

TWINNING CONTRACT

BA 17 IPA ST 01 20



Further Support to the Reform of Statistics System in Bosnia and Herzegovina



MISSION REPORT

**Activity 2.A: Assessment of the current status on agriculture statistics and the way
forward**

Component 2 - Agriculture Statistics

Mission carried out by
Anders Grönvall, Swedish Board of Agriculture
Ann-Marie Karlsson, Swedish Board of Agriculture

2021-07-05 - 2021-07-07

Version: Final

Expert contact information

Anders Grönvall
Swedish Board of Agriculture
Jönköping
Tel: +46 36 15 57 91
Anders.Gronvall@jordbruksverket.se

Ann-Marie Karlsson
Swedish Board of Agriculture
Jönköping
Tel +46 36 15 59 33
Ann-marie.karlsson@jordbruksverket.se

Table of contents

List of Abbreviations	3
Executive Summary	4
1. General comments	4
2. Assessment and results	4
3. Conclusions and recommendations	5
Annex 1. Terms of Reference	6
Annex 2. Persons met	9
Annex 3. Assessment of the current situation	10
Annex 4. First idea of layout for the Masterplan	18

List of Abbreviations

BHAS	Agency for Statistics of Bosnia and Herzegovina
BiH	Bosnia and Herzegovina
CBBH	Central Bank of Bosnia and Herzegovina
EC	European Commission
EU	European Union
FBiH	Federation of Bosnia and Herzegovina
FIS	Institute for Statistics of Federation of Bosnia and Herzegovina
MS	EU Member State
RSIS	Institute for Statistics of Republika Srpska
RTA	Resident Twinning Adviser
ToR	Terms of Reference

Executive Summary

During the mission an assessment of the current status was started. The status of current surveys were discussed benefiting of previous work done and documented in the “Agricultural Statistics Development Plan Roadmap of (Bosnia and Herzegovina) Period: 2020 – 2023”. The assessment for each survey included a discussion on the present situation, future plans, administrative registers, assessment of the current situation. For the agricultural census the plan for the census was discussed.

The development of Master Plan for agriculture statistics in Bosnia and Herzegovina for the period 2020-2030 was started with a first discussion on the content of a masterplan.

A developments plan for the next 6 months the most important areas to start with. For the next mission we suggest the focus will be budget for the agricultural census. We foresee two more missions before Christmas. I.e. three mission during the period September to December 2021. We plan them to be focused on:

- Budget for the agricultural census and the development plan for the duration of the project
- Further plans for the agricultural census
- Administrative registers as input to the census and other statistics

1. General comments

This mission report was prepared within the EU Twinning Project ” Support to the reform of the statistics system in Bosnia and Herzegovina”. It was the first mission to be devoted to Activity 2.A: Assessment of the current status on agriculture statistics and the way forward within Component 2 - Agriculture Statistics of the project.

The purposes of the mission were:

- Assessment of the current status
- Development of working plan
- Start of development of a Master Plan for agriculture statistics in Bosnia and Herzegovina for the period 2020-2030
- Preparation of ToR for next activity

The consultants would like to express our thanks to all officials and individuals met for the kind support and valuable information which he/she received during the stay in Bosnia-Herzegovina and which highly facilitated the work of the consultant.

This views and observations stated in this report are those of the consultant and do not necessarily correspond to the views of EU, BHAS, FIS, RSIS, CBBH, Statistics Denmark, Statistics Sweden, Statistics Finland and ISTAT.

2. Assessment and results

During the mission the different statistical areas was discussed from the aspects of the present situation, future plans, use of administrative registers and an assessment of the current situation was made. The Agricultural Statistics Development Plan a Roadmap of (Bosnia and Herzegovina) 2020-2023 was used as a starting point for the discussions.

The assessment of the status showed that the absence of an agricultural census and a farm register is a problem for making frames for the surveys targeting farms. This lead to quality problems in for

example the crop-and animal surveys and results in lower quality and to the use of estimation. This in its turn affects the Economic accounts that are difficult to make without a sufficient quality of the input statistics. However, the content and theoretical design of the Agricultural farm Survey and Agricultural crop survey is good.

Some areas are not as much affected by the problem of lacking knowledge of the number of farms. For example statistics on input and output prices, statistics on slaughter at slaughterhouses and production at dairies. The frame for the surveys on slaughterhouses and dairies are the Statistical business register which is good

There are some administrative registers in use but the problem of the quality of the registers in relation to their statistical use as well as problems with linking the information in the registers to other statistical information was emphasised.

In the brief discussion of the Master Plan, it was highlighted.

- The importance of the production of the agricultural census but also the importance of making plans for how to use the result of the census in the regular surveys for the years to come. For example, the creation and later on updating of a farm register, incorporating new frames, deal with breaks in time series for other surveys and so on.
- The importance of planning for new needs for example agro-environmental statistics and organic farming.
- The importance of making a realistic masterplan.

The mission also resulted in a document assessing the current situation (Annex 3) and a document outlaying a draft for the content of a masterplan Annex 4.

It was decided that a more detailed work plan would be developed during a physical mission.

3. Conclusions and recommendations

It was concluded that although the difficulties of conducting a first mission digitally, progress was made. The mission resulted in an understanding as well as assessment of the present situation, plans and status of the use of administrative registers. A first discussion of an outlay of a Master Plan was also made.

We recommend that the results of the discussions made during the mission should be incorporated in the Master Plan. I.e. we recommend that in the coming planning of the census and in the Master Plan, it is important to also include how the results from the census are to be used in the regular surveys. The importance of addressing new needs of statistics as well as the importance of making a Master Plan whose goals is possible to achieve.

Action	Deadline	Responsible person
Information about the number of agricultural holdings	2 weeks before the mission	Lazo Segrt, Iismir Melez Ljubisa Eskic
Information about administrative data possible to use for the census	2 weeks before the mission.	Lazo Segrt, Iismir Melez Ljubisa Eskic

The content of this report is approved by:

MS Expert

Ann-Abena Kikson

MS Expert

Anders Christensen

BHAS Component leader

Bo Eckert

FIS Component leader

Hans Jørgen

RSIS Component leader

Lazo Šegst

RTA

Niels Modar

Annex 1. Terms of Reference

Terms of Reference

EU Twinning Project BA 17 IPA ST 01 20

Component 2 - Agriculture Statistics
July 5th, 6th and 7th 2021

Virtual meetings via Zoom

Activity 2.A: Assessment of the current status on agriculture statistics and the way forward

1. Mandatory result

The component on Agricultural Statistics has three main objectives:

- 2.1 Master Plan for Agriculture statistics for the period 2020-2030 developed and adopted (with clearly defined objectives, timetable of implementation for the implementation of the objectives and precisely defined responsibilities of all stakeholders.)
- 2.2. Cooperation among all stakeholders improved
- 2.3. Protocol(s) on cooperation and exchange of data among all stakeholders adopted

Indicator / Relevant Milestones / Internal deadlines:

- Master Plan for Agriculture statistics in BiH available on web
- Identification of stakeholders at national and entity level
- Responsibilities of each stakeholders clarified
- Overview of currently available data both administrative and from surveys
- Development of roadmap for implementation
- Development of initial budget for agricultural census
- Definition of SRPG ~Statistical Register of Agricultural Holdings
- Development of high-level cooperation agreements / Memorandums of Understanding
- Protocols describing specific exchange of data

2. Purpose of the activity

- Assessment of the current status

- Development of working plan
- Start of development of Master plan for agriculture statistics in Bosnia and Herzegovina for the period 2020-2030
- Preparation of ToR for next activity

3. Expected output of the activity

- Assessment of the current status made
- Detailed work plan made
- Development of Master plan for agriculture statistics in Bosnia and Herzegovina for the period 2020-2030 started
- Mission report

Annex 2. Persons met

BHAS:

Ljubisa Eskic
Fahrudin Subotić
Biljana Nogo
Ljubica Maric
Boro Kovačević

FIS:

Fehrija Mehic
İismir Melez

RSIS:

Lazo Segrt

RTA Team:

Niels Madsen
Larisa Muslimovic

Annex 3. Assessment of the current situation

The assessment is a summary of what was found during the first mission. There are still areas where further work needs to be done for the assessment.

Content

1. Statistics on the structure of agricultural holdings
2. Annual crops statistics
3. Structural data on orchards
4. Structural data on vineyards
5. Livestock statistics
6. Meat production statistics
7. Milk and milk products statistics
9. Price statistics
10. EAA
11. Agricultural Industry in the national accounts

1. Statistics on the structure of agricultural holdings

Present situation and plans

There has not been any agricultural census since 1960. The last population census was made in 2013. The plan is to make an agricultural census in 2023 even though there is no decision about any population census.

Before the agricultural census, a pilot survey is planned for September 2022. The questions and manual is going to be harmonized between the different entities of the country.

Administrative registers

There is some inventory of existing administrative registers. The most used register is the one concerning financial support to agricultural holdings.

Assessment of current situations

There is no actual plan for any population census before the next agricultural census, which means that there must be an alternative way for the creation of a frame for the agricultural census. The plan is to conduct a “door-to-door” study in rural areas to all households, 624 thousand households while in urban areas the agricultural households identified in the PC 2013 should be the base updated with agricultural households identified by registers from the Ministry (MoA). In the pilot study, one aim is to evaluate the creation of frame by this method. In the pilot find method to make a frame that does not make it necessary to visit all rural households as well as test questionnaire and methodology. The plan is to make the pilot in September 2022 but may also be divided in several small parts.

The matching of data from administrative registers is complex due to the lack of unique identifiers.

2. Annual crops statistics

Present situation

Previously the crop statistics has been based on the annual crop survey in June and the Annual Farm Survey in December and December (ACS) for RSIS. In FIS crop statistics has been based on the expert estimation (REGULAR SURVAY) and in the same time, we conducted AFS in December. I.e. the official data for FIS has been a regular survey.

Data on agricultural land, and production of crops and vegetables subtropical fruit and olives in Bosnia and Herzegovina are aggregated from the regular statistical surveys conducted by the entity statistical institutions and branch of Agency for statistics of B&H from Brcko District. Legal entities are submitting data based on book-keeping and other records whereas the municipal statistical estimators are making estimations for the individual agricultural holdings.

Data on sown area in the autumn are aggregated from the regular statistical surveys (AFS) conducted by the entity statistical institutions and branch of Agency for statistics of B&H from Brcko District. Legal entities are submitting data based on bookkeeping and other records whereas the municipal statistical estimators are making estimations for the individual agricultural holdings. FIS collected data on sown areas by regular survey.

RSIS from 2020 use AFS (Annual Farm Survey or December sample survey) like official data sources for Annual Crops Statistics (Area under cultivation, Harvested production, Yield etc.) and publishes the results.

At the same time, RSIS collects the same data from municipal estimators (old methodology) but only for the needs of BHAS (crops statistics for state level). RSIS will stop this activity next year.

Future plans

For future estimations, RSIS will use the Agricultural Farm Survey (AFS) while FIS will be still be based on expert opinions. However, there is data collected through AFS that has to be evaluated.

During 2021 RSIS will establish new Sample Survey on Area Sown (telephone survey) and model for production of early crops and early fruits and yield forecast of some important late crops.

Administrative registers

Generally, SBR is the main source for addresses for the regular surveys. In FIS, the register of support (from Agri Ministry) is used for updating our Statistical Business Register (SBR).

The register for agricultural support is used for the crop statistics. Used for imputation of data for areas of some crops for farms that can be matched. It is also used to compare the final results from the survey with the data in the registers.

Assessment of current situations

At this moment, administrative registers do not make the updating of the frame.

3. Structural data on orchards

Present situation

The statistics on orchards is a part of crop statistics.

Future plans

The plan is to organize meetings with MoA and other stakeholders to investigate the possible use of administrative registers in the area.

After the census, make statistics on structure of orchards.

Administrative registers

There is at this moment no administrative register in use. Same way of collecting and problem as for crops.

Assessment of current situations

See crops

4. Structural data on vineyards

Present situation

The statistics on vineyards is a part of crop statistics. There is a trend towards more commercial vineyards, especially in FIS.

Future plans

The plan is to organize meetings with MoA and other stakeholders to investigate the possible use of administrative registers in the area.

Administrative registers

There is at this moment no administrative register in use. There might be registers in the future

Assessment of current situations

For data of vineyard, the problem is the same as for crops

5. Livestock statistics

Present situation

The data on livestock number are the result of aggregation of comparable the data from the statistical surveys AFS in December conducted by the two statistical offices on the Entity level and by the Bureau in Brcko District. Data on legal entities and parts of legal entities is collected through annual reports. The data on the number of livestock and livestock production for private family farms have been estimated based on the estimation of the number of livestock and livestock production made by the estimators in responsible municipality organs. In the FIS livestock, statistics has been based on the expert estimation based on AFS in December.

RSIS from 2020 use AFS (Annual Farm Survey or December sample survey) like official data sources for livestock statistics (number of livestock and animal production).

At the same time, RSIS collects data on number of livestock from municipal estimators (old methodology) but only for the needs of BHAS (number of livestock for state level). RSIS will stop this activity next year.

Future plans

The statistics in RSIS has been based on ACS but will in future be estimated based on AFS. In FID the estimations is based on expert opinions. However there is also collection of data from the AFS in FID but they are not used officially.

Administrative registers

There is an animal register. However, this is not updated regularly and therefore not used in any statistical production.

Assessment of current situations

Problems with frames for the, AFS. Also how to use data from AFS for meat production.

6. Meat production statistics

Present situation

Data on slaughtering of animals in slaughterhouses is collected monthly form slaughterhouses. The data on slaughter of livestock and poultry are result of aggregation of comparable the data from monthly statistical surveys conducted Entity institutes for statistics and by the Bureau in Brcko District. Data on legal entities and parts of legal entities are submitting data based on bookkeeping, whereas for entrepreneurs abattoirs data are given from approved municipal (veterinarian – inspection) department at the basis of available evidence.

Data on slaughtering outside slaughterhouses is not estimated even though there is collection of data on the area in AFS.

There is a huge difference between types of animals on how much that is slaughtered in slaughterhouses. For example, the share of goats slaughtered in slaughterhouses is low.

RSIS has established a model for calculation the slaughter of livestock outside slaughterhouses and meat production. Within the model, RSIS use data collected within the AFS (percentage share of certain categories and animal species in slaughter on the farm, average weight of slaughtered animals, etc.), foreign trade statistics (imports, exports live livestock), livestock slaughter in slaughterhouses.

Future plans

The plan is to analyze data collected in AFS for estimating slaughtering of animals outside slaughterhouses. At the moment, RSIS has an estimation method that might be used.

Using AFS data, in the near future RSIS plan to improve the overall meat production statistics in line with EU methodology, including improving the model for calculation the slaughter of livestock outside slaughterhouses and meat production and establishing model for gross indigenous production.

Administrative registers

No administrative registers available.

Assessment of current situations

Difficulties estimating farm house slaughtering.

(Slaughtering outside slaughterhouses, state level summarized, Also different periods, much around Christmas for example. Perhaps 5 % of area and animals in big farms in business register.

7. Milk and milk products statistics

Present situation

From dairy's collection of data is made monthly. The survey is conducted by reporting method and covers all enterprises/dairies, which are collecting and processing cows' milk and milk products. Reporting units submit the data on collecting cows' milk and production of milk products using form, on the base of accounting data.

In AFS, there is questions on milk production used on farms.

Future plans

The plan is to analyze data collected in AFS for estimating milk production used on farms.

Using AFS data, in the near future RSIS plan to improve the overall milk and milk product statistics in line with EU methodology.

In the same time, RSIS will conduct a time data revision of milk production statistics and bovine population.

Administrative registers

No use of administrative registers for this area.

Assessment of current situations

Difficulties in estimating farm use. Lack of tested methodology for calculating all necessary data for table C. Main livestock indicators are produced by expert estimates, while AFS is still not considered an official data source

RSIS from 2020 use AFS as the official data sources for milk production and milk use on farms (Table C) and publishes the results.

8. Eggs statistics

Present situation

The data on activities of hatcheries are obtained collecting the data of comparable monthly statistical surveys conducted by the Entity's statistical offices and by the Bureau in Brcko District. Data on legal entities and their parts of legal entities are submitting data based on bookkeeping.

Data are collected from AFS regarding farmhouse consumption.

RSIS from 2020 use AFS like official data sources for eggs production (including eggs for human consumption) and number of laying hens.

Future plans

The plan is to use the AFS for estimation on eggs for human consumption in the future.

Using AFS data, RSIS plan to improve the overall egg statistics in line with EU methodology, including establishing production models that will provide monthly figures.

In the same time, RSIS will conduct a data revision of eggs production and number of laying hens due to significant methodological changes.

Administrative registers

No administrative registers used

Assessment of current situations

Difficulties in estimating farmhouse consumption.

9. Price statistics

Present situation

Price indices of agricultural products (output) are calculated on the bases of representative agricultural products' prices (outputs) and show the dynamics of changes in prices of agricultural products, and these comprise crop and animal output. Prices used for the calculation of output price indices are the average selling prices of representative agricultural products, and they are calculated based on the prices that are collected by entity statistical institutes obtained through Quarterly report on the purchase of agricultural products from the individual producers - TRG 31 and the Quarterly report on direct sale/realization of agricultural products from own production of agricultural enterprises and cooperatives - TRG 33). This price excludes all subsidies and taxes on products. Weights used for output price indices are based on indicators in estimated economic accounts for agriculture, and they represent the significance of an individual agricultural product in the total sale of agricultural products at the market. Output price indices are calculated using the Laspeyres formula.

Price indices of goods and services currently consumed in agricultural production (Input I) are calculated on the bases of prices of the representative goods and services currently consumed in agriculture, and show dynamics of changes in these prices. Prices used for calculation of price indices of goods and services currently consumed in agricultural production (Input I) are purchasing prices of representative goods and services currently consumed in agriculture, and they are collected by entity statistical institutes through quarterly report on prices of products consumed in agricultural production. This price includes direct taxes (excluding VAT), but excludes subsidies. Weights used for calculation of price indices of goods and services currently consumed in agricultural production

(Input I) are also based on indicators in estimated economic accounts for agriculture, and their basis is the structure of consumption of them in the base year. Price indices of goods and services currently consumed in agricultural production (Input I) are also calculated using the Laspeyres formula.

There are data on both output- and input index published regularly. The collection of data is different between entities. RSIS collects quarterly and the Federation monthly.

Land prices and land rent prices are included in AFS questionnaire but more work on how to use it needs to be developed in order to publish it.

Future plans

Developing methods for publishing land prices and land rent prices.

Administrative registers

There are administrative registers, cadastral data, for sales of land, however FIS has no information about its registers, and we do not use this data.

Assessment of current situation

Difficulties in methodology land prices and land rent prices.

10. EAA

Present situation

Experimental EAA calculation in RSIS based on data from different areas: Agricultural statistics, Price Statistics Industry, Foreign-trade statistics, Energy statistics, Investment statistics and Employment statistics.

During the calculation of agricultural production (output), data about yield of agricultural products (early crops and fruit, late crops, fruit and vineyards and citrus fruit) used, as well as data about number of livestock and production of livestock products. Legal entities are submitting data based on annual financing report. Municipal statistical estimators are making estimations for the individual agricultural holdings.

Prices of agricultural products (output) are collected through reports of purchase of agricultural products from individual producers, reports on direct sale of agricultural products of own production of agricultural enterprises and cooperatives, reports of sale of agricultural products on green markets.

Value of agricultural production expressed in basic prices, which include subsidies on products, but exclude all taxes on products.

Future plans

RSIS have collected livestock and crop data through Annual Farm Survey (AFS) from 2017 and published that data as official from 2020. Agriculture department in RSIS plans to stop collecting data using old methodology, from 2021.

This means that during 2020, RSIS replaced old collecting data methods with new methodology. This will create lot of problems on the EAA calculation because of discrepancies between the data collected through different collection methods.

Administrative registers

For EAA calculation data on subsidies in agriculture, from Ministry of Agriculture, are used (administrative data).

Assessment of current situations

After conducting Agricultural Census, establishing of FADN and AFS more accurate data will be available for EAA calculation.

11. Agricultural Industry in the national accounts

Present situation

RSIS used individual EAA data for Agricultural Industry calculation. Legal entities are submitting data based on annual financing report.

Future plans

In RSIS EAA, calculation is already integrated in Agricultural Industry calculation, which is part of National Accounts` department calculation. The National Accounts use data from the EAA and data from legal entities for their calculation, with some corrections.

Administrative registers

For calculation, Agricultural industry data on subsidies, from Ministry of Agriculture, are used (administrative data).

Assessment of current situations

After conducting Agricultural Census, establishing of FADN and AFS more accurate data will be available for Agriculture industry data.

Annex 4. First idea of layout for the Masterplan

Master plan – ideas for content and layout

1. Background
 - a. Current situation
2. Vision goals for future
3. Horizontal areas
 - a. Legal framework
 - b. Human resources
 - i. Financial
 - ii. Knowledge
 - c. Administrative registers
 - i. Documentation of existing registers
 - ii. Usability
4. Agricultural census
 - a. Production and dissemination of the agricultural census
 - b. Creation of farm register
 - i. Plan for updating farm register
 - c. Incorporating census results in the statistical areas
 - i. Design of surveys
 - ii. Break in time series, change in dissemination etc.
5. Statistical areas
 - a. Crop statistics
 - b. Livestock statistics
 - c. Meat production statistics
 - d. Prices
 - e. EAA
 - f. Balance sheets
 - g. Organic production
 - h. Etc
6. Implementation plan
 - a. Time table
 - b. Evaluation
 - c. Etc