

**TWINNING CONTRACT**

**Support to the State and Entity Statistical Institutions, phase V**

**Bosnia-Herzegovina**



**MISSION REPORT**

**on**

**Construction Statistics**

**Component no. 1 Activity 1.3.3**

Mission carried out by Roberto Iannaccone, ISTAT  
Erik Nielsen, Statistics Denmark

November 12<sup>th</sup> – November 16<sup>th</sup>, 2012

Version: Final

		 <b>STATISTICS DENMARK</b>

**Author's name, address, e-mail**

*Roberto Iannaccone*

*Istat*

*Viale Liegi 13*

*Rome*

*Italy*

*Tel. +39 06 46737309*

*Erik Nielsen*

*Statistics Denmark*

*Sejrøgade 11*

*DK-2100 Copenhagen Ø*

*Denmark*

*Tel. +45 39 17 35 41*

*eni@dst.dk*

## Table of contents

Executive Summary .....	3
1. General comments.....	3
2. Main result concerning pilot survey on building permits in BiH .....	4
3. The regular survey .....	7
3.1. Detailed Plan for building permit pilot survey .....	7
4. Overview of EU Regulation.....	9
5. Methods for calculation of IPC .....	9
6. Conclusions and recommendations .....	10
Topics for the next meeting, action 1.3.4 .....	10
Annex 1. Terms of Reference .....	11
Annex 2. Programme for the mission.....	1514

## List of Abbreviations

BiH	Bosnia-Herzegovina
BHAS	Agency for Statistics of Bosnia and Herzegovina
FIS	Institute for Statistics of Federation of Bosnia and Herzegovina
RS	Republika Srpska
RSIS	Institute for Statistics of Republika Srpska
ToR	Terms of Reference

## Executive Summary

---

The topic of this mission was Follow up on building permits statistics-pilot survey; Support for regular compilation of Index of Production in Construction (part of activity 1.3.4)

This included:

1. Main result concerning pilot survey on building permits in BiH
2. The regular survey
3. Overview of EU Regulation
4. Methods for calculation of IPC

## 1. General comments

This mission report was prepared within the Twinning Project „Support to the State and Entity Statistical Institutions, phase V”. It was the third mission within subcomponent 1.3 on construction statistics of the project. The main focus of the mission was building permits. There was a special focus on establish a plan for the regular survey on building permits.

The views and observations stated in this report are those of the consultants and do not necessarily correspond to the views of EU, BHAS / FIS / RSIS or Istat/Statistics Denmark. Furthermore, both consultants would like to express thanks to all officials and participants for the

kind support, the involvement and valuable information which we received during the stay in Bosnia-Herzegovina.

## **2. Main result concerning pilot survey on building permits in BiH**

### **Overview of result**

#### **1) The situation before 1. Mission**

The starting point was that there were no data concerning building permits in BiH. The idea was that the regular survey should replace the *Quarterly Statistical Pilot Survey of Construction* conducted in 2011 in cooperation with SIDA.

BiH faced the following problems:

- a) Complex administrative structure
- b) No knowledge about the size of the illegal construction
- c) No information on the existing stock of buildings and dwellings (no register)

#### **2) The situation after 2. Mission**

- a) There was a draft version of questionnaires for the pilot study, discussed with the stakeholders to take into account their needs
- b) There was established a detailed plan for the pilot study, see Mission Report from the 2. Mission

#### **3) The Pilot Survey**

BiH decided to send out the questionnaire to all the units to get full coverage. It was the impression that the municipalities, cantons and ministries were very willing to cooperate and participate in the pilot study.

It was decided to send out the questionnaire before the 15<sup>th</sup> of September with reference month of August 2012.

### **Data analysis**

The analysis of the data is not yet finished. There are some data which needs a further investigation.

#### **1) The response rate**

The response rate was about 90% in the Federation, 95% in the Republika Srpska and 100 % in Brcko District, which gives an overall response rate of about 90%.

Furthermore, of the 607 building permits received 394 concern new construction and 213 legalization of existing building. Concerning building owner they were divided on 466 individual/private persons and 141 legal entities.

## **2) Typical failure**

- a) Difficulties were how to distinguish between useful floor area and gross surface
- b) The sum of useful floor area were different from the sum of the areas of the dwellings
- c) The sum of dwellings in one building were different the reported dwellings in same
- d) The description of the building does not match the CC-code
- e) The value was given in KM and not in 1000 KM
- f) Some municipalities could not find the relevant CC-code and therefore classified them as Other building

The typically failures will be used to improve the survey.

The experts stressed that a register of buildings will be a great help in keeping a check on data, especially in relations to extensions. There must be a reference between the extension and the existing building.

## **3) Possible improvements (from the agency and the respondents):**

- a) All three statistical institutions agreed that CC classification at 4-digit will be used in regular survey. Complete version of CC classification (KVGO BiH) will be sent out to reporting units. Using CC classification, BHAS will be able to calculate data by CPA classification according to Eurostat's recommendations.
- b) An electronic version of the questionnaire will be also sent out to reporting units by email as well as hard copy. All materials for building permits survey will be available on websites of all three statistical institutions.
- c) It needs to be decided in which way to do corrections between individually or in direct contact with the reporting units;
- d) It has been considered to introduce an annual survey on buildings completed and another one on demolition of residential buildings in order to get a better picture and to arrive to a possible register. The Census in 2013 could also provide information for the implementation of a possible register.

## **4) Time plan**

Regular survey will be launched in 2013 and data will be collected, controlled and processed but not published. First data dissemination for the four quarters of 2013 will be carried out together with data from 1<sup>st</sup> quarter of 2014.

## **5) Discussion of questionnaire**

A proposed question on the duration of the construction process was not regarded as possible.

Question 5: A proposal from the experts concerning a further detailed classification of the investor was discussed. BiH's option was that it was not necessary because question 6 could help them if necessary. It was agreed by the experts.

Question 7: It was pointed out that the proposal from Eurostat concerning the use of CPA instead of CC could give some consideration about what classification to use. But both the experts and all three statistical institutions will keep the CC-classification – at least for internal use.

Question 8:

- The list was reduced and agreed on at a meeting with the municipalities
- “Other conversion”: The experts asked if it was necessary with this question. BiH would keep it because it is very popular to convert buildings – or parts of them – to business area. The experts agreed on this.
- The experts proposed that the list may be expanded with a question concerning demolition. BiH will investigate if demolition need a building permit

Question 9: The experts proposed to omit the question. BiH explained that the data on this question were full of failures. This question will be retained in the questionnaire for 2013. The National Account wanted the information, but it will be asked to NA if the information are still needed. Furthermore, a test of the validation of data will be performed.

Question 10: The experts proposed that the question may be expanded with questions on useful floor areas for habitation, business and other purposes. It could be used in connection with a logical control. This breakdown will be involved in the questionnaire.

Question 11: The experts were still unsure concerning the understanding of “traditional”. BiH said that there was a general understanding of this word in BiH.

Question 12: BiH told that this question resulted in many problems for the respondents, because there are two understanding of “floor” in BiH. After a longer discussion it was agreed that the possible answers should be changed to:

1. Under Ground Floor
2. Ground Floor
3. Above Ground Floor
4. Attic (useful floor area needed)

Furthermore, the experts proposed to introduce “Build-up area”. It can be used to a logical control of sum of total useful area. BiH would consider the usefulness of such a question.

Question 13: The experts stressed that this question was not necessary in relation to the STS-regulation, but BiH wants to keep it due to internal reasons.

Question 14: The experts proposed that the answers about the rooms were omitted because the information was very unreliable (can be changed without a building permit). BiH wanted to keep the answers of internal use and because they use them on a cooperation with other countries.

The experts asked if there were clear relations between the identifications in this questionnaire and the Census questionnaire. BiH confirmed that this was the case. There was a discussion concerning a unique identification. It was BiH’s impression that the respondents were willing to use the unique identification if it would be established.

The quarterly data should be disseminated in quantitative form and not as index.

Finally, the experts asked how BiH would treat late and wrong answers from the respondent. The experts recommend that BiH should establish a revision policy.

## 6) A register of buildings and building permits

The experts recommended an establishment of a register of buildings and building permits. It would be a necessary instrument to keep control to avoid duplication of data, to check extensions of building, etc. The experts stressed that a single register should be established!

In connection with this recommendation a unique identification of buildings and building permits were discussed. Danish expert explained how to create unique identifications and the usefulness of them on the basis of the Danish experience.

BiH hopes that it will be possible to establish such registers in the future.

## 3. The regular survey

Experts are informed on common agreement reached between statistical institutions on data exchange for regular surveys on building permits.

The experts recommended that there should be established “user-groups”. BiH’s opinion was that it was not necessary at this moment. BiH considered contacting the municipalities under 2013 in connection to the regular survey.

The plan is:

- Data are collected monthly, but published quarterly
- The deadline for municipalities to send data shall expire by the 10<sup>th</sup> of the current month for the previous month
- The control of data is the responsibility of the entities
- Municipalities will receive the questionnaire, control sheet and the instructions for 12 months in advance not later than the end of the calendar year
- The Agency will receive data for the actual month on 30th of the following month. These deadlines will be tested during 2013 and will be agreed on for regular production in 2014.

### 3.1. Detailed Plan for building permit pilot survey

<i>SECTOR FOR BUSINESS STATISTICS</i>					
<i>PLAN FOR DEVELOPMENT OF REGULAR SURVEY ON BUILDING PERMITS THROUGH IPA 2008 PROJECT</i>					
No	MAIN ACTIVITY	COMPONENTS OF MAIN ACTIVITY	DATE OF REALIZATION	PARTICIPANTS	RESPONSIBLE INSTITUTION
1	<b>PREPARATION ACTIVITIES</b>	Questionnaire coding for the purposes of sending to the BHAS	15.1.2013	FIS RSIS	FIS RSIS

<b>2</b>	<b>QUESTIONNAIRE</b>	1. Preparation of final version of questionnaire based on comments and agreements from the last mission, version for regular survey	30.11.2012	BHAS FIS RSIS	BHAS FIS RSIS
		2. Amendment to the instructions for filling out the questionnaire			
		3. Invitation letter for reporting units prepared- for regular survey			
		4. CC classification prepared for reporting units			
		5. Send prepared documents from point 2 to experts	5.12.2012	BHAS	
		6.Feedback from experts	10.12.2012	IPA EXPERTS	IPA EXPERTS
		7. Send out the questionnaires to the reporting units	31.12.2012	BHAS FIS RSIS	BHAS FIS RSIS
<b>3</b>	<b>SCOPE OF PILOT SURVEY</b>	1. Target population - observation units: all municipalities, ministries on the cantonal and entity level	till 31.12.2012	BHAS FIS RSIS	BHAS FIS RSIS
		2. Coverage (census)			
		3. List of reporting units updated based on information from pilot survey			
<b>4</b>	<b>SURVEY PROCESS</b>	1. Sending questionnaires back from reporting units	10th of the current month for previous month	BHAS FISRSIS	BHAS FISRSIS
		2. Data entering	end of current month for the previous month		
		3. Calling and recalling of reporting units			
		4. Data editing and data control, data analysis			
		5. Send the data to BHAS			
<b>5</b>	<b>IT SUPPORT</b>	First version of module for data entry	31.12.2012	BHAS FIS RSIS	BHAS FIS RSIS
		Continuous application development	through whole year, finished before the end of 2013	BHAS FIS RSIS	
<b>7</b>	<b>DATA DISSEMINATION</b>	1. Final proposal for data dissemination forms	31.12.2013	BHAS FIS RSIS	BHAS FIS RSIS



		2. Data dissemination- all three institutions at the same time 3. Revision policy established	10th May for 1st quarter; 10th August for 2nd quarter etc. (40 calendar days after the expiry of quarter)		
8	<b>FORMATS FOR DATA TRANSMISSION</b>	1. Prepared and adopted formats for data transmission to Eurostat	September of 2013	IPA EXPERTS	
9	<b>Methodological document</b>	Methodological document for building permits survey prepared	end of 2013	BHAS FIS RSIS IPA EXPERTS	BHAS FIS RSIS

## 4. Overview of EU Regulation

### Proposal for changes in STS Regulation

The Danish expert presented the proposal from Eurostat concerning changes of the STS-Regulation. The main changes are:

- Recommended yearly updating of weights
- New thresholds for country grouping
- All series shall be send unadjusted, calendar day adjusted and seasonally adjusted
- Reduction in level of detail: NACE, 2-digit and CPA in IPC
- Deadlines shall be reduced with the extra 15 calendar days
- Building Permits shall be send as indices

## 5. Methods for calculation of IPC

### The IPC surveys in Denmark and Italy

To get an idea how to calculate IPC the methodologies used in Denmark and Italy were presented.

The Italian expert has briefly described the results from the *Task Force concerning Guidelines for compiling the monthly Index of Production in Construction* to show that there are no best methodologies. So BiH can choose the method that suits them best.

### Presentation of current situation

It was discussed carefully the existing questionnaires for the monthly and quarterly surveys. The existing monthly questionnaire (GRAD 21, table 2), and supplied with a quarterly statement of construction, was the basic for the current estimation of IPC. But the method is not satisfactorily, e.g. it was difficult for firms to estimate stocks.

In order to avoid duplications and to reduce the burden for enterprises it was agreed to harmonize the different questionnaires to one quarterly questionnaire. A possible problem could be that the users of the statistics may still want the release of monthly data.

## 6. Conclusions and recommendations

The pilot survey shows that BiH already is coming long in the correct direction, regarding the STS-regulations. On background of the proposed changes, the experts evaluate that BiH will be able to fulfill STS- regulation on building permits.

The expert will again underline the importance of the introduction of unique building identification together with establishing a register for buildings. These initiatives are important to raise the quality of data, e.g. by avoiding duplicates.

The discussion of methods for calculations of IPC gave a good forming the basis for the discussions on the next mission.

### *Actions needed for preparing and conducting the next mission or future missions*

Action	Deadline	Responsible person/institution
Make the description of purposes for the quarterly survey	Before 4 <sup>th</sup> mission	BHAS (BD), FIS, RSIS
Analysis of existing questionnaires from the entities (monthly questionnaire GRADJ21) and quarterly questionnaire in order to make one quarterly survey	Before 4 <sup>th</sup> mission	Experts
Check the availability of productivity factors from NA and SBS survey, and send report to experts before next mission	Before 4 <sup>th</sup> mission	BHAS (BD), FIS, RSIS
Make an overview of total population for construction activity and dealing with samples- current situation	Before 4 <sup>th</sup> mission	BHAS (BD), FIS, RSIS
Check the definition and formula for value of production in construction	Before 4 <sup>th</sup> mission	BHAS (BD), FIS, RSIS, experts
Make comparison between results from monthly and quarterly surveys and send to experts	Before 4 <sup>th</sup> mission	FIS, RSIS

### **Topics for the next meeting, action 1.3.4**

1. Analysis of methods used and proposal for calculation of IPC (deflation, productivity etc.)
2. Discussion on the proposals and an agreement on quarterly questionnaire
3. Discussion about scope, coverage and sample design
4. EU requirements concerning Construction Cost Index
5. Italian experience regarding Construction Cost Index
6. Invite statisticians from NA department
7. Preparing activities for next mission

## Annex 1. Terms of Reference

**Construction Statistics**  
**12th to 16th of November 2012**  
**Terms of Reference - Activity 1.3.3.**  
**EU Twinning Project BA 08-IB-FI-03**  
**Agency for statistics of BiH,**  
**Ferhadija 11, Sarajevo**

- Component 1 Business Statistics
- 1.1. Statistical Business Register
  - 1.2. Structural Business Statistics
  - 1.3. Construction Statistics**
  - 1.4. Retail Trade Statistics
  - 1.5. Tourism Statistics
- Component 2 Household Budget Survey
- Component 3 Institutional Capacity
- 3.1. Long term strategy
  - 3.2. Metadata and classification system development
  - 3.3. Promotion of dissemination

### Benchmarks

- A. Plan for development of pilot survey on building permits developed by the 2<sup>nd</sup> project quarter.(Fully achieved)
- B. Plan for modification of existing surveys on construction statistics developed by the end of 2<sup>nd</sup> project quarter (Fully achieved).
- C. Detail plans and preparation for pilot survey on building permits and regular production of construction statistics by 4<sup>th</sup> project quarter (Fully achieved).
- D. Pilot survey on building permits conducted and existing survey on construction statistics improved by the end of 6<sup>th</sup> project quarter (partially achieved).
- E. Relevant results analyzed and plan for regular surveys in force by the 8th project quarter.
- F. Methodologies developed and documented by the 8th project quarter (end of September 2013).

### **1.3.3. Activity**

Follow up on building permits statistics-pilot survey; Support for regular compilation of Index of Production in Construction (part of activity 1.3.4)

The expected activities are:

- Follow up on building permits statistics- pilot survey:
  - a. Presentation of results from conducted pilot survey on building permits (by BHAS)
  - b. Analysis of main results regarding data collection process, first results of collected data for STS variables 411 and 412 required by EU STS Regulation (No. 1165/98), response rate (unit/item response and non-response rate), recalling of reporting units, comments and suggestions on structure and content of questionnaire by reporting units, the most frequently mistakes, etc.
  - c. Discussion about the quality of data collected through pilot survey
  - d. Calculation and dissemination of output data for building permits
  - e. Experts' proposals and advices for improvement of regular survey on building permits (establishment of building stocks, proposals for creation unique ID numbers of buildings and dwellings, etc.)
  
- Development of quarterly survey on construction:
  - a. Overview of EU Regulation and discussion of the collection of the needed STS variables in accordance with Eurostat demands (methods for calculation of IPC including deflation of compiled index)
  - b. Presentation of the current situation in BiH regarding compilation of IPC and evaluation of the existing surveys regarding construction statistics (questionnaires, instructions, etc.)
  - c. Survey design -coverage, sampling and data collection etc. in existing surveys
  - d. Presentation of the Denmark survey on IPC (basic methodological and practical issues)
  - e. Experience from Italy regarding IPC (basic methodological and practical issues)
  - f. Analyses of currently used methods for compilation of IPC in BiH

- Preparation of the list of activities to be done before the next mission
- Planning of 4th mission and preparation of the list of topics for the next mission

<b>Expected output</b>
------------------------

- |  |
|--|
| <ul style="list-style-type: none"><li>➤ Mission report – summarized and detailed version completed</li><li>➤ Results from conducted pilot survey analyzed with proposals for improvement in regular survey (BHAS-BD/ FIS/RSIS participants, experts and RTA)</li><li>➤ Existing methods for compilation at the entity and state level examined</li><li>➤ Presented official EU Regulations and requirements concerning STS variables, especially for IPC</li></ul> |
|--|

<b>Participants</b>
---------------------

List of participants for first mission through IPA 2008 Twinning Project for sub-component 1.3 Construction statistics:

**Agency for statistics of BiH**

Fahir Kanlić, Senior Associate in Sector for Business Statistics, Department for Industry and Construction and coordinator for STS

Alen Bajramović, Head of Department for Services Statistics

Anita Leko, Senior Associate in Sector for Business Statistics, Department for Industry and Construction

Radomir Mutabdžija, Senior Associate in Sector for Business Statistics, Department for Industry and Construction

**Institute for Statistics of Federation of BiH (FIS)**

Nusreta Imamović, Head of Department for Industry and Construction and coordinator for STS

Edina Dulić, Senior Adviser for Construction statistics

**Institute for Statistics of Republika Srpska (RSIS)**

Želimir Radišić, Senior Associate for Construction and Housing Statistics and coordinator for STS

**Experts**

Erik Nielsen, Statistics Denmark

Roberto Iannaconne, ISTAT

**Twinning Project Administration 00 (387) 33/911-992**

Bente Dyrberg, RTA, 00 (387) 66/657-967

Djemka Sahinpasic, RTA Assistant, 00 (387) 63/721-104

Svjetlana Pavlović/Dijana Jovičić-Hadžiahmetović, interpreters

## Annex 2. Programme for the mission

AGENDA		
Time	Event	Purpose / detail
12 November, 12:00	Welcome	Introduction by Experts on programme of the week (Erik Nielsen, Roberto Iannaconne)
	Presentation of re- sults from conducted pilot survey on build- ing permits	<b>Main results concerning conducted pilot survey on building permits in BiH.</b> a. Overview of results from conducted pilot survey (presentation by Fahir Kanlic- BHAS) b. Data analysis: data collection process, first re- sults, response rate (unit/item response and non- response rate), recalling of reporting units, com- ments and suggestions on structure and content of questionnaire by reporting units, the most fre- quently mistakes (BC Participants, MS experts)
13 November, 09:00	Continuation of the previous day- build- ing permits	Discussion: a. Data collected through pilot survey (BC partici- pants with experts) b. Review of questionnaire and control sheet about issued building permits based on comments from reporting units in pilot survey and their preparation for regular survey c. Quality of data collected in pilot survey d. Calculation and dissemination of output data for building permits (BC Participants, MS experts)
14 November, 09:00	Building permits	Agreement on data exchange between statistical institutions for regular surveys on building permits Experts' proposals and advices for improvement of regular survey on building permits (latest infor- mation from STS meeting in Eurostat for building permits) (BC Participants, MS experts)

13:00		Overview of EU Regulation and discussion of the collection of the needed STS variables in accordance with Eurostat demands (methods for calculation of IPC including deflation of compiled index) (Erik Nielsen, Roberto Iannaconne)
15 November, 09:00	Continuation of the previous day- IPC	<p>Presentation of current situation on the state and entity levels for construction statistics (questionnaires, instructions, etc.)</p> <p>Survey design - coverage, sampling and data collection etc. in existing surveys (Colleagues from entities- BC experts)</p> <p>Presentation of IPC surveys in Denmark and Italy- basic methodological and practical issues (MS experts)</p> <p>Analyses of currently used methods for compilation of IPC in BiH</p>
	Next mission	<p>a. Preparation of topics for the next ToR</p> <p>b. Homework elaboration for the next mission (BC Participants, Erik Nielsen, Roberto Iannaconne)</p>
16 November till 12:00	Debriefing	<p>Other issues and evaluation of the summarized mission report</p> <p>(BC Participants, Erik Nielsen, Roberto Iannaconne)</p>