

3. PILOT POPULATION CENSUS

Testing of methodological, organizational and data processing programmes and technologies of Population Census conduction is realized through the Pilot Population Census including not less than one percent of population of the country.

Financial difficulties of the Republic influenced by the world financial-economic crisis did not allow to carry out Pilot Population Census preparation and conduction related processes only by means of the State Budget.

Financing of organization and conduction operations of Pilot Population Census was realized by the United Nations Population Fund. The World Bank, Government of Norway supported for the greater part and American Organization ABBY located in Moscow provided data entry scanning software package.

RA 2010 Pilot Population Census was conducted from 21st to 30th October in the RA following residences:

In town Sevan of Gegharkunik marz (according to results of Pilot Population Census de jure population comprised 19 367 and de facto population 18 333, and in Gagarin village of Sevan urban community de jure population comprised 1595 and de facto population 1538).

In Achajur, Gandzaqar, Getahovit, Khashtarak rural communities of Tavush marz (according to results of Pilot Population Census de jure population comprised 11 276 and de facto population 10 603).

Sampling of places of the Pilot Population Census was done so to include about one percent of population of the Republic to ensure urban and rural population ratio.

RA 2010 Pilot Population Census preparation operations were realized according to «**Schedule** of preparation, conduction, data processing and publication operations of RA 2011 Population Census» (as a **project** it was approved by the RA State Council on Statistics) and calendar plan of preparation and conduction operations of Pilot Population Census was developed based on it.

The programme (Questionnaire) of Pilot Population Census conduction was developed according to the schedule and presented to the discussion of all the Ministries and interested organizations of the Republic of Armenia.

Based on received suggestions and remarks it was approved in a final form by the RA State Council on Statistics.

Discussions were held with the Faculty of Theology of the Yerevan State University, Language State Inspection of the RA Education and Science Ministry, NSSRA corresponding subdivisions, separate specialists of the RA Education and Science Ministry, on some questions of the questionnaire and for supposed answers exact formation in corresponding cage.

Pilot Population Census Questionnaire included a question on religious belief and the NSS RA sent a letter to Department of Ethnic Minorities and Religious Affairs of RA Government for its exact



formation and respondent's possible satisfactory answer, as well as for appropriateness to include a question on religious belief of population of the Republic in the project of pilot Population Census programme.

Department of Ethnic Minorities and Religious Affairs assisted greatly for the exact formation of religious belief characteristic and corresponding symbol explanation in the instruction of each code numbered in the answers' list.

RA National Academy of Sciences, «Institute of Archaeology and Ethnography» SNCO of the RA National Academy of Sciences and the Faculty of Theology of the Yerevan State University provided methodological support connected with the issue.

Some questions on agriculture, particularly lands belonging to household (personal plot and leased land), agricultural livestock and fishing were also included in Pilot Population Census Questionnaire, and corresponding operations were done for the exact formation of answers with employees of the staff of Agriculture Statistics Division of NSS RA.

Following the UN Recommendations, other questions on household (H/H) monetary assistance from abroad, birth and death cases and their registration in the last 12 months were included in pilot Population Census questionnaire.

2010 pilot Population Census questionnaire was developed according to the programme by the NSSRA Population Census Department.

33 questions for widespread enumeration and 14 for permanent present population were included in the 2010 Pilot Population Census questionnaire.

The following methodological and instructive documents were developed and presented to RA State Council on Statistics:

- Indications on drawing up and reception of lists of houses (buildings) and rural communities during RA 2010 Pilot Population Census;
- Instruction on drawing up lists order of houses (buildings) in towns and big villages during 2010 RA Pilot Population Census;
- Instruction on drawing up lists order of rural communities and therein other settlements during RA 2010 Pilot Population Census;
- Questionnaire of Pilot Population Census enumeration;
- Instruction on the order of RA 2010 Pilot Population Census conduction and filling of the Population Census questionnaire;
- Note-books of census area manager and his (her) assistant, in towns and rural residences for supervisor and enumerator;
- Responsibilities of Population Census operations coordinating territorial coordinator in the NSSRA marz agencies;
- Form N-1-housing characteristic, instruction on filling the state statistical observation questionnaire "On multi flat house apartments (dwellings) characteristic";
- 1-9 K forms, Indications on organizational planning order of RA 2010 pilot Population Census conduction for NSSRA marz agencies (territorial divisions);
- Summary records of enumeration, supervisory and census areas and marz (territory) as well as enumeration ensuring documents: control sheet, supervising document,



certificate of census employee, a note for those people who could hardly be reached at home and Population Census other papers;

- Instruction on data coding order of the Population Census Questionnaire;
- Instruction on data entry of the Population Census Questionnaire.

All the documents were discussed and approved by Normative and Personal Resolutions of the RA State Council on Statistics. Legal acts approved by the Normative Resolutions were registered by RA Ministry of Justice and published in Bulletin of Departmental Normative Acts.

Corresponding to 2010 pilot Population Census questionnaire 3 classifications and one manual were prepared for practice necessary for coding the textual answers of the questionnaire. They were:

- Classification of Countries Names
- Classification of Economic Activity (part 1-2, part 3)
- Classification of Occupations (part 1-2, part 3 -Clarifications, part 4 - Structural and Occupations in alphabetical order)
- Manual on Coding of the RA Administrative-territorial Units as well as the list of former names of the RA residences.

Classification of Countries Names was approved by the Decree of the RA Minister of Commerce and Economic Development No 144-A of 08 July 2005, Classification of Economic Activity by the Decree of the RA Minister of Economy No 372-N of 03 June 2009 and Classification of Occupations by the Decree of the RA Minister of Economy No 632-N of 31 July 2009. Manual on Coding of the RA Administrative-territorial Units was developed by the Population Census Department and approved by the Resolution of the RA State Council on Statistics (SCS) No 31-A of 05 November 2010.

As pilot Population Census conduction date **from 14th to 23th of April** removed from **21st to 30th of October** by the Decree of the RA Government No 313-N of 25 March 2010, by the Resolution of the RA SCS in Population Census above-mentioned documents corresponding date changes were done either.

According to the calendar plan, pilot Population Census was implemented in 3 phases:

- Preparatory works
- Enumeration- Population Census conduction
- Collected data processing.

First phase of preparatory works of Pilot Population Census was intended to drawing up the lists of houses (buildings) in towns and big villages (5000 and more population) which was necessary for Population Census zoning therein, that is territory division into enumeration, supervisory and census areas. Listing of Sevan town was realized by employees, specially instructed for that purpose, registrars, during a month period started from 8th of February, 2010 by rounding houses (buildings) of Sevan town assigned area using schematic layout (6 copies) prepared by «Hoghshin monitoring» SNCO.

Cooperation was ensured during the listing operations with Gegharkunik Marzpetaran, Sevan Municipality, Condominiums, responsables of blocks of Gagarin, Gomadzor and Tsamaqaberd, employees of Sevan psychiatric hospital, Vazgenyan Seminary, RA Police Territorial Passport Division and «Sevan» National Park.

Borders of Sevan town were adjusted, streets names, numbering of blocks and houses were regulated as far as possible, houses (buildings) labels and streets names were placed.



All the adjustments found and done in schematic layouts by the registrars transferred to the other examples for using them in next phases.

As sampled villages in Tavush marz for Pilot Population Census conduction had population less than 5000 there were not done listing and mapping operations.

At the same time, taking into account records of households registration books managed in rural communities, were drawn up the lists of rural settlements and therein other residences in above-mentioned rural communities and therein registered households either by secretaries of communities' heads of staff of the RA Tavush marz.

After the listing was complete lists reception, check and summary operations were realized from Sevan town registrars and secretaries of sampled rural communities' heads of staff of the RA Tavush marz.

The NSS RA marz agencies summarizing marz data on lists of houses (buildings) in towns and rural communities presented it in corresponding summaries to the NSSRA Population Census Department.

As of 1 July, 2010 according to households' registration books population enumeration check of 219 multi flat houses and private houses was carried out in Sevan town and in rural community of Gagarin of Gegharkunik marz by Sevan territorial division of the NSSRA Gegharkunik and in rural communities of Achajur, Gandzaqar, Getahovit, Khashtarak of Tavush marz agency by Ijevan territorial division of the NSSRA Tavush marz agency.

Organizational plans of pilot Population Census conduction in the sampled territories were designed based on filled in lists of houses and rural residences including Population Census zoning, that is territory division into census, supervisory and enumeration areas, calculation of Population Census personnel demand, as well as their recruitment, training (instruction) and testing of preparedness, implementation of population census publicity and information campaign among population to ensure correct organization of pilot Population Census and inclusion of population enumeration.

As a result, 2 census, 25 supervisory and 120 enumeration areas were organized.

Population Census zoning was based on lists of houses (buildings), rural settlements and therein other residences, lists of hospitals, health resorts, rest houses, hotels and the like other organizations, corresponding cartographic data as well as overwork average norms defined for Population Census personnel.

Recruitment and training (instruction) of Pilot Population Census conduction temporary employees (total 164) were realized on Population Census conduction and questionnaire fill in order by organizational plan fixed dates following the instruction on «Order of Population Census conduction and filling of Population Census questionnaire».

Mayor of Sevan and heads of rural communities supported by providing rooms for census and supervisory areas location.

Publicity and information campaign on census purposes, issues, conduction order and dates among population were realized through TV programmes on TV channels: Republican-2, local in Sevan and Tavush, radio programmes, as well as, posters and booklets were printed which were commenting census conduction and population participation importance during pilot Population



Census preparation.

Filling in questionnaire of multi-flat house apartments (dwellings) characteristic was also realized during Population Census preparation and according to it was filled in «Housing conditions of households» section of Population Census questionnaire.

The questionnaire was filled in based on preliminary data: technical passports, books of inventory and documents registration and apartment's projects and attached documents.

The next phase was conduction of field operations of pilot Population Census.

On the eve of the Pilot Population Census, on 17-19 October enumerators did houses (buildings) preliminary rounds for checking their enumeration area borders, comparing them with schematic layouts. During preliminary rounds enumerators visited all the houses, did corresponding notes in their note-books checking population preliminary number in the houses. They informed the population about forthcoming Pilot Population Census conduction dates.

From 21st to 30th of October, 2010 was realized Pilot Population Census Questionnaires fill in process. The enumerators filled in the questionnaires in determined order by visiting each house (building), making oral query and filling in answers in the questionnaire without demanding any positive statement proofing document.

From 31st of October to 3rd of November, 2010 while Population Census was completed random control round was conducted to ensure population total inclusion during Population Census. Census area manager and his (her) assistant with supervisor have done the sampling which included 10 percent of dwelling units in each enumeration area. Corresponding census papers were filled in for the missing households and persons.

During 10 days period of Pilot Population Census enumeration the operations were proceeded in provided order, in the places were provided consulting and technical assistance, via telecommunication per day the Population Census Department received information from census areas on difficulties, drawbacks and arrangements made for them during questionnaires' fill in process by enumerators.

One of the most important phases of Population Census, reception of data was also tested during Pilot Population Census. It started after random control round. Population Census data transferred to Yerevan city and stored at assigned room especially for that purpose of the NSSRA Population Census Department.

From 23th of November to 23th of December, 2010 was realized Pilot Population Census collected data coding as well as logical connections checking and adjustment in the Population Census Questionnaire.

Temporary workgroup consisted of 8 persons was recruited for those operations. The group was instructed and explained of the collected data coding and checking necessity and order as well as usage order on classifications, manuals and developed instruction for those operations realization. Population Census data coding/checking instruction was approved according to the Resolution of the RA SCS No 53-A of 17 September 2011.

7 questions: 5-6, 10-11, 17 and 27-28 of the Pilot Population Census Questionnaire were coded. All the lexical answers of the questions were converted into digital codes by the coders using corresponding classifications and manuals. From Population Census employees were appointed



coordinators (controllers) for coding operations correct organization and conduction who instructed coders and supervised their work. Coders were explained in detail on collected data necessity and order as well as usage order on classifications, manuals and instruction for those operations realization. Coders work was accompanied by controlling and checking arrangements. Checker-coders were appointed by the employees of the Population Census Department who checked coordinators work in their turn. Thus error-coding probability reached to minimum as were done triple checkings.

One of the most important purposes of Pilot Population Census was testing software written for data automated processing for all the phases. They were:

- Data entry
- Logical errors correction (Edit) of database
- Production of output tables, as well as design of some subsidiary software.

CSPro (Census and Survey Processing System) software package provided for statistical processing of censuses and surveys were used for the data processing of 2010 Pilot Population Census, as well as for 2001 Population Census. The software, is located in the internet for public use and is easily downloaded, consisted of entry, edit and output tables derivation components. Moreover, this time was used advanced version of the software.

In the data entry software were created four forms corresponding to questionnaire structure: two of them on household members questions entry, third on living and housing conditions of households questions entry and forth on occupation in agriculture and other questions entry concerning households. Temporary employees were recruited for realization of data entry operations. Data entry operations duration was one month from 28th of November to 28th of December. Some omissions and drawbacks appeared during software running which were mentioned for further correction during 2011 Population Census.

While data entry was completed logical error correction software, written in CSPro software package edit (Batch edit application) environment, was tested on created data base.

For derivation of output tables of the pilot Population Census results were sampled those tables which had typical structure to the given group and general approach to derivation. A part of tables derivation was realized by CSPro software package and the other one by IMPS (Integrated Microcomputer Processing System). The latter is operating in DOS operation system and is specially provided for tables' derivation. Some tables that were not possible to derive by CSPro were derived by IMPS.

By the support of American Organization ABBY located in Moscow, during 2010 pilot Population Census was tested scanning method of data entry purposing in the case of corresponding resources availability be ready to use data processing this method in 2011 Population Census. Data scanning entry advantages were obvious: time and workforce saving, improvement of data exactness. Certainly, improvement of data exactness depended on the clean and clear completion of the questionnaires, which is prerequisite for productivity of data scanning entry.

From the beginning of February to the end of April was done output tables derivation, 60 in number distributing in 11 sections:

- Population number by the administrative-territorial division, 4 tables;
- Demographic characteristics of de jure population, 5 tables;



- Educational attainment of de jure population, 3 tables;
- Economic characteristics of de jure population, 8 tables;
- Ethnic structure and religious belief of de jure population, 7 tables;
- Movement (migration) of de jure population, 5 tables
- Number and structure of households and therein persons number having status of disabled, 9 tables
- Housing conditions of households, 13 tables;
- Households occupation in agriculture, 2 tables;
- Households according to monetary means received from abroad in the past 12 months, 1 table;
- Households by the recorded number of alive births and deaths, 3 tables.

Obviously, Pilot Population Census is conducted for testing the Population Census methodology, organizational operations, census data processing software and technological processes, and practical usage of the results of derived output tables is not provided.

Pilot Population Census organization and conduction gave an opportunity to draw corresponding conclusions on, particularly, organizational, methodological issues, census documents improvements, data processing technological processes which were taken into consideration in organizational and methodological provisions and processes of 2011 Population Census preparation, conduction and data processing.

Particularly were revised:

- Members number of households was diminished to 7 in column A of the Population Census Questionnaire
- A question on person having a status of disabled in households was added in last section of the Population Census Questionnaire.

As a result of census zoning the following limit norms were determined: census area population- in towns 22 000 and in rural communities 17 000, supervisory area population - in towns 2 000 and in rural communities 1 800, enumeration area population - in towns 450 and in rural communities 320.

