

Ministry of Agriculture of the Czech Republic

Department of the Civil Service of Forest, Game management and Fishery

**Regulation (EU) 2017/1004 of the European Parliament and of the
Council of 17 May 2017**

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 Delegated Decision (EU) 2021/1167 of 27 April 2021

establishing the multiannual Union programme for the collection and management of biological, environmental, technical and socioeconomic data in the fisheries and aquaculture sectors from 2022

**Commission Implementing Decision (EU) 2021/1168 of 27 April
2021**

establishing the list of mandatory research surveys at sea and thresholds as part of the multiannual Union programme for the collection and management of data in the fisheries and aquaculture sectors from 2022

**Commission Implementing Decision (EU) 2022/39 of 12 January
2022**

laying down rules on the format and timetables for the submission of national work plans and annual reports for data collection in the fisheries and aquaculture sectors, and repealing Implementing Decisions (EU) 2016/1701 and (EU) 2018/1283

Czech Republic

**Annual Report on data collection in the
fisheries and aquaculture sectors**

2022

Version [3]

[Prague, 31.5.2023]

CONTENTS

SECTION 1: GENERAL INFORMATION	4
SECTION 6: ECONOMIC AND SOCIAL DATA IN AQUACULTURE	8
ANNEX 1.1 - QUALITY REPORT FOR BIOLOGICAL DATA SAMPLING SCHEME	10
ANNEX 1.2 - QUALITY REPORT FOR SOCIOECONOMIC DATA SAMPLING SCHEME	15

SECTION 1: GENERAL INFORMATION

Data collection framework at national level

General comment: Use this text box to describe how data collection is organised in your Member State (institutions involved, contact information) and in which regional coordination groups (RCG) your Member State participates.

Outline the general framework of the national data collection programme in relation to the relevant sections of the EU MAP. If applicable, indicate major methodological changes in approach compared to previous year(s), and to which section(s) they apply.

The Czech Republic does not change its position and approach within the general framework of the national data collection program in relation to the relevant sections of the EU MAP. These are therefore two basic pillars and a emerging third. Firstly, the collection of socio-economic data in aquaculture. Secondly, the collection of data on catadromous fish species (eel). The third complementary pilot pillar is the emerging environmental data collection system in aquaculture.

Give full name, acronym and contact details of all institutes that contribute to the data collection activities, and describe briefly their role in the work plan.

Coordination:

Institute of Agricultural Economics and Information, IAEI, Manesova 75, 120 00 Prague 2 – organisation of data collection of Social variables for the fishing and aquaculture sectors (Commission Delegated Decision EU 2021/1167; Table 9) and Economic variables in the aquaculture sector (Commission Delegated Decision EU 2021/1167; Table 10 in the segmentation for the collection of aquaculture data (Commission Delegated Decision EU 2021/1167; Table 11).

Ministry of Agriculture of the Czech Republic, MA, Tesnov 65/17, 110 00 Prague 1 – organisation of data collection focused on catadromous fish species (eel) – data collection of catadromous species (Commission Delegated Decision EU 2021/1167; Table 3).

Cooperation:

The Czech Anglers Union, CAU, Nad Olsinami 282/31 100 00 Prague 10 – preparation especially of environmental data collection focused on freshwater aquaculture – data collection of environmental variables.

The Czech Anglers Union (CAU), in cooperation with the Moravian Anglers Union (MAU), is preparing an information system (Angling Information System - AIS). The AIS is going to serve primarily for internal needs of CAU and MAU and should be include a platform for the data collection of catadromous fish species (especially European eel and other fish species living in fishing grounds), for the data collection of socioeconomic aquaculture data and environmental data collection in aquaculture. AIS will be consisted also data about non-commercial recreational fisheries. Data will be collected from members of both unions. All activities of CAU and MAU will be coordinated by National Correspondent of the Czech Republic.

Provide a link to the national data collection website, if there is one.

<https://akvanavigator.cz/en/>

(max. 1000 words)

Text Box 1b: Other data collection activities

General comment: Use this text box to provide information on other data collection activities that relate to your EMFAF operational programme and need to be included in the work plan and the annual report. Describe activities that are funded by the DCF but fulfil objectives under other EMFAF priorities, like marine knowledge, or activities funded by the DCF, but without a direct link to the EU MAP specific requirements or WP template tables, like freshwater fisheries. You can also include one-off specific studies for a particular end-user need that do not enter the regular data collection.

1. Aim of the data collection activity

To create and test a platform (AIS – Angling Information System) for future data collection, especially data collection of catadromous fish species (especially European eel and other fish species living in fishing grounds), for the data collection of socioeconomic aquaculture data and environmental data collection in aquaculture, including data about non-commercial recreational fisheries. Data about non-commercial recreational fisheries provide the information about eel (f. e. the better information about stocking, catches and so about catch per unit effort.) and about other fish species occurring in rivers (f. e. carp, trout family, bighead carp, rheophilic fish, etc). These data provide important information especially for the needs of the Ministry of Agriculture, but data will be also reported to the European Commission within the EU MAP. For example, data about non-commercial recreational fisheries provide information about fish migration, activities of fishing inspections to anglers fishing the eel and other fish species. Information about non-commercial recreational fisheries will serve for better management in fishing grounds and better national scientific advice.

2. Duration of the data collection activity

The development and subsequent testing of the AIS system has already started in 2021 and will take place in 2022. In 2023, a pilot operation of the system is expected. Start operations are expected in the year 2024, however, this will be the first year in using of AIS system, when complications cannot be ruled out. Year 2024 should provide full and reliable set of data - therefore, the intention is to commit in the Work Plan to the first collection in 2025 (referencing to year 2024).

3. Methodology and expected outcomes of the data collection activity

The methodology of data collection will be based on direct data collection from members of the Czech Anglers Union and the Moravian Anglers Union, through AIS. The expected outputs will be set of values of socio-economic data according to the EU MAP from members of the Czech Anglers Union and the Moravian Anglers Union with aquaculture production. This will complement the main collection of socio-economic data organized by the IAEI.

(max 900 words per activity)

Brief description of the results (including deviations from the plan and justifications as to why if this was the case).

In 2022, all steps leading to the future launching AIS system were fulfilled according to a valid work plan. In the first quarter of 2022, the contract with a competitive supplier has been signed; the detailed analysis was finished in the third quarter of 2022. The process of programming was launched in December 2022, with an expected finish of this project phase in May 2023. During the year 2022 preparations for launching related tenders have been made as well.

During the year 2022, the Czech Anglers Union decided to provide all funding for the AIS system from its own resources, therefore no European funds will be draw on this purpose. This change results in the fact that the

AIS system will no longer be perceived as a fixed part of the planned data collection in the Czech Republic, but the involvement of the AIS system will be on a voluntary basis for the Czech Anglers Union.

However, this change of strategy by the Czech Anglers Union does not threaten the regular collection of socioeconomic data organized by the Institute for Agricultural Economics and Information.

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

All given goals in 2022 have been fulfilled, from the perspective of scope of work and adherence to the time schedule.

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

Due to the change in the financing strategy of the AIS system, its actual involvement will remain on a voluntary basis by the Czech Anglers Union. For this reason, the project AIS system of the Czech Anglers Union is no longer an official part of the planned data collection.

(max. 900 words per study)

Text Box 2.3: Diadromous species data collection in freshwater

General comment: This text box fulfils Article 5(2)(a), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapter II point 2.1(b) and point 2.3 of the EU MAP Delegated Decision annex. Use this text box to give an overview of the methodology used to collect data from freshwater and inland commercial and recreational fisheries for salmon, sea trout and eel. Also include overview of data to be collected from research surveys on salmon, sea trout and eel in freshwater, and on eel in any relevant habitat including coastal waters.

Method selected for collecting data.

European eel (*Anquilla anquilla*):

The Czech Republic plans to ensure the requirements following from regulation no. 1100/2007/EC:

- revision of the Czech eel management plan based on current scientific knowledge,
- information about eel population (especially monitoring of migration)

Support of international cooperation, especially with colleagues from neighboring states.

Salmon (*Salmo salar*) – the Czech Republic does not plan the data collection in the case of salmon.

Sea trout (*Salmo trutta*) – there is no proven presence of this species in the Czech Republic.

Describe briefly the method for collecting the variables presented in Table 2.3. Detailed descriptions are to be included in Annex 1.1. If variables are not directly collected but estimated the method of estimation should be described here.

Revision of the Czech eel management plan based on current scientific knowledge

The output of this revision will be the new Czech eel management plan created in accordance with the regulation no 1100/2007.

Information about eel population (especially monitoring of migration)

Information about eel population will be collected especially by biotelemetry method in EMU area of river basin Labe and Odra. The data evaluation will be performed by the standard method (f. e. by methods in MS EXCEL). The main goal will find out the level of eel escapement. The output of this monitoring will be a report of eel escapement to the requirement of the regulation no. 1100/2007. The report will also include an assessment of the recreational fisheries – the evaluation will be based on data collected according national legislation (data about catches and stocking) and evaluation on the basis of amount of financial costs related to restocking. The monitoring of silver eel escapement will be realized by biotelemetry methods in EMU Labe and Odra. The study will not include the information about standing yellow eel population – this aim will be solved in future research. In the Czech Republic is realised only the non-commercial freshwater recreational fisheries and has no impact to commercial interests. From this reason, the information about eel catches are collected only from non-commercial freshwater recreational fisheries and aquaculture.

(max 250 words per species and area)

Were the planned numbers achieved? Yes/ No

Yes. The Czech Republic planned to carry out in 2022:

- revision of the Czech eel management plan based on current scientific knowledge,

- information about eel population (especially monitoring of migration).

Revision of the Czech eel management plan based on current scientific knowledge

Document: *Management plan for the European eel (Anguilla anguilla) in the Czech Republic* was created by the T. G. Masaryk Water Research Institute in 2022 on the basis contract number 789/2021-1632, the number of project: CZ.10.3.106/3.1/0.0/17_010/0001438.

Information about eel population (especially monitoring of migration)

Information about eel population are collected on the basis of an ongoing project: *Monitoring of european eel migration in the Czech Republic*. Project was started in 2022, the number of project: CZ.10.3.106/3.1/0.0/17_010/0001443. Preliminary results are expected in July 2023. The end of the project is planed in 2024.

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

(max 250 words per species and area)

SECTION 6: ECONOMIC AND SOCIAL DATA IN AQUACULTURE

Text Box 6.1: Economic and social variables for aquaculture data collection

General comment: This text box fulfils Article 5(2)(e), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004, and Chapter II point 6 of the EU MAP Delegated Decision annex. It is intended to specify data to be collected under Tables 10 and 11 of the EU MAP Delegated Decision annex.

In the Czech Republic is the long term total freshwater fish production approximately 20 000 tons per year and the aquaculture production is realized mainly in the ponds.

The carp is the most frequently farmed fish produced in the long term amount of 17 500 tons per year (88 % of the species production). Salmonids and other fish species are produced in the volume under 5 % Czech species aquaculture production, it means they are under the threshold. The main production method of carp in the Czech Republic is breeding in a polycultural pond stock.

All economic variables according to Table 10 will be collected and interpreted at the enterprise level and will cover the full range of fish kept in polycultural pond stocks.

A simplified methodology, such as the extrapolation method, will be used to estimate the results of socio-economic variables.

1. Description of the threshold application

Please provide a percentage for the Member State's production from the latest EU aquaculture production reported to EUROSTAT.

The share of Czech aquaculture production of EU aquaculture production according to EUROSTAT is 1,88 % (2019). This threshold is used in the planned data collection of socio-economic variables.

2. Deviation from the RCG ECON (ex. PGECON) definitions

Describe and justify any deviations from variable definitions as listed in the 'EU MAP Guidance Document' on the DCF website.

No deviations from variable definitions listed in the EU MAP Guidance Document.

(max. 900 words)

Deviations from the work plan

No deviations from the work plan.

Actions to avoid deviations

No actions because of no devitaions from the work plan.

(max. 900 words)

ANNEX 1.1 - QUALITY REPORT FOR BIOLOGICAL DATA SAMPLING SCHEME

The quality report fulfils Article 6(3)(d) of Regulation (EU) 2017/1004. This document is intended to specify data to be collected under Chapter II, point 2 of the EU MAP Delegated Decision annex: Biological data on exploited biological resources caught by Union commercial and recreational fisheries.

Use this document to state whether documentation in the data collection process (design, sampling implementation, data capture, data storage, sample storage and data processing) exists and identify where this documentation can be found. Provide short descriptions where indicated, even if the documentation can be found in English. Names of sampling schemes and strata shall be identical to those in Tables 2.2, 2.3, 2.4, 2.5, 2.6 and 4.1 of the WP/AR. For quality information on scientific surveys, use the survey acronym as a sampling scheme identifier. For mandatory surveys, refer to Table 1 of the EU MAP Implementing Decision annex, see also MasterCodeList 'Mandatory survey at sea'.

(Sampling scheme identifier: Please indicate and update the table of content)

MS: The Czech Republic
Region: Other Regions
Sampling scheme identifier: The monitoring of silver eel escapement
Sampling scheme type: Diadromous (scientific)
Observation type: Self-water body
Time period of validity: 2022 - 2024
Point 1: revision of Czech Plan management – from 2021 until 2023 Point 2: monitoring of catadromous migration – from 2022 until 2024 Point 3: support of international cooperation – in the period 2022 – 2024 Point 1: The revision of Czech Plan management will be created on the basis of requirements EC directive 1100/2007. Point 2: Monitoring of silver eel escapement outside the territory of the Czech Republic, including the assessment of impact of the recreational fisheries on eel population (the evaluation of data about eel stocking and eel catches)The monitoring will be realized by biotelemetry methods in the EMU Labe and Odra. Point 3: Joint meeting of experts and state bodies (f. e. transboundary management, data exchange)
Description of the population
Population targeted: Specify which are the primary sampling units (PSU), <i>e.g. all national port*days (information present in former Table 4B)</i>. For research surveys: specify the main target species from a survey perspective (as opposed to Table 1 in the Annex to the Implementing Decision) and the main survey area. The main target fish species is eel, especially in the international river basins Labe and Odra. Population sampled: Specify which part of the target population will be sampled and specify which part of the target population is unreachable for sampling or excluded for some reason to explain, <i>e.g. major ports being listed as auctions excluding all minor ports and no sampling during the week-ends</i>. For research surveys at sea describe target species in single-species surveys or ecosystem component (<i>e.g. demersal, pelagic</i>) in multispecies surveys. The research will be focused mostly on the silver eel categories.

Stratification: Explain the logic taken to stratify the population and the number of strata generated, e.g. population stratified in 3 geographical lots (from A to B, from B to C and from C to D). Each lot is then stratified by auction.

Native area of eel distribution cover to international river basin Labe and Odra. The research will be primarily focused on the EMU area of river basin Labe (f. e. Labe, Berounka, Sázava river) and Odra (f. e. Odra, Opava, Olše river).

AR comment: No deviations from the Work Plan. The project is still ongoing.

Sampling design and protocols

Sampling design description: Describe how the sampling allocation is defined; how PSUs and SSUs are selected for sampling; indicate for which catch fraction the sampling scheme applies.

Point 2: Research will be focused on the silver eel population in the EMU area of river basin Labe and Odra.

Is the sampling design compliant with the 4S principle?: Y/N/NA (NA for e.g. surveys and diadromous and recreational sampling schemes)

NA

Regional coordination: Indicate if the sampling design and protocols were developed as part of a regional or multi-lateral agreement, and if yes, refer to the agreement (table 1.3) and list all participating Member States.

NO

Link to sampling design documentation: Provide a link to a webpage where the documentation can be found. If no link is available, but documentation exists, provide a literature reference (author(s), year and type of publication - e.g. internal report). If no documentation on the sampling design exists, provide some details in the textbox.

Binding conditions will be specified in the contract. The research will be similar as in 2012 -2013. The Czech Republic provided the Commission the complete final report, including the methodology.

Compliance with international recommendations: Indicate 'Y' (yes) if the sampling design is in line with international recommendations, and 'N' if not. If no relevant expert or coordination groups exist, the sampling design should be shortly explained in the text, and should be available upon request for the evaluators.

YES

Link to sampling protocol documentation: Provide a link to a webpage where the documentation can be found. If no link is available, but documentation exists, provide a literature reference (author(s), year and type of publication - e.g. internal report). If no documentation on the sampling design exists, provide details of the sampling protocol in this textbox.

The results of planned activities will be sent the Commission on the basis of requirements EC directive 1100/2007. The individual documents will be available on the request at the Ministry of Agriculture, Department of fisheries (contact person: Petr Chalupa, petr.chalupa@mze.cz). The research will be similar as in 2012-2013. The Czech Republic provided the Commission the complete final report, including the methodology.

Compliance with international recommendations: Enter 'Y' (yes) if the sampling protocol is in line with international recommendations, and 'N' if not. If no relevant expert or coordination groups exist, the sampling protocol should be shortly explained in the text, and should be available upon request for the evaluators. NO
AR comment: No deviations from the Work Plan. The project is still ongoing.
Sampling implementation
Recording of refusal rate: Indicate 'Y' (yes), 'N' (no), or 'NA' (not applicable, in case of research surveys). If 'N' (no), indicate when (year) documentation will be available. NA
Monitoring of sampling progress within the sampling year: Indicate how sampling allocations are adjusted (if needed) and followed-up. What mechanisms are in place to resolve issues and adopt mitigation measures during the sampling year? Monitoring of sampling progress is set by individual contracts. The contraction authority will be fully responsible for the transmission of scientifically based and relevant results.
AR comment: No deviations from the Work Plan. The project is still ongoing.
Data capture
Means of data capture: Short description (+ optional photo). Indicate what are the means for collecting the data, e.g. scales, measuring board, dedicated software, ... Point 2: monitoring of eel migration outside the territory of the Czech republic will be performed by biotelemetry. The conditions of biotelemetry will be stated by the individual public procurement. The solver (contractor) of the public contract will be responsible for the quality and statistical evidence of the data. The length and weight will be determined for each tagged individuals. The information about eel stocking and eel catches will be evaluated by the standart statistical methods. The Czech republic has the information about the level of eel stocking and amount of eel catches in the each fishing ground in the individual years, i. e. there are more than 2000 fishing grounds in the CZ. The level of stocking and catches will be compared between EMU region and NON-EMU region.
Data capture documentation: Provide a link to a webpage where the documentation can be found. If no link is available, but documentation exists, provide a literature reference (author(s), year and type of publication - e.g. internal report). If no documentation on data capture (e.g. measuring protocols, maturity staging, manual for the data capture, etc.) exists, provide some details in the textbox. Outputs of planned activities will be the final studies and meetings.
Quality checks documentation: Indicate with 'Y' (yes) or 'N' (no). If 'N' (no), indicate when (year) documentation will be available. Provide a link to a webpage where the documentation can be found. If no link is available, but documentation exists, provide a literature reference (author(s), year and type of publication - e.g. internal report). If no documentation on the quality checks exists, provide some details in the text box. NO – the quality checks documentation will be set by conditions in public contracts and approved by review process.
AR comment: No deviations from the Work Plan. The project is still ongoing.
Data storage

National database: Provide the name of the national database, if applicable. Otherwise, insert 'NA' (not applicable). Provide a link if the database is accessible through a website.

NA. Outputs of planned activities will be the evaluation studies (f. e. the main results of point 2) and meetings. The final studies will be available on the www.eagri.cz

International database: Provide the name of the international database(s) and the organisation hosting the database, if applicable. Otherwise, insert 'NA' (not applicable). Provide a link if the database is accessible through a website.

NA.

Quality checks and data validation documentation: Provide a link to webpage where the documentation can be found. Otherwise, provide some details in the text box.

NA. The quality checks will be ensured by the conditions of public contracts.

AR comment: No deviations from the Work Plan. The project is still ongoing.

Sample storage

Storage description: Indicate the type of soft tissues and hard parts stored (e.g. age structures, stomach, plankton, genetics) and the location used for storing samples; how long the samples are stored; how conservation and maintenance as well as access to samples are organised; whether the samples are stored under the auspices/responsibility of an international organisation and, if yes, which one. Provide a link to information on quantities of sampled stored by species/stock, geographic sub-area and by year.

Monitoring activities use mostly non-invasive methods. If the sample storage is needed it is up to responsible research institutions.

Sample analysis: Provide a brief description or references to documents, including links to webpages (e.g. age reading manuals, EGs reports and protocols) if appropriate, where information on the processing of the samples is provided.

NA

AR comment: No deviations from the Work Plan. The project is still ongoing.

Data processing

Evaluation of data accuracy (bias and precision): Indicate with 'Y' (yes) or 'N' (no). If 'N' (no), indicate when (year) documentation will be available. Provide a link to a webpage where the documentation can be found. If no link is available, but documentation exists, provide a literature reference (author(s), year and type of publication - e.g. internal report). If no documentation on the evaluation of data accuracy exists, provide some details in the textbox.

The Czech Republic does not plan to create some documentation on the evaluation of data accuracy. The outputs of activities (Point 1 and 2) will be the studies with the final results. The contract supplier will be responsible for data accuracy.

Editing and imputation methods: Indicate 'Y' (yes) or 'N' (no). If 'N' (no), indicate when (year) documentation will be available. Provide a link to a webpage where the documentation can be found. If no link is available, but documentation exists, provide a literature reference (author(s), year and type of publication - e.g. internal report). If no documentation on the editing and imputation methods exists, provide some details in the textbox.

The Czech Republic does not plan to create some documentation on the editing and imputation methods. The outputs of activities (Point 1 and 2) will be the studies with the final results. The contract supplier will be responsible for editing and imputation methods.

Quality document associated to a dataset: *Has a publication digital object identifier (DOI) been created? Is there a document summarising the estimation process that has been followed?*

NA

Validation of the final dataset: *How are datasets validated (quality checked) before being provided to the end user?*

The outputs of activities (Point 1 and 2) will be the studies with the final results. Data validation will be provided by the supplier.

AR comment: No deviations from the Work Plan. The project is still ongoing.

ANNEX 1.2 - QUALITY REPORT FOR SOCIOECONOMIC DATA SAMPLING SCHEME

The quality report fulfils Article 6 (3) (d) of the Regulation (EU) 2017/1004. This document is intended to specify data to be collected under chapter II, points 3, 5, 6, and 7 of the Delegated Decision annex: Socioeconomic data on fisheries, aquaculture and any complementary data collection of fishing activity and fish processing.

Use this document to describe quality aspects of the data collection process (design, sampling implementation, data capture, data storage and data processing etc.). The annex should be filled for each sampling scheme. Where applicable, use the handbook on sampling design (Deliverable 2.1 from MARE/2016/22 SECFISH study), available on the DCF website.

Provide information under each point in all sections. Do not delete any text from the template.

(Sampling scheme identifier: Please indicate and update the table of content)

Survey Specifications
'Sector name' refers to socio economic data on fisheries, aquaculture and any complementary data collection of fishing activity and processing as given in the EU MAP Delegated Decision annex. 'Sampling scheme' refers to survey technique: by census, by sampling, random or non-random, other (with explanation). If sampling, then outline sampling design. 'Variables' refer to Tables 7, 9 and 10 of the EU MAP Delegated Decision annex. 'Supra region' refers to Table 2 of the EU MAP Implementing Decision annex. If the sampling scheme is the same in all supra regions put 'All supra regions'.
Sector name(s): Socio-economic data collection on freshwater aquaculture
Sampling scheme: Probability Sample Survey
Variables: Tables 9 and 10
Supra region(s):
Survey planning
1. Provide a short description of the population to which the sampling scheme applies, e.g. 'less active vessels using passive gears'. The data collection includes all types of aquaculture enterprises of all economic sizes and types of production. The basic starting point for the collection of socio-economic data in aquaculture in the Czech Republic is the threshold according to EUROSTAT 1.88% (2019).
AR comment: No deviations from the Work Plan concerning Survey planning and sampling scheme.
Survey design and strategy
1. List data sources; e.g. interviews, registers, log books, sales notes, VMS, financial accounts etc. 2. Describe how the sample sizes were determined. 3. Describe survey methods and distribution; e.g. questionnaire forms by post, by email, on website, by phone etc. access to other datasets etc. 4. Describe the role of auxiliary information, if any, in the strategy: e.g. for validation, cross referencing, fall back data source etc.

Data collection is performed by the method of questionnaires. The data source are data of aquaculture enterprises. The basic file of aquaculture enterprises is divided into production groups, where are defined a minimum numbers of aquaculture enterprises. The questionnaires are collected by external supplier through procedure of public procurement. The method of collecting and distributing of the questionnaires, depends on decision of supplier. Individual completed questionnaires are anonymized in order to maintain trust and support the willingness to transmit data.

AR comment: No deviations concerning Survey design and strategy.

Estimation design

1. Describe method of calculating population estimate from sample.
2. Describe method of calculating derived data: e.g. imputed values.

In the case of the Czech Republic, the basic set of enterprises is known. The basis set will be divided into production groups according to the size of aquaculture production. For each group a minimum number of enterprises will be determined (sample/selection set for the size group). The obtained data for each group will be extrapolated and counted to the total population of the Czech Republic (the weighted average will be used as a statistical tool).

Only variable subsidies as input values will be obtained directly from the database of the Ministry of Agriculture of the Czech Republic.

3. Describe treatment of nonresponse.

Enterprises that do not provide data will be represented by data from enterprises that provide data in the given size group. Treatment of non-responses is thus ensured by the effort to obtain the maximum number of companies in a given size group. The rule is that the more companies in a given size group provide data, the more accurate the resulting estimate will be. At the same time, it is expected that if the company submits a questionnaire, it will submit a complete questionnaire.

AR comment: No deviations concerning Estimation design.

Error checks

1. Describe potential errors and how and where in the process these are detected, avoided or eliminated e.g., data; duplication, double counting, respondent error, upload error, processing error etc.

The basic identification of errors is performed at the level of the contractor (data duplication, double counting, etc.), where the necessary expertise of the contractor is required. The questionnaire is equipped with automatic value checks. The second part of error identification is conducted at the level of the contracting authority (completeness of the completed questionnaire, identification check, etc.).

AR comment: No deviations concerning Error checks.

Data storage and documentation

1. Describe how the data is stored.

Completed questionnaires, which are not public, are stored at the IAEI. The resulting data are stored in a simple MS EXCEL database.

2. Provide link to webpage where additional methodological documentation can be found, if any. All methodological documentation will be found on the webpage of the Ministry of Agriculture of the Czech Republic (https://zakazky.eagri.cz/).
AR comment: No deviations. Link to the project Data collection in aquaculture in the Czech Republic covering the year 2021 http://www.iaei.cz/2022-3/data-collection-in-aquaculture-in-the-czech-rep4
Revision
1. Describe the frequency of the methodology review e.g., revision of; segmentation, survey method per segment, per variable etc. The methodology will be revised once a year, after the data collection has been completed. Based on the feedback, adjustments will be implemented for more efficient data collection. We intend to update the basic enterprises file once every five years or so. The revision of the methodology will be associated with a possible change in the Work Plan.
AR comment: No deviations concerning Revision.
Confidentiality
1. Are procedures for confidential data handling in place and documented? 2. Are protocols to enforce confidentiality between DCF partners in place and documented? 3. Are protocols to enforce confidentiality with external users in place and documented? 4. Are there any issues with publication of data due to confidentiality reasons? Provide an explanation. All procedures and protocols for handling confidential data are in place and documented in public procurement management. Specifically, the anonymisation of questionnaires (identification of aquaculture enterprises is carried out only at the contractor level). Only the project team has access to anonymised individual data, but also this on the basis of a confidentiality agreement. Furthermore, a special confidentiality agreement is concluded with the contractor. The Czech Republic will follow all the instructions provided by the EU MAP. Furthermore, only aggregated data will be reported.
AR comment: No deviations concerning Confidentiality.