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**6/2016/354**  
**THE MINISTRY OF AGRICULTURE, FORESTRY**  
**AND FOOD OF THE REPUBLIC OF SLOVENIA**  
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**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**  
**2019**

Version 1.0



European Union



European Maritime  
and Fisheries Fund



Republic of Slovenia

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### Text Box 1C: Sampling intensity for biological variables

General comment: This box fulfils paragraph 2 point (a)(i)(ii)(iii) of Chapter III, Chapter IV of the multiannual Union programme and Article 2, Article 4 paragraph 1 and Article 8 of the Decision (EU) 2016/1701. This box is applicable to the Annual Report.

Slovenian fishing area is located in the Gulf of Trieste, the north-eastern Adriatic, region Mediterranean and Black sea, GFCM area GSA 17.

#### 1. Evidence of data quality assurance

In 2019 sampling of small pelagic fish on-shore was foreseen. That includes monthly samplings of landings of *Engraulis encrasicolus* and *Sardina pilchardus* on the shore. The following parameters should be collected: total length, age, weight, sex ratio, and sexual maturity.

This sampling scheme has been used since 2006. It was first interrupted in 2011 when PTM vessels were scraped. After this we were only able to sample PS fleet. Due to migration of both small pelagic species, the PS fishing activity was possible only in worm part of the year. In 2018, due to economic reasons, PS fleet stopped fishing. The same situation was in 2019.

#### 2. Deviations from the Work Plan

Since PS fleet was not active in 2019, we were not able to collect samples of *Engraulis encrasicolus* and *Sardina pilchardus*.

#### Actions to avoid deviations

Instead of samples from the Slovenian PS fleet we have collected one sample of both species from Italian PS fleet, fishing close to Slovenian territorial waters.

## 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;

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 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 2019. And Slovenia performed calculations for the data that were not received from the returned licenses. Methodology for the calculation of the data was developed in the cooperation between Ministry of Agriculture Forestry and Food and Statistical Office of the Republic of Slovenia. In accordance with the agreement with the Statistical Office of the Republic of Slovenia the stratum representing recreational fishing from the coast was excluded from the calculation of the data.

#### 4. Data Analysis and processing

- 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 supergun
- Data received on the basis of daily and weekly licenses for recreational fisheries
- Data received from the organized sport competitions
- Data received on the basis of the monitoring of the recreational fishing from the coast for which authorization is not required:

For the recreational fishing from the coast licenses are not required. In accordance with the agreement with the Statistical Office of the Republic of Slovenia this stratum was excluded from the calculation of the data.

All estimated catches by recreational fishermen at sea in 2019 were 12,3 tons of fish and other marine organisms. Because of the COVID-19 epidemic current values are estimated, detailed data will be available in few months.

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 as described above.

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)

## 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

To assess the share of catches from recreational fisheries in relation to commercial catches.

### 2. Duration of pilot study

Two years. The results should be available by the end of May 2019. Because of the COVID-19 epidemic results will be available in the next few months.

### 3. Methodology and expected outcomes of pilot study

Data from recreational fishery will be analyzed and compared with the data derived from commercial fisheries. Comparison of data from recreational fisheries and those from commercial fisheries will give a figure of the relative share of catches of recreational fisheries.

(max 900 words)

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

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 than 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 our data collection methodologies and data quality on the field of the recreational fisheries in order to guide and perform the pilot work in the data collection activities related to the recreational fisheries.

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

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 on the basis of the monitoring of the recreational fishing from the coast for which authorisation is not required, and;
- data received from the organised sport competitions.

The Republic of Slovenia conferred a public mandate to the Sea Sport Fishing Federation of Slovenia for issuing the licences 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 licences 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.

All data received were analysed and stored in a database. On the basis of received data and expert opinion we determined the factors for the estimation of the data from different sources.

At the end we removed from the final data set the data from the recreational fishing from the coast for which authorisation is not required because our Statistical Office considered that the data received from observers are not sufficient to make extrapolation to the whole population. The extension of observers program would not be cost efficient.

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

In 2017 Ministry of Agriculture, Forestry and Food in cooperation with the Statistical office of the Republic of Slovenia prepared new methodology for statistical analysis of the data from the recreational fisheries. The methodology was for the first time used on the 2016 data and the results were very satisfactory. Because of this the same methodology will be used also in 2018 on data from 2017 and in year 2019. We expect that from 2019 on this will remain a common methodology for the collection of the recreational fisheries data. Outcomes of the first part that was orientated towards the creation of new methodology for statistical data analysis were in year 2018 implemented for the first time in regular data collection. We expect that the quality of the data will improve and that in year 2019 we will be able to make very good estimation of the share of catches of recreational fisheries compared to commercial fisheries.

(max 900 words)





## 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.

#### 1. Method selected for collecting data.

Three species should be sampled: catadromous *Anguilla anguilla* and anadromous *Salmo salar* and *Salmo trutta*. Both anadromous species are not present in Slovenian waters. The only present from the list is *Anguilla anguilla*. Nevertheless Slovenia is not sampling European eel since it is a protected and very rare species already in Slovenian waters.

As Slovenia had informed the European Commission (through letters in 2008 and 2009), European eel 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 has been completely prohibited. The afore-mentioned letters also contained information to the effect that Slovenia represents only a marginal eel area, and that eel has never been exploited commercially in Slovenia. This information has been submitted to the Commission to exempt Slovenia from the obligation to submit an Eel management plan in accordance with Council Regulation (EC) No 1100/2007.

The Commission has responded favourably to the information and justifications provided by Slovenia (Commission letter No 10749 of 24 September 2009).

#### 2. Were the planned number achieved? Yes/ No

No samplings, as already explained above.

##### 1. Catch data

In Slovenia, in 2017, 2018 and 2019, there were no catches of European eel in either commercial or recreational fisheries, in marine as well as inland waters.

In accordance with the national Decree on protected wild animal species (Official Journal of the Republic of Slovenia, No 46/04), European eel is a protected animal species in Slovenia. On the basis of the provisions of this Decree, it is prohibited to intentionally harm, poison, kill, take from nature, hunt, catch or disturb the specimens of the protected species i.e. European eel.

##### 2. Control authorities

(See also under: 1. Catch data.)

The control over the implementation of the prohibitions in the national legislation regarding fishing and disturbing of eel is performed by environmental inspectors from the Inspectorate of the Republic of Slovenia for the Environment and Spatial Planning (IRSOP), fisheries inspectors from the Inspectorate of the Republic of Slovenia for Agriculture, Forestry, Hunting and Fisheries (IRSKGLR), and by nature protection wardens. Control with regard to recreational fishing in inland waters is performed by fishing wardens designated by the Minister for Agriculture, Forestry and Food.

The Inspectorate of the Republic of Slovenia for the Environment and Spatial Planning is a body affiliated to the Ministry of the Environment and Spatial Planning. The Inspectorate of the Republic of Slovenia for Agriculture, Forestry, Hunting and Fisheries is a body affiliated with the Ministry of

Agriculture, Forestry and Food.

The tasks and competences of these control authorities are defined in the relevant legislation:

- Nature Conservation Act (Official Journal of the RS, No 96/04);
- Marine Fisheries Act (Official Journal of the RS, No 115/06);
- Freshwater Fishery Act (Official Journal of the RS, No 61/06);
- Inspection Act (Official Journal of the RS, No 43/07).

There is no production chain involving European eel in Slovenia, as European eel is a protected animal species in Slovenia in accordance with the national Decree on protected wild animal species (Official Journal of the Republic of Slovenia, No 46/04).

### 3. Fishing restrictions

On the bases of the Slovenian Nature Conservation Act (Official Journal of the RS, No 96/04) and the national Decree on protected wild animal species (Official Journal of the Republic of Slovenia, No 46/04), at all times, it is prohibited to intentionally harm, poison, kill, take from nature, hunt, catch or disturb the specimens of the European eel in Slovenia, in marine as well as inland waters.

### 4. Fisheries inspection

EU and Slovenian national provisions regarding European eel are controlled by environmental inspectors from the Inspectorate of the Republic of Slovenia for the Environment and Spatial Planning (IRSOP), fisheries inspectors from the Inspectorate of the Republic of Slovenia for Agriculture, Forestry, Hunting and Fisheries (IRSKGLR), by nature protection wardens, and regarding recreational fishing in inland waters by fishing wardens, during the course of their regular control activities.

There are no commercial eel fisheries in Slovenia (see under 3 – Fishing restrictions).

During the inspection activities in recent years, no infringements were detected related to the fishing of eel. To the knowledge of the Ministry of Agriculture, Forestry and Food, no illegal fishing gears related to the fishing of eel were detected in recent years.

### 5. Catch reporting

In accordance with the national Decree on protected wild animal species (Official Journal of the Republic of Slovenia, No 46/04), European eel is a protected animal species in Slovenia, and it is prohibited to intentionally harm, poison, kill, take from nature, hunt, catch or disturb the specimens of European eel in Slovenia.

In commercial marine fishing in general, in accordance with the national Decree on the monitoring of catches and sales of fisheries products (Official Journal of the Republic of Slovenia, No 38/16), all masters of fishing vessels have to record all catches of all species in the fishing logbooks, including catches below 50 kg of weight; this is also obligatory for all fishing vessels that are less than 10 meters of length.

In accordance with the Freshwater Fishery Act (Official Journal of the RS, No 61/06), commercial fishing in inland waters is not allowed in Slovenia.

Controls are performed during the regular activities of the Slovenian fisheries inspection from the Inspectorate of the Republic of Slovenia for Agriculture, Forestry, Hunting and Fisheries (IRSKGLR), and for inland waters by fishing wardens.

Data cross-checks regarding commercial marine fishing are performed on the basis of the provisions of

Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy – Article 109 (General principles for the analysis of data).

#### 6. Control of sales and traceability

As mentioned above, in accordance with the national Decree on protected wild animal species (Official Journal of the Republic of Slovenia, No 46/04), European eel is a protected animal species in Slovenia, and it is prohibited to intentionally harm, poison, kill, take from nature, hunt, catch or disturb it. No marketing of eel is allowed.

First sale of fisheries products is controlled by Slovenian fisheries inspection from the Inspectorate of the Republic of Slovenia for Agriculture, Forestry, Hunting and Fisheries (IRSKGLR) during the course of regular inspection activities.

The traceability of fisheries products is regulated on the basis of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, and provisions to ensure proper implementation on the national level are specified in the national Decree on the monitoring of catches and sales of fisheries products (Official Journal of the Republic of Slovenia, No 38/16).

The Ministry of Agriculture, Forestry and Food has not detected any unreported sales of eel in Slovenia. There are no specific circumstances that would make it difficult to detect or pursue such sales.

#### 7. Import and export of eel

According to Slovenian Environment Agency which works within the Ministry of the Environment and Spatial Planning which monitors the provisions regarding CITES, there were no imports of European eel into Slovenia or exports of eel from Slovenia. The respect for the provisions of CITES is controlled by environmental inspectors from the Inspectorate of the Republic of Slovenia for the Environment and Spatial Planning (IRSOP) during the course of regular inspection activities.

No suspected infringements related to CITES provisions were detected in 2016 or 2017.

There were no quantities of eel traded with other EU Member States either in 2016 or 2017.

#### 8. Enforcement

There were no suspected infringements regarding eel detected in relation to marine commercial fishing in Slovenia either in 2016 or 2017 (commercial fishing in inland waters is not allowed in Slovenia).

The Nature Conservation Act (Official Journal of the RS, No 96/04) determines fines for violations of the provisions regarding protected species in Slovenia including European eel as a protected species, for legal as well as natural persons.

Measures to prevent illegal, unreported and unregulated (IUU) fishing are implemented in accordance with Council Regulation (EC) No 1005/2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, and specified in the national Decree on the implementation of the Regulation (EC) establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing (Official Journal of the RS, No 50/16), including sanctions.

#### 9. Regulation (EC) 1100/2007 - Restocking

As European eel is a protected animal species in Slovenia in accordance with the national Decree on protected wild animal species (Official Journal of the Republic of Slovenia, No 46/04), and it is

prohibited to intentionally harm, poison, kill, take from nature, hunt, catch or disturb it, there is no restocking of European eel in Slovenia.

#### 10. Regulation (EC) 1100/2007 – Reduction of fishing effort

No fisheries of eel take place in Slovenia, as European eel is a protected animal species in Slovenia in accordance with the national Decree on protected wild animal species (Official Journal of the Republic of Slovenia, No 46/04), and it is prohibited to intentionally harm, poison, kill, take from nature, hunt, catch or disturb it.

#### 11. Regulation (EC) 1100/2007 – Allocation of fishing rights

See under point 10.

#### 13. Regulation (EC) 1100/2007 – Fishing activities

As European eel is a protected animal species in Slovenia in accordance with the national Decree on protected wild animal species (Official Journal of the Republic of Slovenia, No 46/04), and it is prohibited to intentionally harm, poison, kill, take from nature, hunt, catch or disturb it, there are no fishing vessels in Slovenia that would be authorised to fish for it.

#### 13. Recreational eel fisheries

European eel is a protected animal species in Slovenia in accordance with the national Decree on protected wild animal species (Official Journal of the Republic of Slovenia, No 46/04), and it is prohibited to intentionally harm, poison, kill, take from nature, hunt, catch or disturb it.

On the basis of the Freshwater Fishery Act (Official Journal of the RS, No 61/06), commercial fishing (angling) in inland waters is not allowed in Slovenia. Only recreational fishing takes place. In case of accidental catch of European eel during recreational fishing, the fish has to be released unharmed.

The same obligation (to release eel unharmed) is in force also for recreational marine fishing.

All recreational fishermen in Slovenia (marine and inland) need to have a (daily, weekly etc.) fishing permit.

Control is performed by environmental inspectors from the Inspectorate of the Republic of Slovenia for the Environment and Spatial Planning (IRSOP), fisheries inspectors from the Inspectorate of the Republic of Slovenia for Agriculture, Forestry, Hunting and Fisheries (IRSKGLR), by nature protection wardens, and by fishing wardens, during the course of regular inspection activities.

No infringements were detected during the course of either 2017 or 2018.

#### 14. Other

No complaints concerning eel fisheries were received by the competent authorities in 2017 or 2018.

There is no commercial or recreational eel fisheries in Slovenia, as eel is a protected animal species in Slovenia in accordance with the national Decree on protected wild animal species (Official Journal of the Republic of Slovenia, No 46/04), and it is prohibited to intentionally harm, poison, kill, take from nature, hunt, catch or disturb it.

This is because Slovenia represents only a marginal part eel areal, and eel has never been exploited commercially in Slovenia.

## 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 2019 we sampled 13 trips onboard with three different fishing gears. Set gillnets (BCD-GNS), trammel nets (BCD-GTR) and bottom otter trawls (BCD-OTB). Purse seiners were not fishing in 2019. In all of the sampling trips there were one record of by catch of birds (*Phalacrocorax aristotelis*) and none 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 birds, mammals, reptiles and fish – from the retained and discarded part of catch. 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 catch 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)

## SECTION 1: BIOLOGICAL DATA

### **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.

Slovenia takes samples and analyses the target species according to MEDITS protocol. A new list of common target species (including fish, molluscs and crustaceans) was established with reference to their commercial production, their accessibility by a bottom trawl and their potential interest as biological indicator in the different areas. It has been enlarged during the following years, particularly to include species of interest in areas newly integrated in the MEDITS survey. Observations on these species are the total number of individuals, length frequency distribution, sex (including sexual maturity stage) and total weight. The characteristics of each kind of observation are specified in the common manual of protocols. For all the other sampled species of fish, crustacean and mollusc, only the total number and total weight are reported for each haul.

During the year 2017 it was agreed by the RCG Med&BS the following:

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 métiers 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 métier 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).

For the calculation of the ecosystem indicators only data from MEDITS survey are available. Each MEDITS survey performed in Slovenian territorial waters is composed of 2 samples only, restricted to a very small geographical area (see III.G.1/Map 1). Furthermore, the number of individuals captured is usually too small for the calculations. For these reasons, the calculation of the ecosystem indicators should be performed on the regional level, covering at least GSA 17. All indicators and other results can only be calculated through the MEDITS data at a regional level. Discarding rates are calculated from logbooks and observer's trips with the fishermen.

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

NA

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

NA



### 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.

1. Objectives of the survey 1.

MEDITS survey

The aim of the survey is to monitor demersal species (spatial and temporal distribution, abundance indices) in Slovenian territorial waters following the MEDITS protocol. ([http://www.sibm.it/MEDITS%202011/docs/Medits\\_Handbook\\_2016\\_version\\_8\\_042016.pdf](http://www.sibm.it/MEDITS%202011/docs/Medits_Handbook_2016_version_8_042016.pdf)).

The survey was performed in one day with the MEDITS bottom trawl net, performing two samplings in sea fishing area of the Republic of Slovenia (Figure 1).

Survey was performed as it was planned in NP 2019. With 2 sampling stations during the same day in Slovenian territorial waters with the standard MEDITS sampling net.

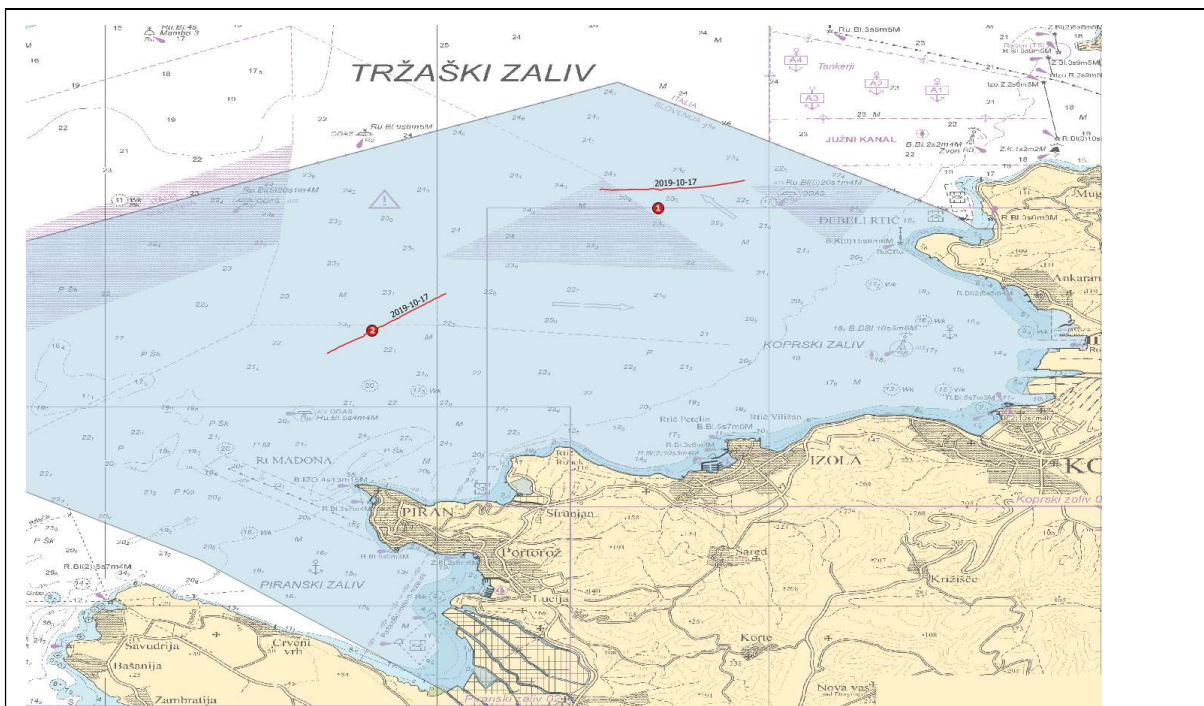
We followed the new list of MEDITS target species that is listed in the Annex 1 of this document. Taxons under the numbers of 9 and 28 – (originally on the level of genus) are expanded to the level of species in our protocol.

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

The survey was performed in one day with the MEDITS bottom trawl net, performing two samplings in sea fishing area of the Republic of Slovenia (Figure 1).

Survey was performed as it was planned in NP 2019. With 2 sampling stations during the same day in Slovenian territorial waters with the standard MEDITS sampling net. We followed the new list of MEDITS target species that is listed in the Annex 1 of this document. Taxons under the numbers of 9 and 28 – (originally on the level of genus) are expanded to the level of species in our protocol.





**Figure 1: MEDITS sampling stations in sea fishing area of the Republic of Slovenia. (Map 1; base map source: Ministry of Transport of the Republic of Slovenia).**

3. For internationally coordinated surveys, describe the participating Member States/ vessels and the relevant international group in charge of planning the survey  
 MEDITS coordinating group is responsible for planning the survey every year in the participating countries in the Mediterranean area.
4. Where applicable, describe the international task-sharing (physical and/or financial) and the cost-sharing agreement used  
 Slovenian samples are taken by the Italian research vessel ANDREA since Slovenia does not have its own research fishing vessel equipped and big enough for that purpose. After the fishing part – Slovenian samples are taken to the Fisheries research institute of Slovenia, where all other measurements according to MEDITS protocol take place. After the work results are uploaded to the required MEDITS data holders.
5. Explain where thresholds apply

(max. 450 words per survey)

6. 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.
7. 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).

MEDITS: <http://www.sibm.it/SITO%20MEDITS/principaleprogramme.htm>

8. 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.

In the international context results are updated and shared (e.g. data calls) in the standard MEDITS tables. In national context MEDITS data are used for LW relationship, L50, maturity, length distribution 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)

## 2. MEDIAS survey

The aim of the echo-survey is to monitor small pelagic species (spatial and temporal distribution, abundance indices) in Slovenian territorial waters following the MEDIAS protocol.

The survey in Slovenian waters is a small part of joint North Adriatic Echo-survey performed by Italian scientists from CNR ISMAR of Ancona (<http://www.ismar.cnr.it/>) with the research vessel G. Dallaporta each year, usually in the month of June. The survey was 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 (Figure 2). During the stops for CTD, vertical samples of plankton were also taken on both sampling stations. Common protocol as well as the participating countries and survey areas can be found at the following link: <http://www.medias-project.eu/medias/website/handbooks-menu/handbooks/MEDIAS-Handbook-April-2017.pdf/>



**Figure 1:** MEDIAS sampling transects in Northern Adriatic including Slovenian waters (Map 2; <http://www.medias-project.eu/medias/website/map/mediasmap.html>).

MEDIAS sampling transects as performed in 2019 in the sea fishing area of the Republic of Slovenia. We followed the list of MEDIAS target species:

Species code	Scientific name
PIL	<i>Sardina pilchardus</i>
ANE	<i>Engraulis encrasicolus</i>

Table 2: MEDIAS target species.

All other species are divided into:

1. other pelagic species (OPS)
2. fish without swim bladder (OPS - SVN)
3. demersal species.

MEDIAS coordinating group is responsible for planning the survey every year in the participating countries in the Mediterranean area. Slovenia is following the conclusions of the yearly regional MEDIAS coordination meetings. <http://www.medias-project.eu/medias/website/meetingrep.html> Results of the survey are incorporated in the Northern Italian MEDIAS small pelagic survey. In 2019 two pelagic trawling net samplings were performed for identifying the fish species. Both trawling samplings and echo-sounding of the planned area were completed 100%.

### 3. SOLEMON survey

The SOLEMON project was launched by the Slovenian Fisheries Institute in 2005 and is recently a part of Slovenian national plan. It operates under the aegis of the international project that is co-ordinated by the Institute of Marine Research of Ancona (ISMAR), the Institute of Oceanography and Fisheries of Split and the Fisheries Research Institute of Slovenia.

The sole (*Solea solea*, Linnaeus, 1758) is one of the most important commercial demersal fishing species in the Mediterranean region, especially in the northern Adriatic.

The research is designed as a scientific expedition on the sea, carried out annually by the Italian research vessel G. Dallaporta. The expedition is performed in the autumn period, usually in November or December, at 62 sampling points. One of the sampling station lies in the Slovenian sea. At each sampling station, two hauls with a 3.5 meter broad beam trawl are carried out for a duration of 5 minutes.

The entire catch is immediately sorted:

- All specimens of commercial species (including cephalopods and crustaceans) are measured and weighed and, where possible, gender and sexual maturity are determined.
- The target species are measured, weighed, determined by sex and sexual maturity, otoliths are isolated and samples for genetic analysis are taken.
- Specimens of non-commercial species are counted and weighed as a whole sample.
- Other organisms (benthos) are determined by species, counted and weighed as a whole sample; In the case of a large quantity of benthos, a more detailed analysis is carried out on a three-kg sub-sample.

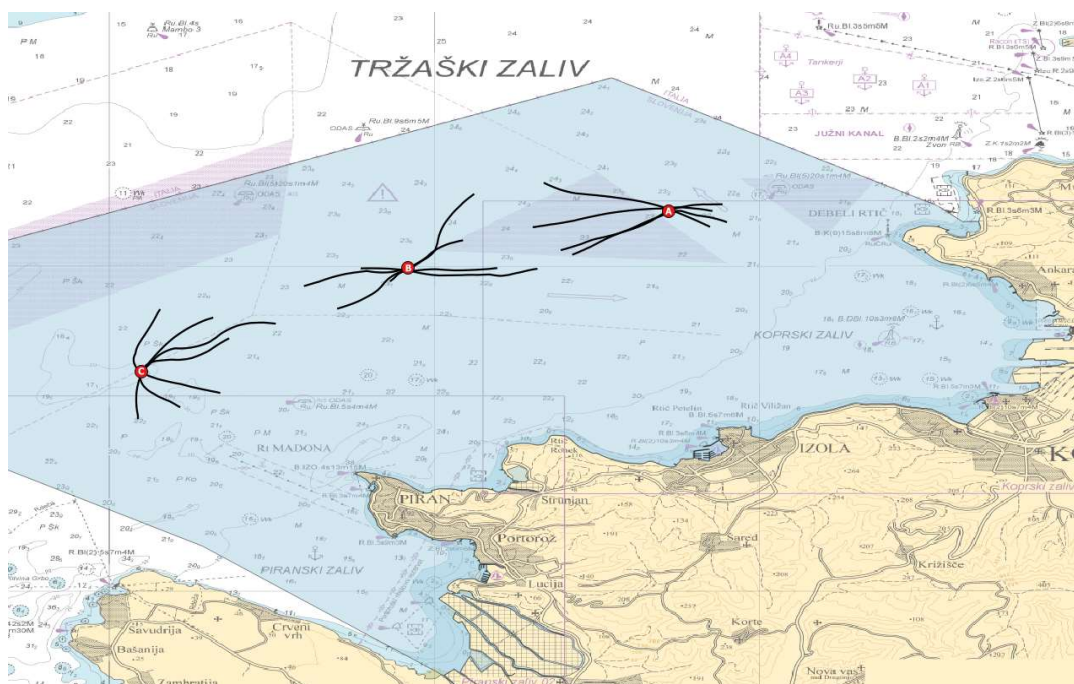


**Figure 3:** SOLEMON sampling station in Slovenian waters (Map 3; base map source: Ministry of Transport of the Republic of Slovenia).

On the basis of the obtained data, an assessment of the state of sole and some other important marine stocks in the GSA 17 area is carried out and presented annually. In addition, the data obtained through the project are published in several scientific articles and presented at international conferences. Slovenia participates in the project with the annual participation of our scientists on expedition (onboard) and cooperation in the processing of data and publications.

#### 4. MONITORING OF FISHERIES RESOURCES WITH OTTER BOTTOM TRAWL IN THE FISHING SEA OF THE REPUBLIC OF SLOVENIA

Objective of the survey is monitoring fisheries resources in the Slovenian territorial waters. The survey is running independently in Slovenia from 1995. It is performed quarterly by bottom trawling in the length of 1 Nm through three points in the the Slovenian territorial waters. Sampling is performed by Fisheries Research Institute of Slovenia and conducted with hired fishing vessel 4-times per year (quarterly) at the three sampling stations in Slovenian waters (in total 12 hauls). All fish species, cephalopods and crustaceans are determined, measured and also examined for sexual maturity. Along with the caught fish, all benthic organisms are also documented by species, abundance and weight.



**Figure 4:** Monitoring of fisheries resources with otter bottom trawl in the fishing sea of the Republic of Slovenia (Map 4; base map source: Ministry of Transport of the Republic of Slovenia).

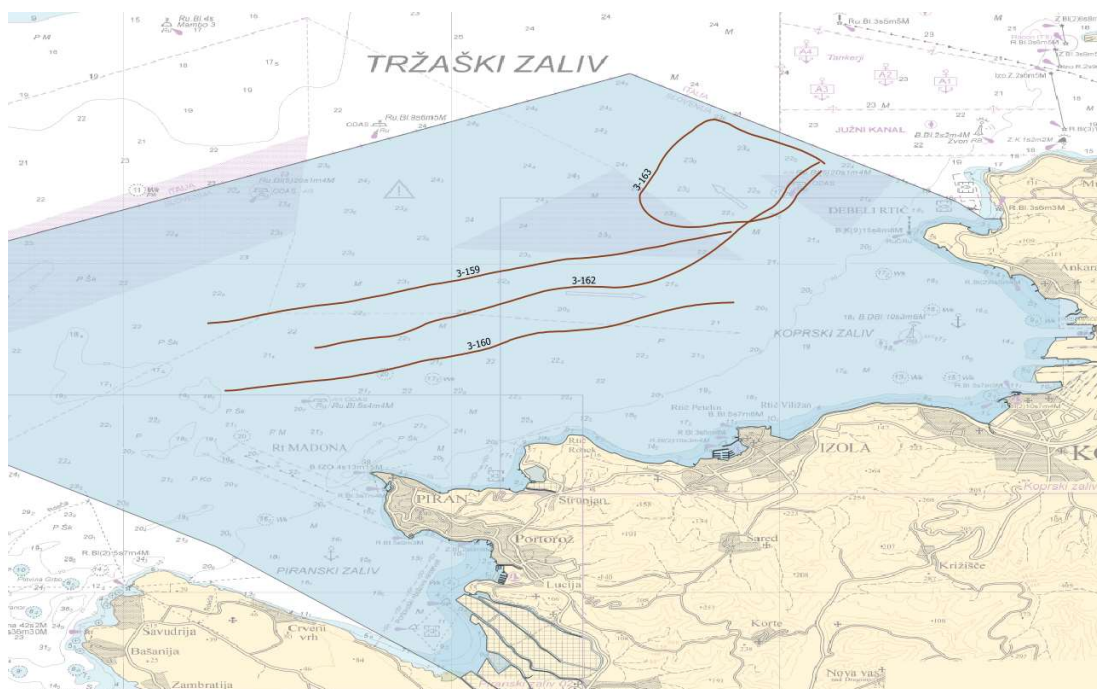
Results of the survey are used for monitoring of the seasonal and other fluctuations of marine fisheries resources that Slovenian fisheries are facing all the time and are strongly depending on them. There is also an overview of long term monitoring of changes in the Slovenian territorial waters, which is possible because of the fact that the survey is running already from 1995. 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.

##### 5. 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

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 will 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.

The survey is running independently in Slovenia for the purpose of the proposed derogation. Survey is performed by bottom trawling in the length of normal trawling haul by fisherman, inside of the 1,5 - 3 Nm area of Slovenian territorial waters. All fish species are determined, measured and weighted. Retained catch and discard also. Along with the fish, discarded benthic organisms are also documented by species, abundancy and weight. Sampling is performed by Fisheries Research Institute of Slovenia and conducted with hired fishing vessel 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 trawlers mainly fishing in the zone between 1,5 Nm and 3 Nm.



**Figure 5:** 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 (Map 5; base map source: Ministry of Transport of the Republic of Slovenia).

Results of the survey are used for the proposed derogation by Slovenia for possible trawling inside 1,5 - 3 Nm area of Slovenian territorial waters. Without that derogation, Slovenian bottom trawlers would be strongly limited by the 3 Nm rule, to the narrow area between transport paths of cargo ships close to the Italian sea border.

### 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 all registered vessels of reference year. Data are collected under 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 is 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. There were two data sources used: Fleet Vessel Register data and Logbook data.

Effort data is collected for all vessels active at any point in time of the reference year. The data is collected from the logbooks. All Slovenian vessels, also those under the 10 meters, are obligated to submit the logbooks.

The target populations for the landing data are all vessels from the Slovenian Fleet (also those under 10 meters LOA). The data is collected from the logbooks, sales notes and questionnaires.

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

The prices of fish are 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 is 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 is collected from the logbooks, while the price of the fish is collected from the sales notes and or through the use of a survey questionnaire.

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

There was no specific action taken for vessels under 10 meters. The same applies to vessels under 10 meters LOA.

#### 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 are collected from sales notes and/or 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 is collecting complete sets of data for all fishing vessels (also for vessels under 10 meters) so no other methodologies for collecting the complementary data is in place.

(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.

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.

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

No deviation recorded

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

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 used to estimate the average price.

No deviation recorded

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

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 used to plan collection of the complementary data

List the deviations (if any) 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.



(max 900 words per Region)



## SECTION 3: ECONOMIC AND SOCIAL DATA

### **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 rang 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 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)



**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

- To test the research process and protocol.
- To identify variables of interest and decide how to operationalize each one.
- To test an intervention strategy and identify the components that are most important to the facilitation of the intervention.
- To test methodological changes to implementation or administration of an instrument and train personnel on the administration of instruments.
- To develop and test the efficacy of research instruments and protocols.
- To estimate statistical parameters for later analyses.

2. Duration of pilot study

Duration of the pilot study is estimated at one year.

3. Methodology and expected outcomes of pilot study

Pilot studies will be based on quantitative and qualitative methods. The first phase of a pilot will involve in-depth interviews with focus groups to establish the issues to be addressed in a large-scale questionnaire survey. Next the questionnaire, e.g. the wording and the order of the questions, or the range of answers on multiple-choice questions, will be piloted. A final pilot will be conducted to test the research process, e.g. the different ways of distributing and collecting the questionnaires. The main participants in the research will be fisherman, Employment Service of Slovenia and Pension and Disability Insurance Institute of Slovenia.

One of the outcomes of a pilot study is that it might give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated. The pilot study will also give an answer of feasibility of the research.

(max 900 words)

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

Through the pilot study we achieved all the expected results. No deviation recorded, so that Slovenia has all the required social data.

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 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 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

- To test the research process and protocol.
- To identify variables of interest and decide how to operationalize each one.
- To test an intervention strategy and identify the components that are most important to the facilitation of the intervention.
- To test methodological changes to implementation or administration of an instrument and train personnel on the administration of instruments.
- To develop and test the efficacy of research instruments and protocols.
- To estimate statistical parameters for later analyses.

#### 2. Duration of pilot study

Duration of the pilot study is estimated for the duration of one year.

#### 3. Methodology and expected outcomes of pilot study

Pilot studies will be based on quantitative and qualitative methods. The first phase of a pilot will involve in-depth interviews with focus groups to establish the issues to be addressed in a large-scale questionnaire survey. Next the questionnaire, e.g. the wording and the order of the questions, or the range of answers on multiple-choice questions, will be piloted. A final pilot will be conducted to test the research process, e.g. the different ways of distributing and collecting the questionnaires. The main participants in the research will be marine aquaculture enterprises and Veterinary Administration of the Republic of Slovenia (VARs).

One of the outcomes of a pilot study is that it might give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated. The pilot study will also give an answer of feasibility of the research.

(max 900 words)

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

Through the pilot study we achieved all the expected results. No deviation recorded, so that Slovenia has all the required social data.

#### 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)

## SECTION 4: SAMPLING STRATEGY FOR BIOLOGICAL DATA FROM COMMERCIAL FISHERIES

### 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.

#### 1. Description of the sampling plan according to Article 5 paragraph (3) of the Decision (EU) 2016/1701

Stratum BVI-PS under the scheme small pelagic on-shore was not sampled due to inactivity of PS fleet. Stratum BCD-GNS under the scheme demersal at-sea was sampled. The number of samplings was lower due to difficulties with combining fishing season, appropriate weather conditions and availability of experts. We have achieved 25% coverage.

Stratum BCD-GTR under the scheme demersal at-sea was sampled. The number of samplings was lower due to difficulties with combining fishing season, appropriate weather conditions and availability of experts. We have achieved 37.5% coverage.

Stratum BCD-OTB under the scheme demersal at-sea was sampled. We have achieved 100% coverage.

Stratum BCD-OTBVOL under the scheme demersal at-sea was sampled. Samplings were performed in area between 1.5 and 3.0 nautical miles from the coast where according the derogation fishing is allowed with OTBVOL "volantina". We have achieved 100% coverage.

Stratum BCD-PS under the scheme small pelagic at-sea was not sampled due to inactivity of PS fleet.

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

#### 2. 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.

Stratum BVI-PS under the scheme small pelagic on-shore was not sampled due to inactivity of PS fleet. Stratum BCD-GNS under the scheme demersal at-sea was sampled. The number of samplings was lower due to difficulties with combining fishing season, appropriate weather conditions and availability of experts. This was also influenced by seasonality. GNS fisheries in Slovenian territorial waters is depending on migratory fish, therefore we have a very seasonal operating fleet that changes types of nets during the calendar year.

Stratum BCD-GTR under the scheme demersal at-sea was sampled. The number of samplings was lower due to difficulties with combining fishing season, appropriate weather conditions and availability of experts. This was also influenced by seasonality. GTR fisheries in Slovenian territorial waters is depending on migratory fish, therefore we have a very seasonal operating fleet that changes types of nets during the calendar year. For example captains only fish with trammel nets for approximately 2-2.5 months (Common sole season).

Stratum BCD-OTB under the scheme demersal at-sea was sampled.



Stratum BCD-OTBVOL under the scheme demersal at-sea was sampled. Samplings were performed in area between 1.5 and 3.0 nautical miles from the coast where according the derogation fishing is allowed with OTBVOL "volantina".

Stratum BCD-PS under the scheme small pelagic at-sea was not sampled due to inactivity of PS fleet.

### 3. 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.

For improving 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 and Slovenia is also recording response rate from captains, contacted regarding the sampling.

(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/](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.

#### 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.

#### 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)



## SECTION 5: DATA QUALITY

### Text Box 5B: Quality assurance framework for socioeconomic data

General comment: This box fulfills Article 5 paragraph (2) point (b) of the Decision (EU) 2016/1701. This box is intended to specify data to be collected under Tables 5(A), 6 and 7 of the multiannual Union programme. Use this box to provide additional information on Table 5B.

#### 1. Evidence of data quality assurance

Within this section MS 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 sector (Fishing fleet, Aquaculture, Fish processing) for which data was collected and by each data collection scheme. In the case where the same quality assurance framework is applied to all sectors or/and all data collection schemes, information can be provided at general level with the indication “all sectors” or “all data collection schemes”.

In those sections of Table 5B 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 document 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 socioeconomic data collected is described in respective chapters of the Annual report:

- Text Box 3A: Population segments for collection of economic and social data for fisheries
- Pilot Study 3: Data on employment by education level and nationality
- Text Box 3B: Population segments for collection of economic and social data for aquaculture
- Pilot Study 4: Environmental data on aquaculture
- Text Box 3C: Population segments for collection of economic and social data for the processing industry

The data collected from all sources are combined in such a way that a complete set of data is compared for each individual subject. The target population is always the entire sector in Slovenia, because all sectors are relatively small. A survey (questionnaire, with personal contact) is carried out on an annual basis to provide data on all the parameters. Data is collected on the whole population. 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%

Data collection follows all relevant methodologies, guidelines and best practices agreed. 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.

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.

Documentation is available at the Fisheries Research Institute of Slovenia and in Work Plans (WP) and Annual Reports (AR). Documentation on data collection is available on the following web page: [http://www.ribiski-sklad.si/lzvajanje\\_skupne\\_ribiske\\_politike/Zbiranje\\_podatkov/](http://www.ribiski-sklad.si/lzvajanje_skupne_ribiske_politike/Zbiranje_podatkov/)

2. Section P3 Impartiality and objectiveness

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

NA

3. Section P4 Confidentiality

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

NA

4. Section P5 Sound methodology

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

Information on this principle should be briefly explained in Text boxes 3A, 3B and 3C. Description of methodologies used on data quality.

NA

5. Section P6 Appropriate statistical procedures

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

NA

6. Section P7 Non-excessive burden on respondents

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

NA

7. Section P8 Cost effectiveness

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

NA

8. Section P9 Relevance

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

NA

9. Section P10 Accuracy and reliability

Explain main constraints and/ or steps taken, if 'N' (no) was indicated in Table 5B. Information on this principle should be briefly explained in Text boxes 3A, 3B and 3C. Description of methodologies used on data quality.

NA

10. Section P11 Timeliness and punctuality

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

NA

11. Section P12 coherence and comparability

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

NA

12. Section P13 Accessibility and Clarity

Explain main constraints and/ or steps taken, if 'N' (no) was indicated in Table 5B. Information and links to documentation on this principle should be briefly explained in Text boxes 3A, 3B and 3C. Description of methodologies used on data quality.

NA

(max. 900 words per Region/RFMO/RFO/IO/NSB OR sector)