

**IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597**

MISSION REPORT

**Steering Committee of the International Monitoring Operation on
the Population and Housing Censuses in Bosnia and Herzegovina**

Twenty-second Assessment Report

Date of the mission: 1 – 4 February 2016

Place of the mission: Sarajevo, Bosnia and Herzegovina

**Experts: Jean-Michel DURR, Senior expert, SC Team leader
Meryem DEMIRCI, Expert**

**IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597**

Contents

LIST OF ACRONYMS.....	3
BACKGROUND AND REFERENCE	4
EXECUTIVE SUMMARY	7
MANAGEMENT	8
<i>Recommendations.....</i>	<i>8</i>
LOGISTICS	9
<i>Recommendations.....</i>	<i>9</i>
DATA PROCESSING.....	9
CODING	9
<i>Assessment.....</i>	<i>9</i>
<i>Recommendations.....</i>	<i>9</i>
DATA EDITING	10
<i>Assessment.....</i>	<i>10</i>
<i>Recommendations.....</i>	<i>11</i>
PROTECTION OF PERSONAL INFORMATION - ARCHIVING	11
<i>Recommendations.....</i>	<i>12</i>
POST ENUMERATION SURVEY	12
<i>Assessment.....</i>	<i>12</i>
<i>Recommendations.....</i>	<i>13</i>
DISSEMINATION OF CENSUS RESULTS	13
<i>Assessment.....</i>	<i>13</i>
<i>Recommendations.....</i>	<i>14</i>
ANNEXE.....	15
AGENDA OF THE MISSION	15

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

List of acronyms

BiH	Bosnia and Herzegovina
BHAS	Agency for Statistics of Bosnia and Herzegovina
CoM	Council of Ministers of BiH
CMIS	Central Monitoring Information System
CSO	Civil Society Organisation
DB	District Brčko
EA	Enumeration area
FBiH	Federation of Bosnia and Herzegovina
FOS	Federal Office of Statistics (FBiH)
EI	Entity Instructor
EN	Enumerator
EUPHC 2	Technical assistance to Population and Housing Census Phase II
GIS	Geographic Information System
ICEI	Department for International Cooperation and External Information
IMO	International Monitoring Operation
IMO MG	International Monitoring Operation, Management Group
IMO SC	International Monitoring Operation, Steering Committee
IT	Information Technology
LFS	Labour force survey
MCC	Municipal Census Commission (Census Commission of the units of local self-government)
MI	Municipal Instructor
PES	Post Enumeration Survey
Q	Question
RS	Republika Srpska
RSIS	Republic Srpska Institute for Statistics
SA	Statistical Area
SI	Statistical Institution
TA	Technical Assistance
TAP	Technical Assistance Project
TOR	Terms of Reference

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

Background and reference

1. A Population and Housing Census shall take place in Bosnia and Herzegovina (BiH) in accordance with the Law on the Census of the Population, Households and Dwellings in Bosnia and Herzegovina in 2013 as adopted by the Parliamentary Assembly of Bosnia and Herzegovina on 3 February 2012. The Council of Ministers of Bosnia and Herzegovina has invited the European Commission to organise the international monitoring of the Census. Therefore, the European Commission, the Council of Europe and the Council of Ministers of Bosnia and Herzegovina signed on 18 April 2012 a Memorandum of Understanding to agree upon the following:

- The general objective of the International Monitoring Operation (IMO) of the Population and Housing Census in Bosnia and Herzegovina is to monitor the compliance of the whole Census exercise, from the preparation to the data dissemination, with:
- International standards on population and housing censuses as defined by UNECE and Eurostat, and as adopted by the Conference of European Statisticians as Recommendations for the 2010 Censuses of Population and Housing;
- Regulation (EC) No 763/2008 on population and housing censuses, and its implementing measures;
- The Fundamental Principles of Official Statistics, adopted by the UN Statistical Commission, as well as the European Statistics Code of Practice, promulgated by the European Commission;
- Standards on data protection and confidentiality, as provided for in the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data of the Council of Europe, and the relevant European Union regulations in force.

2. The Operation will be carried out by a Committee of International Organisations, the Management Group (IMO MG) assisted by a Senior Census Expert, experts in population censuses, one or more experts in information technology and persons monitoring the census enumeration in the field.

3. The Senior Census Expert, the Census Experts and the IT Experts will assess the compliance of the Census in Bosnia and Herzegovina with the requirements listed in the Memorandum of Understanding, but they will not provide technical assistance.

4. Under the guidance of the Committee and the Senior Census Expert, the Census Experts shall:

- Examine the technical preparation of the Census including the pilot Census and post-enumeration survey, in particular the drafting of questionnaires and manuals;
- Monitor the collection, processing and dissemination of Census data, verifying the accordance with the requirements defined above;
- Control the fair and proper computation at all levels and whether the confidential nature of the individual data is fully guaranteed;
- Investigate any other matter with relevance for the Census.

5. The Management Group has designated Mr. Jean-Michel Durr as Senior Census Expert and Mr. Roberto Bianchini, Mr. Bent Noerby Bonde, Ms. Meryem Demirci, Ms. Katerina Kostadinova-Daskalovska, and Mr. Guido Pieraccini as experts in population censuses. The

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

Senior Census Expert and the Experts in population censuses form the IMO Steering Committee (IMO SC) of international experts.

6. The first mission of the IMO SC was conducted from 23 to 26 April 2012. The objective of this mission was to assess the preparations for the population and housing census in their main components, including the preparation of the pilot census. The report of the SC was sent by the Senior Census Manager on May 12 to the IMO MG.

7. The second mission was conducted from 26 to 29 of June 2012. The objective of this mission was to assess the progress made since the first mission in preparations for the population and housing census, including the preparation of the pilot census.

8. The third mission took place on 17 and 18 of September 2012 and was conducted by two members of the SC, namely, Mr. Jean-Michel Durr and Ms. Katerina Kostadinova-Daskalovska. The objective of the mission was to assess the implementation of recommendations made in previous reports and to assess the preparation of the pilot census, planned for October 15-29.

9. The fourth mission took place between 10 and 29 of October 2012 and was conducted successively by the members of the SC (5 days each, except the senior expert from 10 to 19 of October). The objective of the mission was to observe the conduct of the pilot census in the field. In addition, a team of four observers, composed of Lidija Naumovska, Gabor Rosza, Jean-Paul Sardon and Per Schöning was present during the whole period of the pilot census. Each of them covered several municipalities, in order to observe the pilot census field operations in all the 60 enumeration areas (EAs) sampled in the pilot.

10. The fifth mission took place from 19 to 21 of November 2012 (3 days) and was conducted by one member of the SC, Ms. Katerina Kostadinova-Daskalovska. The objective of the mission was to observe the conduct of the Post enumeration survey (PES) of the Pilot census in the field. The expert covered all 6 EAs (in 6 municipalities) sampled in PES sample in order to observe the PES field operations.

11. The sixth mission took place from 10 to 13 of December 2012 and was conducted by four members of the SC: Mr. Roberto Bianchini, Mr. Bent Noerby Bonde, Ms. Katerina Kostadinova-Daskalovska and Mr. Guido Pieraccini. The objective of the mission was to hear from the Statistical Institutions about the lessons learn from the Pilot Census and to assess whether the preparations are on level that could allow conducting a census in April 2013.

12. The seventh mission took place from 12 to 15 February 2013 and was conducted by one member of the SC, Mr. Roberto Bianchini. The objective of the mission was to assess the situation on the progress of preparation and implementation of the IMO recommendations in the new context of the postponement of the census, with a focus on the achievement of the deadlines regarding cartographic preparations. A second objective was to collect information and materials for a more detailed assessment on the progress of census preparatory activities to be made by all members of the SC in March 2013.

13. The eighth mission was conducted by the complete SC from 18 to 22 March 2013. The objective of the mission was to assess in detail progress made in the preparations with regard to the milestones given after the sixth mission in December 2012, when the SC recommended to postpone the census to October 2013.

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

14. The ninth mission was conducted by two members of the SC, Jean-Michel Durr and Katerina Kostadinova-Daskalovska from 22 to 25 April 2013. The objective of the mission was to assess the progress made in the preparations with regard to the milestones given in the sixth mission and updated in previous missions.

15. The tenth mission was conducted by the full SC from 28 to 31 May 2013. The objective of the mission was to assess whether the progress made in the preparations was sufficient to consider that the country was ready to conduct a census in October 2013.

16. The eleventh mission was conducted by three members of the SC, Mr. Jean-Michel Durr, Mr. Bent Noerby Bonde and Mr. Guido Pieraccini from 16 to 19 July 2013. The objective of the mission was to assess whether the preparations were still on track after the positive assessment of the 10th mission to conduct a census in October 2013. A special focus was put on the preparation of data processing.

17. The twelfth mission was conducted by four members of the SC, Mr. Roberto Bianchini, Mr. Bent Noerby Bonde, Ms. Katerina Kostadinova-Daskalovska and Mr. Guido Pieraccini from 3 to 6 September 2013. The objective of the mission was to assess the state of play regarding to forthcoming census field activities (including PES) and data processing activities following the field activities as well as the overall census preparations in accordance to the Census milestones and SC recommendations and advices given through the previous missions and SC reports.

18. The thirteenth mission was conducted by five members of the SC: Mr. Roberto Bianchini and Mr. Guido Pieraccini from 27 September to 4 October, Ms. Katerina Kostadinova-Daskalovska from 4 October to 11 October; and Mr. Jean-Michel Durr and Ms. Meryem Demirci from 11 October to 18 October. The objective of the mission was to monitor the enumeration of the census, including its final preparations and final operations. During this mission, the SC was assisted by a team of 27 international observers, deployed all over the country.

19. The fourteenth mission was conducted by one member of the SC: Ms. Katerina Kostadinova-Daskalovska from 1 to 3 November 2013. The objective of the mission was to monitor the conducting of the Post-enumeration survey following the Census. During this mission, the SC was assisted by a team of 5 international observers, deployed all over the country from 1 to 10 November.

20. The fifteenth mission was conducted by one member of the SC: Mr. Guido Pieraccini from 17 to 18 December 2013. The objective of the mission was to assess that the data processing system was functional and in accordance with the SC recommendations.

21. The sixteenth mission was conducted by five members of the SC from 11 to 14 February 2014. The objective of the mission was to assess the starting of the data processing and the implementation of the SC recommendations.

22. The seventeenth mission was conducted by one member of the SC: Mr. Guido Pieraccini from 21 to 23 May 2014. The objective of the mission was to control that the data processing was working smoothly and that the timing for completion of the phase was in accordance with the SC recommendations.

23. The eighteenth mission was conducted by four members of the SC from 3 to 6 June 2014. The objective of the mission was to assess the situation of data capture and the state

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

of preparation of further steps, editing and dissemination as well as the Post Enumeration Survey.

24. The nineteenth mission was conducted by two members of the SC, Ms. Katerina Kostadinova-Daskalovska and Mr. Guido Pieraccini from 15 to 17 September 2014. The objective of the mission was to assess the data capture and editing phases, as well as PES and dissemination preparation.

25. The twentieth mission was conducted by the complete SC from 18 to 21 November 2014. The objective of the mission was to assess in detail progress made in the data processing phase, as well as PES and dissemination preparation.

26. The twenty-first mission was conducted by three members of the SC, Mr. Jean-Michel Durr, Ms. Meryem Demirci and Mr. Guido Pieraccini from 24 to 27 February 2015. The objective of the mission was to assess in detail progress made in the data processing phase, as well as PES and dissemination preparation.

27. The twenty-second and present mission was conducted by two members of the SC, Mr. Jean-Michel Durr and Ms. Meryem Demirci from 1 to 4 February 2016. The objective of the mission was to meet the new management of the Agency for Statistics and Statistical Office of the Federation and to assess in detail progress made since the last Steering Committee mission one year ago.

28. The experts wish to express their gratitude to the directors and staff of the Agency for Statistics of Bosnia and Herzegovina (BHAS), the Statistical Institutes of the Federation of Bosnia and Herzegovina and Republika Srpska (RS) for their availability and collaboration, and to the staff of GOPA for the organisation of the mission.

Executive Summary

29. Since the last mission of the SC in February 2015 and the visit of the Chair of the IMO in June 2015, the processing of the census data is still on hold due to the absence of decision related to the determination of the residence status, in a context of the vacancy of the position of Director of the Agency for Statistics of Bosnia and Herzegovina (BHAS). One year has been lost, affecting the timely dissemination of the results of the 2013 census as well as the credibility of the statistical institutions of Bosnia and Herzegovina.

30. In December 2015, a new Director of BHAS was appointed. This should allow to unlock the situation and come to a decision regarding the editing of the residence status, taking into consideration the legal obligation to publish the results of the census by the 1st of July 2016. However, the assessment made by the SC during its mission of the steps remaining to be conducted before publication of the census results is at least four months will be required, once a decision has been taken regarding the residence status. This means that this decision has to be taken no later than the end of February 2016.

31. There are noticeable developments in the preparation of the census data dissemination, completing the contracting out procedures and making a decision for the company for printing and dissemination of census results on the web. However, there were no significant developments in the preparation of the content of the reports since the last SC mission.

32. No steps have been made to analyse the legal framework related to archiving questionnaires and present to the SC a proposal of treatment of personal data (images, paper questionnaires and database) compliant with the protection of individual information.

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

33. In conclusion, the SC considers that the census process is at high risk of missing the deadline of July 1st 2016 to disseminate the results and urges the Agency for Statistics and the Entity Statistical Institutions to finalise decisions needed to complete the editing phase. The SC recommends that careful planning of the remaining steps before dissemination of the main results be undertaken urgently.

Management

34. A new director of the Agency for Statistics (BHAS), Mr. Velimir Jukic, has been appointed in December 2015 as well as a new deputy director, Mr. Miljan Popic to replace one of the two deputy directors recently retired.

35. In the Statistical Office of the Federation of Bosnia and Herzegovina (FIS), a new director has been appointed in December 2015, Mr. Emir Kremic.

36. In June 2015, the Chair of the IMO, Mr. Pieter Everaers, visited the government of BiH and made formal recommendations to determine the residence status of unresolved cases, on the basis of the recommendations of 21st report of the SC. However, no decision was taken since this visit on the issue of the editing of the residence status. This blocked situation has resulted in a deep de-motivation of the technical team of the three Statistical Institutions (SI) and little has been accomplished. However, the appointment of the new management of the Agency raised expectations in the staff that appropriate decisions will be taken in order to resolve the current issues and finalise the dissemination of the census results.

37. The data processing team has still to request specific authorisations to perform tabulations or editing tests on the complete database, which causes delays in the preparations of further editing phases as well. Whereas the SC understands the need for strict control of access to the database to prevent any leakage of information, this should be guaranteed by the oaths of confidentiality signed by the staff.

38. As the consequence of the absence of required decisions in the census data processing, the Technical Assistance provided by the EU has been put on hold in order to save the resources and allow efficient support once the conditions for final processing would be met.

39. No planning has been prepared of the remaining phases before dissemination of the final results. This results in unprecise information of the management and the authorities of BiH regarding the time needed to publish results once the issue of residence status has been solved. Based on the assessment of the progress made and remaining tasks, the SC considers that at least four months are needed to obtain a complete edited and validated database and to release a set of minimum tables before the deadline of the census law of July 1st. This implies that decision has to be taken in the next days.

Recommendations

40. The SC strongly recommends to the Director of BHAS to take urgent decision on the issue of the editing of the residence status for individuals records presenting missing values or inconsistencies. The SC reiterates its previous recommendations officially transmitted by the IMO in June 2015 related to the determination rules for the resident status.

41. The SC reiterates its recommendation to establish a clear decision making process and to give full authorisation to the data processing staff to perform its duty on the complete database.

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

42. The SC recommends that dispositions be taken in order to ensure prompt resuming of the technical assistance once a decision on the residence status has been taken.

43. The SC recommends that careful planning of the remaining steps before dissemination of the main results be undertaken urgently.

Logistics

44. The SC was informed by the management of BHAS that the lease for the processing centre in East Sarajevo ended on 31st of December 2015 and was not renewed. In the absence of extension of the contract, the lease for January and February was not paid. Whereas assurance was given to the SC that questionnaires and IT equipment were not at risk and still watched by a guard, the data processing team cannot use the premises to work as usual. A tender has been launched last December to find smaller premises, now that the data capture phase has ended and much less space is needed. A temporary solution is sought to use premises of the Ministry of Defense. However, no date was given to the SC for a solution to this issue.

Recommendations

45. The SC recommend to the Director of BHAS to take urgent decision on the issue of premises for data processing and storage of the questionnaires, and draw his attention to the importance of finding premises that do not raise any concern regarding the protection of the census material.

Data Processing

CODING

46. As described in the 21st mission report of the SC, the coding operations for the three main classifications for occupation, industry and educational level have been undertaken by international classifications of ISCO, NACE and ISCED respectively. The coding of three sensitive questions (ethnicity, religion and mother tongue) was also performed according to the SC recommendations with keeping the text information as it is with no aggregation of answers rather than the gender and orthographic variations of the same words.

47. The coding operation for the geographic identifiers (country, municipality and settlement) was fully completed in September 2015.

Assessment

48. The quality assessment for coding procedures including geographic identifiers, education, occupation and industry was performed using a sample of records for each variable. As it is explained in the previous mission report, the SC assessed that the coding was performed with a good level of quality for geographical identifiers, education and occupation and a reasonable one for industry.

Recommendations

49. The report on the coding operations should be translated in English and made available to the SC.

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

DATA EDITING

50. For developing and testing editing and imputation rules for P1 and P2 questionnaires, five working groups consisting of methodologists, subject specialists and IT staff on demographic characteristics, education, economic characteristics, construction/building and agriculture were set up in the mid-2015. A number of editing rules (about 300 rules) was developed to identify inconsistencies. Corrections of inconsistent values will be made by using either deterministic or probabilistic approach. Some of inconsistencies derive from systematic errors will be corrected by deterministic rules. For other types of errors, probabilistic approach will be used for finding the most probable value for the error using a donor from valid cases.

51. The working groups have tested the editing rules used for identification of inconsistencies and performance of deterministic rules for correction of systematic errors. However, developing the rules for correction of inconsistencies between age, sex and other variables in the P1 questionnaire is still ongoing. Some ideas for changing the age for correction of inconsistencies with social and economic characteristics are under discussion, but there is no detailed analysis to understand the types of inconsistencies and give appropriate decision for what variable to be corrected.

52. Developing probabilistic rules for corrections of inconsistencies using a donor is still under discussion. The team requested a technical assistance for methodological information and application of the probabilistic rules.

53. Invalid cases regarding double records of P1 and P2 were removed from the database and a valid match between P1s and P2 was successfully performed.

Assessment

54. The data processing phase is still blocked by the absence of decision on the rules to adopt for the determination of the resident population, which prevents from completing the database for dissemination. This determination must be completed at the beginning of the editing phase as non-resident individuals might be removed from some households thus modifying the household structure and related consistency checks. The data processing team has developed the set of rules recommended by the IMO, but their implementation has not yet been approved by the Census Central Committee.

55. The data processing team needs further technical assistance to review the editing rules and application of imputation procedures. Also, there are still unclear issues regarding application of probabilistic imputations such as the use of constant value for the age in the model.

56. As it was stated in the 21st report of the SC, no decision is still taken regarding the treatment for missing values. The working group explained that missing values can remain after application of imputation procedures which is mainly developed for corrections of inconsistencies.

57. Once the decision is made on the criteria to be adopted for identifying the usual resident population, a series of activities have to be implemented regarding editing, imputation and validation of each step and finalisation of the database. The time required for implementation of the remaining activities of data processing stage is not estimated accurately by the team.

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

Recommendations

58. No decision has yet been taken regarding for which variables the missing values will be kept and for which variables missing variables will be imputed. This decision is necessary if imputation is used for missing values. If there are some exceptional cases for imputation of missing values, these conditions should be explained to be able to interpret the results of imputation.

59. The edit and imputation procedures should pass substantial tests before being approved for use, including tests on the completed census materials. Every change of the census data performed through the procedure of edit and imputation must be tracked into the Census database and should be reversible. The SC should be able to assess, and eventually re-run on the initial Census database the procedure of edit and imputation defined for the correction of logical errors.

60. It is highly expected that some enumerators made mistakes by asking some questions to noneligible persons. For example, the question on computer literacy should not be asked to persons under 10 years. These type of inconsistencies in the questionnaires can be simply corrected by removing the answers and should not be considered as errors and corrected by imputation rules.

61. The SC recommends that a full assessment of the impact of the data cleaning procedure will be implemented as soon as the procedure will be applied to the complete set of data. The assessment should be based on the comparison of the initial set of data with the set of coherent, clean data obtained applying the whole edit and imputation procedure. Indicators at aggregate level, which take into account the changes produced in terms of number and/or magnitude, should be adopted. Indicators at variables level to underline the differences produced in the distributions of each variable should also be considered.

62. Methods for validation of the database, including analysis of impacts of imputation on original dataset, analysis of missing values (if exist), application of demographic methods and comparisons with other relevant sources, should be determined. Validation procedures and tasks of each working group should be decided to not delay the finalisation of the database for dissemination.

Protection of Personal Information - Archiving

63. The SC wishes to remind the Director of BHAS and Directors of Entity Statistical Institutions that one of the objectives of the IMO is to monitor the compliance of the whole Census exercise with standards on data protection and confidentiality, as provided for in the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data of the Council of Europe, and the relevant European Union regulations in force.¹

64. The request made after the 16th mission in February 2014 to the BHAS to analyse the legal framework related to archiving questionnaires and present to the SC a proposal of treatment of personal data (images, paper questionnaires and database) was not yet fulfilled.

¹ Memorandum of Understanding between the European Commission, acting for and on behalf of the European Union, and the Council of Europe, and the Council of Ministers of Bosnia and Herzegovina, acting for and on behalf of Bosnia and Herzegovina on, the International Monitoring Operation of the Population and Housing Census in Bosnia and Herzegovina in 2012/13.

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

65. The Census Bureau took recently the decision to establish a working group on archiving, but the group has yet not been formally established, and neither its composition nor its terms of reference were prepared and adopted.

Recommendations

66. The SC strongly reiterates its recommendation to the Agency to analyse the legal framework related to archiving questionnaires and files and to present to the SC a proposal of treatment of personal data (images, paper questionnaires and database).

67. In particular, the SC recommends the BHAS to liaise with the National Archives without delay to inform them on the material collected/created during the census operation and allow them express their request in terms of type of material and media to be transmitted for national archiving.

68. The SC also recommends to urgently formalise the establishment of the working group on archiving, including its composition and terms of reference.

69. The SC reiterates its recommendation that at the end of the data processing the images be destroyed and the personal data be removed from the Census database. Indeed, since the paper questionnaires will be archived, there is no need to maintain any digital version of them for historical reasons. If needed, the SC considers it would be worth amending the census law to ensure the strict protection of individual data and protect the Statistical Institutions from any suspicion of misuse of the data collected.

70. The SC doesn't see any valid reason why the personal data should be kept after the end of the cleaning phase and PES matching, except for the surname of the household head that could be useful for the agriculture census as well as to draw a master sample for sample purposes as provided by article 9 of the census law. Regarding the master sample, valuable assistance/advise could be found in the European Statistical System.

Post Enumeration Survey

71. The PES team completed the matching operation for the enumerated population in the PES and the PES EAs of the census data. The whole census database as decrypted was provided to the PES team for matching the unmatched individuals in the PES with the complete census database. This step gave very little progress in the matched cases (about 60 more cases). With this last stage, all procedures regarding individual matching of the PES and the census database were eventually completed.

72. There is no other progress for PES activities as the team is ready for application of the rules for identification of usual residence status which will be followed by calculation of coverage errors.

Assessment

73. During the one year break of the PES activities the team has faced the departure of some members and arrival of new members. The team stressed that this resulted in a loss of knowledge and experience.

74. As planned before, the PES finalisation requests two missions from the TA, one for calculation of coverage errors and another for analysing the results and preparing the report.

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

Recommendations

75. The PES questionnaire covers Q1-Q7 of the P1 for determining usual residence population for which coverage error will be estimated. If the criteria for identification of usual residence status cover extra questions in addition to the Q1-Q7, this will have negative impact on the calculation of coverage error, to the extent of changing the target population with these additional factors.

76. Once the decision is taken on the criteria for usual residence status, a technical support for the remaining activities should be provided on a timely manner not to delay the results of PES.

Dissemination of census results

77. The BHAS has completed all procedures for outsourcing some of dissemination activities and contracted with a private company for the following activities: (i) designing, printing and translation of the publications and (ii) development of the website for census dissemination. The tender is valid for three years.

78. Dissemination of census results is planned in three levels: (1) dissemination of the tables through publications and on the web as PDF and excel format, (2) online interactive dissemination database allowing users generate their own tables at the level of municipality and settlements, (3) geo-portal for map dissemination of data for all geographical units with minimum level of settlements.

79. For ensuring data confidentiality, data dissemination will be performed with two main criteria: minimum 10 cases for individuals, and minimum 3 cases for households for dissemination of aggregated data. However, procedures for ensuring data confidentiality for statistically meaningful dissemination of cross tables for multiple variables at the settlement level require in-depth analysis of what variables be disseminated at what geographical level.

80. Nine census reports, one report on main results and eight reports on census topics (the report on agriculture may not be published as an agriculture census is expected to be conducted in a year) will be produced. The report on main results will be the first publication, however the sequence of the remaining reports has not been decided yet. The main report will present nine tables as agreed by the Central Census Committee. Each report will include a section on census methodology and basic analysis of each topic by providing some indicators and graphs in addition to the tables.

Assessment

81. There are noticeable developments in the preparation of the census data dissemination, completing the contracting out procedures and making a decision for the company for printing and dissemination of census results on the web. Steps of dissemination of the census results, including interactive online dissemination database and development of geo-portal for map dissemination were also decided.

82. There were no significant developments in the preparation of the content of the reports since the last SC mission. This is partly due to the absence of a decision on the criteria of identifying usual residence for more than a year.

83. For online dissemination of census results at the settlement level, the specifications for small area dissemination, for example what variables with what categories at what geo-

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

graphical level will be presented, have to be decided. These specifications are also needed for the discussion on disclosure control procedures.

Recommendations

84. The SC reiterates the recommendations to prepare a detailed operational plan for dissemination. The time required for checking and evaluation of tables/publications, as well as for their approval by the management, has to be taken into account. In addition, the SC reiterates its advices related to the metadata and technical preparation that will enable quick preparation of online dissemination and publications, once the final census data are available.

85. The SC strongly suggests that clear description of the specifications of online dissemination of census results for small areas and disclosure control procedures/mechanisms be prepared. The SC also considers benefits of determining the duties of working groups and decision making process for these activities.

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

ANNEXE

AGENDA OF THE MISSION

INTERNATIONAL MONITORING OPERATION STEERING COMMITTEE
DATE: 01- 04 FEBRUARY 2016

Monday, February 01, 2016, Agency for Statistics of Bosnia and Herzegovina		
09:00 – 10:30	<u>Meeting with the new appointed Management of BHAS</u> BHAS: Velimir Jukic, Fadil Fatic, Miljan Popic	BHAS, Sarajevo
11:00 – 12:00	<u>Meeting with the new appointed Director of FIS</u> FIS: Emir Kremic, Galiba Karacic, Selma Gicevic	FIS, Sarajevo
12:00 – 13:00	Lunch break	
13:00 – 16:00	<u>Meeting with Census Coordinators</u> Current status of Census BHAS: Admir Kulic, Nora Selimovic, Alen Mrgud FIS: Hidaeta Colovic, Jasmina Velic, Amer Koric RSIS: Rajko Vranjes	BHAS, Sarajevo

Tuesday, February 02, 2016, Agency for Statistics of Bosnia and Herzegovina		
9:00 – 12:00	<u>Meeting with Methodology and IT Team</u> Status of data processing (editing- imputation-validation) BHAS: Vladimir Mijovic, Radoslav Corovic, Zlatan Hadzic (methodology); Sevala Abaz, Vesna Sehovac (IT) FIS: Muamera Idrizovic, Emina Ajkunic (methodology); Amer Koric, Nermina Sarajkic, Dzemaal Borovina, Asmira Selimovic, Amel Sikiric (IT) RSIS: Dara Petkovic, Rajko Vranjes (methodology); Bojan Stankovic (IT)	BHAS, Sarajevo
12:00 – 13:00	Lunch break	
13:00 – 16:00	<u>Meeting with PES Team</u> PES status BHAS: Edin Sabanovic, Jasna Isakovic, Marko Zekic FIS: Muamera Idrizovic, Anesa Mirica, Edina Mehidic, Amel Sikiric RSIS: Darko Marinkovic, Dean Arezina	BHAS, Sarajevo

Wednesday, February 03, 2016, Agency for Statistics of Bosnia and Herzegovina		
10:30–13:00	<u>Accompanying P.Everaers</u>	
13:00 – 14:00	Lunch	
14:00-16:00	<u>Meeting with Dissemination and Communication Team</u> Status of dissemination BHAS: Ivona Bulic, Alen Mrgud FIS: Zehra Kaba, Mevla Softic, Dinko Demirovic, Amer Koric	BHAS, Sarajevo

IPA 2014 Multi-beneficiary statistical cooperation programme
Service Contract No. 14463.2014.002-2015.597

	RSIS: Vladan Sibinovic, Dragana Mandic, Igor Radan (via link)	
--	---	--

Thursday, February 04, 2016		
9:00 – 11:30	Meeting with Working group for Archiving Census Material Archiving /deletion of questionnaires and images after at a processing BHAS: Velimir Jukic, Fadil Fatic, Miljan Popic FIS: Emir Kremic, Galiba Karacic, Selma Gicevic RSIS: Radmila Cickovic, Radosav Savanovic	BHAS, Sarajevo
12:00 – 13:00	Debriefing with EU Delegation	EU Delegation
13:00 – 14:00	LUNCH	
14:00 – 16:00	<u>Meeting with the directors of the three statistical institutions</u> (BHAS, FIS, RSIS) BHAS: Velimir Jukic, Fadil Fatic, Miljan Popic FIS: Emir Kremic, Galiba Karacic, Selma Gicevic RSIS: Radmila Cickovic, Radosav Savanovic	BHAS, Sarajevo