Description of the transversal and socio-economic data collection methodology in Bulgaria

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1. General information about Executive agency for fisheries and aquaculture as responsible authority for fisheries control and data collection.

The responsible authority for fisheries control in Bulgaria is the Executive Agency for Fisheries and Aquacultures (EAFA). The Agency is organized by General administration (Accounting office, Human resources and Legal Services) and Specialized administration (Fisheries control, Structural Fisheries Funds and Management and monitoring of fish resources. The activities related to the fisheries control are carried out by Directorate "Fisheries and Control" which is divided by several units on geographical basis as follows:

- Unit "Fisheries and control Black Sea". This unit is responsible for fisheries and control and Black Sea waters, inland fishing activities, aquaculture and market, collection, initial verification, registration of the questionnaires for socio-economic statistics for the fleet, aquaculture and processing enterprises and uploading of the scanned document in EAFA's information system. - unit "Fisheries and control – Black Sea" it is composed by 3 sections:
 - Sector "Fisheries and Control Burgas" responsible for inspection and control activities in Black Sea, inland waters, aquaculture farms, marketing, transportation of fisheries products and collection of the questionnaires for socio-economic statistics in the area of Burgas region;
 - Sector "Fisheries and Control Varna" responsible for inspection and control activities in Black Sea, inland waters, aquaculture farms, marketing, transportation of fisheries products and collection of the questionnaires for socio-economic statistics in the area of Varna region;
 - Sector "Fisheries and Control Dobrich" responsible for inspection and control activities in Black Sea, inland waters, aquaculture farms, marketing and transportation of fisheries products transportation and collection of the questionnaires for socio-economic statistics in the area of Dobrich region;
- Unit "Fishing Monitoring Centre" responsible for monitoring and surveillance of fishing vessels.
- Unit "Fisheries and Control Western Bulgaria" it is located in Sofia and it is responsible for inspection and control activities in Danube and inland waters, aquaculture farms, marketing and transportation of fisheries products and collection of the questionnaires for socio-economic statistics in the area of regions of Sofia, Pernik, Kyustendil, Blagoevgrad, Vratsa, Montana and Vidin.
- Unit "Fisheries and Control South Bulgaria" it is located in Plovdiv and it is responsible for inspection and control activities in inland waters, aquaculture farms, marketing and transportation of fisheries products and collection of the questionnaires for socio-economic statistics in the area of regions of Plovdiv, Pazardjik, Smolyan, Kardjali, Haskovo, Sara Zagora, Sliven and Yambol;
- Unit "Central Danube" it is located in Ruse and it is responsible for inspection and control activities in Danube and inland waters, aquaculture farms, marketing and transportation of fisheries products and collection of the questionnaires for socio-economic statistics in the area of regions of Pleven, Lovech, Gabrovo, Veliko Tarnovo, Ruse, Silistra, Targovishte, Shumen and Razgrad.

The Agency's organization chart is presented below.



2. Schematic overview of electronic and paper-based systems in place for recording logbook data, landing declarations, take-over declarations, transport documents and sales notes.

2.1. E-Logbook:

It is applicable for fishing vessels over 12 meters. The masters of fishing vessels are provided with hardware and software. Each of them has its own account with possibility to enter catch and landing data in the database. Last year, new VMS equipment has been delivered and installed on board fishing vessels over 12 meters. Additional facility to this equipment is the application for e-logbook, which is in process of installation.

2.2. Paper logbook:

It is applicable for vessels with length less than 12 m. The format of logbook is the same as in the Commission Implementing Regulation (EU) 404/2011). Copy of landing declaration should be submitted to EAFA within 48 hours after the landing, except in the cases of turbot landing, where the landing declaration should be collected by the inspector. The data from landing declarations shall be recorded into EAFA informational-statistical system within next 24 hours (for turbot) and 48 h (for all other species) upon their reception.

2.3. Take-over declarations, transport documents and sales notes:

At the moment they are only in paper format. All these documents shall be presented to EAFA within 48 hours after the relevant activity is completed. The data from these documents are recorded into our informational-statistical system.

3. Weighing, storage, transport.

3.1 Procedures for weighing landings.

In most of cases the weighing is taking place in the port of landing. Since there are no specific auctions and first sale occurs immediately after landing, the weighing procedure is carried out during the landing or during the first sale process. In case of an inspection, the weighing is carried out in the presence of the inspector. EAFA has electronic scales, which are subject to an early standardization by the National Institute of Metrology.

If the landing species is turbot all quantities shall be weighed. For other species we apply sampling plan which is approved by the Commission Implementing Decision (EU) 2013/78 EU from 8 February 2013.

- In case of landings less than 50 kg, all quantities shall be weighed;
- When the landings exceed 50 kg, a particular number of boxes shall be weighed. The sample depends of the risk of the port of landing and it is shown in table below.
- The choice of boxes to be weighed is on random basis;
- The difference between the weight of boxes should not be greater than 5 % from the average weight of all boxes;
- Number of boxes to be weighed depending on the risk level of a particular port/landing Number of boxes landed by species place Very low Low Average High Very high 0-25 2 1 1 1 1 25-50 5 1 2 3 4 50-100 4 1 3 5 6 100-200 4 5 7 2 6 Every additional 1 1 2 3 4 100
- \circ $\,$ In case of margin of tolerance greater than 5 %, all boxes shall be weighed.

In order to ensure the accuracy of the scales used for weighing landings (CR (EC) No. 1224/2009, art 60) the EAFA scales used during inspections are calibrated on yearly basis. The certificates are provided by the National Institute of Metrology.

3.2 Procedures in place if the landings are stored before the first sale take place.

In case the first sale occurs on later stage or the fisheries products are not subject to a first sale, a take-over declaration shall be filled and submitted to EAFA not later than 48 hours after the operation is completed.

Fisheries products up to 15 kg can be sold to retail market or to end customers without respecting the rules for first sale.

For fisheries products bought for personal consumption under conditions of first sale and that will not be offered to market afterwards, can be exempted from the rules for filling take-over declaration or transport document

3.3 Procedures in place if the landings are transported before the first sale take place.

In case of transportation of fisheries products for which there is no landing declaration or take-over declaration filled, a transport document shall be filled and submitted to EAFA within next 48 hours. The document shall be filled when the products are transported to a place different from the place of landing. Products that are transported within port area or in distances less than 20 km could be exempted from these rules.

4. First sale: auctions and registered buyers.

4.1 Description of the systems used by the auctions/registered buyers to submit sales notes to EAFA

The system of filling and submission of first sale documents is applicable only in paper format. Each registered buyer is provided with logbook with sales notes. In each case of first sale, a sales note shall be filled and submitted to EAFA within next 48 hours. The staff from the relevant unit (where the first sale occurred) is responsible to record this sale into the informational-statistical system. The system carries out automatic cross-checks for any inconsistencies, lack of related document or mismatch between quantities in the related landing declaration.

4.2 Procedures used by EAFA to ensure that the list of auctions and registered buyers is kept up to date.

There is designated staff in the Central administration of EAFA with task to monitor and keep up to date the register of first sale auction and registered buyers. Besides the activities related to the registration process, the officials monitor the documents, the expiration date and if no new documents are submitted, the registration shall be withdrawn.

5. Cross-checking of data.

5.1 Description of the cross-checking of paper-based documents and the cross-checking of data provided electronically of logbook data, landing declarations, transport documents, take-over declarations and sales notes.

The Informational-statistical system is carrying out the following automatic cross-checks, by comparing data from different sources (logbook, landing declarations, sales notes, transport documents, takeover declarations, late submission of documents, lack of referent document etc.).

Data source	Referent data source	Verifications	Description
Logbook: date	Landing declaration:	Late submission of	The landing declaration shall
	date of submission in	landing declaration	be submitted to EAFA not
	EAFA office		later than 48 hours after the
			landing. For the aquacultures
			this period is 30 days.
Logbook:	Take-over declaration:	Discrepancy in the	
species and	species and catches,	type and quantity of	
catches, kg	kg	catches	
Logbook:	Landing declaration:	Difference for same	System error signal when the
species and	species and catches	species less than 10%	difference between the
catches		of logbook weight	quantity taken and landed is $>$

			= 10%
1	First sale note: species and catches	type and quantity of	The system assumes that there may be several documents for
catches		catches	the first sale, so the quantities are summing by comparing them with the logbook declaration
Logbook: species and catches	1	type and quantity of catches	The system assumes that there may be several transport documents, so the quantities are summing by comparing them with the logbook declaration
Take-over declaration: date	Take-over declaration: delivery date in the department of EAFA	Later delivered take- over declaration in the department of EAFA	Copy of the take-over declaration should be submitted in EAFA within 48 hours
Take-over declaration	Transport document	No reference document	No related documents for the entered document
Take-over declaration	First sale note	Discrepancy in the type and quantity of catches	
Take-over declaration	Landing declaration	No reference document	No related documents for the entered document
First sale note: date	First sale note: delivery date in the department of EAFA	Later delivered first sale note in the department of EAFA	Copy of the first sale note should be submitted in the department of EAFA within 48 hours
First sale note	Take-over declaration	No reference document	No related documents for the entered document
First sale note	Landing declaration	No reference document	No related documents for the entered document
First sale note	Transport document	No reference document	No related documents for the entered document
Transport document: date	Transport document: delivery date in the department of EAFA	-	Copy of the transport document should be delivered in the department of EAFA within 48 hours

In the information-statistical system of the Executive Agency for Fisheries and Aquaculture data verification is done by cross-checks, which are organized in a separate module. This "cross-checking" module correlate input data, such as the basic rules for checking are given in the table above. After detecting the error, the system generates a message that identifies the regional office, which entered the document in the system. The message indicates the type of error and assigns a unique number to it. The system allows immediately open the document, which has led to the generation of error

The system checks the input data every 24 hours and generates error messages. In case the missing data is filled in, the system automatically removes the error. The system keeps information for all detected errors and allows checking by error type, by regional inspectorate and by period at any time.

In the application of e-logbook there is automatic control of the information regarding the margin of tolerance between catch and landing. When this difference is greater, the user is informed about this problem and is invited to correct or to check again the data. When the data from e-logbook are registered into informational-statistical system, the same validation and cross-checking procedures are applicable.

5.2 Usage of VMS data to assess the reliability of logbooks /landing declarations.

Each inspector is in contact with the Fisheries monitoring centre (FMC). When prior notification is received, the inspector in the port of landing is fully informed. If needed, the staff from FMC can send a picture with the track data of fishing vessel to the inspector. Moreover, access to the system is granted to the Director of Fisheries and Control Directorate and in the regional offices. Each inspector could enter the system and see the data from fishing vessel object to an inspection.

5.3 Other types of cross-checking to assess the reliability of catch data recorded in the database.

Other types of cross-checking can be done manually by the staff and in particular:

- If the position of fishing vessel corresponds to the fishing area recorded in the logbook;
- If logbook data correspond to the data from pre-notification;
- If there is some technical error (wrong FAO code, wrong place of landing etc.) when the information is recorded, the designated staff could make necessary corrections in the system.

5.4 Process for following up inconsistencies and errors identified by the cross-checking of data.

When inconsistence is identified, the system shows information about the error, including unique ID, type of error, date of occurrence, regional office and reason. The errors are visible to the staff of the relevant office, which is in charge to fill the necessary information and the reason for this inconsistence (fish is for direct consumption, there is no first sale due to small catches etc.). After taking measures to eliminate the discrepancy and filling the explanations, the case can be closed

6. Recreational fisheries (non-commercial fishing).

6.1 Measures in place to ensure that recreational fisheries are conducted in a manner compatible with the objectives and rules of the Common Fisheries Policy.

The Bulgarian legislation is compatible in a certain extent with the objectives and rules of the common fisheries policy. We can highlight the following key items:

- The sale of the catches from recreational fisheries is prohibited and the measures in place to ensure that the catches from recreational fishers are not marketed are explained in the next point (6.2);

- The species under TAC and quota regime are forbidden for recreational fisheries. Turbot is the only species under the management plan and according to the national legislation turbot is not permitted for recreational fisheries;

- The Bulgarian legislation is regulating also the maximum quantity fished by the recreational fishers, which cannot exceed 3 kg per person;

- Recreational fishery is not permitted during the night time;

- The recreational fisheries are limited with up to 3 fishing rods per person and only one can be with long lines.

6.2 Measures in place to ensure that catches from recreational fishers are not sold.

The fisheries products offered in market shall be accompanied by sales note and copy of landing declaration. The landing declaration, as a part of the logbook has its unique number, so it is possible for the inspectors to detect the origin of the product. Both logbooks (for fishermen and for registered buyers) are stamped and validated by EAFA and are provided only to persons with valid documents (commercial fishing license and authorization for fishermen and certificate for registration for buyers and auctions). Moreover the unique number of each logbook is recorded into the system, so it is easy to cross-check this information.

6.3 Measures in place to ensure that recreational fishing boats are not used for commercial fishing.

EAFA performs regular, scheduled and occasional inspections of the recreational fishing boats at sea and in the ports for the presence of fishing nets and quantities of the catches on board. The maximum quantity fished by the recreational fishers cannot exceed 3 kg per person.

6.4 Monitoring of the catches of stocks subject to recovery plans by recreational fisheries.

Turbot is the only species under the management plan and according to the Bulgarian legislation turbot is not permitted for recreational fisheries.

7. Description of the data collection scheme and sampling method for economic and social variables for the fleet.

The annual questionnaire for fleet consists of the following parts – in the first part the owner should fill his name, telephone number, name of the company if the vessels is owned by a company, detailed information about the vessel /**which is used for cross-check purposes ONLY**/ – name, LOA segment, GT, days at sea, in the second part detailed information about the economic and social variables should be provided. The collection of all variables is compliant with relevant PGECON recommendations.

7.1 Type of data collection scheme.

The data collection scheme that is in place for the fleet in Bulgaria is Census. Based on our legislation (Art. 18e from the Fisheries and Aquaculture Act), each owner of a fishing vessel, which is operating under Bulgarian flag, or his representative, is required at the beginning of each year (before March 31) to submit economic and social information for the previous year.

7.2 Update the questionnaire to comply with the latest legislation and the needs of the data collection program in Bulgaria.

Every year the Executive Director of EAFA affirms the content and the type of questionnaire, which is prepared by the relevant data collection experts. The questionnaire is completed manually by the owner of the vessel in the presence of an employee (someone from the administration or inspector) of the agency who is trained for this and is aware of the meaning of economic and social indicators. If necessary, the employee explains some of the variables. The filling of the questionnaire is completed after the vessel's owner and the employee of EAFA put their signatures and the questionnaire is entered in the electronic record-keeping system of the Agency.

7.3 Data validation procedure.

The first quality checks of the questionnaire are made by the employee of EAFA who receives the questionnaire – this initial check is focused mainly on the amount of data filled in. The second check is done by the person who submits the data from the questionnaire in the database of EAFA. If at this stage of the processing of the questionnaire are detect any inconsistencies or value that is not logical, based on parameters of the vessel, number of employees, fishing techniques, days at sea or comparison between landings and income, an employee of the agency contacts the owner of the vessel and if he is not able to provide a logical explanation, he is obliged to come and edit the value.

7.4 Estimation procedures.

Estimation procedures were made only for the previous years (before 2014), in which the questionnaire was not mandatory and there was missing information. Since now the collection of questionnaires is from all vessels, no estimation is needed, because they are required to submit all the data. If for some reason after 31st of March some of the owners of the vessels had not reported data for the previous year, an employee of the agency contacts the owner and reminds him of this obligation and if necessary – administrative sanction can be imposed

7.5 Socio-economic variables which are included in the questionnaire.

The following variable groups from the economic variables for the fleet listed in table Table 5A from COMMISSION DELEGATED DECISION (EU) 2019/910 are collected in the questionnaire: Income, Labour costs, Energy costs, Repair and maintenance costs, Other operating costs, Subsidies, Capital costs, Capital value, Investments, Financial position, Employment – including the social variables for the fleet listed in table Table 6.

7.6 Transversal variables.

Number of vessels, GT, kW, Vessel Age, Days at sea, Hours fished, Fishing days, kW * Fishing Days, GT * Fishing days, Number of trips, Number of fishing operations, Value of landings total and per commercial species, Live weight of landings total and per species and Prices by commercial species are obtained from the fleet register, logbook, sales notes, information system of EAFA.

8. Description of the data collection scheme and sampling method for economic and social variables for the aquaculture farms.

The annual questionnaire for aquaculture enterprises consists of 2 parts – in the first page the owner should fill his name, phone number, name of the enterprise, unique number of the enterprise, detailed information about the production, sales from the enterprise and the fish that was not sold at the end of the year and the environmental data on aquaculture as indicated in Table 8 from the Commission delegated decision (EU) 2019/910. In this page there is also special place for explanation notes, if the owner would like to explain something about the production of the fish. On the second page of the questionnaire the owner should fill the economic and social variables from Tables 7 and Table 6 from the Commission delegated decision (EU) 2019/910. The collection of all variables is compliant with relevant PGECON recommendations.

8.1 Type of data collection scheme.

The data collection scheme for the aquaculture enterprises in Bulgaria is Census. Based on our legislation (Art. 27 from the Fisheries and Aquaculture Act), every owner of an aquaculture farm which is in the register of the aquaculture farms in EAFA, or his representative, is required at the beginning of each year (before January 31) to submit economic and social information for the previous year. The sampling method that we are using is to collect questionnaires for all the aquaculture farms.

8.2 Update the questionnaire to comply with the latest legislation and the needs of the data collection program in Bulgaria.

Every year the Executive Director of EAFA affirms the content and the type of questionnaire, which is prepared by the relevant data collection experts. The questionnaire is completed manually by the owner of the enterprise, his representative /like accountant/ in the presence of an employee (someone from the administration) of the agency who is trained for this and is aware of the meaning of economic and social indicators. If necessary, the employee explains some of the variables. The filling of the questionnaire is completed after the owner and the employee of EAFA put their signatures and the questionnaire is entered in the electronic record-keeping system of the Agency.

8.3 Data validation procedure

The first quality checks of the questionnaire are made by the employee of EAFA who receives the questionnaire – this initial check is focused mainly on the amount of data filled in. The second check is done by the person who submits the data from the questionnaire in the database of EAFA. If at this stage of the processing of the questionnaire are detect any inconsistencies or value that is not logical, based on parameters of the enterprise, number of employees, reported production and sales or any other parameter, an employee of the agency contacts the owner of the enterprise and if he is not able to provide a logical explanation, he is obliged to come and edit the value.

8.4 Estimation procedures

Estimation procedures were made only for the previous years (before 2014), in which the questionnaire was not mandatory and there was missing information. Since now the collection of questionnaires is from all aquaculture farms, no estimation is needed, because they are required to submit all the data. If for some reason after 31st of January some of the owners had not reported

data for the previous year, an employee of the agency contacts the owner and reminds him of this obligation. In addition, administrative sanction can be imposed to the owner for not fulfilling obligations to report socio-economic information.

9. Description of the data collection scheme and sampling method for economic and social variables for the processing enterprises

Registration and control of processing plants are carried out by the Bulgarian Food Safety Agency (BFSA). In the beginning of each year an expert from EAFA, which is responsible for the data collection from processing enterprises is downloading the list of active processing plants from the official online registers available in the webpage of the BFSA. The annual questionnaire for processing enterprises consists of 2 parts – in the first part the owner should fill his name, phone number, name of the enterprise, in the second part of the questionnaire the owner /or his representative/ should fill the economic and social variables from Tables Table 10 from the Commission delegated decision (EU) 2019/910. The collection of all variables is compliant with relevant PGECON recommendations.

9.1 Type of data collection scheme.

The data collection scheme for the processing enterprises in Bulgaria is Census. Based on our legislation (Art. 27a from Fisheries and Aquaculture Act), every owner of processing plant which is in the register in the BFSA, or his representative, is required at the beginning of each year (before January 31) to submit economic and social information for the previous year. The sampling method that we are using is to collect questionnaires for all the enterprises.

9.2 Update the questionnaire to comply with the latest legislation and the needs of the data collection program in Bulgaria.

Every year the Executive Director of EAFA affirms the content and the type of questionnaire, which is prepared by the relevant data collection experts. The questionnaire is completed manually or electronically by the owner of the enterprise or his representative /like accountant/ and is accepted by an employee (someone from the administration) of the agency who is trained for this and is aware of the meaning of economic and social indicators. If necessary, the employee explains some of the variables. The filling of the questionnaire is completed after the owner and the employee of EAFA put their signatures and the questionnaire is entered in the electronic record-keeping system of the Agency.

9.3 Data validation procedure

The first quality checks of the questionnaire are made by the employee of EAFA who receives the questionnaire – this initial check is focused mainly on the amount of data filled in. The second check is done by the person who submits the data from the questionnaire in the database of EAFA. If at this stage of the processing of the questionnaire are detect any inconsistencies or value that is not logical, based on parameters of the enterprise, number of employees, reported production and sales or any other parameter, an employee of the agency contacts the owner of the enterprise and if he is not able to provide a logical explanation, he is obliged to come and edit the value.

9.4 Estimation procedures

Estimation procedures were made only for the previous years, in which the questionnaire was not mandatory and there was missing information. Since now the collection of questionnaires is from all processing plants, no estimation is needed, because they are required to submit all the data. If for some reason after 31st of January some of the owners had not reported data for the previous year, an employee of the agency contacts the owner and reminds him of this obligation. In addition, administrative sanction can be imposed to the owner for not fulfilling obligations to report socio-economic information.