Funded by the European Union





Implemented by the Council of Europe

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

First Assessment Report

Jean-Michel Durr, Senior Expert – Team leader

Roberto BIANCHINI, Bent Noerby BONDE,

Meryem Demirci, Katerina Kostadinova-Daskalovska,

Experts

International Monitoring Operation on the Population and Housing Census in Bosnia and Herzegovina

Table of Contents

# **Table of Contents**

LIST OF ACRONYMS	2
INTRODUCTION AND BACKGROUND	3
EXECUTIVE SUMMARY	4
ASSESSMENT OF THE PREPARATIONS OF THE POPULATION AND HOU BOSNIA AND HERZEGOVINA	
PREPARATORY WORK	
Legal basis for the census	
Budget and cost control	
Census calendar	
Management structure	
Buildings, working space	
Contracting out	
Quality assurance programme	
Questionnaire design	
Topics	
Type of questionnaires, their format and wording	
Sensitive questions	
Census methodology and instruction manuals	
Training preparation	
Printing	
CENSUS TESTS (PILOT CENSUS)	
MAPPING	
COMMUNICATION	
ENUMERATION	
Method of enumeration	
Field Organisation	
Monitoring field operations	
DATA PROCESSING	
DISSEMINATION OF THE RESULTS	
EVALUATION OF THE RESULTS	
ANNEXES	
SUMMARY OF RECOMMENDATIONS BY ORDER OF PRIORITY	
AGENDA OF THE STEERING COMMITTEE FIRST MISSION	
RECEIVED AND REVIEWED DOCUMENTS DURING THIS MISSION:	

International Monitoring Operation on the Population and Housing Census in Bosnia and Herzegovina

# List of acronyms

BiH	Bosnia and Herzegovina
DB	District Brcko
EA	Enumeration area
FBiH	Federation of Bosnia and Herzegovina
GIS	Geographic Information System
IMO	International Monitoring Operation
IMO MG	International Monitoring Operation, Management Group
IMO SC	International Monitoring Operation, Steering Committee
IT	Information Technology
MCC	Municipal Census Commission
PES	Post Enumeration Survey
RS	Republika Srpska
ТА	Technical Assistance
TOR	Terms of Reference

# **Introduction and Background**

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.
- 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.
- 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.
- 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.

2. The first meeting of the Management Group has designated Mr. Jean-Michel Durr as Senior Census Expert and Ms. Katerina Kostadinova-Daskalovska, Ms. Meryem Demirci, Mr.Roberto Bianchini and Mr. Bent Noerby Bonde as experts in population censuses. The Senior Census Expert and the Experts in population censuses form the IMO Steering Committee (IMO SC) of international experts. One expert in information technology shall complement the team in a near future.

3. 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 team had meetings with the Agency for Statistics of Bosnia and Herzegovina, the Institute of Statistics of the Federation of Bosnia and Herzegovina and the Institute of Statistics of Republika Srpska. In addition, the team met representatives of the Geodetic administrations of both entities (Federation of Bosnia and Herzegovina and Republika Srpska). The Senior Census Expert participated in the first meeting of the IMO Management Group and paid a visit to the Delegation of the European Union to Bosnia and Herzegovina.

4. The present assessment is based on the information reported during these meetings, and on some direct observations of the mission. As a consequence, the comments and recommendations presented below are based on the understanding of the experts, and may not reflect the real situation. This report was prepared by the Senior Census Expert taking into consideration the individual report of each expert as well as his own observations.

5. The experts wish to express their gratitude to the directors and staff of the Agency for Statistics, the Statistical Institutes of the Federation of Bosnia and Herzegovina and Republika Srpska and of the Geodetic institutions for their availability and collaboration, and to the staff of Council of Europe for the perfect organisation of the mission.

# **Executive Summary**

6. The census law adopted in February 2012 has given way to the preparation and implementation of the Population and Housing Census of Bosnia and Herzegovina. This will allow the country to conduct this operation 20 years after the previous one and to participate in the 2010 international round of population and housing censuses. This represents a considerable step for the country and its inhabitants. 7. The mission could assess the main points of the census preparations with the excellent collaboration of the three statistical institutions and the geodetic institutions.

8. As outcome of the mission, an assessment of each component of the census project was conducted and presented below. The main points of this assessment are the following:

- The preparation of the census is underway in the statistical and geodetic institutions in charge. However, the three statistical institutions stress their lack of experience in census taking, as few staff participated in the previous census in 1991. All three statistical institutions report shortage of qualified staff due to budget restrictions.
- The collaboration among institutions is satisfactory. Thematic inter-institution working groups are regularly meeting to define the methodology and prepare the operation.
- The law is quite comprehensive and should provide a sound ground for the preparation and the implementation of the census. However, some points have to be clarified by specific instructions, such as the case of persons living abroad and the role of the census commissions in the control of enumeration.
- The budget should be sufficient for the operation, but is still in the process for adoption.
- The units and topics to be covered in the census as well as their definitions are in compliance with the International Recommendations as well as with the EU Regulation on Population and Housing Censuses.
- The method for enumeration (traditional door to door interviews) is suitable for the country.
- A clear concept and plan for training exists, but the preparation of the training materials has not started yet.
- A pilot census is planned for September. However, it is not planned to test the complete organisation, and in particular the role of local self-governments.
- The methodology and the implementation phases for the census mapping programme are correct and generally in line with international recommendations and European standards. However, serious concerns have to be expressed on the timetable for implementation, which seems not realistic with the deadline of 1st October 2012 stipulated in the law.
- An important issue is that the border between entities is not clearly defined on maps.
- A communication campaign is foreseen, but insufficient attention is paid to communication and outreach strategy and action plans. For example, there has been no survey or analysis on the public's perception and attitudes to the upcoming census.

- The selection municipal instructors and enumerators can experience difficulties in satisfying the "Ethnic structure" criteria prescribed in the Census Law, because of changes in the population structure in comparison with the situation in 1991.
- There is no Logistic group for Census in the statistical institutions.
- There are no clear strategies for monitoring fieldwork neither in terms of content nor in terms of practical organisation.
- Data capture will be delegated to a contracted company using optical reading technology. While this technology is well established for census data processing, it requires specialised skills. In that regard, the selected company does not seem to have large experience in census data capture.
- A Post Enumeration Survey will be conducted after the enumeration to assess the coverage and quality of the census. The PES should be tested in the pilot census, but there is not yet any specification available.

9. Considering the assessment made for each step of the census, detailed recommendations are proposed in the report. However, the experts wish to highlight some **recommendations** they consider of utmost importance for the success of the operation in the following areas:

# • Organisation:

10. The line of responsibilities and line of reporting should be clearly defined and explain in the organisational manuals for each participant in the census activities.

# • Budget

11. It is highly recommended to secure the multi-year census budget as soon as possible. This is a paramount milestone in the census project to monitor closely.

# • Questionnaires

12. The formulation of the questions on ethnicity/nationality and religion should be revised according to international recommendations.

13. Questionnaires should be pre-tested before the pilot census to ensure that wording and order of questions are suitable in all languages.

# • Enumeration

14. It is recommended to develop precise instructions regarding the enumeration of persons temporarily absent to avoid any inclusion of non-resident persons in the population.

15. Detailed manuals of instructions need to be prepared for each participant in the census activities. In drafting these manuals, it is important to tailor the language and layout to the category of census staff they target.

# • Pilot Census

International Monitoring Operation on the Population and Housing Census in Bosnia and Herzegovina

16. Pilot census should be designed to test all stages of census including the checking the quality of census maps, field organization, method for monitoring the field work, data processing (data capture, recognitions, coding, editing/imputations), evaluation of census results and dissemination plan and tools.

17. It is highly recommended that all census committees planned for the census be established and their roles tested in the pilot census. In particular, the role and involvement of local self-governments should be tested.

#### • Cartography

18. A group of experts on census mapping with representatives from the Agency, the Institutes for Statistics and Geodetic Administrations of both Entities, Municipalities and the BiH Ministry of Civil Affairs should start functioning as soon as possible to take decisions by mid-June 2012 on: census spatial units to be used, criteria to demarcate enumeration areas (EAs), demarcation of the border line for census purposes between entities.

19. It is recommended that the Institutes for Statistics and Geodetic Administrations of both entities produce a technical document by mid-June 2012 on the applied and planned quality control procedures and methods on census mapping, to ensure that each enumerator will be able to be orientated in the field and have an overview of the buildings/units to visit.

#### • Communication

20. Research must be carried out before 1 July 2012 through interviews, focus groups and possibly also a quantitative questionnaire based survey to identify the knowledge, perceptions and attitudes to the census and to the national statistical agency.

21. Based on this research, evidence based communication and outreach strategy must be developed with defined aims, objectives, target groups, methodology, tools, messages, and a plan with actions, timeline and budget. The communication and outreach strategy with detailed action plan and budget must be finalised by 1 September 2012.

#### • Data Processing

22. The Agency in collaboration with the entities should develop continuous monitoring system regarding all activities entrusted to the selected company to control the quality of work undertaken by the company. This system should be established early enough to test all phases through pilot census to finalize everything before the enumeration.

# Assessment of the Preparations of the Population and Housing Census in

# **Bosnia and Herzegovina**

1. In order to assess the preparations of the census, the mission decided to follow the different steps for the preparation and implementation of a population and housing census. A list of activities was built from the United Nations Principles and Recommendations for Population and Housing Censuses, as well as from the experience of the experts. 2. The list of activities is organized as following: (a) preparatory work; (b) mapping; (c) enumeration; (d) data processing; (e) dissemination; and (f) evaluation.

3. For every item, a description of the situation is presented, and then assessment and recommendations are formulated.

#### **PREPARATORY WORK**

4. The preparatory work for the census is necessarily long in duration and involves many distinct activities. In addition, some of these activities may be interrelated but also overlap to a large extent. The following preparatory activities could be assessed during the mission.

#### Legal basis for the census

5. Pursuant to the Article IV.4.a) of the Constitution of Bosnia and Herzegovina, the Parliamentary Assembly of Bosnia and Herzegovina, during the 21st session of the House of Representatives held on 3rd February 2012, and at the 12th session of the House of Peoples, held on 3rd February 2012, has adopted the Law on Census of Population, Households and Dwellings in Bosnia and Herzegovina in 2013.

- 6. The Law contains 7 chapters and 48 articles covering the following topics:
  - General provision, including definitions, topics covered by the census, date of the enumeration, units encompassed/not encompassed by the census, obligation to answer and optional declaration of ethnic/national and religion affiliation, duties and right of persons engaged in the census, protection of minorities and use of languages, use and protection of data collected, evaluation of the coverage and quality of census data through a post-enumeration survey;
  - Organisation of the census, including tasks of the institutions engaged in the preparation and implementation of the census (Agency for Statistics of Bosnia and Herzegovina, Institutes of Statistics of the two entities, Geodetic administration and some ministries) as well as role and composition of the census bureaus and census commissions;
  - Methodology, including questionnaire design and printing, cartographic preparation, enumeration of some categories of population, and publication of census results;
  - Financing of the census, including the annual amounts for 2012, 2013, 2014 and 2015;
  - Enumeration of persons who temporarily work and reside abroad, including organisation and financing;
  - Penalty provisions, for non-respondents or persons engaged in the census failing to comply with their obligations;

- Transitional and final provisions, including destruction of census material afterwards and entry into force of the law.

#### Assessment

7. The law is quite comprehensive and covers extensively all the aspects of a population and housing census. In that regard, the law should provide a sound ground for the preparation and the implementation of the census. However, some points may not be completely clarified or stated by the law:

- Art 7, provides that persons usually resident in the place of enumeration but absent, or expected to be absent, at the date of the census for less than one year shall be considered as temporarily absent persons and thus included in the total population of the enumeration area. This category of population is usually a source of problems in the region. Firstly, people living abroad, nevertheless the duration of stay (especially people living in European countries), may consider themselves as still resident if they keep a house in the country and come regularly for holidays or family events. Then, their family may be willing to include them in the enumeration as resident. Secondly, ethnic representativeness is sensitive and some ethnic groups may want to include their diaspora in the resident population of the country.
- Regarding the sharing of responsibility between agency and statistical institutions, the law clarifies many issues, but refers frequently to "cooperation", which needs to be proven in the daily work of the institutions involved. However, the law gives a clear role to the Agency for Statistics in defining the methodology.
- The issue of the access to the complete database by the three statistical institutions is provided by article 22.
- Questions on displaced persons and intention to come back may be on the one hand highly sensitive and subject to some kind of pressure, but on the other hand needed for the application of the Dayton agreement.
- The obligation to give accurate answer leads to the question on how this accuracy is controlled. The article 36 provides that all institutions of Bosnia and Herze-govina are obliged to allow the Agency to use the databases and records under their competencies (databases of births, deaths, displaced persons, registers of residence, administrative records of persons sentenced to prison and so on) to carry out control of statistical accuracy and quality of the data collected in the field. If accuracy is of course a legitimate goal, the census shall remain a statistical operation and not an administrative one.
- Article 26 on the role of census commissions of the units of local self-government provides that the commissions take over the Census material from the instructors, organise and control the coverage and quality of the Census material. These commissions are composed of members nominated by the local self-governments. If their role in facilitating the enumeration by providing premises and organising

staff selection is indisputable, they are also interested in the census results. Therefore, in order to ensure strict neutrality, controls should be performed by State instructors and controllers, under the control of the statistical institutions.

- Article 30 gives responsibility to the entities' geodetic offices and the Department for Public Register of the Brčko District Government to complete the cartographic preparation required for carrying out the Census. The article stipulates that the technical documentation shall contain cartographic overviews and descriptions which will enable each enumerator to be orientated in the field and have an overview of the buildings/units to visit. However, it does not give explicit responsibility to the statistical institutions to define the specifications for delineation of enumeration areas (EAs). This may create problem, if the geodetic offices delineate EAs without taking into consideration the requirements of the census.

#### **Recommendations**

8. It is recommended to develop precise instructions and rules of organisation for the implementation of the law, in particular regarding the enumeration of persons temporarily absent to avoid any inclusion of non-resident persons in the population, or the sharing of responsibilities among the institutions involved in the census, such as statistical institutions, ministries or census commissions to avoid misunderstandings and complication during the enumeration.

#### **Budget and cost control**

9. The law, in its article 38, provides that resources intended for financing Census-related activities and tasks shall be provided from the budgets of Bosnia and Herzegovina, entities, the Brčko District, international donations and other sources.

10. The minimum of required funds amounts to 42 625 603 KM (around 21.8 million Euros), as following:

- For the year 2012:10 494 461 KM
- For the year 2013: 31 364 836 KM
- For the year 2014: 473 804 KM
- For the year 2015: 292 502 KM

11. A breakdown was provided to the mission as follows, including a first revision of the total amount to take into consideration inflation:

	Amount (in KM)	% of total budget
Pilot census	165 700	0.4%
Human resources (inc. data processing)	31 593 123	72.5%
Post Enumeration Survey (PES)	222 025	0.5%

International Monitoring Operation on the Population and Housing Census in Bosnia and Herzegovina

Infrastructure and logistics	7 720 523	17.7%
Publication (inc. public	491 200	1.1%
awareness campaign)		
Media	503 000	1.2%
Other costs (inc. vehicles)	1 628 140	3.7%
Reserve	1 269 711	3%
Total	43 593 422	100%

12. A financial plan shall be regulated by the special agreement of the respective ministers of finance of BiH, entities and the director of the Brčko District Finance Directorate, or Fiscal Council of BiH within 60 days from the day of the Law coming into force. At the moment of the mission, the budget had been adopted in Council of Ministers but had to be approved by the Fiscal Council that has also to decide how to finance this amount. The Council of Minister and Minister of Finance have already allocated 4.4 million KM for the census preparation this year, but the funds have not yet been released. For example, the meetings of the inter-institutions working group had to be financed by UNFPA.

#### Assessment

13. The budget of the census represents around 5.5 Euros per capita, which is in line with European countries. However, the breakdown provided mixes approach by topic (pilot census, PES) and approach by nature of expense (human resources, printing...). This makes difficult to compare the structure of the budget with other countries or international standards.

14. For example, a possible breakdown is given in the following table, build from the results to a questionnaire sent by the United Nations Statistics Division to countries:

Activity	Africa	America, North	America, South	Asia	Europe	Oceania	World
Preparation	7.4	9.0	4.8	10.4	12.3	17.4	10.4
Pilot census	0.9	2.2	1.6	1.0	2.6	1.1	1.6
Cartography	12.9	8.9	32.4	2.3	2.9	1.3	6.3
Communication	4.1	2.9	4.2	6.0	3.5	4.3	4.3
Enumeration	44.5	44.1	36.4	49.8	37.5	32.7	42.9
Printing	3.7	4.4	1.8	5.0	3.6	3.1	4.1
Transport	3.0	1.2	0.5	2.0	1.1	1.6	1.8
Equipment	4.7	5.6	6.5	8.0	10.3	5.3	7.5
Evaluation	0.9	1.2	0.5	1.2	1.2	0.4	1.0
Data processing	5.5	12.2	6.9	5.5	13.4	17.5	9.5

Table 1. Breakdown of census budget by activity by region, in %, 2010 round

International Monitoring Operation on the Population and Housing Census in Bosnia and Herzegovina

Analysis	1.7	1.8	2.5	1.4	2.8	5.9	2.2
Dissemination	3.5	4.0	1.3	1.6	5.5	5.1	3.7
Other	7.4	2.6	0.7	5.6	3.4	4.4	4.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Number of responding countries						
	17	11	2	22	24	5	81

Source: J.-M. Durr, 2010. The 2010 round of Population and Housing Censuses in the world. 19th National Symposium of Probability and Statistics, Brazil.

15. From this table, it appears that the cost of the pilot census, of the evaluation (PES) and communication are under the average of European countries. However, further assessment of each of these steps will be developed below.

16. The delay observed in finalizing the budget approval and releasing the funds for 2012 brings uncertainty that should be cleared as soon as possible.

#### **Recommendations**

17. It is highly recommended to organise the budget by sub-domain of the census, corresponding to projects (such as cartography, communication, enumeration, evaluation, data processing, dissemination...) and to breakdown each sub-domain into categories of expenses (staff, equipment...).

18. It is **highly recommended** to secure the multi-year census budget as soon as possible. This is a paramount milestone in the census project to monitor closely.

# **Census calendar**

19. International recommendations consider as an indispensable element in the planning of a census a calendar or timetable indicating the sequence and estimated duration of each of the component operations of the census.

20. A timetable has been drafted by the Agency, in coordination with the entities statistical institutions. A detailed timetable is regularly reviewed during the meetings of the working group.

#### Assessment

21. A summary version of the timetable was provided to the mission, but not including the data processing phase. However, the mission could see a detailed timetable discussed by the working group, but could not review it in detail.

#### **Recommendations**

22. The Census Bureau should develop a light monitoring, based on regular reports from the working groups and staff involved. We recommend regular "flash reports", reporting eve-

ry fortnight on the achievements of the past period and the achievements expected for the next one, the difficulties encountered and the decisions needed to be taken by the top management or other working groups. This would help anticipate problems and provide solutions.

23. The Agency should devote a staff to work part time on the collection of these reports and the update of the timetable.

24. It is recommended that each statistical institute develops a detailed timetable, as part of the general timetable, and follows up regularly its implementation.

25. It is also recommended to develop a risk management plan in order to identify possible risks and prepare solutions.

26. More generally, the institutions involved in the preparation of the census should use project management methodology to ensure proper planning and implementation. In that regard, additional training in project management could be provided if needed.

#### Management structure

27. As provided by the census law, the Census is organised by the statistical institutions in Bosnia and Herzegovina: the Agency, Institute for Statistics of FBiH and Institute for Statistics of Republika Srpska in cooperation with administrative bodies and organisations of Bosnia and Herzegovina, competent entity administrative bodies and organisations, competent bodies of the Brčko District determined by this Law and units of local self-government.

28. The Agency is in charge of the coordination of work on the preparations, organisation and carrying out of the Census, in cooperation with the entities' statistical institutes. The Agency is in particular responsible for determining a unified and internationally comparable methodology for the Census, including methodology for checking the data collected in the field, content and layout of the Census forms. In addition, the Agency is responsible for having financial resources available and allocate them; printing the census forms, instructions and other material; the public awareness campaign; and later publication of the results.

29. The Agency is also in charge of the preparation, organisation and carrying out of the census in the District Brcko.

30. The statistical institutes in the territory of the Federation of Bosnia and Herzegovina and of Republika Srpska are responsible for the preparations, organisation and carrying out of the census in their territory, in cooperation with the Agency; to take part in the development of the methodology; to take part in the data entering and later publish the results.

31. The management structure includes a Central Census Bureau, headed by the Director of the Agency, and entities Census Bureaus, managed by the directors of the statistical institutes of entities. The Census Bureau of the Agency is headed by the Director of the Agency and the Census Bureau of the Brčko District is managed by the head of the Branch Office for Statistics of the Brčko District.

32. The Central Census Bureau coordinates the work of the Census Bureau of the Agency, the Census bureaus of the entity statistical institutes and the Census Bureau of the Brčko District; prepares a framework plan for the Census bureaus; coordinates and monitors the preparations and carrying out of the Census; examines methodologies and technologies to be used for the census; and harmonises activities on creating the programme of logic control and tabulation.

33. The members of the Central Census Bureau are the director of the Agency, deputy directors of the Agency, directors of the entity statistical institutes, deputy directors or managing civil servants of the entity statistical institutes, and representatives of ministries involved in the census (Ministry of Foreign Affairs, Ministry of Justice, Ministry of Security, Ministry of Defence and Ministry for Human Rights and Refugees).

34. The Central Census Bureau was established as soon as the law was voted. Three meetings have already been held, in particular to adopt the rules of procedures, the plans for preparation and the financial plan.

35. The Census Bureaus of the entities' statistical institutes coordinate the work with the bodies responsible for the Census-related activities in the entities and units of local self-government; and organise and coordinate the Census-related activities that fall under the competence of the entities. The Census Bureaus were also established as soon as the law was adopted.

36. Half of the staff of the Agency will be involved in the census, but at present 15 are members of the methodology group, and 10 of the IT working group. However, very few of them have experience on the census. There is a plan to hire 20 more people with census profile. The Agency is able to fulfil the requirement of ethnic representativeness for the staff involved in the census.

37. The Statistical Institute of the Federation is composed of 178 staff members, including the staff of the 10 cantonal branches, few of them having census experience. 123 persons compose the staff of the Statistical Institute of Republika Srpska, including 86 with university degree and 6 qualified demographers. 30 are already involved in the preparation of the census.

#### Assessment

38. The management structure set up for the preparation and conduct of the census is comprehensive and defined in detail by the census law. This should provide a good basis for a smooth preparation of the census and enable identify and solve problems as soon as they arise.

39. All three statistical institutions report shortage of qualified staff due to budget restrictions.

#### **Recommendations**

40. It is recommended that the Census bureaus set up a strict reporting process, based on the follow-up of their respective timetables (see above).

41. Special attention should be paid to the availability of staff for the preparation and the conduct of the census.

#### **Buildings, working space**

42. This point was not developed during the mission, due to lack of time, and will be assessed in further missions.

#### **Contracting out**

43. Several procedures will be conducted for the procurement of services and goods such as printing or equipment. In the country, procurement procedures usually last from 3 to 6 months, from public announcement to signature of the contract, depending on possible claims.

#### **Recommendations**

44. It is recommended to list as soon as possible all procurement needs and to start evaluate the time needed for drafting the specifications and completing the process.

45. Selection criteria and their order of priority should be precisely defined to avoid the systematic selection of the cheapest bidder, whatever the quality of service. Price should be the last criteria, after quality requirements. In addition, special attention should be paid to clauses ensuring that services are delivered in the country and in the national language(s).

#### Quality assurance programme

46. A conceptual framework for quality assurance was elaborated and adopted. A more detailed document is in preparation. The intention is to cover the three major phases of the census: enumeration, data processing and dissemination. The framework focuses on the three following dimensions: usefulness, objectivity and integrity. Each respective department will develop specific implementation: for example, for supervision during enumeration.

# Questionnaire design

# **Topics**

47. Units to be covered as well as characteristics to be investigated were identified when drafting the census methodology in the context of a technical assistance project (EUPHC programme). Care was taken that the census topics and methodology comply with the EU census recommendations and include all recommended core topics. With the adoption of the Census Law in February 2012, the final list of topics was decided.

48. During the mission, the Inter-institutional Methodology and IT group (consisted of experts from the three statistical institutions) had a three-day meeting in Jajce to finalize the content of the census questionnaires for the Pilot Census. The experts had a chance to partic-

ipate shortly in the second day of the meeting, to see how the group worked and to obtain information on the finalization of the census questionnaires.

- 49. The BiH Census shall cover the following population topics:
  - Place of usual residence,
  - Name, name of father or mother, surname,
  - Sex,
  - Date of birth and personal identification number, place of birth,
  - Presence, duration and the intention of presence/absence in the place of the enumeration, place of residence at the time of a person's birth, place of permanent residence during the Census 1991,
  - Whether a person was a refugee from Bosnia and Herzegovina, whether a person was internally displaced in Bosnia and Herzegovina, whether a person has legal status of internally displaced person and whether a person has an intention to return to the place from which he/she was displaced, a settlement in Bosnia and Herzegovina from which a person moved and year of arrival in the current place,
  - Whether a person ever lived abroad for a year or longer, as well as a country from which person moved and reasons for arrival in Bosnia and Herzegovina,
  - Legal marital status, consensual union,
  - Number of live births and months and years of birth,
  - Country of citizenship,
  - Ethnic/national affiliation, mother tongue, religion,
  - Literacy, highest level of educational attainment, obtained title/qualification, attending school,
  - Current activity status, status in employment, industry (branch of economic activity of the main job), occupation, main source of livelihood,
  - Location of place of work, place of attending school and frequency of returning to the place of usual residence,
  - Functional capability of a person to perform everyday activities and cause of disability,
  - Length of stay and country of residence abroad for civilian persons temporarily working and residing abroad and place of permanent residence in Bosnia and Herzegovina for them and their family members.

50. The topics listed in above paragraph referred the resident population. For the citizens of Bosnia and Herzegovina, who live abroad for more than 12 months, the following questions shall be collected: name and surname, personal identification number, municipality of permanent residence, national affiliation, religion, mother tongue, country in which the person resides, the reason and length of their stay abroad.

51. The Census shall cover the following topics on households: name and surname of the head of the household, kinship and relationships between the household members, name of the settlement, street and dwelling number in which household is located, base on which the household uses the dwelling (tenure status).

52. For the households that had land and/or livestock at their disposal or were engaged in agricultural production in the last 12 months, some data on agricultural holdings shall be collected. These data shall be used for establishing the address list of agricultural households for a further Agricultural Census that shall be defined by a separate law. The following data shall be used for establishing of the address list:

- Name and surname of the head of the household;
- Address of the households;
- Total area of the agricultural holding (agricultural, forest and fish ponds);
- Agricultural production by types of cultivated agricultural products at arable land;
- Data on livestock, poultry and beehives.
- 53. The Census shall cover the following topics on dwellings and other living quarters:
  - Type of living quarters, type of collective living quarters,
  - Housing arrangements,
  - Location of living quarters,
  - Occupancy status of conventional dwellings,
  - Number of occupants,
  - On which floor is the dwelling,
  - Type of legal ownership of the dwelling,
  - Useful floor space,
  - Number of rooms of housing units,
  - Surface area of the kitchen,
  - Bathroom and toilet facilities, power,
  - Gas and water supply system,
  - Central heating installations and sewerage system;
  - Type of heating, main type of energy used for heating,
  - Year of construction of the building, type of building and prevailing material of which bearing structure of the building is constructed, type of roof covering of the building and the actual state of the building.

Type of questionnaires, their format and wording

- 54. The following questionnaires shall be used:
  - Individual Census form (P-1)
  - Questionnaire for households and dwellings (P-2)
  - A separate Individual Census form (Short form of P-1) shall be used for collection of data on citizens of Bosnia and Herzegovina, who live abroad and have been absent from BiH for more than 12 months

55. In addition the enumerators shall use a control form (P-3) to record the addresses of the enumerated units as well as some data on households. This form will be used to aggregate the preliminary results at the EA level.

56. Each individual form (P-1) and questionnaire for households and dwellings (P-2) will have their own ID (barcode) to prevent photocopying and forgery of the census forms.

57. The Census forms shall be printed in Bosnian or Croatian or Serb language, using Latin or Cyrillic script. In addition each enumerator will be provided with a booklet of census questionnaires translated in 17 other languages spoken by the population living in BiH in order to facilitate the enumeration of all ethnic communities.

58. The wording and arrangement of the questions in the questionnaires are designed in accordance with the method of enumeration and data processing techniques (optical scanning and ICR). There are three types of questions: open questions (with provided boxes for text or numbers), questions with prelisted answers with tick boxes, and semi-open questions that are a combination of open question and prelisted answers. Still, the design of the questionnaires is to be finalised with the agency selected for data processing.

59. The census questionnaires were not tested among the population yet, only among the statisticians. The Pilot Census in September will be the first opportunity to test the questionnaires.

#### Sensitive questions

60. Ethno-cultural characteristic such as ethnic/national affiliation, mother tongue and religion are part of the Census. Following the provisions in the Constitution (Article 2) respondents are not obliged to declare their ethnic and religion affiliation.

61. According to discussions held during the mission with the statistical institutions' management and staff, the questions on ethnic/national affiliation and religion can be considered as sensitive, but not the question on mother tongue. However, the census law stipulates that data collected can be used only for statistical purpose, which should limit the sensitiveness of the question on ethnicity and religion.

62. The questions on internal displaced persons, refugees and returnees are also not considered as sensitive since the relevant ministry has already collected once this information.

63. The questions ethnic/national affiliation, religion and mother tongue are designed as follows:



64. The formulation of the questions is based on the Preamble of the Constitution where constituent peoples are listed as "Bosniaks, Croats and Serbs (along with Others)". As well the formulation is justified with the fact that it is more convenient for ICR data capture. In-

structions to enumerators referring questions on ethnic/national affiliation and religion provide that enumerators and other persons participating in the Census may not influence citizens regarding their declaration of their ethnic/national affiliation and religion. The enumerator should enter the exact answer the enumerated person gave and shall avoid any corrections for recorded answers. In addition, the procedure for obtaining answer for the absent adults and for children on age under 15 years is explained as well as how the enumerator shall proceed in case of recording wrong answer.

65. During the processing phase, a separate code will be assigned to all answers "Others". The classification that will be used for data dissemination will be decided after data entry and analyses of frequencies of each answer.

#### Assessment

66. The finalisation of the census questionnaires was underway during the mission. The good cooperation observed within the Inter-institutional Methodology and IT working group and commitment of its members gives reasonable assurance that the census questionnaires for the Pilot Census will be finalised according to the Census timetable.

67. The units and topics to be covered in the census and their definitions are in compliance with the 2010 Censuses Recommendations<sup>1</sup> as well as with EC Regulation (EC) N<sup>o</sup> 763/2008 of the European Parliament and of the Council of 9 July 2008 on Population and Housing Censuses and EC Regulation No 1201/2009. All topics recommended as core in the CES Recommendations are included in the census. In addition, some of the recommended non-core topics as well as topics of interest for the country are also included.

68. The total population of BiH is defined as the sum of all persons having their place of usual residence in BiH, which is in compliance with international and EU definitions.

69. The topics on ethno-cultural characteristics of the person are included as the country has tradition in collecting these data and also special interest about them. The questions are formulated as semi-open and not as open questions as suggested in CES Recommendations. The question on ethnic/national affiliation can be considered as a sensitive one since the census is often seen in the region as a counting population by ethnicity/nationality.

#### **Recommendations**

70. It is recommended to follow strictly the timetable for preparation of the census questionnaires in order to be on time for the Pilot Census.

71. The wording and the terminology used in the questions should be carefully checked and tested to avoid misunderstandings or to ask more than one topic in a question. For example, the question on the type of housing unit mixes the type of the dwelling and its occupation status.

<sup>&</sup>lt;sup>1</sup> "Conference of European Statisticians (CES), Recommendations for 2010 censuses of population and housing", prepared in cooperation with the Statistical Office of the European Communities, (EUROSTAT), issued by United Nations, (New York And Geneva, 2006)

International Monitoring Operation on the Population and Housing Census in Bosnia and Herzegovina

72. The formulation of the questions on ethnicity/nationality and religion should be revised. Firstly, the item "not declared" should be separated from other items, and put for example after. Secondly, a strictly open question should be considered, to avoid any risk of bias in the responses when some answers are proposed, but also to not describe some ethnic groups as "others", which may sound disrespectful.

73. It is recommended to carry out pre-test of questionnaires and instructions before the pilot census to ensure that wording, order of questions and structure of instructions are suitable in all languages. Census questionnaires and instructions can be tested with a small number of person representatives of communities using the three languages and two alphabets.

74. It is recommended to finalize the technical design of the census questionnaires together with the company selected for data processing in order to ensure quality in optical recognition as well as to enable efficient work of the operators during the process of data controlling, editing and correcting. In particular, it is usually not recommended for optical recognition to pile up tick boxes, but to put them on staggered rows to avoid that a tick in one box goes over the neighbouring box.

		-		
works in BiH				×
works abroad				×
generates incom	e from agricult.	re		×
gen erates incom or other assets o			stores,	×
is pensioner				×
receives comper	salion for side	leave or matern	aity le ave	×

Figure 1: Boxes piled up (BiH questionnaire P-1)



**Figure 2: Boxes in staggered row** 

#### Census methodology and instruction manuals

75. A comprehensive document describing the methodology and the tasks of the different categories of field workers was prepared with the help of consultants within the EUPHC project. Based on this document and provisions on tasks and responsibilities of all census participants given in the Census Law, instructions manuals will be developed for the different categories of participants in census activities such as: municipal instructors; enumerators; state and entity instructors; municipal census commissions; cantonal census commissions; ministries participating in the census organization and enumeration; and other staff engaged in technical preparations and financial management. Drafts are prepared for enumerating persons in prisons, military barracks and diplomatic missions. According to the Census Activity

plan, the draft of these documents is to be prepared by beginning of June, to be reviewed after the Pilot Census and finalised during the second half of October 2012.

76. The Census methodology on organisation and conducting of the Census is unique for the whole country, with small differences due to the different administrative organisation of BiH Federation and Republika Srpska.

77. A draft "Manual for enumerators and municipal instructors for Pilot Census" was prepared for the Pilot census that was initially planned in October 2010. The document has to be updated in accordance with the changes in the census questionnaires. The draft manual provides the necessary methodological and technical explanations on how the enumeration should be performed as well as explanation on how enumerators and municipal instructors should perform their assigned tasks.

78. The Draft Census Methodology and the Draft "Manual for enumerators and municipal instructors for Pilot Census" give instructions to enumerators and municipal instructors on how to deal with refusals to be enumerated, but not to keep track or evidence of such cases.

79. The statistical institutions envisage a special procedure for circulation and exchange of the documents that suppose to be supported by Document management system software.

#### Assessment

80. The Census Law prescribes that a unified and internationally comparable methodology shall be developed for the Census. The Draft Census Methodology prepared within the EU-PHC project needs to be updated in accordance with the adopted Census Law. The updated draft together with the adopted Census Law form the base for developing the organisational and methodological instructions and manuals for different categories of participants in census activities. Instructions are to be prepared for enumerating persons in prisons, military barracks and diplomatic missions.

81. Differences in the administrative organisation of BiH Federation and Republika Srpska, such as the cantonal level in the Federation, will have to be taken into consideration in the instructions by the entity statistical institutions.

82. Based on the review of the draft "Manual for enumerators and municipal instructors for (2010) Pilot Census" and on the observed cooperation among members of the Interinstitutional working group, the finalisation of the manual for enumerators and municipal instructors for the Pilot Census can be expected according to the Census time table.

83. Preparation of other manuals or instructions could not be assessed, as the mission did not receive the definitive list of manuals or any draft.

#### **Recommendations**

84. It is recommended to prepare a detailed list of manuals and instructions to be drafted and to update the timetable accordingly.

85. Comprehensive manuals should be drafted for each participant in the census activities. These manuals should not only describe the assigned tasks but also explain how and when the tasks are to be performed, inputs, deliverables and reporting. A useful exercise during

drafting the organisational manuals is to answer the question "who is responsible to solve a particular problem when it arises". In drafting these manuals, it is important to tailor the style and layout to the category of census staff they target.

86. Information on refusals (if any) is very important for coverage assessment. The Census Methodology and the "Manual for enumerators and municipal instructors" should include technical instructions to keep record of such cases. Information on refusals should be recorded on the Control Form (P-3), in the part for "Notes" (or where is convenient), but not in the census questionnaires P-1 or P-2 to not give the impression that refusal is an option.

#### Training preparation

87. The training will be done in cascade:

- The inter-institutional Methodology group will train state and entity instructors;
- State and entity instructors will train Municipal Census Commissions (and Cantonal in BiH Federation) and municipal instructors;
- Municipal instructors will train enumerators.

88. The preparation of the training is planned for October 2012, after finalization of all census documents following the Pilot Census. Unique Powerpoint presentations are envisaged for the whole country in order to ensure that all participants will receive the same instructions. The premises for training of Municipal Census Commissions (and Cantonal in BiH Federation), municipal instructors and enumerators should be provided by Municipal Census Commissions. The envisaged duration of the training is three days plus one day for testing the trainees.

#### Assessment

89. A clear concept and plan for training exists, but the preparation of the training materials has not started yet.

#### **Recommendations**

90. The preparation of the training materials should be achieved before the Pilot Census in order to test them in the Pilot.

91. The cascade system may not ensure adequate control on the training of enumerators from the statistical institutes. State and entity instructors may be needed to monitor directly the training of enumerators, at least in some areas. The duration of training (3 days) for enumerators may not be sufficient and should be assessed during the pilot census.

# Printing

92. A contracting company will carry out printing. The procurement procedure has not started yet and is planned to start after the pilot census.

93. Printing of materials for the pilot census will be done internally, due to the small volumes.

#### **Recommendations**

94. The procurement procedure for printing should start as soon as possible. There is no need to wait until the complete finalisation of questionnaires and instruction manuals. Only format of documents and number or copies are needed to prepare the terms of reference.

95. The specifications in the terms of reference should make provision for additional orders in case of accident with a special time clause. For example, if a batch of questionnaires is accidently destroyed because of flooding, the Agency should have the possibility to order a reprint and get the delivery within a few days.

96. The pilot census shall be an opportunity to test questionnaire printing according to the requirements for optical recognition (special paper, layout, etc.).

#### **CENSUS TESTS (PILOT CENSUS)**

97. According to the Law, the pilot census will be conducted by the Agency in collaboration with the entity statistical institutions. It will be carried out from 1st September to 15th September in 2012. According to the initial plan, 60 EAs will be covered in the pilot census. The distribution of EAs by entities and municipalities will be provided later.

98. There will be local elections in October 2012. Therefore, the beginning of September is considered as the best period possible to conduct the pilot census without overlap with elections. However, the system for data processing will not be ready at this time and will be tested later once completed.

99. The pilot census will be conducted to test the planned methodology, field organization and draft census questionnaires and manuals. Manuals of instructions for census actors including census commissions, instructors and supervisors should be finalized 60 days before the pilot census. According to current plan, municipal census commissions will not be established for the pilot census.

100. The inter-agency working group reviewed the census questionnaires according to the topics given in the Census Law and finalized by 27 April 2012. The questionnaires for housing units and individuals will be tested in the pilot census. Enumerators will be hired for a short period of time and will be selected from young and unemployed people.

#### Assessment

101. The Agency and entities have a clear idea of the purpose of the pilot census. However, there is a need for a detailed activity plan for all entities and other actors involved in the pilot census.

102. The inter-agency working group indicated that there was no plan to conduct pre-tests of the census questionnaires related to wording, order of questions and design, before the pilot census.

103. The purpose of the pilot census is to test the entire system of conducting population census. However, there is no plan for establishing municipal commissions for the selected EAs in the pilot census. Therefore the pilot census will not allow testing the roles of municipal commissions and the whole process as planned. Selection criteria of EAs for the pilot census are not clearly explained.

#### **Recommendations**

104. Since the last census was carried out in 1991, the entities lack experience in conducting census. Therefore, it is very important to design the pilot census to test all stages of census including checking the quality of census mapping, field organization, monitoring the field work, data processing (data capture, recognitions, coding, editing/imputations), evaluation of census results and dissemination plan and tools as well as communication activities.

105. It is strongly recommended that all census committees planned for the census are established and their roles tested in the pilot census. In this context, municipal census commissions concerned by the selected EAs for pilot census should be established and actively involved in the pilot census as planned in the census. At least one representative of the municipality should be involved in case it is not possible to set up a complete municipal commission.

106. Geographic location of EAs for pilot census should take into account the representation of the constituent ethnic groups in order to test the suitability of census questionnaires for all communities. This would allow to test the recognition engines of optical data capture system (ICR/OCR technology) that will be set up for three languages in two different alphabets.

107. It is recommended that the web application for monitoring fieldwork be tested in the pilot census. Also, activity plan for data processing procedures (from the receipt of the questionnaires to the preparation of census database) and process control of these procedures should be prepared before the pilot census and tested once the system is completed.

#### MAPPING

108. The State of Bosnia and Herzegovina (BiH) covers an area of approximately 51,209 sq km. The territory of FBiH is about 51% of the state territory, and the RS about 49%. The country is mostly mountainous. Water area is about 10 sq. km and the coastline 20 km, approximately.

109. Administratively, FBiH is divided into 10 cantons, and cantons are divided into 79 Municipalities. RS is divided into 62 municipalities (60 municipalities and 2 cities, Banja Luka and Sarajevo East). DB is a separate administrative unit. From a geographic point of view, the 62 municipalities in RS compose 7 regions.



Administrative division of BiH, "Study on technology for production of cartographic documentation for 2011 census", 2007.

110. The 1991 population and housing census was conducted in the territory of BiH, at this time divided into 109 municipalities. Municipalities were divided into settlements, local communities, statistical areas and EAs (about 18,800).

111. Taking into consideration that many changes occurred in the territorial organization of BiH since the last census, and in order to develop a unique methodology for census mapping at State level, a group of experts on cartography was established in 2007 and produced a document "Study on technology for production of cartographic documentation for 2011 census". The document was the result of a joint work of the BiH Agency for Statistics, the FBiH Institute for Statistics, the RS Institute for Statistics, the Administration for Geodetic and Real Property Affairs of FBiH, the Republic Administration for Geodetic and Real Property Affairs of RS, the Ministry of Civil Affairs of BiH, the Public Registry of Brčko District, representatives from the Municipalities of the FBiH and RS.

112. According to this document, a register of spatial units in BiH was defined, which included the following spatial units to be considered for the development of a census mapping programme at state level:

- State
- Entities/District
- Cantons
- Towns
- Municipalities
- Cadastral Municipalities
- Inhabited Settlements
- Local Communities
- Statistical Areas
- Enumeration Areas

113. Each unit was defined, and the need to define or update consistent boundaries between units was discussed. It was also discussed that a unique identification of housing units would be made through the development of an address system composed of streets, street names, and building numbers.

114. The document was composed of 8 chapters. An introduction (Ch.1), an overview of the currently available cartographic data in BiH (Ch.2), a list of the cartographic data and auxiliary data that was proposed to be used in the census mapping activities (Ch.3), an overview of the proposed digital database content associated to the cartographic data (Ch.4), an overview of the proposed methods for the implementation of the census mapping activities, including an outline on data analysis and dissemination, an overview of staff and equipment requirements (Ch.5), a work plan with an estimation of costs for each activity (Ch.6), an outline of other current initiatives related to the development of digital cartography in BiH, as potential sources of base maps for the development of the census maps (Ch.7), and a conclusion chapter with an outline on current and planned activities of the Cartographic Group (Ch.8).

115. The methodology currently in progress for census mapping in both Entities and in DB is mainly based on the document developed by the cartography group in 2007. Since then, entities have developed their own methodology, but it was reported that they are quite similar.

116. During the meetings held with the Administration for Geodetic and Real Property Affairs of FBiH and the Republic Administration for Geodetic and Real Property Affairs of RS, it was reported that census maps will be derived from a digital mapping system organized in a Geographic Information System (GIS) database composed of i) a base map layer of scanned topographic and cadastral maps at different scales, orthophotos derived from aerial photographs taken between 2008 and 2009 and covering only part of the territory; ii) several polygon layers representing boundaries of Entities, cantons for FBiH, municipalities, settlements, statistical areas, cadastral municipalities, EAs; iii) a line layer with street names; and iv) a point layer representing building entrances. Buildings are not planned to be represented.

117. The planned procedure to update or redraw the boundaries of EAs is based on field operations in order to estimate the approximate number of households by area (about 100 households). It was reported that the EA boundaries would be drawn following as much as possible physical features, such as roads or streets, rivers, etc.

118. In FBiH, the Administration for Geodetic and Real Property Affairs has started the implementation of the GIS census database, but all the field activities for the implementation of the address system and update of EAs (delineation of lines representing streets, street names, numbers of building entrances, list of dwelling units for each building entrance, demarcation of EAs, etc.) have not started yet, since they are planned to be outsourced to a private company. It was reported that all the preparatory mapping work would be completed by October 2012.

119. In RS, the Republic Administration for Geodetic and Real Property Affairs explained that the implementation of the GIS census database was well advanced, but that the development of the address system and the demarcation of EAs was progressing slowly, due to the low commitment of some municipalities in updating street names, assigning numbers to building entrances and listing dwellings. It was reported that in any case all the work would be completed by October 2012.

120. No map updating operations by enumerators have been planned in both entities in the period prior to the enumeration in order to ensure full coverage in their assigned areas (identification of new buildings and entrances, modified constructions, buildings not existing anymore). In addition, there is no definite plan for the preparation and printing of EA maps.

121. According to the census law, the public mapping agencies of the two entities, the Administration for Geodetic and Real Property Affairs of FBiH, the Republic Administration for Geodetic and Real Property Affairs of RS, and the Public Registry of Brčko District, together with Local Authorities, are responsible for the preparation of census maps, by 1st of October 2012 (art.30). The BiH Agency for Statistics is only responsible for mapping of Brčko district together with the Public Registry, and for the establishment and maintenance of a registry of spatial units at State level. It has also the role of technical coordination and cooperation with entities for the preparation and implementation of the census.

122. It was reported that in DB the boundaries of the following spatial units have been prepared:

- The boundaries of DB
- The boundaries of settlements
- The boundaries of local communities
- The boundaries of cadastral municipalities
- The boundaries of statistical areas
- The boundaries of EAs (412 in total)

123. It was also reported that the address system (streets and building numbers) is not completed, and that it will be finalized by 1st of October 2012, as prescribed in the law. The cartographic materials used were topographic maps at scale 1:25,000, cadastral maps at scale 1:1,000 and 1:2,500 in vector format, and digital orthophoto maps at scale 1:1,000 dated spring 2009. It was reported that the used cartographic materials is organized in a Geographic information System (GIS) database, and updated.

#### Assessment

124. The discussions with representatives from the Institutes of Statistics and the Geodetic Administrations from both Entities, showed that the methodology and the implementation phases for the census mapping programme are correct and generally in line with International recommendations and European standards. However, serious concerns have to be expressed on the timetable for the implementation phase, which seems not realistic if the deadline of 1st October 2012 has to be respected.

125. In the absence of reliable administrative records and comparable data from the previous census, and taking into consideration the large changes occurred since 1991 in the boundaries of administrative and statistical units, in the movement of population, and important changes occurred in the morphological structure of many urban areas, the census mapping component plays a crucial role to maximize the coverage rate and to provide quality small area data. The overall territory of BiH needs to be organized into administrative and statistical units that are consistent with each other, and into EAs of approximately equal number of households. This requires accurate field activities to count the housing units in order to adjust the boundaries of the 1991 EAs, and/or to delineate new EAs. This operation is considered essential for adequate planning of census logistics (number of enumerators, number of census forms, etc.), adequate management and monitoring during the enumeration, which according to the census law has to be completed in two weeks time.

126. The selected methodology based on the use of an address system (streets and building entrances or house numbers), rather than on the identification of building boundaries, represents a more advanced data model in census mapping since it prepares the path towards the use of future address-based censuses. At the same time, it requires stronger qualitative control measures to ensure good census coverage. The risk is to provide the enumerators with incomplete EA maps, and consequently to omit units of enumeration during the data collection.

127. It was understood that EA maps would show only streets, street names, addresses and roughly the built structure. This may not give the enumerators the tools to ensure full coverage of their assigned area, if EA maps do not have as background up-to-date aerial or satellite images where buildings can be identified, or if some street addresses are omitted.

128. Both institutes of statistics in the two entities have decided to use GIS tools for the preparation of census maps, instead of paper-based maps traditionally used in previous censuses. Obviously, the use of GIS tools has many advantages in comparison with the traditional mapping approaches, including for the dissemination phases. A population and housing census is a unique opportunity to introduce the use of digital mapping procedures in statistical offices, as nowadays largely used in European and neighboring countries. However, the digital approach in census mapping requires a large amount of time and resources when used for the first time. The Geodetic Administrations have shown high-level capacities on the use on GIS technology, but no large experience is present in BiH on the application of GIS for statistics, and namely for census operations.

129. The institutional cooperation defined by the census law between the Geodetic Administrations and the Institute of Statistics is very welcome, and internationally recommended. Statistical offices traditionally do not have neither technical capabilities in producing digital cartography nor experienced staff, while mapping institutions may be interested in updating administrative boundaries and other information on street names and addresses on the base maps they may have. However, the cooperation should be based on a continuous joint work between both institutions, especially if mapping services are outsourced to private companies or assigned to local authorities. In that regard, the mission drew the impression that the Institutes of Statistics were tending to completely delegate responsibility in census cartography instead of being active actors in the census mapping process. This impression was much greater in FBiH than in RS.

130. Given the situation experienced by BiH in 1991, the border between entities is not clearly defined on maps. About 75 municipalities have their territory divided in two parts, and about 300 EAs used in the 1991 census are located between the two entities.

#### **Recommendations**

131. As already envisaged by the Agency for Statistics, a group of experts on census mapping should be re-established soon between the Agency for Statistics, the FBiH Institute for Statistics, the RS Institute for Statistics, the Administration for Geodetic and Real Property Affairs of FBiH, the Republic Administration for Geodetic and Real Property Affairs of RS, the Public Registry of Brčko District, representatives from the Municipalities of the FBiH and RS. The BiH Ministry of Civil Affairs may also support the coordination. The group should take immediate actions on (and prepare a document):

- Final definition of census spatial units (administrative, statistical, geographic units) to be used in the Entities, their hierarchy and code schemes;
- Clear definition of the criteria to demarcate enumeration areas in both Entities, and preparation of an example of EA map layout;
- Clear definition of the applied and planned procedures for quality control to ensure full coverage of addresses in BiH;
- Preparation of an updated timetable of activities on census mapping activities until October 2012, by week;
- Definition of the border line between entities for census purpose.

132. An up-to-date inventory of cartographic materials (orthophotos, topographic maps, cadastral maps, etc.) should be prepared soon for each municipality in both entities. It is recommended to include in the inventory the current availability of digital orthophoto maps produced in the framework of the EU funded project "IPA-spatial information services for Bosnia and Herzegovina-phase 2: digital orthophoto maps".

133. The boundaries of the spatial census units as demarcated for the 1991 census should be preserved as much as possible in order to ensure the comparability of census data at small area level. When not possible, a correspondence coding scheme should be established between old and new spatial units.

134. The Institutes of Statistics of the two Entities should be continuously and directly involved in the preparation of census maps, especially in the demarcation of the EAs.

135. A list of collective living quarters in both Entities, by municipality, should be prepared soon, if not already done.

136. The September pilot census should be used to test census maps. A list of addresses should be also prepared and provided to enumerators, who should update it in their assigned area two days prior to the commencement of the enumeration. New addresses, addresses not existing anymore, and changes on the street names should also be recorded.

137. Proposed activities for the next mission are the following:

- Direct observation of the GIS census database developed in both Entities and for the DB;
- Field visits to assess census maps;
- Assessment of the inventory of the cartographic materials, the hierarchical scheme of all spatial units, the timetable of activities, and the other census mapping materials;
- Meetings with BiH Agency for Statistics, the FBiH Institute for Statistics, the RS Institute for Statistics, the Administration for Geodetic and Real Property Affairs of FBiH, the Republic Administration for Geodetic and Real Property Affairs of RS, the Public Registry of Brčko District, representatives from the Municipalities.

#### COMMUNICATION

138. The responsible institution for the communication strategy and its implementation is the Agency for Statistics of Bosnia and Herzegovina with its Department for International Cooperation and External Information (ICEI), headed by Ms Jasna Samardzic. One and a half month ago, a journalist with experience in public information and communication was hired.

139. In 2010, the staff of the two entity statistical offices attended two workshops moderated by an external consultant to discuss public awareness campaign activities ahead of the Census<sup>2</sup>, but this cannot be considered as a communication and outreach strategy. The head of the ICEI drafted the chapter on Public Awareness Activities of the terms of reference for technical assistance in coordination with the entity offices.

140. There has been no qualitative or quantitative survey of popular attitudes to the census across the state and no outreach and communication strategy has been developed.

141. The staff of the state statistical agency and of the two entity statistical offices tend to believe that the main problems with regards to participation in the census would be rooted in economic and social dissatisfaction towards the State and only to a lesser degree rooted in ethnic tensions. However, they stress that they do not foresee significant problems.

142. It is though hard to say what can happen because in BiH almost every issue is politicised, as noted by the persons met. It has been the case for the census that was discussed for three years, and it has to be considered that local elections will take place in October and general elections in two years. A pilot census is planned for the first half of September, and is in reality taking place during the campaign for local elections. At present there are agreements from six leaders of main political parties that they will declare themselves supportive to the census. Some political parties are against census, but they are not of much influence.

<sup>&</sup>lt;sup>2</sup> Secerkadic, Agnesa *The Mission Report, May 2010*, EUPHC

International Monitoring Operation on the Population and Housing Census in Bosnia and Herzegovina

Whatever the results of the census, it has been agreed in the census law that no changes in political rights of the different ethnic groups will be made.

143. No outreach and communication activities have been carried out except a meeting with the municipal political leaders in RS last year when it was still considered to conduct a census for the entity, and except the questions and answers (Q&A) list being prepared for the census website and the regular press briefings on other subjects in RS.

144. Last year people perceived the census as just a counting of ethnicities. There were numerous programmes on television about census, but only politicians and no technicians had opportunity to comment about the census. However, there is quite a large focus on the upcoming census.

145. There is a budget for public awareness activities of around 500.000 Euros but no full time technical assistance is allocated for communication. This could be compared to the census in Kosovo, which had a budget of 1.15 million Euros for activities and a full time TA expert on communication.

#### Assessment

146. The Agency for Statistics seems very much aware of the need for communication and outreach activities and has employed additional staff in that regard. The initial judgement is that the internal structural framework for communication and awareness building is sufficient for the nearest future.

147. It is the understanding of the experts that the management of the entity offices is aware of the need for a short but comprehensive communication campaign in the last months before the census, but is not paying sufficient attention to the outreach activities that should start already now – one year before the planned census.

148. The mission had no chance to meet people outside the statistical offices, and it is not possible to assess the number and the risk of people reluctant to be enumerated and reasons for their possible reluctance. To assess this it would be necessary to meet representatives for civil society organisations, municipalities and public authorities.

149. There is currently a consensus between political parties at national and entity levels that the census is needed and should be carried out within the framework of the new census legislation.

150. Strategically, there are two options. If the political consensus remains in place and the census does not become politicised it might be counterproductive to do extensive communication or outreach activities focusing on overcoming possible resistance to the census. However, in that case it would still be productive to carry out early outreach and communication activities ensuring that political, religious and civil society leaders would be well informed and supportive to the census, and that the population would be well informed about the benefits of the census. If the political consensus would become unstable it would be crucial to ensure that comprehensive outreach activities reach all levels of decision makers and that communication activities are carried out to build popular support to the census.

151. It is a problem that no outreach and communication strategy has been developed ahead of the second phase of technical assistance. The ToR for Phase II TA consider in component 3 that a public awareness strategy already exists, quoting from the above mentioned mission report. However, this mission report does not include anything as a strategy for public awareness, communication or outreach and no action plan can be based on the report alone. Ideally the development of an evidence based communication and outreach strategy should be included in the Phase II TA. It is indeed very late in the process that leads up to census in April next year.

152. While the three statistical units seem eager to work together on the census implementation, there has been no qualitative or quantitative research on the public's perception and attitudes to the upcoming census. This would be useful to assess the context and needs for communication and outreach activities.

153. Finally, the allocated budget for communication activities cannot be assessed in the absence of a communication and outreach plan.

#### **Recommendations**

154. It is recommended that the inception report for the Phase II TA gives the following precisions for the component 3 on Public Awareness:

- Research must be carried out as soon as possible through interviews, focus groups and if possible quantitative survey to identify the knowledge, perceptions and attitudes to the census and to the national statistical agency. The research will further serve to identify potential partners for an outreach strategy. The research must be carried out before 1<sup>st</sup> of July 2012.
- After the research a comprehensive evidence based communication and outreach strategy must be developed with defined objectives, target groups, methodology, tools, value based aspirational and tactical messages, timeline and budget. The communication and outreach strategy should consist of both a long-term component and of a campaign component to be implemented within the final months leading up to the census. The outreach strategy will serve as a road map for developing and managing relationships with a whole range of stakeholders, residents, government, local communities, and civil society organizations. The communication and outreach strategy with detailed action plan and budget must be finalised by 1<sup>st</sup> of September 2012.
- The communication and outreach strategy and action plans should be managed and implemented by the Agency for Statistics BiH in collaboration with the entity statistical offices and possibly external civil society representatives. The placement of advertisements, information spots, billboards, leaflets, etc. during the final campaign months should be outsourced to a professional company, while media relations, outreach partnerships and activities, social media etc. should remain with the Agency.

- The areas selected for the pilot tests should include sensitive areas e.g. entity border line communities, mixed areas etc. to have some of the communication tools and messages tested.
- 155. It is recommended that the Agency for Statistics:
  - Establish its own communication setup within the central census bureau and coordinating with the entity statistical offices and possible external partners. To be established by the end of May.
  - Begin building the necessary partnerships with civil society organisations, politicians and other stakeholders for the outreach activities. To start by the end of May.
  - Prepare workshops for interested journalists with a focus on understanding and using statistical and census related issues to feed into journalistic reports. To be carried out by August.
  - Initiate regular press briefings about the upcoming census and on other related statistical outputs. To begin before end of May.
- 156. It is recommended that the next mission:
  - Provides time for the communication expert to carry out a number of consultations with the help of the EU-delegation, civil society organisations, and politicians to find out whether particular issues need to be addressed as part of the communication and outreach strategy.
  - Identifies a counterpart within the EU Delegation with analytical insight and knowledge about the political implications of a census in order to have a continuous dialogue and follow up to our missions.

#### **ENUMERATION**

#### Method of enumeration

157. The Census method of enumeration shall be a traditional one, by applying door-to-door interview method for data collection. Face to face interviews shall be carried out by trained and authorized enumerators and data will be recorded in paper questionnaires.

158. In accordance with the Census Law, the Census shall cover the following units:

- a) Citizens of Bosnia and Herzegovina with place of usual residence in Bosnia and Herzegovina, regardless of whether, at the time of the Census, they are present in Bosnia and Herzegovina, or absent from Bosnia and Herzegovina,
- b) Foreign citizens who have permanent or temporary stay permit in Bosnia and Herzegovina, regardless of whether, at the time of the Census, they are in Bosnia and Herzegovina or not,

- c) Persons without citizenship,
- d) Households (private and institutional) of persons identified as census units,
- e) Dwellings and other living quarters.

159. In addition, for counting the citizens of Bosnia and Herzegovina who live abroad but have a place of residence in BiH and have been absent from BiH for more than 12 months, a questionnaire will be available on the web. People living abroad and willing to be included in the operation can download the questionnaire, fill it in and send it to the Agency by mail. However, this operation is separate from the census and persons living abroad will not be counted in the population of the country.

160. The Census field data collection (the enumeration) shall be conducted in the period from 1 to 15 April 2013, according to the situation as on 31 March 2013 at 24:00 hours (midnight) defined as the reference date of the Census.

#### Field Organisation

161. The Census shall be organized and conducted by the statistical institutions in Bosnia and Herzegovina: the Agency for statistics and entity statistical institutes (Institute for Statistics of Federation of BiH and Institute for Statistics of Republika Srpska) in cooperation with relevant administrative bodies and organizations of BiH, entities, Brčko District and of units of local self-government. For census purposes are established Central Census Bureau, and census bureau in each entity statistical institute.

162. State and entity instructors, Cantonal Census Commissions (in BiH Federation), Municipal Census Commissions, municipal instructors and enumerators will participate in the field organisation.

163. The state and entity instructors will be mainly selected from the statistical institutions. In case of shortage of entity instructors, there is a possibility to hire some external persons. For each municipality one entity instructor shall be appointed (selected from the staff of the respective entity statistical institute) and for bigger ones 2 or more entity instructors will be appointed. The state instructors (selected from the staff of Agency for statistics) will be assigned only in the municipalities where will be needed more than one entity instructor, and in the District Brčko. The estimated number of instructors is 160, out of which 10 are state instructors. They have a very important role in fieldwork and are responsible in particular to train municipal instructors; to supervise the enumeration and to ensure correct application of the census methodology.

164. "Municipal Census Commission" (MCC, Census commissions of the units of local selfgovernment) shall be established as *ad hoc* bodies for the needs of preparing and carrying out the Census field activities for each unit of local self-government (municipality or town). In total, 143 Municipal Census Commission shall be established: 79 for BiH Federation, 63 in Republika Srpska and one for Brčko District. Each commission shall have a chairperson and three to five members (depending of the size of the population) who shall be nominated by respective municipality, town and the Brčko District. The MCC will be responsible for selec-
tion and nomination of (municipal) instructors and enumerators for their area (based on criteria prescribed by Agency for statistics); to provide premises and conditions for the training of municipal instructors and enumerators as well as for storage of census material; to inform general public about the census; to follow the census and take measures that guarantee a complete coverage of the census units; to organise transport and timely delivery of the material to data entry centre, etc.

165. In addition, in each of the 10 cantons of BiH Federation a "Cantonal Census Commission" shall be established. These commissions are not involved directly in the census field activities, but shall initiate the establishment of Census commissions and selection of the instructors and enumerators in the municipalities of Federation of Bosnia and Herzegovina.

166. Municipal instructors shall be selected with a public call. Their duty is to train the enumerators and to supervise the enumerators' work. For that purpose, they shall follow at least one interview per enumerator and control the filled census materials. One municipal instructor will be responsible for 8 to 10 enumerators. The assessed number of municipal instructors is 2800.

167. The territory of the country will be divided in approximately 20,000 enumeration areas (EAs), each of them comprising around 80 to 100 households. One enumerator will be in charge of one EA. It is not foreseen to have two or more enumerators in the same EA with multi-ethnic structure.

168. The public call for municipal instructors and enumerators is planned on 1-4 December and the selection should be finalised by the end of December. The candidates should satisfy the criteria prescribed by Agency for statistics: to be citizen of BiH, to have at least secondary education level, to be resident of the unit of the local self-government where is applying, to be unemployed and to pass the test.

169. Besides mentioned criteria, care shall be taken for ethnic structure as prescribed in the Law:

- Ethnic structure of the commissions, instructors and enumerators of the units of local self-government shall reflect the ethnic structure of the population according to the 1991 Population Census, if possible;
- Ethnic composition of the Census Commission of the units of local selfgovernment shall include at least one representative of the constituent people and others;
- Ethnic structure of the total number of instructors for the territory of municipality/town, as a rule, shall reflect the national structure of the population according to the last Population Census;
- The representation of each constituent people and others shall be ensured in the ethnic structure of the total number of enumerators for the territory of a municipality/town, in the percentage, which is, at least, half of the percentage of participation of the constituent peoples, i.e. others in the total structure of population of that municipality/town in the last Population Census.

170. The statistical institutions expressed worries about satisfying the "Ethnic structure" criteria, because the local population structure has changed compare to 1991.

171. The role, duties and responsibilities of each census actor are prescribed in the Census Law. More detail and operational explanation will be provided in the organizational manuals that are under preparation. In addition, Republika Srpska is preparing a census law for Republika Srpska where the provisions of the state Census Law will be more detailed.

172. Entity statistical institutes are on the top of the organizational pyramid for the census fieldwork, then entities (and state) instructors and Census commissions of the units of local self-government, then municipal instructors and finally enumerators. The supervision is going by line from top to the base and reporting from base to the top.

173. The census materials – census questionnaires, manuals etc. will be distributed directly from the printing house to each municipal census commission. Logistics groups are not yet established.

#### Assessment

174. The method for enumeration (traditional Census by applying door to door interviews) is suitable for the country. The census reference date and period of data collection are in line with the censuses previously conducted in BiH.

175. The units to enumerate (population, housing units and households) are defined in accordance with the international recommendations and EU regulation.

176. The planned organization for preparation and realization of the fieldwork is following the administrative organization of BiH. The final number of municipal instructors and enumerators is to be confirmed upon providing the exact number of EAs. The ratio of 8 to 10 enumerators per supervisor is in line with international recommendations and practices.

177. The selection of municipal instructors and enumerators can experience difficulties in satisfying the "ethnic structure" criteria prescribed in the Census Law, because of the changes in the population structure in comparison with the situation in 1991.

178. There is no logistic group for Census in the statistical institutions.

# **Recommendations**

179. The line of responsibilities and line of reporting should be clearly stated and explained in the organisational manuals for each participant in census activities.

180. It is recommended to have enough reserve of enumerators from all ethnic communities residing in the unit of local self-governments to face requirements for enumerator of specific ethnicity.

181. Instructions and training should explain in detail the definition of "place of usual residence", which may be understood as a place where a person has a "residence" in the meaning of a house or an apartment. A good practice is to give examples of various possible situations. It is of utmost importance that no confusion be made in the application of the definition. In that regard, the special operation for the enumeration of citizens living abroad should

be explained and promoted as the opportunity to count everybody, but in the appropriate category.

182. The Census Logistic groups should be established as soon as possible.

# **Monitoring field operations**

183. Field operations will be monitored by census commissions, municipal supervisors and entity instructors during the enumeration. The quality of enumeration will be monitored through feedback from all census actors involved in field operation.

184. An online web application will be developed to collect data from the field daily. The structure of web application, responsible bodies to enter data, decision making system using web application will be identified by the relevant working groups.

#### Assessment

185. It is the understanding of the experts that methods for monitoring field operation are not discussed with all responsible bodies. There are no clear strategies for most components of monitoring field work such as structure and content of web application, identification of problems, and collecting feedback during operation, decision making process, solving problems.

# **Recommendations**

186. It should be emphasized that this important component of census activities should be tested in the pilot census. Monitoring system for field operations needs careful design with involvement of all subject matter experts such as statistical methodologists, operational experts and system experts. In addition, developing such system usually takes longer than expected.

187. There should be consensus with all responsible bodies on what information will be collected to monitor and correct problems arising during fieldwork. This requires a timely information system that provides decision makers at different levels with the information they need to adjust or correct problems while the enumeration is in progress. Some examples of information that might be needed during enumeration: i) regular reporting and analysis of response rates and completion rates during enumeration ii) monitoring non-response and refusal follow-up rates iii) monitoring coverage checks and controls (according to population estimates from alternative sources/methods), iv) monitoring the work of enumerators and supervisors; and v) monitoring types of dwellings.

188. Information collected from the field should be available at different geographic or aggregations levels useful for each level of management. Decision making system should be clearly identified for different types of problems by giving special attention to provide timely decision for solving problems while the enumeration is in process.

# **DATA PROCESSING**

189. The census questionnaires will be captured using optical data capture technology - Intelligent Character Recognition (ICR). According to the Law, the Agency is responsible for all phases of data processing in collaboration with the entities statistical offices. Data processing operations will be undertaken in a centre located in East Sarajevo.

190. The tender procedure for data processing was completed and the contract with the company was signed on 17th April 2012. The Agency expressed that all stages of data processing using ICR technology are included in the tender. The company will provide onsite support for all activities including scanning, recognition (automatic and manual recognition), coding (automatic code with ACTR software), processing control and deriving census variables.

191. Three scanners will be used for scanning census forms. There will be two shift groups for recognition, coding and other phases of data processing. In each shift, around 40 people will be involved. According to the Agency, the optical data capture system will be set up within 7 to 8 months after signature of the contract.

192. Action plan for control of all phases of data processing has not been yet specified. The Agency expressed that the company will provide plans and methods for control of data processing.

#### Assessment

193. The Agency explained the phases of data processing procedures and provided the flow chart for these phases. However, this chart does not include every stages of data processing such as editing, imputation, process control, etc.

194. The contracted company will provide training programme for the staff of the Agency and entities, including capacity building in the use of ICR technology. The entities are not yet aware of their contributions in data processing and of the training programme.

195. ICR technology can provide significant improvements in quality and timeliness of census data capture. However, this technology requires specific skills and its implementation should be carefully planned and tested in advance to identify possible risks and errors.

#### **Recommendations**

196. The mission had no chance to see the terms of reference for the contracted company and have detailed information on the components of data processing. It should be emphasized that although data processing procedures are contracted out, the Agency is fully responsible for the quality of the census data. Therefore it is recommended that continuous monitoring of the work entrusted to the selected company be carefully planned and implemented by the Agency.

197. The capacity of the Agency to manage new technologies for data processing should be improved through well-organized continuous training programme. Training for the staff of

the Agency and entities statistical offices should be completed early enough for better planning of the data processing stages.

198. ICR technology requires more extensive systems development and testing than the traditional key-entry capture. There are number of factors that need to be considered through the system design and integrated into the system development such as character recognition of different alphabets, manual recognition, automatic coding, manual coding, editing, imputation, consistency checks, etc.

199. In preparation to the next mission, a detailed activity plan for data processing procedures, the training programme for the census staff, the progress in setting up the system will be requested.

#### **DISSEMINATION OF THE RESULTS**

200. According to the Law, preliminary census results will be published within 90 days after the enumeration. The tabulation plan for preliminary results will be prepared by the Agency and entity statistical institutions.

201. The census law stipulates that final results will be available within the period from 1 January 2014 until 31 December 2015.

202. The Agency expressed that the results will be available in different format and tools, including online.

#### Assessment and recommendations

203. Tools for dissemination will be identified by the Agency and entities. It is advised that thematic analytical reports, census atlas and micro data be considered in dissemination plan to meet the needs of different types of users.

204. It is important to emphasize the importance of users' consultation to identify dissemination strategies and tools. Consultation with users is essential part of census operation to determine demand for potential census topics, to deliver relevant products and services with suitable format and to adapt a range of products and services to meet current emerging needs.

#### **EVALUATION OF THE RESULTS**

205. As indicated in the Law, a post enumeration survey (PES) will be carried out immediately after the enumeration based on a representative sample of EAs in order to evaluate the coverage and quality of census data. The Agency is responsible for carrying out all phases of the PES including determination of the methodology, organization of the fieldwork and analysis of the PES data in collaboration with the entities statistical institutes.

206. The methodology for conducting the PES and evaluating data including data capture, matching operation, methodology for estimating coverage and content errors are not yet developed. The mission had no opportunity to see PES questionnaire.

#### Assessment and recommendations

International Monitoring Operation on the Population and Housing Census in Bosnia and Herzegovina

207. The Agency explained that the PES methodology would be tested in the pilot census. However, there is no documentation available to assess this activity. Documents explaining the PES methodology, questionnaire, data processing and evaluation of results should be drafted before pilot census and tested during the pilot census.

208. It is very important that a different team than the census team conducts the PES to ensure its operational independence. The agency should identify a team in charge of the preparation and implementation of the PES.

209. In complement to the PES, it is recommended to use demographic methods based on the comparison of census results with other relevant sources including previous censuses, current household surveys and/or administrative registers in the evaluation and validation phase of the census.

210. In addition, it is also recommended to develop a quality report on census data. The aim of this report would be to document methods and procedures followed in the entire census process, and particularly during data processing activities (e.g. frequencies of inconsistencies and errors by variable, number of variables imputed, etc.). This report would be released together with the publication of the final census results.

# ANNEXES

# SUMMARY OF RECOMMENDATIONS BY ORDER OF PRIORITY

#### Short-term urgent recommendations

- **Finance**: secure the multi-year census budget
- **Questionnaires**: finalize the questionnaires before the pilot census: review ethnic/religion questions, pre-test before the pilot census in all languages, validate layout with data capture company.
- **Cartography**: establish an inter-institutional group of experts on census mapping to take immediate actions on the definition of census spatial units and code schemes; the criteria to demarcate enumeration areas, procedures for quality control, border line between entities. Prepare an updated weekly timetable of activities on census mapping activities until October 2012.
- **Communication**: Carry out study on the knowledge, perceptions and attitudes to the census and to the national statistical agency. Begin building partnerships with civil society organisations, politicians and other stakeholders for the outreach activities.

# Short-term less urgent recommendations

- **Pilot Census**: prepare the pilot census in order test the complete organisation in the pilot census, including the role of census commissions, maps, training materials, PES and data processing. In the selection of areas where to conduct the pilot census, take into account the representation of the constituent ethnic groups in order to test the suitability of census questionnaires for all communities and include sensitive areas e.g. entity border line communities, mixed areas etc. to test some of the communication tools.
- Enumeration: develop precise instructions regarding the enumeration of persons living abroad.
- **Project Management**: Develop a detailed timetable for each statistical institution, as part of the general timetable, and follow up regularly its implementation, based on regular reports from the working groups and staff involved.
- **Finance**: organise the budget by sub-domain of the census breakdown each sub-domain into categories of expenses (staff, equipment...)
- **Enumeration**: prepare a detailed list of manuals and instructions to be drafted and to update the timetable accordingly.
- **Evaluation**: develop the methodology and materials for the PES to be tested in the pilot census.
- **Procurement**: list all procurement needs and evaluate the time needed for drafting the

- specifications and completing the process. In particular, procurement for printing should start as soon as possible and include clauses for emergency reprint.
- **Cartography**: draw an up-to-date inventory of cartographic materials for each municipality in both entities.
- **Communication**: based on the study conducted, develop a comprehensive evidence based communication and outreach strategy with defined objectives, target groups, methodology, tools, messages, timeline and budget. Prepare workshops for interested journalists
- Logistics: establish a Census Logistic groups.

# Mid-term recommendations

- **Risk management**: develop a risk management plan in order to identify possible risks and prepare solutions.
- **Staff**: Secure availability of staff for the preparation and the conduct of the census. Make provision to have enough reserve of enumerators from all ethnic communities residing in the unit of local self-governments.
- **Enumeration**: prepare comprehensive manuals for each participant in the census activities, not only describing the assigned tasks but also explain how and when the tasks are to be performed, inputs, deliverables and reporting. Include collection of information on refusals in the enumeration procedure. Develop a system for monitoring enumeration.
- **Field organization**: The line of responsibilities and line of reporting should be clearly stated and explained in the manuals for each participant in census activities.
- **Collective living quarters**: prepare a list of collective living quarters in both Entities, by municipality.
- **Data processing**: improve the capacity of the Agency to manage new technologies for data processing through well-organized training programme.

# Long-term recommendations

- Users' consultation: identify categories of potential users and organise consultation of the users to determine demand for relevant products and services with suitable format and to adapt a range of products and services to meet current emerging needs.
- **Dissemination**: prepare a dissemination plan, considering online dissemination, thematic analytical reports, census atlas and micro data to meet the needs of different types of users.

#### AGENDA OF THE STEERING COMMITTEE FIRST MISSION

#### 23-26 April 2012

Sarajevo-Jajce-Banja Luka

Organisation	Participant	
Eurostat	Susana Martins	Susana.martins@ec.europa.eu
	Jean Michel Durr	jmdurr@jmstat.com
Expert Team	Katerina Kostadinova Daskalovska	katerina.daskalovska@gmail.com
	Meryem Demirci	meryem.demircim@gmail.com
	Roberto Bianchini	bianchini.roberto@gmail.com
	Bent Noerby Bonde	bnb@african-communication.net

Agenda

Sunday – 22<sup>nd</sup> April – Arrival to Sarajevo

# <u>Monday 23- Sarajevo Sarajevo, Zelenih beretki 26 - Agency for Statistics of BiH, Room No</u> 7, IV floor

- 9.00 10.00 Meeting with the top management of the Agency for Statistics of BiH: Mr Zdenko Milinovic, director of the Agency, Ms Slavka Popovic, deputy director, Mr Fadil Fatic, deputy director and Ms Jasna Samardzic, head of international cooperation and EI department
- 10.00 12.30 Meeting with other relevant staff for the Census preparation (methodology, sampling, dissemination, cartography) and members of the Agency Census Bureau: Ms Nora Selimovic, head in the sector for demography and social statistics; Mr Edin Sabanovic, assistant director and Mr Enes Hadziefendic, head of the department in the sector for methodology and sampling; Ms Sevala Korajcevic, head of the environment, energy and transport department; Mr Milenko Stojanovic, head of labour market department; Ms Majda Hasanbegovic, assistant director, Ms Ivona Bulic and Ms Ljerka Bojic from dissemination sector;

International Monitoring Operation on the Population and Housing Census in Bosnia and Herzegovina

Mr Bakir Sujoldzic, GIS specialist; Mr Admir Kulic, head in the ICT sector, Mr Sulejman Hasanovic, head in the ICT sector and Mr Amel Avdic, adviser in the ICT sector

14.00-16.30 Continuation of the meeting

# Meeting Place – EU Delegation - Skenderija 3 A

- 17:00-17:45 Meeting in the EU Delegation with:
  - Dr. Renzo Daviddi, Deputy Head of Delegation
  - Mr. Stefan Simosas, Head of Political Department
  - Ms. Dijana Sikima, Project manager

# Meeting Place - CoE Office - Importanne Centar, Zmaja od Bosne 7-7A,

18:00-18:30 Audio conference meeting – Management Group

# <u>Tuesday 24- Sarajevo, Zelenih beretki 26 - Institute for Statistics of FBiH, Meeting Room, I</u> <u>floor</u>

- 9.00 10.00 Meeting with the management of the Institute for Statistics of Federation of BIH: *Ms* Hidajeta Bajramovic, *director*, Ms Galiba Karacic, *Executive Secretary* and Ms Munira Zahiragic, *assistant director*
- 10.00 12.30 Meeting with other relevant staff for the Census preparation:
  Belmira Hadziabdic, Razija Bicakcic, Mirela Softic, Amer Kodic, Nusreta Imamovic-Kaljanac, Jasmina Konakovic, Senija Muhic, Mevla Softic and Arijana Muhic
- 14.00-16.30 Meeting with institutions relevant for the cartography in the Federation of BiH: Representatives of Administration for Geodetic and Real Property Affairs of Federation of Bosnia and Herzegovina:

Mr Zeljko Obradovic, director, and Mr Nedzad Pasalic, *assistant director* Travel to Jajce early in the morning on Wednesday 25

# Wednesday 25 – Jajce/Hotel Plivsko Jezero

11.00-17.00 Meeting with the IT and methodology working groups :

# Ms Nora Selimovic, Mr Vladimir Mijovic, Mr Admir Kulic, Mr Amel Avdic (BHAS) Ms Jasmina Velic, (FIS) Ms Bogdana Radic, Mr Rajko Vranjes and Mr Mladen Radic (RSIS)

Wednesday afternoon: travel to Banja Luka

# <u>Thursday 26 - Banja Luka, Veljka Mlaðenoviæa 12d - Institute for Statistics of Republika</u> <u>Srpska</u>

 9.00 – 10.00 Meeting with the management of the Institute for Statistics of Republika Srpska: Mr Radosav Savanovic, deputy director, Ms Bogdana Radic, assistant director, sector for population statistics, education, social statistics and judiciary; (Ms Milka Miholjcic, head of population statistics department); Mr Radoslav Latincic, assistant director, sector for information technologies and publications

10.00 - 12.30 Meeting with other relevant staff for the Census preparation – Ms Milka Miholjcic,

head of population statistics department; Ms Dara Petkovic, specialist in the population statistics department; Mr Dean Arezina, specialist for censuses and population projections; Mr Vladan Sibinovic, head of department for development of the publications data bases and statistical publications; Mr Mladen Maric, head of the department for data entry, development of applications and administration of data bases.

14.00-16.30 Meeting with institutions relevant for the cartography in Republika Srpska – Representatives of Republic Administration for Geodetic and Real Property Affairs of Republika Srpska: Mr Dragan Macanovic, assistant director for geodetic affairs and Mr Velibor Vitor, head of GIS and ISU department; Representatives of RS Institute for Statistics: Mr Radoslav Latincic, assistant director, IT technologies, and Ms Natasa Dragic, specialist for spatial units register and GIS

Travel to Zagreb

#### **RECEIVED AND REVIEWED DOCUMENTS DURING THIS MISSION:**

1. Mission Report on Short-term Expert Mission "Assessment of the preparation of the Census of Bosnia and Herzegovina", Mission 24-26 January 2011, Expert Jean-Michel Durr

2. "Methodology for the preparation, organization and conduct of population, household and dwelling census 2011"- document prepared within EUPHC Project

3. Law on Census Of Population, Households And Dwellings In Bosnia And Herzegovina In 2013 (adopted on 3rd February 2012)

4. "Manual for enumerators and municipal instructors for Pilot Census", version prepared for the Pilot Census of Population, Households and Dwellings planned (but not realised) in 2010

- 5. Census Activity Plan, Population And Housing Census In BiH 2013, April 2012
- 6. Budget Framework, Population And Housing Census In BiH 2013, April 2012

Draft of the questionnaires- English translation

- 7. Personal questionnaire (P-1)
- 8. Questionnaire on household and dwelling (P-2)
- 9. Questionnaire for people temporary working abroad

Draft of the questionnaires- only in local language (printed copies)

- 10. Personal questionnaire (P-1)
- 11. Questionnaire on household and dwelling (P-2)
- 12. Control form (P-3)

13. ToRs for EUPHC (EU assistance for Population and Household Census- phase II IPA ... funded project)

14. Mission Report on Short-term Expert Mission on Public Awareness Campaign (within EUPHC Project)