

TWINNING CONTRACT

BA 12 IB ST 01

Support to the State and Entity Statistical Institutions, phase VI



MISSION REPORT

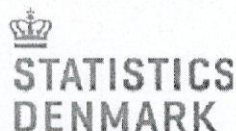
on

Activity 1.9 Implementation of ESA10 III

Mission carried out by
Markku Rätty, Statistics Finland
Niina Suutarinen, Statistics Finland

19 October – 21 October 2016

Version: Final



Expert contact information

Markku Rätty
 Statistics Finland
 Työpajankatu 13
 FI-00022 Helsinki
 Finland
 Tel: +358 29 551 2460
 Email: markku.ratty@stat.fi

Niina Suutarinen
 Statistics Finland
 Työpajankatu 13
 FI-00022 Helsinki
 Finland
 Tel: +358 29 551 2307
 Email: niina.suutarinen@stat.fi

Table of contents

1. General comments	3
2. Assessment and results	3
3. Conclusions and recommendations	4
Annex 1. Terms of Reference	5
Annex 2. Persons met	7

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 mission report was prepared within the Twinning Project "Support to the State and Entity Statistical Institutions, phase VI". It was the activity 1.9 (Implementation of ESA10 III) to be devoted to national accounts within Component 1 of the project. This activity was the last activity before the Follow up 1.10.

The purposes of the mission were:

- Follow-up on work done in 1.8 (related to ESA2010)
- To discuss R&D -figures (investments, output, consumption of fixed capital) for 2014, and further evaluate the quality of R&D source data
- To discuss software for own final use figures
- To calculate the output of non-life insurance for 2014, using the adjusted claims approach

The experts would like to express their thanks to all officials and individuals met for the kind support and valuable information which they received during the stay in Bosnia-Herzegovina and which highly facilitated the work of the consultants.

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

2. Assessment and results

Follow-up on work of ESA2010 transition issues

Follow-up of issues related to action points from activities 1.8 of the project were carried out. All in all R&D, software for own final use and output of non-life insurance are the three transition issues that have the biggest impact on GDP although the total impact is quite moderate in Bosnia-Herzegovina. The implementation of ESA2010 issues have progressed as planned as the 2014 figures have been completed mostly. Most of the unsolved methodological issues were to be solved during the activity 1.9 since the final calculations according to ESA2010 will be conducted by the end of this year. ESA2010 data series are planned to be published in May 2017.

Research and development (R&D)

Statistical authorities in BiH presented methods, data sources and results of the calculations for 2014 figures and for the years that there were no data sources figures were calculated by using alternative back casting methods. Problems with the calculation relate mostly to weaknesses in the data sources. There is strong need to improve the data quality of R&D data sources since as economy develops R&D will have bigger impact on GDP in the future. For the time being additional effort is needed in evaluation the quality of R&D source data and investigating the missing data.

Concerning implementation of ESA2010 the statistical authorities in BiH and MS experts agreed on the calculation methods of consumption of fixed capital, previous year price calculations and back-casting of time series.

Software for own final use

Statistical authorities in BiH presented methods, data sources and results of the calculations for 2014 figures and for the years with no data sources figures were calculated by using back-casting method.

Statistical institutions presented calculations on software for own final use by using two different data sources and different approaches, based on the data of investment survey and number of IT experts. Due to absence of accurate data sources on own-account software, calculations rely on assumptions and estimates.

Also the treatment of software for own final use in Frascati-NA bridge table came to conclusion. It was concluded not to record software for own final use in Frascati-NA bridge table in the case when software for own final use is not included in Frascati R&D expenditure value. Otherwise also the R&D output and GFCF values would be incorrect.

Non-life insurance

Statistical authorities in BiH presented progress on the issue. On the mission 1.8 it had been set as an action point to calculate output for non-life insurance for year 2014 according to ESA 2010. The calculations had been prepared for this mission, and they seemed appropriate.

When calculating the ESA 2010 output, catastrophic losses should be excluded from claims before making the adjustment, so that catastrophic losses don't affect output at all (ESA 2010 isn't clear about this detail, but this is the experts' understanding). In Bosnia and Herzegovina there were large floods in 2014 which resulted exceptional claims, and the floods can be categorised as a major catastrophe (see ESA 2010, 16.92). The statistical authorities explained that, because of limitations in source data, they cannot be distinguished from all claims due to fire, floods and other natural disasters. That's why the flood claims are "only" adjusted, and not excluded from output.

The experts advised, that even though claims have been quite stable after year 2014, they should still be adjusted for calculation of output. This will be done using moving averages, because source data doesn't allow using equalisation reserves. It could also be studied, whether all claims (and not only those related to natural disasters) could be adjusted.

3. Conclusions and recommendations

Research and development

Concerning implementation of ESA2010 the statistical authorities in BiH and MS experts agreed on the following:

- Since perpetual inventory method (PIM) model is not feasible at the time being, consumption of fixed capital (CFC) of R&D is calculated by using the method

recommended by Eurostat's Working Group on R&D. In this method CFC of R&D is estimated as a percentage of the compensation of employees or current expenditure.

- Previous year price calculations on R&D are executed by using composite price index, in which gross salary index for industry 72 (research and development), PPI (total) and CPI (total) are weighted together by the current price cost structure.
- Back-casting of R&D time series for years with no data sources is calculated by using the annual changes of number of employees in industry 72 as a volume indicator for constant price market output and non-market output.

Integrating the ESA2010 figures in production accounts demands further investigation in the case of intermediate consumption, as in the ESA1995 R&D was recorded as current cost in intermediate consumption instead of GFCF as in ESA2010. The exact values of R&D to be subtracted from the ESA1995 intermediate consumption are not known at the moment.

Software for own final use

Concerning implementation of ESA2010 the statistical authorities in BiH and MS experts agreed on the following:

- Software for own final use in current prices will be calculated on basis of the data from an investment survey.
- Previous year price calculations on software for own final use are executed by using CPI (total).
- Back-casting of time series for years with no data sources is calculated by using 2014 ratio of own account software to all software investments.

It is necessary to improve further data sources and the calculation methods.

Non-life insurance

The situation with non-life insurance is good: the ESA 2010 output for year 2014 had been calculated, and there are no unsolvable shortages with the source data. It was recalled, that claims need to be adjusted yearly (after 2014) regardless whether there are big fluctuations in claims or not. However, the experts recommend that all claims (and not only those related to natural disasters) be adjusted.

Annex 1. Terms of Reference

EU Twinning Project BA-12-IB-ST-01 Terms of Reference

Component 1: National Accounts

**19th October – 21th October 2016
Institute for Statistics of Republika Srpska**

Banja Luka, Veljka Mladenovića 12 d,

Activity

1.9 Implementation of ESA10 III

Benchmarks

- Delimitation of market and non-market producers according to the ESA 2010 criteria completed by 8th project quarter
- Staff in three statistical institutions trained to implement SNA 2008/ESA 2010 by 8th project quarter
- Guidelines for implementation of institutional sectors according to SNA 2008/ESA 2010 available by 8th project quarter

Purpose of activity

The expected activities are:

- Follow-up on work done in 1.8 (related to ESA2010)
- To discuss R&D –figures (investments, output, consumption of fixed capital) for 2014, and further evaluate the quality of R&D source data
- To discuss software for own final use figures
- To calculate the output of non-life insurance for 2014, using the adjusted claims approach

Expected output

- | | |
|---|--|
| • | Further review and input on R&D estimated figures provided |
| • | Input to software solutions for own final use provided |
| • | Estimation of the output for 2014 non-life insurance made |

Agenda

Location: Institute for Statistics of Republika Srpska, Banja Luka, Veljka Mladenovića 12 d

Time	Day	Place	Event	Purpose / Detail of event
------	-----	-------	-------	---------------------------

11:00-15:30	Wednesday, morning and afternoon	BC	Workshop with Experts	Follow-up on work done in 1.8 (related to ESA2010) To discuss R&D –figures (investments, output, consumption of fixed capital) for 2014, and further evaluate the quality of R&D source data BC participants and MS experts
8:30-15:30	Thursday, morning and afternoon		Workshop with BC Experts	To discuss software for own final use figures To calculate the output of non-life insurance for 2014, using the adjusted claims approach BC participants and MS experts
8:30-13:00	Friday, morning		Meeting with BC Experts	Presentation of results, Agreement on report. BC participants and MS experts

Annex 2. Persons met

MS Experts

Mr Markku Rätty, Statistics Finland,
Ms Niina Suutarinen, Statistics Finland

Agency for Statistics of BiH (BHAS)

Dijana Mlikota, Assistant Director for Macroeconomic Statistics
Edina Kozić, Head of National Accounts Department
Rade Čolaković, Senior Officer

Institute for Statistics of Federation of BiH (FIS)

Nermina Ibrišević-Ademović, Head of National Accounts Department

Zlatka Tukić, Senior Adviser

Šejla Šehović-Karšić, Senior Adviser

Sanjin Čengić, Junior Officer

Institute for Statistics of Republika Srpska (RSIS)

Rada Radanović, Head of National Accounts Department

Dijana Maleš, Senior Associate

Žana Alagić, Senior Associate

Jadranka Luburić, Senior Associate

Twinning Project Administration

Søren Leth-Sørensen, RTA

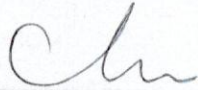
Djemka Šahinpašić, RTA Assistant

Interpreter: Svjetlana Pavičić

Signatures

For the approval of the contents of this report, representatives from BHAS, FIS and RSIS as well as experts and the RTA sign here:

Date: 21.October 2016.



Component leader, BHAS



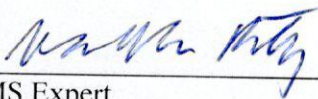
Component leader, FIS



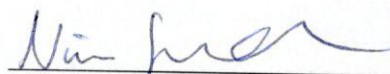
Component leader, RSIS



RTA



MS Expert



MS Expert

