TWINNING CONTRACT

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

STUDY VISIT REPORT

on

Component 1.3.1.S - Index of Production in Construction

Activity 1.3.1.S: Index for Production in Construction – Study Visit to the Italian National Institute of Statistics (ISTAT)

05-07 December 2022

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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
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

1. General comments

This study visit report was prepared within the EU Twinning Project" Further Support to the Reform of the Statistics System in Bosnia and Herzegovina" and organised under Sub-component 1.3.1 - Index of Production in Construction, Activity 1.3.1.S: Index for Production in Construction

The purpose of the study visit was to become familiar with current methodology and practices of Statistics Italy (ISTAT) in producing Index of Production in Construction (IPC) for Italy, with specific focus on data collection process, methods used for data collection, data editing and imputations, IT solutions used for production and dissemination of IPC in accordance with requirements of new European Business Statistics (EBS) Regulation for Short-term Statistics. In particular, the purpose of the Study visit was to:

- get more information on requirements of new EBS Regulation for production of Index of Production in Construction (IPC)
- check how KAUs are implemented in IPC survey in ISTAT
- check which calculation method for IPC used in Italy
- method and process of data collection for IPC (use of web questionnaires)
- how the administrative data sources are used for production of IPC
- IT solutions used for data collection and calculation of IPC
- Calendar and Seasonal Adjustment of time series
- Data dissemination and data transmission to Eurostat – implementation of new Data Structure Definition in accordance with EBS Regulation (BCS DSD)

The staff of BHAS, RSIS and FIS would like to express their thanks to all officials and individuals met for the kind support and valuable information which they received during their stay in Italy.

The views and observations stated in this report are those of the participants and do not necessarily correspond to the views of EU, BHAS, FIS, RSIS, Statistics Denmark, Statistics Sweden, Statistics Finland and Istat.

2. Lessons Learned

On the first day of the study visit, the participants got a general introduction to Statistics Italy presented by the Head of Division for Short-Term Statistics.
During the study visit, representatives from ISTAT delivered detailed presentations and explanations of methodology used for production of IPC for Italy, particularly specific characteristics of data collection process, methodology used for calculation of IPC, calendar and seasonal adjustment of IPC, data dissemination and planned future improvements in data collection for IPC and preparation of Eurostat's data flows. Data used for production of IPC for Italy are collected indirectly by using available administrative data sources suitable for production of IPC as well as other data collected by other departments inside ISTAT. By using indirect method for production of IPC, the ISTAT managed to reduce burden on reporting units, KAUs are directly implemented in the survey as statistical unit and coverage of units is much wider (small enterprises are methodologically covered). The most of construction companies in Italy are small companies with less than 10 persons employed. Structural data on construction activity in Bosnia and Herzegovina are different comparing to EU countries, including other European countries. IPC for Italy is produced in monthly periodicity, compared to IPC for BiH which is produced in quarterly periodicity. Specific aspects of the production function used for

calculation of IPC in Italy are provided. Representatives from three statistical institutions in BiH discussed with ISTAT colleagues about methodological issues related to non-response treatment, detection and treatment of outliers and estimates of final results.

ISTAT colleagues presented their experiences and practices in collecting the data on construction workers from the Building workers' welfare funds (BWWF) of Italy. The GINO (Gathering Information Online) system is the web application used since 2022 for collecting the data from reporting units. Detailed presentation of the GINO functionalities is given during the visit. ISTAT's experience in using the GINO as web application is very useful for BiH representatives since all three statistical institutions in BiH currently use paper questionnaires as traditional way of data collection. All three statistical institutions in BiH are facing issues such as lack of staff (methodologists and IT developers), lack of adequate infrastructure (servers, IT equipment), etc. One of the lessons learned from the discussion with ISTAT colleagues is that switch from paper questionnaires to web questionnaires would significantly increase the quality of collected data, speed up data collection, reduce burden on reporting units as well as subject matter statisticians. Next topic covered in this Study visit was related to the data dissemination. ISTAT presented the importance of data dissemination and how the data dissemination can be enhanced by statistical office. Various formats of data dissemination have been presented. It is very important for all three statistical offices in BiH to develop online dissemination database which would significantly facilitate data users.

Specific aspects of calendar (CA) and seasonal adjustment (SA) of time series are presented by colleagues from ISTAT. Based on discussion of BiH and ISTAT colleagues, one of the most important points of CA and SA topic is that this process should be primarily done by methodologists (mathematicians). Currently, subject matter statisticians work on CA and SA in all three statistical offices in BiH. They don't have methodological support form Methodology department for CA and SA of time series. This issue should be solved as soon as possible since subject matter statisticians from all three statistical offices don't have relevant knowledge and expertise in the field of calendar and seasonal adjustment of time series.

The third day was dedicated to presentation of data transmission to Eurostat, formats used for specific STS time series and use of EDAMIS platform for data transmission. ISTAT presented Data & Metadata Manager developed by ISTAT. BHAS implemented this solution for preparation of STS data in SDMX-ML format for data transmission to Eurostat. BHAS will have to implement BCS as new Data Structure Definition (DSD), according to requirements of new EBS Regulation for Business Statistics, instead of ESTAT STSALL DSD currently used. BHAS representatives expressed their willingness to implement BCS as new DSD as soon as possible in order to be able to transmit IPC data to Eurostat by using new DSD.

The study visit concluded by summing up the visit and the participants from BiH got recommendations on how to improve the production system for IPC.

3. Conclusions and recommendations

The study visit to Statistics Italy (ISTAT) met our expectations, particularly in part of getting detailed information on their experience on production of Index of Production in Construction (IPC). Experience gained on this SV will be used for further development and improvement of statistical production process as well as methodology for production of IPC.

The GINO web application for data collection and IT production system used by ISTAT, its functionalities, especially procedures used for data editing, imputations, validation of the data, are very good solutions and example on how the similar solutions could be implemented in BiH. BC participants agreed that good IT production system is crucial for efficient production of statistical indicators. Burden on reporting units and subject matter statisticians would be significantly reduced by developing web questionnaires – web data collection. Currently, all three statistical institutions in BiH use different IT applications for production of IPC.

One of the main priorities of all three statistical institutions in BiH is modernization of data collection by introducing electronic questionnaires and use of available administrative data sources. Lack of IT developers in all three statistical institutions in BiH is one of the problems. Therefore, development of comprehensive IT production system is the long-term process which will require a lot of financial and human resources.

BC participants agreed that CA and SA process in all three statistical institutions will have to be done by Methodology Department primarily, while subject matter statisticians can provide relevant explanations on data changes and quality of collected data. Use of R software and RJDemetra package in R software could be introduced for regular production of CA and SA series for IPC.

Detailed explanations of methodology used for production of IPC in Italy helped the BC participants to understand how the IPC calculation method for BiH can be improved. All three statistical institutions will keep working on improvement of methodology for calculation of IPC in BiH. Upcoming missions through IPA 2017 Twinning project for IPC component will be used for finalization of redesigning methodology for calculation of IPC, back casting and rebasing of time series and data transmission to Eurostat.

Data dissemination of IPC for BiH will be improved by using experience and practices of ISTAT. BC staff will consider the possibility of implementing new format of data dissemination of IPC.
BC participants gained very useful information and knowledge from ISTAT's colleagues who have broad experience and practice. Furthermore, this SV enabled BC participants to become more familiar with specific methodological issues of IPC production as well as very productive discussions with ISTAT colleagues. All received materials and presentations will be further analyse and made available to all interested parties in the statistical system of BiH.

Annex 1. Programme

Monday, 5 December 2022 Rome, via Cesare Balbo 14 – Room 107		
9.30 – 10.00	Introduction	*Giancarlo Bruno*
10.00 – 11.00	Index of production in construction	*Alessandra Leo*
11.00 – 11.30	Break	
11.30 – 12.30	Calculation method for IPC used in Italy	*Luigi Martone*
Tuesday, 6 December 2022 Rome, via Cesare Balbo 14 – Room 107		
9.30 – 10.30	Building workers welfare funds (BWWF) Istat monthly survey: method and process of data collection	*Tiziana Iacobacci*
10.30 – 11.00	Break	
11.00 – 12.00	Calendar and Seasonal Adjustment of time series	*Paola Anzini*
12.00 – 12.30	Data dissemination	*Fabiana Sartor*
Wednesday, 7 December 2022 Rome, via Cesare Balbo 14 – Room 107		
9.30 – 10.30	Building Workers Welfare Funds (BWWF) survey and an introduction to the web questionnaire	*Alessandra Leo*
10.30 – 11.00	Data transmission to Eurostat	*Daniela Raffaele*
11.00 – 11.30	Break	
11.30 – 12.30	The generation of the SDMX data files to be transmitted to Eurostat on the base of the BCS DSD through the ISTAT's SDMX Meta & Data Manager tool	*Alessio Cardacino*
12.30 – 13.00	Conclusion and new developments	*Giancarlo Bruno*

Annex 2. Persons met

Agency for Statistics of Bosnia and Herzegovina (BHAS)

Mr. Fahir Kanlic	*Head of Department for Industry, Construction and STI Statistics*
Ms. Anita Brkovic	*Senior Adviser for Construction Statistics*
Ms. Dženita Babic	*Senior Adviser for Construction Statistics*
Ms. Maria Ostojić	*Junior Officer-Trainee in Department for Industry and Construction*

Institute for Statistics of the Federation of Bosnia and Herzegovina (FIS)

Ms. Edina Dulic	*Senior Adviser for Construction Statistics*
Ms. Nusreta Imamovic	*Head of the Department for Industry, Construction and Energy Statistics*
Ms. Razija Bicakcic	*IT Support and Programmer for Surveys in Construction Statistics*

Institute of Statistics for Republika Srpska (RSIS)

Ms. Biljana Djukic	*Head of Production Statistics Department*
Mr. Zelimir Radisic	*Senior Statistician, Production Statistics Department*
Ms. Danica Babic	*Senior Statistician, Production Statistics Department*

Project representative/Interpreter

Ms. Larisa Muslimovic	*RTA Assistant*

Istat – The Italian National Institute of Statistics

Mr. Giancarlo Bruno	*Head of Division for short-term business statistics*
Ms. Alessandra Leo	*Division for short-term business statistics*
Mr. Luigi Martone	*Division for short-term business statistics*
Ms. Tiziana Iacobacci	*Division for direct surveys and digital tools for data collection*
Ms. Fabiana Sartor	*Division for short-term business statistics*
Ms. Paola Anzini	*Division for methods, quality and metadata*
Ms. Daniela Raffaele	*Division for development and management of technologies for registers and databases*
Mr. Alessio Cardacino	*Division for development and management of technologies for registers and databases*