

TWINNING CONTRACT

AM/14/ENP/ST/15

Strengthening of the National Statistical System of Armenia – Phase II



MISSION REPORT

on

Demographic Statistics

Activity 2.1: Assessment of the current status

Mission carried out by

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Table of contents

1. General comments..... 4

2. Assessment and results..... 4

3. Conclusions and recommendations 8

Annex 1. Terms of Reference 12

Annex 2: Programme for the mission 14

Annex 3. Persons met..... 15

List of Abbreviations

- EU European Union
- NSSRA National Statistical Service of the Republic of Armenia
- RA Republic of Armenia

1. General comments

This mission report was prepared within the Twinning Project “Strengthening of the National Statistical System of Armenia – Phase II”. This was the first activity in component 2 and the actions planned for this activity were carried out as scheduled.

The purposes of the mission were:

- Assessment of current situation
- Identification of data suppliers and data sources
- Initial discussion on how to handle electronic data
- To involve relevant stakeholders in the discussions

The consultants would like to express their sincere thanks to all officials and individuals met for the kind support and valuable information which they received during the stay in Armenia and which highly facilitated their work. The views and observations stated in this report are those of the consultants and do not necessarily correspond to the views of EU, NSSRA, Statistics Denmark, Istat, Statistics Finland or Statistics Lithuania.

2. Assessment and results

Vital Statistics

Vital statistics, including births, deaths, marriages and divorces, are based on the system of civil registration (RA Civil Acts Register -CAR) managed by the Ministry of Justice through its regional offices. All vital events occurring in the country should be registered in the CAR, which also issues the ID number to each new-born. Registration of persons older than one year is admitted, following a specific procedure.

The CAR is linked to the State Population Register, managed by the Visa and passport dept. of RA Police. The latter register refers to Armenian citizens requesting a passport or changing the place of residence and includes also a database where foreigners living in RA are registered.

Information about rural households and h/h members residing in rural communities are also collected in the Household registration Books, kept by the secretaries of village mayors, according to the formats and instructions approved by RA State Council on Statistics for 5 year period.

Also Consular offices are responsible for registration of births, deaths, marriages and divorces according to RA legislation, in particular those occurred to Armenian citizens living abroad.

The legal basis to data collection is the RA laws “On State Statistics” and “Three-year Statistical Work Program” as well as the Resolution 11-N of the State Council on Statistics of RA (3.10.2003) “On approval of procedure of statistical Information Provision” and “On Approval of Annual Statistical Work Program”. Other relevant legislation concerns the establishment of the civil register and the regulation about provisions for supporting parents of new-borns and households of deceased persons.

During the first meeting of the mission, it has been agreed with the BC to focus on births and deaths, as they are crucial for the analysis of population dynamics and to estimate population size and age structure between subsequent censuses.

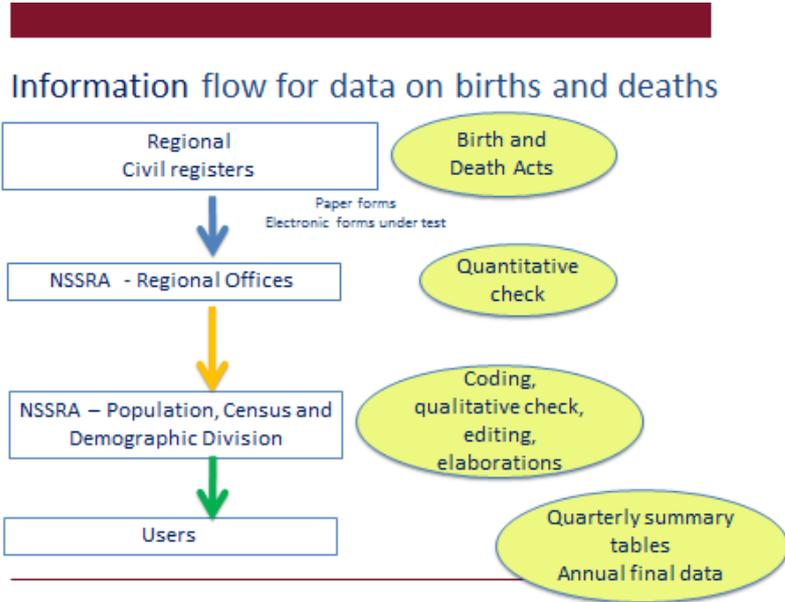
Presently, data collection is based on paper: second copies of acts issued by regional civil registration offices are sent to the NSSRA regional offices for a quantitative check. They are then sent to the central NSSRA (Population, Census and Demographic Division) for qualitative checking and elaborations.

Death certificates, issued by the medical authority, are attached to the death registration acts and sent to NSSR as well.

The quantitative check is mainly aimed at verifying that all expected acts are actually in the parcel received from the civil register, and sent integrally to NSSRA central office. NSSRA staff then proceed to coding some text variables, e.g. the place of occurrence of the event. Forms are checked for inconsistencies and for missing data and finally entered in an Access database. In case a person older than one year is registered as new-born in the CAR, he/she will be included in statistics on births regardless his/her actual age.

Provisional data are elaborated for a quarterly publication, whereas final data are provided annually and published both on the web site and on paper in Armenian, in some cases also in Russian and English. Data are available at a territorial level including 10 Marzes (regions) and capital city Yerevan, distributed by previous 37 districts (rayons) and 4 cities.

The chart below summarizes the information flow.



As an on-line system for registration of acts has recently been introduced in civil registration offices, files are directly available and NSSRA is now testing the statistical use of the database provided by the Ministry of Justice. Every month, NSSRA can download from the web a file for each region. At the moment NSSRA is testing the new system, main checks concerning correctness of codes and completeness of downloaded files. The processing of electronic data should become fully operational and substitute the previous organization by January 2016.

The document “Quality declaration on vital statistics” provides a general overview about the statistical process, including a description of data sources and of statistical concepts which can help users to better understand published results.

Concerning timeliness of data production, it doesn't appear to be a critical area: in the quality declaration is specified that quarterly indicators are published within one month, and annual data are published within 6 months.

Instead, a critical issue could be the under-coverage of data processed by NSSR: even though the registration of vital events is compulsory, experts' opinion is that there could be a not irrelevant quota of under-registration, especially in remote areas and for the event of death.

Some evidence about this issue is provided by the results of “Armenia Demographic and Health Survey, 2010” showing that in 2010 the birth registration rate was 99.6%, the under-coverage being concentrated in 5 regions, namely Kotayk, Lori, Shirak, Armavir and Tavush. In 2015, the WHO “Rapid assessment of National Civil Registration and Vital Statistics Systems” was carried out in cooperation between NSSR and the Ministries of Justice and Health. It resulted in an overall evaluation of the efficiency of the system equal to 84 out of 100, showing a need for improvement.

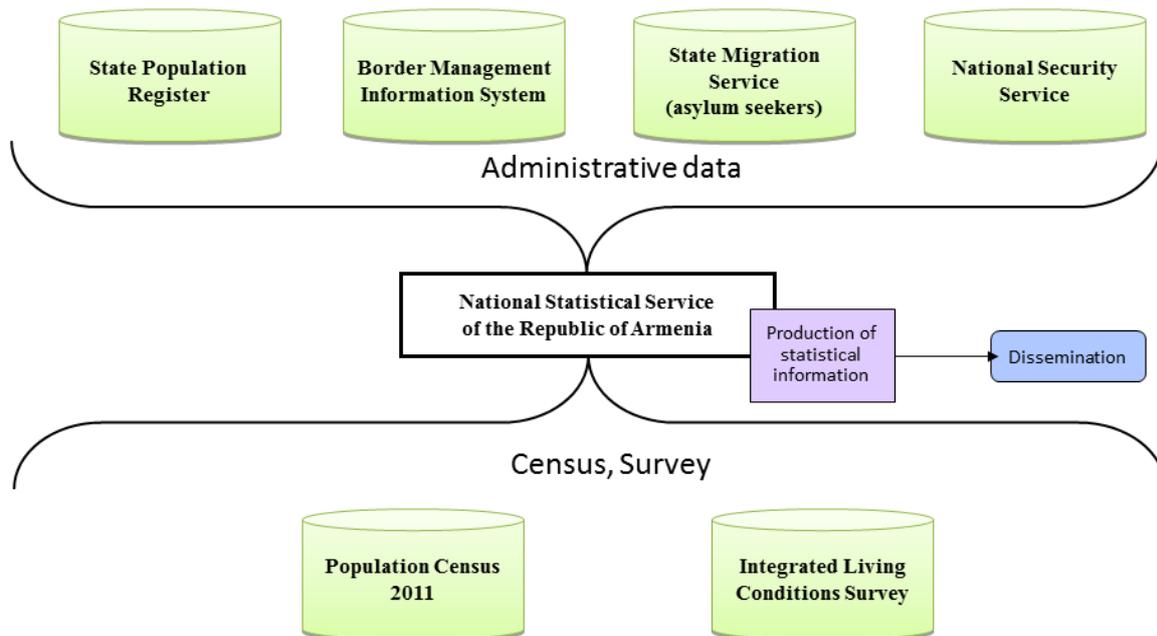
A question included in the 2011 population census could be useful to better measure the possible un-coverage of registration, as it was asked to each household if a possible birth/death occurred in the last 12 months had been registered.

Migration statistics

The mandate of the NSSRA to collect data for the production, analysis and dissemination of migration statistics is determined in the Law on State Statistics of the RA. The Law on Three-year Program of State Statistical Work defines the three-year statistical work program of the RA which includes the directions of activity for formation of statistical information necessary for observation of the economic, demographic, social and environmental situation of the country, taking into account restrictions of the available resources, burden on statistical information providers and cost-effectiveness.

Other laws are relevant for collection, usage of administrative data sources, production and dissemination of migration statistics: Law on State Register of Population, Law on the Foreigners, Law on the Refugees and Asylum.

The NSSRA for the production of the migration statistics has used different sources (see Figure 1): Integrated Living Conditions Survey, Population Census, State Population Register, Border Management Information System, State Migration Service and State Security Service.

Figure 1. Statistical data flows on migration processes.

The main source of information on migration in NSSRA is the Integrated Living Conditions Survey. This is an annual sample survey which enables to collect information about demographical and social characteristics of the migrants, together with main information on living conditions of households and household's members.

The NSSRA uses for the Population frame the Addresses from 2011 Population Census. From the Population frame the sample of addresses for the Integrated Living Conditions Survey has been selected. The two stage systematic random sample design has been used, the sample size is strict – 5184 households. The non-responded households have been changed by other households from the extra sample (which selected for this purpose). The design weights have been used in Integrated Living Conditions Survey for estimation the main indicators of the survey (poverty indicators and so on.) also the number of migrants. The migrant has been defined from the positive answer on the question: „Since January 1, 2010, has person migrated to another Marz or another country within 3 and more months?“. The exact year and month of emigration / internal migration have been asked. From the survey there is no possibility to identify if the persons had declared to administrative authorities about the change of their place of residence or not.

The quarterly and annual numbers of emigrants / immigrants by sex, age groups, regions, reasons of departure have been estimated based on the survey results and data from Population Register (about declared migration). Quality indicators have not been estimated.

The quality declaration on Long Term Migration provides for the users the general information about migration: data sources, legal basis, main concepts, reference period, accuracy, comparability, accessibility of the statistics.

Metadata in publications and quality declaration reports have been published according to the calendar.

The NSSRA has carried out the Population Census once every ten years. Population Census results give a lot of information about migration: persons who participated in the migration

process and live in the country, persons who emigrated and stay still abroad and etc. After the Population Census the revisions of population and migration statistics are done.

Visa and Passport department of the Police of RA is responsible for the State Population Register. Data of the State Population Register have a legal value and are based on the personal documents. Population Register obtains data of citizens of the Republic of Armenia. All persons who registered in the Population Register receive the personal ID. The Population Register obtains data of persons' declaration of changing of the place of residence. Flows of the declared international migration is very low, they do not represent the real situation. There is a big difference between the results from the Integrated Living Conditions Survey and declared migration. Unfortunately, there is no enough motivation for persons to declare their changes of the place of residence. The NSSRA does not receive a copy of population stock.

National Security Service of RA is responsible for the Border Management Information System. Data of the Border Management Information System have a legal value and are based on the personal documents. Border Management Information System obtains data on the all movements in / out of the country and data on received visas. The NSSRA receives the data on the aggregated level from Border Management Information System. There is no possibility to identify the movements of particular person and his / her duration of staying abroad / in the country for longer than 12 months from received data. Statistics about border crossing movements, received visas show significant movement flows, which are much higher than the number of migrants estimated from Integrated Living Conditions Survey or number of declared migrant from Population Register.

State Migration Service of RA obtains the data on the personal level about all applications of the asylum seekers and semi-annually and annually presents aggregated statistical reports to NSSRA, according to EU Regulations (# 862/2007, 11 July 2007).

State Security Service of RA (information concerning those with temporary and permanent status – RA Police) obtains the data on the personal level about residency status of the foreigners and presents statistical reports to NSS RA semi-annually and annually.

Different data sources (surveys, administrative data sources) show different situation. Users may not understand the significant differences in results. Further collaboration between NSSRA and administrative data sources is necessary for improvement of the quality of migration statistics in RA.

3. Conclusions and recommendations

Vital Statistics

The main weak points of the system of vital statistics seem to be:

1. Undercoverage of birth and death registration in remote areas
2. Undercoverage of stillbirths taken place at home
3. Not fully completed information in the forms
4. Inconsistency of information reported in the forms

As Vital Statistics rely upon the civil registration system, their quality is strictly linked to completeness and timeliness of the administrative process. Hence, any administrative action aiming at facilitating /encouraging registration, for example taking the registration point closer to households (involving the community level) or easing the process by allowing medical centers to directly send the certificate to the civil register, would directly have a positive effect on the system of Vital Statistics.

From a statistical point of view, it is advisable to ascertain size and territorial distribution of actual under-coverage, using statistical and administrative sources available, to target the most critical areas in the country. Results of the Household survey and the WHO assessment should be complemented with further measures of under-coverage. It is hence suggested to elaborate the answers to the census questions about registration of births and deaths, possibly before the next mission planned in November.

Information in the Household registration Books held at the rural community level could also be a source of complementary information to evaluate possible under-coverage of CAR data. Another possible data source is the population census, allowing a comparison of children (by year of birth) with the results of the CAR, if infant mortality and, possibly, migration can be taken into account. Also the difference between the 2001 and 2011 census for selected cohorts could give a rough estimation of the number of deaths, to be compared with CAR figures.

In addition to that, more detailed documentation about the statistical process should be produced by NSSR. It is crucial not only to improve the quality control, but also as training material for new staff and to highlight possible steps to be improved. Also a detailed documentation about the specifics of the software implemented for the electronic data collection at regional civil register offices should be provided by the Ministry of Justice, to document the new application in use.

Insofar as issues about incompleteness/inconsistency still exist after the passage to electronic forms, specific editing and imputation methods could be applied to improve data quality.

To reinforce NSSRA staff as regards IT skills is particularly necessary to be ready for the change from paper data collection to the electronic one. Furthermore, training actions would be necessary also to strengthen the staff's capabilities to analyze data, and to present results to users.

Actions aiming at raising awareness about the relevance of demographic information among stakeholders and staff in regional offices of the Civil register could be beneficial. As an example, brief training courses for civil registrars, presenting the main issues in demographic data and their use for policy planning and social analysis, could increase the level of care devoted to compiling all the information requested in the birth and death forms.

In conclusion, before the November mission NSSR-Population, census and demographic division should provide:

- Elaboration of the answers to the census questions about registration of births and death and, possibly, estimates of under-coverage based on census data
- More detailed documentation about the statistical process
- Information about the specifics of the software implemented for the on-line registration system (prepared by the Ministry of Justice).

Next mission, planned for 23-26 November 2015, will be devoted to:

- Collect deeper information about other possible sources of data, namely the Population Register, Household registration Books and the Consular offices
- Assess progress made in implementing the Unique Identification Number and its possible statistical uses
- Identify possible weak points in the production process of birth and death statistics.

Migration statistics

On the basis of the main findings of assessment of migration statistics, the following conclusions can be made:

1. The NSSRA uses the Integrated Living Conditions Survey for estimation of number of migrants and their characteristics. Estimation of quality indicators (coefficient of variation, standard errors) of main indicators (number of emigrants, immigrants, internal migrants by different breakdowns – total, sex, main age group, urban / rural) should be done for assessment of precision of estimates. Quality indicators could explain if the Integrated Living Conditions Survey is reliable data source for estimation of the minority in the population – different groups of migrants.

Integrated Living Conditions Survey is the sample survey. The design weights have been used in Integrated Living Conditions Survey for estimation the main indicators of migrants. The number of the different groups (by age, sex, big cities) of respondents who participated in the survey is always not homogeneous to the same groups of persons in population (the non-response in the Yerevan is about 8 per cent), the estimates can be biased. Calibration or poststratification weighting methods (using the Demographic population estimates: usual population by age and sex, regional levels as additional information) should improve the quality of the results of all indicators which estimated from the survey.

2. The NSSRA uses for the Population frame the Addresses from 2011 Population Census. From the Population frame the samples of addresses for all Social surveys have been selected. The Population frame should be updated by including new registered addresses of RA for improving the quality of Population frame, Sample frame, all estimates. The RA Real Estate State Cadastre Committee is responsible for Register of Property Rights.
3. The NSSRA publishes metadata in publications and quality declaration reports. The methodological explanations, available data sources which have been used for production of migration statistics should be the same in different documents. More detailed methodological explanations on estimation of number of migrants by different breakdowns and used administrative data sources in survey methodology, quality declaration should be provided to users.
4. The NSSRA publishes the annual publication “The Demographic Handbook of Armenia”. The statistics about migrants of the previous year (not of three-year period) from Integrated Living Conditions Survey should be published to users. For the historical comparison, the statistics of previous year of Integrated Living Conditions Survey should be used. Example, the numbers of migrants in 2014 had been estimated from Integrated Living Conditions Survey 2015, the numbers of migrants in 2013 had been estimated from Integrated Living Conditions Survey 2014.
5. The NSSRA uses the data from Population Register, Border Management Information System on the aggregated level. There is no possibility of merging data from administrative data sources with Integrated Living Conditions Survey data for checking, making analysis, estimation. Further collaboration between NSSRA and Population Register, Border Management Information System in getting access to the personal data (on the personal level) is necessary for improvement the quality of migration statistics in RA. Management of personal data in NSSRA will require additional IT specialist, IT resources.

Some recommendations related to the November mission for Population, census and demographic division of NSSRA have been provided:

- To estimate quality indicators of migrants by different breakdowns from Integrated Living Conditions Survey;
- Provide more detailed methodology, specification for defining the emigrants, immigrants, population number by different breakdowns;
- To make deeper analysis of the data of State Population Register, Border Management Information System (objects, variables, reference time, definitions and so on).

Annex 1. Terms of Reference

Terms of Reference

EU Twinning Project AM/14/ENP/ST/15

28 September – 2 October 2015

Component 2: Demographic Statistics

Activity 2.1: Assessment of the current status

0. Mandatory results and benchmarks for the component

Mandatory results:

- Vital statistics improved concerning data collection mechanisms (transition from paper sources to electronic), coverage, timeliness and quality (July 2017)
- Migration statistics improved concerning data collection, coverage, timeliness and quality (July 2017)

Benchmarks:

- Methodology on vital statistics updated (October 2016)
- Methodology on migration statistics updated (April 2017)
- Improved vital statistics implemented and published (July 2017)
- Staff of NSSRA trained on issues related to vital statistics and migration statistics (July 2017)

1. Purpose of the activity

- Assessment of current situation
- Identification of data suppliers and data sources
- Initial discussion on how to handle electronic data
- To involve relevant stakeholders in the discussions

2. Expected output of the activity

- Overview of current situation of collection on vital and migration statistics
- Overview of methodology and legal acts
- Overview of the data quality
- Possible new data sources for producing vital and migration statistics identified
- A lining up of work programme for the next activity (2.2 is scheduled to 23-26 November 2015)

3. Participants

NSSRA

Component leaders

- Mr. Gagik Gevorgyan, Member of State Council on Statistics of RA
- Ms. Karine Kuyumjyan, Head, Population Census and Demography Division

Other staff

- Ms. Anna Tokhatyan, Chief specialist, Population Census and Demography Division
- Ms. Narine Grigoryan, Leading specialist, Population Census and Demography Division
- Ms. Anna Grigoryan, 1st category specialist, Population Census and Demography Division
- Ms. Susanna Azatyan, 2nd category specialist, Population Census and Demography Division

MS experts

Ms. Maria Pia Sorvillo, Expert, Istat

Ms. Inga Masiulaitytė-Šukevič, Expert, Statistics Lithuania

Other stakeholders taking part in the activity

Representatives from:

- Department of Civil Registrations, RA Ministry of Justice
- RA Ministry of Health
- RA Ministry of Territorial Administration and Emergency Situations
- RA National Security Service
- Passport and Visa Department, RA Police

will also be invited.

Annex 2: Programme for the mission

Time	Place	Event	Purpose / detail
Monday, noon	Hotel / NSSRA	Meeting with RTA	To discuss the programme of the week
Monday, afternoon	NSSRA	Meeting with BC Component Leader and BC Experts	Overview and assessment of current situation
Tuesday, morning	NSSRA	Meeting with BC Component Leader and BC Experts	Identification of data suppliers and data sources, overview of methodology and legal acts
Tuesday, afternoon	NSSRA	Meeting with BC Component Leader and BC Experts	Overview of the data quality on collection of vital and migration statistics
Wednesday, morning	NSSRA	Meeting with stakeholders	Meeting with stakeholders
Wednesday, afternoon	NSSRA	Meeting with BC Component Leader and BC Experts	Possible new data sources for producing vital and migration statistics identified
Thursday, morning	NSSRA	Meeting with BC Component Leader and BC Experts	Possible new data sources for producing vital and migration statistics identified
Thursday, afternoon	NSSRA	Meeting with BC Component Leader and BC Experts	Lining up of work to be done until the next activity
Friday, morning	NSSRA	Meeting with BC Component Leader	Presentation of MS Experts' findings and agreement on the reached conclusions
Friday, morning	NSSRA	Ad-hoc meetings	Final clarifications with BC Experts, preparation of report and presentation for BC Project Leader
Friday, afternoon	NSSRA	Debriefing with BC Project Lead- er	Conclusions, recommendations and work programme for the next activity of BC Experts

Annex 3. Persons met

NSSRA:

Stepan Mnatsakanyan, President of the NSSRA

Anahit Safyan, Member of the State Council on Statistics of RA

Karine Kuyumjan, Head of Population Census and Demography Division

Anna Tokhatyan, Population Census and Demography Division

Narine Grigoryan, Population Census and Demography Division

Anna Grigoryan, Population Census and Demography Division

Sona Shahgeldyan, IT Department

Varsik Senekerimyan, International Statistical Cooperation Division

Armine Martikyan, Statistical Information Dissemination and Public Relations Division

External stakeholders:

Mariam Gevorgyan, Passport and Visa Department of RA Police

Seda Simonyan, RA Ministry of Health, Division of Statistics

Vahan Bakhshetsyan, RA Ministry of Territorial Administration and Emergency Situations

Suren Sargsyan, RA National Security Service

Ani Mkhitaryan, RA Ministry of Justice

RTA Team:

Mr. Peter Bohnstedt Anan Hansen, Resident Twinning Adviser

Ms. Margarit Bejanyan, RTA Assistant

Ms. Anush Poghosyan, RTA Language Assistant