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

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

2024

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CONTENTS

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.
National correspondent for data collection is under the Ministry of Agriculture and Rural Development. National correspondent for Slovakia is: Dominik Škoda, Dobrovičova 12, 812 66 Bratislava, dominik.skoda@land.gov.sk
Sector of aquaculture in Slovakia is under threshold of 1 % of the EU aquaculture production. According to https://ec.europa.eu/eurostat/databrowser/view/tag00075/default/table?lang=en the EU's aquaculture production in 2023 was 1 050 636 tons. Slovakia has in 2023 total production of aquaculture by EUROSTAT 2 768 tons. Slovakian production of aquaculture is by EUROSTAT 2 768 tons (0, 26 % from total EU production)), which means that Slovak fish production in aquaculture has been approximately similar in recent years. We are already collecting data about production, employment and aquaculture facilities. Under DCF framework there was a pilot study on environmental data in pond systems under point 1a. This project, which was approved on the third attempt in 2021 by the Monitoring Committee of the Fisheries Programme of the Slovak Republic 2021–2027, will not be implemented and has been cancelled for several reasons. The Regional Coordination Group (RCG) includes six individual RCG´s (). Five of them concern marine areas (RCG NANSEA, RCG BALTIC, RCG MED&BS, RCG LP and RCG LDF). The sixth is RCG ECON. Since a land-locked country, Slovakia is part only of RCG ECON. Slovakia does not have eel management units, as its territory was considered not to be a significant eel habitat. As a result, Slovakia was exempt from the requirement to establish an Eel Management Plan under Council Regulation (EC) No 1100/2007. In addition to the DCF method, Slovakia collects data through other means. We are currently gathering information on production, employment, and aquaculture facilities, which includes details on their area and volume. The database, created from all enterprises in the aquaculture sector (approximately 120), is compiled using databases from the Ministry of Agriculture and Rural Development of the Slovak Republic, the Statistical Office of the Slovak Republic, and the State Veterinary and Food Office of the Slovak Republic. The aim of the census is to collect relevant data on aquaculture production (volume and value) from all registered aquaculture production facilities in the National Register. The Slovak Republic also participates in the collection of social data, such as employment by gender and full-time equivalent (FTE) by gender, with an annual frequency. Employment data, categorized by gender and number of working hours, are collected annually by the Statistical Office of the Slovak Republic. These data are initially collected and verified at the branch office of the Statistical Office in Nitra, after which they are further validated and aggregated at the headquarters in Bratislava. The data is collected via a questionnaire sent by the Statistical Office of the Slovak Republic to all commercial companies involved in aquaculture production. Data for the calendar year is collected until March 10th and is then processed, with the results typically becoming available from May to July. Each reporting unit is responsible for the data it submits to the Statistical Office. Slovakia also collects data on the fishery and aquaculture processing industry on a quarterly basis using a report. According to the reports, there are currently 8 processing companies in Slovakia. The collected data includes, for example, raw material sources and their quantities, products and their sales or exports, employees, storage facilities, and maximum production capacity. All recreational fishers and anglers are required to have a licence and a valid fishing permit. They must also register all their catches in a catch log, including the species, the weight of individuals (except for fish species not subject to catch limits, such as so-called wild fish species like roach, rudd, other breams, and non-native fish species, for which summarized weights are accepted), the date of capture, and the name of the water area. In Slovakia, these matters are overseen by the Ministry of the Environment and the Slovak Angling association.

Text Box 1a: Test studies description

General comment: This text box fulfils Chapter II, section 1.2 of the EU MAP Delegated Decision annex.

1. Aim of pilot study Environmental monitoring and creation of a database on the state of pond farming in Slovakia ("pilot study")

The main objectives of the proposed pilot study, corresponding with the global developments in this area, are:

- monitoring the occurrence of microplastics, pesticides, hormones, toxic metals, pharmaceuticals, drugs and their metabolites in water and sediments of selected ponds in Slovakia
- monitoring the possible distribution of micropollutants from water and sediments of selected ponds into fish
- evaluating the possible occurrence of selected types of micropollutants, the description of their dominant sources, their distribution into fish and the environmental risk for the aquatic ecosystem in Slovakia and the on consumer.

Based on these findings, a detailed report with recommendations for farmers, electronic brochure for fish farmers and pond owners will be produced and also the audiobook will by created for disadvantaged group of society.

Aquatic ecosystem contains many different micropollutants, such as pesticides, pharmaceuticals and drugs, which may have a dangerous impact on the aquatic environment and the organisms living there. Some types of pharmaceuticals, drugs and their metabolites are capable of affecting the behaviour, reproductive capacity and other properties of aquatic organisms even in small quantities. Currently, a significant portion of foreign studies focuses on the behaviour of these micro pollutants in the environment. Scientific studies over the past five years have indicated the presence of particular drugs not only in wastewater, surface water or groundwater, but also in the bodies of aquatic organisms. In addition, some of these substances are able to accumulate in the environment as well as in the bodies of aquatic organisms and get into the food chain.

In this pilot study, we would like to contribute not only to the most recent scientific findings, but also to their practical use and greater protection of the environment and also get information about final fish product produced in pond environment.

However exist few data about this topic, proposed pilot study is first and unique project in Slovakia that covers all the pond-aquaculture´s sector. Pilot study on the collection of environmental data and assessing the risk of micropollutants distribution into the pond aquaculture environment, a comprehensive picture of data regarding the Slovak pond aquaculture sector is to be created.

The aim of the proposed pilot study is to create a suitable starting point to ensure an optimal response for landlocked countries that are subject to mandatory environmental data collection in the future, including monitoring of the occurrence of micropollutants in water and sediments.

2. Duration of the test study

2022 – 2024 (29 months)

The project will proceed in two stages. In the first stage sampling and analysis will be carried out (22 months), followed by an evaluation of results, creation of a report and audiobook (7 months).

3. Methodology and expected outcomes of the test study

Pilot study will investigate the occurrence and possible penetration of selected species of aquatic ecosystem micro pollutants into common carp (carp) in production ponds in Slovakia using highly sensitive analytical instruments and methods. Specifically, it will be the monitoring of the occurrence and possible penetration of groups of micropollutants such as pesticides, hormones, pharmaceuticals, drugs and their possible metabolites, toxic metals or compounds from the PCB group. The monitoring will be carried up to 60 carp production ponds, the water of individual ponds (dominantly decanted samples), sediment below 5 mm and selected fish species (carp) will be analysed. During the pilot study up to180 samples of water (the volume of one sample will be 2 liters), up to 60 samples of pond sediments (the dry weight of the sediments will be 100 g), and up to 300 pieces of selected fish (a sample of 100 g of muscle from each subject) will be analysed. The environmental impact will be compared with possible impact on carp muscle and on the consumer.

Carp will be collected in live weight range 2-3 kg. From one production pond maximum 5 carps will be collected. (approx. 300 fish to be examined). The carp will be subjected to analytical methods to evaluate the occurrence of selected specific groups of micropollutants (hormones, pharmaceuticals, drugs and their metabolites, pesticides, PCBs, toxic metals and microplastics) which can enter into fish from pond environment.

From a scientific point of view, it is essential that the method development and data collection on Slovak production ponds is subject up to 60 ponds to make a relevant statistical statement. Because of the different nature conditions, there are influences on the results of the survey, which cannot be determined in advance. These factors can only be determined and taken into account adequately when interpreting data in a statistically sufficiently secure data situation. Data sets from smaller amount of ponds cause higher statistical uncertainties and may therefore lead to misinterpretation of data and results.

The analysis of individual types of micropollutants groups will be carried out using several analytical techniques:

1. GC and LC-MS / MS (analysis of pesticides, hormones, pharmaceuticals, drugs and their metabolites or compounds of the PCB group),
2. UV-VIS spectrophotometer (selected metals, some PCBs),
3. Atomic absorption spectroscopy (AAS) (selected toxic metals)
4. FTIR / Raman spectroscopy, fluorescence and SEM electron microscopy (microplastics and nanoplastics),

Also the possible hormonal (estrogen) activity of the obtained samples will be investigated.

Name of the study: Environmental monitoring and creation of a database on the state of pond farming in Slovakia ("pilot study").

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

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

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

(max. 900 words per study)

Under DCF framework there was a pilot study on environmental data in pond systems under point 1a. This project (pilot study), which was approved on the third attempt in 2021 by the Monitoring Committee of the Fisheries Programme of the Slovak Republic 2021–2027, will not be implemented and has been cancelled for several reasons. The pilot study was initiated in 2019, prior to the war in Ukraine and the subsequent energy crisis. Since then, costs have increased across all areas, making it impossible to finance the project within the original budget. The only viable option would be to reconsider the funding arrangements.

During the public procurement process, potential entities were contacted, and it was determined that there are very few accredited laboratories or potential institutions capable of executing a project of this scope covering the entire Slovak Republic. There were only 2 entities that applied for the competition (but 3 entities are required in public procurement).
At one point, there was a change in leadership at the Ministry of Agriculture and Rural Development of the Slovak Republic, which led to a shift in the approach to the matter, accompanied by difficulties in appointing a project executor.

Subsequently, the pilot project was cancelled by a decision of the Ministry's leadership, influenced in part by the position of the Slovak Fish Breeders Association, which had opposed the project's implementation from the outset.
The Commodity Council, as the main advisory body to the Minister, supported the decision to discontinue the project.

SECTION 2: BIOLOGICAL DATA

Text Box 2.3: Data collection for diadromous species in freshwater

General comment: This Textbox 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 commercial fisheries for salmon, sea trout and eel, and from research surveys on salmon and sea trout in freshwater, and on eel in any relevant habitat including coastal waters.

Were the planned numbers achieved? Yes/ No

If the answer is No, explain why not, and what measures were taken to avoid non-conformity.
(max 250 words per species and area)

No data collection is planned.
Slovakia does not have commercial fishing activities in its free waters, and therefore this point is not relevant. Also, Slovakia has no salmon or sea trout stocks in its freshwaters.
Slovakia does not have eel management units, as its territory was considered not to be a significant eel habitat. As a result, Slovakia was exempt from the requirement to establish an Eel Management Plan under Council Regulation (EC) No 1100/2007.

(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 the data to be collected under Tables 10 and 11 of the EU MAP Delegated Decision annex.

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.

As a landlocked country, Slovakia has a freshwater fish production industry. The primary species is trout, produced in specialized facilities that mainly use non-pond systems (such as flumes, raceways, concrete pools, cages, and circular or polyculture ponds). African catfish, produced in intensive systems, and common carp, produced in pond management systems, are also significant. The remainder of the production consists of several other freshwater species, including grass carp, silver carp, wels catfish, pikeperch, northern pike, and others. The aquaculture sector in Slovakia constitutes less than 1% of the EU's total aquaculture production. According to Eurostat https://ec.europa.eu/eurostat/databrowser/view/tag00075/default/table?lang=en, the EU's aquaculture production in 2023 was 1,050,636 tons. In 2023, Slovakia's total aquaculture production, according to Eurostat, was 2,768 tons, which represents 0.26% of the EU's total aquaculture production.

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.

(max. 900 words)

Deviations from the work plan
List the changes from the work plan (if any) and explain the reasons.

No deviations from the work plan.

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

(max. 900 words)