating the share of catches of species from Annex III of Council Regulation (EC) No 1967/2006 and cephalopods.

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

Sampling is performed by Fisheries Research Institute of Slovenia and conducted with hired fishing vessel once every two months (6 days per year) with two hauls (in total 12 hauls per year) in the stretch between 1.5 and 3 nautical miles from the coast in Slovenian waters. All catches are sorted on board aiming to provide data on: catch composition, data on retained/ discarded length composition by species and share and composition of juvenile organisms of bottom trawler mainly fishing in the zone between 1,5 and 3 NM.



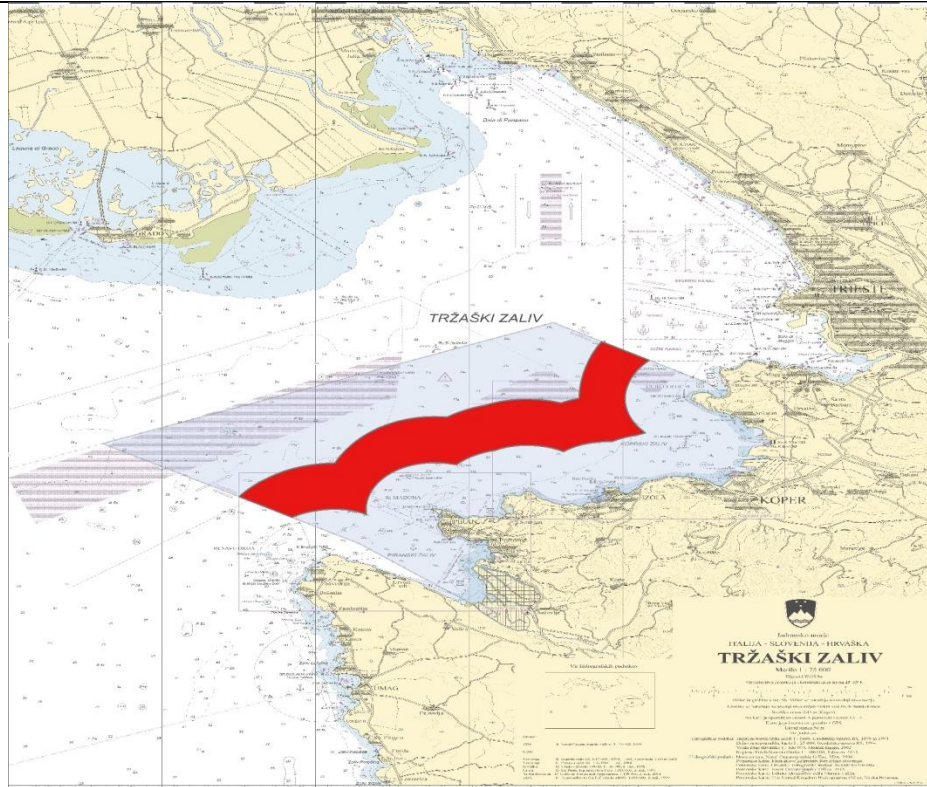


Figure 7: Slovenian monitoring of catch composition with otter bottom trawl (type "volantina") in the specific stretch between 1.5 and 3 nautical miles from the coast in Slovenian waters – OTB_VOL Survey. (Source: Fisheries Research Institute of Slovenia)

Land and maritime border between the Republic of Slovenia and the Republic of Croatia is determined based on the final and binding arbitration award of 29th June 2017 (in accordance with the Arbitration agreement between the government of the Republic of Slovenia and the Government of the Republic of Croatia signed on 4 November 2009). On 29 June 2017 the Arbitral Tribunal rendered its final Award determining the territorial and maritime border between Slovenia and Croatia which is binding, in accordance with the Arbitration Agreement and with general principles of international law.

The award determined the maritime border with exact coordinates. This allows it to be immediately enforced and depicted on maps. Slovenia expects that this maritime border (determined by the valid and binding award) is depicted on all maps in the framework of the European Data Collection Framework where maritime borders are to be depicted.

3. For internationally coordinated surveys, describe the participating Member States/vessels and the relevant international group in charge of planning the survey

The survey is performed in every two months per year with two hauls (in total 12 hauls per year) by demersal otter trawls in the stretch between 1.5 and 3 nautical miles from the coast in Slovenian waters.

4. Where applicable, describe the international task sharing (physical and/or financial) and the cost sharing agreement used

NA

5. Explain where thresholds apply

NA

(max. 450 words per survey)

13. Graphical representation (map) showing the positions (locations) of the realized samples. Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.

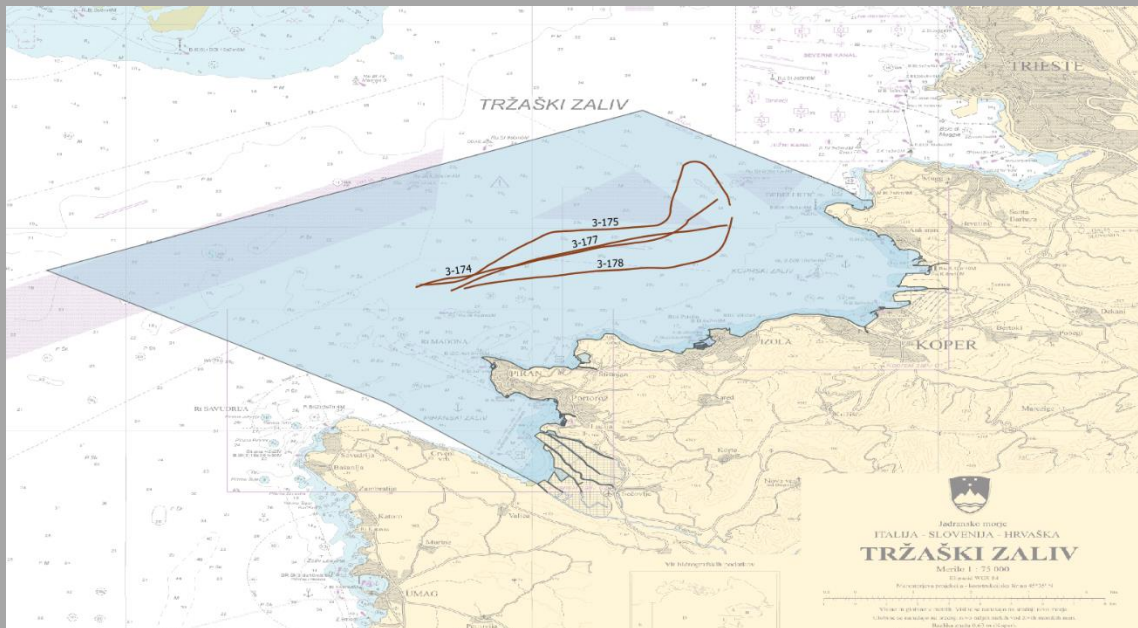


Figure 7: Slovenian monitoring of catch composition with otter bottom trawl (type "volantina") in the specific stretch between 1.5 and 3 nautical miles from the coast in Slovenian waters – OTB_VOL Survey (Source: Fisheries Research Institute of Slovenia).

14. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group. Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

NA

15. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

National level: trends of indexes of abundance, length distribution of specimens, sex, gonad maturity, LW relationship etc.

International level: reporting to European Commission.

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

(max 450 words per survey)



SECTION 2: FISHING ACTIVITY DATA

Text Box 2A: Fishing activity variables data collection strategy

General comment: This box fulfills paragraph 4 of Chapter III of the multiannual Union programme and Article 2, Article 4 paragraph (2) point (b) and Article 5 paragraph (2) of the Decision (EU) 2016/1701. It is intended to describe the method used to derive estimates on representative samples where data are not to be recorded under Regulation (EU) No 1224/2009 or where data collected under Regulation (EU) No 1224/2009 are not at the right aggregation level for the intended scientific use.

General comment: This box is applicable to the Annual Report. This box should provide information on the implementation of the data collection of fishing activity variables of Member States.

1. Description of methodologies used to cross-validate the different sources of data.

Fishing activity data (Capacity, effort and landings data) are collected for all vessels active at any point in time of the year. Capacity data are collected for vessels registered on 31. December of reference year. Data are collected under Control Regulation (EU) No. 1224/2009.

Fishing capacity data are part of the Fleet Vessel Register Module of the information system InfoRib. The Fleet Register data will be integrated with other sources of data in order to obtain data at the level of fleet segments and at the level of métiers. In order to obtain the data according to Table 4 of the multi-annual Union programme two data sources will be used: Fleet Vessel Register data and Logbook data.

Effort data will be collected for all vessels active at any point in time of the reference year. The data will be collected from the logbooks. All Slovenian vessels, also those under 10 meters, are obligated to submit the logbooks. For vessels that are equipped with the VMS also VMS data will be used.

The target populations for the landing data will be all vessels from the Slovenian Fleet (also those under 10 meters). The data will be collected and crosschecked from 3 sources; the logbooks, sales notes and questionnaires – census survey.

The quality of the data is ensured since all vessels are taken into account. As a type of data collection Slovenia will use census. All parameters will be gathered with the help of more sources which guarantees the cross-checking of data.

The prices of fish will be collected through questionnaires and sales notes. For cross-checking purposes the data from AJPES (Agency of the Republic of Slovenia for Public Legal Records and Related Services) – income and quantity of catch acquired from logbooks will be used (total income / total catch = price per kg).

2. Description of methodologies used to estimate the value of landings.

The data on the quantity of landings will be collected from the logbooks, while the price of the fish will be collected from the sales notes and through the use of a survey questionnaire.

On the basis of both kinds of data the value of all landings in Euros per species will be calculated and namely for the métiers as well as for fleet segments.

There was no specific action taken for vessels under 10 meters. Because we are collecting all data in same way regardless of the vessel length.

3. Description of methodologies used to estimate the average price (it is recommended to use weighted averages, trip by trip)

Average price per species – prices in Euros per kilo live weight without the VAT; the data will be collected from sales notes and through the use of a survey questionnaire. Slovenia will use weighted average prices.

4. Description of methodologies used to plan collection of the complementary data (sample plan methodology, type of data collected, frequency of collection etc)

Slovenia collecting complete sets of data for all of the fishing vessels (also for vessels under 10 meters) so no other methodologies for collecting the complementary data are not planned.

(max 900 words per Region)

5. Deviations from Work Plan methodology used to cross-validate the different sources of data

List the deviations (if any) and explain the reasons for the deviations.

Actions to avoid deviations.

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

6. Deviations from Work Plan methodology used to estimate the value of landings.

List the deviations (if any) and explain the reasons for the deviations.

Actions to avoid deviations

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

7. Deviations from Work Plan methodology used to estimate the average price.

List the deviations (if any) and explain the reasons for the deviations.

Actions to avoid deviations.

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

8. Deviations from Work Plan methodology used to plan collection of the complementary data

List the deviations (if any) and explain the reasons for the deviations.

Actions to avoid deviations

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

(max 900 words per Region)



Text Box 3A: Population segments for collection of economic and social data for fisheries

General comment: This box fulfils paragraph 5 points (a) and (b) of Chapter III of the multiannual Union programme and Article 2, Article 4 paragraphs (1), (2) and (5) and Article 5 paragraph (2) of the Decision (EU) 2016/1701. It is intended to specify data to be collected under Tables 5(A) and 6 of the multiannual Union programme.

General comment: This box is applicable to the Annual Report. This box should provide information on the implementation of the fleet socio-economic data collection of Member States.

1. Description of methodologies used to choose the different sources of data

Complete set of the data is collected on the basis of Table 5 and 6 of the multi-annual Union programme.

The national program for collection of economic data for the fishing sector combines information from three main resources:

- Questionnaire information returned on a voluntary basis,
- The Slovenian data base InfoRib,
- The annual accounts of business enterprises.

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise. Most of the data is cross-checked, e.g. value of landings from InfoRib is checked with Income from annual accounts, landings from log books are checked with sales in kg from sales notes, all costs from questionnaires are checked with the costs from annual accounts etc. For checking the data databases from other public services such as Statistical Office of the Republic of Slovenia, Chamber of Commerce and Industry of Slovenia etc. are used.

The economic and social variables are collected for all vessels regardless of their activity (also for vessels under 10 meters). All economic variables are collected for active vessels. For inactive vessels only capacity indicators and capital value and costs are collected.

2. Description of methodologies used to choose the different types of data collection

As a type of data collection Slovenia uses census. In the case of a census with non-responses, Slovenia estimates variables using method of extrapolation. Extrapolation is based on the assumption that trends in the observations will continue outside the range for which data are known. Slovenia extrapolates data for each segment separately, so that there are no errors due to different values in different segments.

3. Description of methodologies used to choose sampling frame and allocation scheme

Because of the census used, the whole population is covered.

4. Description of methodologies used for estimation procedures

As a type of data collection Slovenia uses census. In the case of a census with non-responses, Slovenia estimates variables using the method of extrapolation. Extrapolation is based on the assumption that trends in the observations will continue outside the range for which data are known.

5. Description of methodologies used on data quality

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise. The target population is entire fishing sector in Slovenia. A survey (questionnaire, with personal contact) is carried out on an annual basis to provide data on all the parameters. All enterprises are given extensive questionnaire, which is developed by group of experts. Data is collected for the whole population so in this way we are achieving also good quality of the data.

Regarding data quality some accuracy indicators are calculated;

- Response rate; achieved number of respondents who supplied data / frame population number

- Coverage rate; total value of production of the respondent units / total value of production of the frame population
- Coefficient of Variation (CV); only in case of response rate < 70%

(max 900 words per Region)

6. Deviations from Work Plan methodology for selection of data source

List the deviations (if any) from the methodology used to select data source compared to what was planned in the Work Plan, and explain the reasons for the deviations.

No deviation recorded

Actions to avoid deviations

Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect. Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

7. Deviations from Work Plan methodology to choose type of data collection

List the deviations (if any) from the methodologies to choose type of data collection scheme compared to what was planned in the Work Plan, and explain the reasons for the deviations.

No deviation recorded

Actions to avoid deviations

Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect. Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

8. Deviations from Work Plan methodology regarding sampling frame and allocation scheme

List the deviations (if any) from the methodologies used regarding sampling frame and allocation scheme compared to what was planned in the Work Plan, and explain the reasons for the deviations.

No deviation recorded

Actions to avoid deviations

Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect. Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

9. Deviations from Work Plan methodology used for estimation procedures

List the deviations (if any) from the methodologies used for estimation procedures compared to what was planned in the Work Plan, and explain the reasons for the deviations.

No deviation recorded

Actions to avoid deviations

Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

10. Quality assurance

10.1 Sound methodology

Data collection follow all relevant methodologies, guidelines and best practices agreed, i.e the capital value and capital costs are estimated according to the study No FISH/2005/03, the methodology for the estimation of employment (engaged crew and FTE) are in accordance with the Study FISH/2005/14 etc. Slovenia also takes into account all other recommendations of competent working bodies such as PG Econ, STECF etc. All the methodologies are documented and available.

Briefly describe if the data collection follow methodologies, guidelines and best practices agreed in expert groups and whether methodologies are documented and are made publicly available.

10.2. Accuracy and reliability

Response rate and Achieved sample rate are provided in Table 3A.

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise. After manually entering data in data base InfoRib, most of the data are cross-checked, e.g. value of landings from data base InfoRib are checked with Income from annual accounts, landings from log book are checked with sales in kg from sales notes, all costs from questionnaires are checked with the costs from annual accounts etc. All outputs are first checked automatically in the database itself and then, in the final stage, also manually by the team of experts. All changes, errors etc. are documented in the database.

Response rate and Achieved sample rate are provided in Table 3A.

For additional information, briefly describe how raw data inputs, intermediate results and outputs are regularly assessed and validated and how errors are identified, documented and dealt with.

10.3. Accessibility and Clarity

Indicate with Yes or No

Are methodological documents publicly available? YES

Are data stored in databases? YES

Where can methodological and other documentation be found?

Documentation is available at the Fisheries Research Institute of Slovenia and in work plans and annual reports.

Provide the web link, if documentation is publicly available

Documentation of data collection is available on the following web page: [http://www.ribiski-sklad.si/Izvajanje skupne ribiske politike/Zbiranje podatkov/](http://www.ribiski-sklad.si/Izvajanje_skupne_ribiske_politike/Zbiranje_podatkov/)

(max 1000 words)



Pilot Study 3: Data on employment by education level and nationality

General comment: This box fulfills paragraph 5 point (b) and paragraph 6 point (b) of Chapter III of the multiannual Union programme and Article 2 and Article 3 paragraph (3) point (c) of the Decision (EU) 2016/1701. It is intended to specify data to be collected under Table 6 of the multiannual Union programme.

General comment: This box is applicable to the Annual Report. This box is intended to provide information on the results obtained from the implementation of the pilot study (including deviations from planned and justifications as to why if this was not the case).

1. Aim of pilot study

No pilot study was planned

2. Duration of pilot study

3. Methodology and expected outcomes of pilot study

(max 900 words)

4. Achievement of the original expected outcomes of pilot study and justification if this was not the case.

5. Incorporation of results from pilot study into regular sampling by the Member State.

In 2018 Slovenia fully implemented the pilot study, planned in WP and incorporated results of the study into data collection program.

(max 900 words)

Text Box 3B: Population segments for collection of economic and social data for aquaculture

General comment: This box fulfills paragraph 6 points (a) and (b) of Chapter III of the multiannual Union programme and Article 2, Article 4 paragraphs (1) and (5) and Article 5 paragraph (2) of the Decision (EU) 2016/1701. It is intended to specify data to be collected under Tables 6 and 7 of the multiannual Union programme.

General comment: This box is applicable to the Annual Report. This box should provide information on the implementation of the socio-economic data collection for aquaculture of Member States.

1. Description of methodologies used to choose the different sources of data

Complete set of the data is collected on the basis of Table 6 and 7 of the multi-annual Union programme.

The target population is entire marine aquaculture sector in Slovenia. The work plan for collection of economic data for the aquaculture sector combines information from three main resources:

- Questionnaire information returned from the aquaculture sector on a voluntary basis,
- Data base: 'Central register of aquaculture and commercial fish pond infrastructure' from MAFF (Ministry of Agriculture, Forestry and Food),
- The annual accounts of business enterprises.

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise. Most of the data is cross-checked, e.g. all costs from questionnaires are checked with the costs from annual accounts, income from questionnaire is checked with the income from annual accounts etc. For checking the data databases from other public services such as Statistical Office of the Republic of Slovenia, Chamber of Commerce and Industry of Slovenia etc. are used.

2. Description of methodologies used to choose the different types of data collection

As a type of data collection Slovenia uses census. In the case of a census with non-responses, Slovenia estimates variables using method of extrapolation. Extrapolation is based on the assumption that trends in the observations will continue outside the range for which data are known. Slovenia extrapolates data for each segment separately, so that there are no errors due to different values in different segments.

3. Description of methodologies used to choose sampling frame and allocation scheme

Because of the census used, the whole population is covered.

4. Description of methodologies used for estimation procedures

As a type of data collection Slovenia uses census. In the case of a census with non-responses, Slovenia estimates variables using the method of extrapolation. Extrapolation is based on the assumption that trends in the observations will continue outside the range for which data are known.

5. Description of methodologies used on data quality.

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise. The target population is all marine aquaculture sector in Slovenia. A survey (questionnaire, with personal contact) will be carried out on an annual basis to provide data on all the parameters. All enterprises will be given lengthy questionnaire, which will be developed by group of experts. Data will be collected on the whole population so we do not expect any problems in achieving good quality of the data.

Regarding data quality some accuracy indicators will be calculated;

Response rate; achieved number of respondents who supplied data / frame population number

- Coverage rate; total value of production of the respondent units / total value of production of the frame population
- Coefficient of Variation (CV); only in case of response rate < 70%

(max 1000 words)

6. Deviations from Work Plan methodology for selection of data source

List the deviations (if any) from the methodology used to select data source compared to what was planned in the Work Plan, and explain the reasons for the deviations.

No deviation recorded

Actions to avoid deviations

Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect.

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

7. Deviations from Work Plan methodology to choose type of data collection

List the deviations (if any) from the methodologies to choose type of data collection scheme compared to what was planned in the Work Plan, and explain the reasons for the deviations.

No deviation recorded

Actions to avoid deviations

Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect.

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

8. Deviations from Work Plan methodology regarding sampling frame and allocation scheme

List the deviations (if any) from the methodologies used regarding sampling frame and allocation scheme compared to what was planned in the Work Plan, and explain the reasons for the deviations.

No deviation recorded

Actions to avoid deviations

Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect.

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

9. Deviations from Work Plan methodology used for estimation procedures

List the deviations (if any) from the methodologies used for estimation procedures compared to what was planned in the Work Plan, and explain the reasons for the deviations.

No deviation recorded

Actions to avoid deviations

Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect.

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

10. Quality assurance

10.1 Sound methodology

Data collection follow all relevant methodologies, guidelines and best practices agreed, i.e. the capital value and capital costs are estimated according to the study No FISH/2005/03, the methodology for the estimation of employment (engaged crew and FTE) are in accordance with the Study FISH/2005/14 etc. Slovenia also takes into account all other recommendations of competent working bodies such as PG Econ, STECF etc.

Briefly describe if the data collection follow methodologies, guidelines and best practices agreed in expert groups and whether methodologies are documented and are made publicly available.

10.2. Accuracy and reliability

Response rate and Achieved sample rate are provided in Table 3B.

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise. After manually entering data in data base InfoRib, most of the data are cross-checked, e.g. all costs from questionnaires are checked with the costs from annual accounts, income from questionnaire is checked with the income from annual accounts etc. All outputs are first checked automatically in the database itself and then, in the final stage, also manually by the team of experts. All changes, errors etc. are documented in the database.

Response rate and Achieved sample rate are provided in Table 3B.

For additional information, briefly describe how raw data inputs, intermediate results and outputs are regularly assessed and validated and how errors are identified, documented and dealt with.

10.3. Accessibility and Clarity

Indicate with Yes or No

Are methodological documents publicly available? YES

Are data stored in databases? YES

Where can methodological and other documentation be found?

Documentation is available at the Fisheries Research Institute of Slovenia and in work plans and annual reports

Provide the web link, if documentation is publicly available

Documentation od data collection is available on the following web page: http://www.ribiski-sklad.si/Izvajanje_skupne_ribiske_politike/Zbiranje_podatkov/

(max 1000 words)



Pilot Study 4: Environmental data on aquaculture

General comment: This box fulfills paragraph 6 point (c) of Chapter III of the multiannual Union programme and Article 2 and Article 4 paragraph (3) point (d) of the Decision (EU) 2016/1701. It is intended to specify data to be collected under Table 8 of the multiannual Union programme.

General comment: This box is applicable to the Annual Report. This box is intended to provide information on the results obtained from the implementation of the pilot study (including deviations from planned and justifications as to why if this was not the case).

1. Aim of pilot study

No pilot study was planned

2. Duration of pilot study

3. Methodology and expected outcomes of pilot study

(max 900 words)

4. Achievement of the original expected outcomes of pilot study and justification if this was not the case.

5. Incorporation of results from pilot study into regular sampling by the Member State.

In 2018 Slovenia fully implemented the pilot study, planned in WP and incorporated results of the study into data collection program.

(max 900 words)

Text Box 3C: Population segments for collection of economic and social data for the processing industry

General comment: This box fulfils footnote 6 of paragraph 1.1(d) of Chapter III of the multiannual Union programme, Article 2, Article 4 paragraphs (1) and (5) and Article 5 paragraph (2) of Decision (EU) 2016/1701. It is intended to specify data to be collected under Table 11 of the multiannual Union programme.

General comment: This box is applicable to the Annual Report. This box should provide information on the implementation of the socio-economic data collection for aquaculture of Member States.

1. Description of methodologies used to choose the different sources of data

Complete set of the data is collected on the basis of Table 11 of the multi-annual Union programme. The target population are all fish processing companies in Slovenia. Data are collected for the whole population of processing enterprises, this is also one of the main aspects in providing and achieving good quality of the data.

The national program for collection of economic data for the processing industry combines information from three main resources:

- Questionnaire information returned from processing companies on a voluntary basis,
- The data from Veterinary Administration of the Republic of Slovenia (VARs),
- The annual accounts of business enterprises.

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise. Most of the data is cross-checked, e.g. all costs from questionnaires are checked with the costs from annual accounts, income from questionnaire are checked with the income from annual accounts, etc. For checking the data also databases from other public services such as Statistical Office of the Republic of Slovenia, Chamber of Commerce and Industry of Slovenia etc. are used.

2. Description of methodologies used to choose the different types of data collection

As a type of data collection Slovenia uses census. In the case of a census with non-responses, Slovenia estimates variables using method of extrapolation. Extrapolation is based on the assumption that trends in the observations will continue outside the range for which data are known. Slovenia extrapolates data for each segment separately, so that there are no errors due to different values in different segments.

3. Description of methodologies used to choose sampling frame and allocation scheme

Because of the census used, the whole population is covered.

4. Description of methodologies used for estimation procedures

As a type of data collection Slovenia uses census. In the case of a census with non-responses, Slovenia estimates variables using the method of extrapolation. Extrapolation is based on the assumption that trends in the observations will continue outside the range for which data are known.

5. Description of methodologies used on data quality

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise. The target population is entire fish-processing sector in Slovenia. A survey (questionnaire, with personal contact) is carried out on an annual basis to provide data on all the parameters. All enterprises are given extensive questionnaire, which is developed by group of experts. Data is collected on the whole population and we do not have any problems in achieving good quality of the data.

Regarding data quality some accuracy indicators are calculated;

- Response rate; achieved number of respondents who supplied data / frame population number
- Coverage rate; total value of production of the respondent units / total value of production of the frame population

Coefficient of Variation (CV); only in case of response rate < 70% (max 1000 words)

6. Deviations from Work Plan methodology for selection of data source

List the deviations (if any) from the methodology used to select data source compared to what was planned in the Work Plan, and explain the reasons for the deviations.

No deviation recorded

Actions to avoid deviations

Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect.

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

7. Deviations from Work Plan methodology to choose type of data collection

List the deviations (if any) from the methodologies to choose type of data collection scheme compared to what was planned in the Work Plan, and explain the reasons for the deviations.

No deviation recorded

Actions to avoid deviations

Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect.

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

8. Deviations from Work Plan methodology regarding sampling frame and allocation scheme

List the deviations (if any) from the methodologies used regarding sampling frame and allocation scheme compared to what was planned in the Work Plan, and explain the reasons for the deviations.

No deviation recorded

Actions to avoid deviations

Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect.

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

9. Deviations from Work Plan methodology used for estimation procedures

List the deviations (if any) from the methodologies used for estimation procedures compared to what was planned in the Work Plan, and explain the reasons for the deviations.

No deviation recorded

Actions to avoid deviations

Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect.

Briefly describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section can be skipped.

10. Quality assurance

10.1 Sound methodology

Data collection follow all relevant methodologies, guidelines and best practices agreed, i.e. the capital value and capital costs are estimated according to the study No FISH/2005/03, the methodology for the estimation of employment (engaged crew and FTE) are in accordance with the Study FISH/2005/14 etc. Slovenia also takes into account all other recommendations of competent working bodies such as PG Econ, STECF etc.

All the methodologies are documented and public available.

Briefly describe if the data collection follow methodologies, guidelines and best practices agreed in expert groups and whether methodologies are documented and are made publicly available.

10.2. Accuracy and reliability

Response rate and Achieved sample rate are provided in Table 3C.

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise. After manually entering data in data base InfoRib, most of the data is cross-checked, e.g. all costs from questionnaires are checked with the costs from annual accounts, income from questionnaire is checked with the income from annual accounts etc. All outputs are first checked automatically in the database itself and then, in the final stage, also manually by the team of experts. All changes, errors etc. are documented in the database.

Response rate and Achieved sample rate are provided in Table 3C.

For additional information, briefly describe how raw data inputs, intermediate results and outputs are regularly assessed and validated and how errors are identified, documented and dealt with.

10.3. Accessibility and Clarity

Indicate with Yes or No:

Are methodological documents publicly available? YES

Are data stored in databases? YES

Where can methodological and other documentation be found?

Documentation is available at the Fisheries Research Institute of Slovenia and in work plans and annual reports.

Provide the web link, if documentation is publicly available.

Documentation od data collection is available on the following web page: [http://www.ribiski-sklad.si/Izvajanje skupne ribiske politike/Zbiranje podatkov/](http://www.ribiski-sklad.si/Izvajanje_skupne_ribiske_politike/Zbiranje_podatkov/)

(max 1000 words)

Text Box 4A: Sampling plan description for biological data

General comment: This box fulfills Article 3, Article 4 paragraph (4) and Article 8 of the Decision (EU) 2016/1701 and forms the basis for the fulfilment of paragraph 2 point (a)(i) of Chapter III of the multiannual Union programme. This Table refers to data to be collected under Tables 1(A), 1(B) and 1(C) of the multiannual Union programme.

General comment: This box is applicable to the Annual Report. This box should provide information on the deviations from the planned sampling of Member States.

From 2020 Slovenia will no longer sample landings of *Engraulis encrasicolus* and *Sardina pilchardus*, since the fishery targeting small pelagics is not operating.

Slovenia will not continue with samplings of *Engraulis encrasicolus* and *Sardina pilchardus* due to inactivity of the PS fleet in last two years and very low activity in last seven years. There are also no other species with average landings above 200 tonnes.

Thresholds in accordance with the Commission Implementing Decision (EU) 2019/909, Annex; Chapter II; point (2)(c); applies.

(max 900 words per region)

Deviation from the sampling plan according to Article 5 paragraph (3) of the Decision (EU) 2016/1701:

Deviations from the Work Plan

Member State shall list the deviations (if any) in the achieved data collection, compared to what was planned in the Work Plan and explain the reasons for the deviations.

No deviations.

Action to avoid deviations

Member State shall describe the actions that will be considered / have been taken to avoid the deviations in the future and when these actions are expected to produce effect. If there are no deviations, then this section is not applicable.

NA

(max. 1000 words per region OR fishing ground)

SECTION 5: DATA QUALITY

Text Box 5A: Quality assurance framework for biological data

General comment: This box is applicable to the Annual Report. This box fulfills Article 5 paragraph (2) point (a) of the Decision (EU) 2016/1701. This box is intended to specify data to be collected under Tables 1(A), 1(B) and 1(C) of the multiannual Union programme. Use this box to provide additional information on Table 5A.

1. Evidence of data quality assurance

Within this section Member State shall provide information on the methodology used to assure the quality of the data collected, highlighting those aspects where changes have been made during the sampling year. Information shall be provided by each sampling scheme for which data was collected. In the case where the same quality assurance framework is applied to all data collection schemes, information can be provided at general level with the indication "all sampling schemes".

In those sections of Table 5A where "N" is indicated, Member States shall explain the main constraints and/ or the steps taken to fulfil this obligation. In the cases where a reference documents is requested, Member States shall provide a web link.

In cases where documents are not publicly available, due to institutions internal policy, confidentiality or other reasons, this shall be indicated by the Member State.

Methodology used to assure quality of the biological data collected is described in respective chapters of the Annual report:

- Text Box 1C: Sampling intensity for biological variables
- Text Box 1D: Recreational fisheries
- Pilot Study 1: Relative share of catches of recreational fisheries compared to commercial fisheries
- Text Box 1E: Anadromous and catadromous species data collection in fresh water
- Text box 1F: Incidental by-catch of birds, mammals, reptiles and fish
- Pilot Study 2: Level of fishing and impact of fisheries on biological resources and marine ecosystem
- Text Box 1G: List of research surveys at sea
- Text Box 4A: Sampling plan description for biological data

Quality assurance is described also in adopted work plan and in documentation that is available on the following web page: http://www.ribiski-sklad.si/Izvajanje_skupne_ribiske_politike/Zbiranje_podatkov/

2. Sampling design

Explain main constraints and/ or steps taken, if 'N' (no) was indicated in Table 5A.

Sampling design is documented.

Same quality assurance framework is applied to all data collection schemes (all sampling schemes): gillnetters (métier GNS_DEF_>=16_0_0), trammel netters (métier GTR_DEF_>=16_0_0), bottom otter trawlers (métier OTB_DEF_>=40_0_0) and bottom otter trawlers using "volantina" (métier OTB_DEF_>=40_0_0).

We ensure the quality of data on several levels: (1) sampling design, (2) data entry and storage.

Sampling design is stratified random sampling. In practice random selection of a vessel is not always possible due to the non-participation of fishermen or due to small vessels that do not allow observers to board. Observers records the technical characteristics of the fishing gear, the time and location of the fishing trip and the total catch. The total catch is divided by fishermen into retained and discarded parts. From both parts we record all species, quantities and biometric data.

Data on recreational fisheries at sea are composed of the following data sources:

- data received on the basis of annual licenses for sport fishing;
- data received on the basis of an annual licenses for the recreational fishing with underwater gun;
- data received on the basis of daily and weekly licenses for recreational fisheries;
- data received from the organized sport competitions

Data are calculated for those who return send the data about the fishes which were caught and with help of statistical methods data is calculated for whole recreational fishing.

3. Sampling implementation

Explain main constraints and/or steps taken, if 'N' (no) was indicated in Table 5A.

Non responses and refusals are recorded – starting with 2018, before that they were not. Records are available at the Fisheries Research Institute of Slovenia.

4. Data capture

Explain main constraints and/ or steps taken, if 'N' (no) was indicated in Table 5A.

Data quality is checked during the input in the database BIOS.

Data are entered via web application and stored in database BIOS. Constraints on the level of application and database are assuring as accurate data entries as possible. In addition, the data in the database are fully normalized and the tables are linked in such a way that the reference integrity of data is respected.

Data quality is ensured by using sampling and data processing protocols of individual research surveys.

5. Data Storage

Explain main constraints and/ or steps taken, if 'N' (no) was indicated in Table 5A. Please provide a link if the documented revisions are available and not confidential.

Data stored in BIOS database at the Fisheries Research Institute of Slovenia. Data are not stored in other international databases except for the international surveys like MEDITS and MEDIAS.

6. Data processing

Explain main constraints and/ or steps taken, if 'N' (no) was indicated in Table 5A.

Processes to evaluate data accuracy (bias and precision) are partially documented.

(max. 900 words per Region/RFMO/RFO/IO OR sampling scheme)