

TWINNING CONTRACT

BA 15 IPA SR 01 17

Support to the reform of the statistics system in Bosnia and Herzegovina



MISSION REPORT

Activity 2.2.2:
Development of framework for SBS based on administrative data

Component 2: Business Statistics
Sub-component 2.2: Structural Business Statistics

Mission carried out by
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17-20 April 2018

Version: Final

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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
FIA	Financial agency of FBiH
FIS	Institute for Statistics of Federation of Bosnia and Herzegovina
MS	EU Member State
NA	National Accounts
RSIS	Institute for Statistics of Republika Srpska
RTA	Resident Twinning Adviser
ToR	Terms of Reference

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 second mission to be devoted to Sub-component "2.2: Structural Business Statistics" within Component "2: Business Statistics" of the project.

The purposes of the mission were:

- Review of the Draft proposal Agreement for the general supply of information or SBS AD
- Presentation and analysis of the first set of SBS variables
- Review of suggested new SBS Annex for the pilot
- Editing and imputation of data with presentations of MS experience
- Updating current SBS application
- Preparation of new SBS framework incl. new criteria and updating methodology

The consultant would like to express his/her 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, INSEE, Statistics Finland and Croatian Bureau of Statistics.

2. Assessment and results

Concerning the task related to draft proposal Agreement for the general supply of information or SBS AD, FIS had progressed by preparing a draft proposal protocol. The draft was viewed and commented during the meeting. It might be a good practice to support the actual protocol with annexes that could include information e.g. on data deliveries (data sets, reference periods, timetables, contact persons), technical issues (modes of data delivery, contact information, server names, IP-addresses, folders, protocols for data transfer, user names etc.) and nomination of data sets. This could make it possible to update the annexes yearly (or when needed) with light procedures.

Situation in Finland at this area was presented (Output 1), where structure of agreements consists of basic agreement plus annexes. Main examples of items that should be found in the agreement are parties of the agreement, purpose of the agreement, legal framework, use of administrative data, data delivery to third parties (research institutes etc.), storage (time) and safe-keeping, confidentiality, maintenance of secrecy, delivery schedule and mode, contact persons and information and period of validity. At the time of the mission, FIS experts were waiting to receive some reactions to the draft proposal protocol from the general director of the institution. Since the FIA data availability (financial statement) is one of the key issues that has to be resolved promptly to allow all statistical institutes to move forward with AD for SBS, project could put more pressure on both parties (FIA and FIS) to make the agreement.

The BHAS in cooperation with RSIS and FIS had run a pilot analysis for 2016, to create new methods for SBS production and to test the differences between survey data and AD. In order to make analysis, data from the two different sources were linked on micro level and combined to form one database.

Variables selected into the pilot were:

- 12110 Turnover,
- 12120 Production value,
- 12150 Value added at factor costs,
- 12170 Gross operating surplus,

- 13110 Total purchases of goods and services,
- 13213 Change in stocks of finished products and work in progress manufactured by the unit,
- 13310 Personnel costs

For now, analysis has been made on only two activities (classes). For the reference year 2016, variables calculated from the survey data were higher than variables calculated from the AD. There were no major differences in turnover but production value and value added at factor costs produced differences that were more significant. One probable reason for the differences can be traced back to errors on inventory side. Therefore, there is a clear need to put more attention to a more detailed analysis.

During the first mission, a revised statistical SBS Annex was proposed for review. Suggestions made were welcomed and experts of FIS, BHAS and RSIS will take the suggestions into consideration during the next bigger change of the additional reports (annexes) needed for SBS production from administrative sources. For now, present annexes were used, for which BHAS developed corresponding calculations. Financial reports and annexes used for SBS are similar but not the same, and have certain differences. Considering future development, it would be useful to take the necessary steps to build a completely harmonised set of documentation. Another important issue is to get and keep national accounts involved. Harmonisation of methodologies between BHAS, FIS and RSIS has been a priority and a target that has been practically achieved. Changed method of production of SBS variables (conducting survey for companies with 20+ and using AD for others), will probably have an impact on results. Notwithstanding, the target will remain as a priority for following years. Other important goals are to improve the quality of SBS data, to reduce response burden and to increase efficiency.

Editing and imputation of data was an important topic for the second mission. Examples of editing and imputation rules and practices used in Croatian SBS were presented (output 2). It shows that manual (and at the same time, selective and interactive) editing could be used only to the biggest units, because of limited time and resources. More demanding is automatic editing, when computer program both detects and corrects the data. The basic assumption for that is expert knowledge of a subject-matter specialist, which is necessary to create rules with conditions and actions. It was specifically indicated that correction rules are connected with each other, and have to be mutually consistent. In the Finnish presentation (output 3), besides editing, also examples of imputations were presented. The Finnish expert emphasized the importance of saving information on editing and imputation as a good practice and a risk of over editing (benefits vs. efforts). Under this point it is also mentioned that there is a need to develop an error statistics form tool, useful to analyse how much editing is done, e.g. how many errors were made, how different questions and methodological instructions work and whether the respondents have understood them correctly. Before the next mission, BHAS will create some editing rules for administrative data using data from reference year 2016, and then will forward them to RSIS and FIS for comments and possible suggestions on required changes.

BHAS presented an updated application (together with output variables), which now consist of survey and administrative data. IT SBS application (application VB.NET framework 2.0, database – MS SQL 2008 R2) is updated with new administrative sources and now there are three different administrative sources and excel files. Application is capable of creating formulas for transformations and scripting them in SQL. All three sources are imported in one procedure, process is automated and the result is data by variables in one table.

3. Conclusions and recommendations

Although we can say that real progress has been made and that this mission is being done in a satisfactory way, a key factor for the proper progress of the whole project still remain the same:

- Cooperation with FIA and their willingness to regularly deliver the data. Once that is enabled, cooperation should be more and more extended with official agreement and detailed annexes. EU assistance should be used to create pressure, if there is a delay in reaching a cooperation and agreement.
- On the other side, BHAS, FIS and RSIS need to build a system of their own based on sustainability of the work and development achieved during projects. All three statistical institutions need resources (staff) to carry out all the required tasks ahead, so top management support and understanding are also very important.

Other recommendations:

- Further analysis of the SBS variables and investigation of methodological differences that occur
- Development of editing model in cooperation of all three statistical institutions (when most of the data is processed)
- Further updating of the application with created editing rules, and make it open for future changes
- In cooperation with higher management, develop a strategy for yearly meetings with all important AD producers and holders in BiH
- In the future, initiate consultations with all interested parties on the need for harmonization of the financial statements as well as the accompanying reports for statistical purposes

Actions needed for moving forward as well as for preparing the next mission

Action	Deadline	Responsible person
Progress on draft agreement for the general supply of information or SBS AD – continued	For Mission 2.2.6	FIS, FIA
To continue the analysis of variables from the AD pilot and study methodological causes of differences for complete set of variables for 2016	For Mission 2.2.6	BHAS, FIS, RSIS (in cooperation)
Depending on available resources, create and test a certain number of editing rules	For Mission 2.2.6	BHAS, RSIS, FIS (in cooperation)

Annex 1. Terms of Reference

Terms of Reference

EU Twinning Project BA 15 IPA ST 01 17

Component 2: Business Statistics

Sub-component 2.2: Structural Business Statistics

17-20 April 2018

Hosting Institution: RSIS, Veljka Mladenovića 12d, Banja Luka

Activity 2.2.2: Development of framework for SBS based on administrative data

1. Mandatory result and benchmarks for the component

Mandatory result:

- Use of administrative data for producing structural business statistics established by 8th project quarter

Benchmarks:

- Inventory of existing administrative data source for the compilation of structural business statistics variables prepared by 1st project quarter
- Agreement with provider/s of administrative data sources made by 8th project quarter
- First structural business statistics variables based on administrative data produced by 8th project quarter
- Burden of reporting units calculated by 8th project quarter
- Updated methodological document on structural business statistics developed by 8th project quarter
- Quality report for Structural business statistics developed by 8th project quarter

2. Purpose of the activity

- Follow up from the first mission
 - Update on FIA agreement with FIS for availability of AD (financial statements)
 - Draft proposal Agreement for the general supply of information or SBS AD
 - Draft first set of SBS variables from the pilot
 - Review of suggested new SBS Annex for the pilot
 - Presentation of draft methodological documentation for the AD pilot
- Presentation of first set of SBS variables
- Editing and imputation of data
- Preparation of new SBS framework incl. new criteria and updating methodology
- Updating current application
- Further discussion with data providers, if needed

3. Expected output of the activity

- Results of first set of SBS variables analysed
- Agreed method for data editing and imputation
- Agreed new SBS framework
- Input provided to the ToR of next activity

Annex 2. Persons met

Agency for Statistics of BiH (BHAS)

- Tima Karačić, Head of Business Statistics Unit
- Bojana Cicovic, Specialist in Business Statistics Department
- Vesna Šehovac, IT specialist
- Azur Đapo, Senior Officer for SBS

Institute for Statistics of Federation of BiH (FIS)

- Alma Čolpa, Advisor for SBS
- Aida Halilović, Senior advisor for SBS

Institute for Statistics of Republika Srpska (RSIS)

- Slađana Nikić, Senior Officer for SBS
- Biljana Đukić, Head of production statistics department
- Jelena Glamočika, Head of service statistics department

MS Experts

- Johanna Sisto, Statistics Finland
- Stjepan Boroš, Croatian Bureau of Statistics

Twinning Project Administration

- Katja Møller Hjelvang, RTA
- Đemka Šahinpašić, RTA Assistant
- Haris Imamović