

TWINNING CONTRACT

AM/14/ENP/ST/15

Strengthening of the National Statistical System of Armenia – Phase II



MISSION REPORT

on

Water Accounts

Activity 6.6: Follow-up on achievements and recommendations for the future

Mission carried out by

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22-25 May 2017

Final version



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List of Abbreviations

EU	European Union
ESEA	European Strategy for Environmental Accounting
EUROSTAT	Statistical Office of the European Union
FAO	Food and Agriculture Organization of the United Nations
ISTAT	Italian National Institute of Statistics
NSSRA	National Statistical Service of the Republic of Armenia
JQ-IW	OECD/Eurostat Joint questionnaire on inland waters
OECD	Organisation for Economic Co-operation and Development
PWFA	Physical Water Flow Accounts
PSUT	Physical Supply and Use tables
SEEAW	System of Environmental-Economic Accounting for Water
SEEA	System of Environmental-Economic Accounts
SNA	System of National Accounts
UN	United Nations
WA	Water Accounts
WR	Water Resources
WS	Water Statistics

1. General comments

This mission report was prepared within the Twinning Project "Strengthening of the National Statistical System of Armenia – Phase II".

It is the final mission to be completed within Component 6 of the project.

The purposes of the mission were:

- To discuss the status regarding the component at the beginning of the project
- To discuss the status of the project results
- To prepare recommendations regarding the sustainability of the achievements
- To prepare recommendations for future work of NSSRA after the project finishes
- To identify outstanding issues and needs for further support, if any

The MS Experts would like to express their thanks to all officials and individuals met for the kind support and valuable information which was received during the stay in Armenia and which highly facilitated the work of the MS Experts.

This views and observations stated in this report are those of the consultant and do not necessarily correspond with the views of EU, NSSRA, Istat or Statistics Denmark.

2. Status at the beginning of the project

Background

The European Strategy for Environmental Accounting (ESEA) approved in 2003 and revised in 2008, recommended water supply and use accounts as a priority area for development.

Information needs on the interaction between economy and environment led to developing a new System of Environmental-Economic Accounts (SEEA 2003) strictly linked to the System of National Accounts (SNA 1993 and 2008) that is a statistical framework that provides a comprehensive, consistent and flexible set of macroeconomic accounts for policy making, analysis and research purposes, produced and released under the auspices of the United Nations, the European Commission, the Organization for Economic Co-operation and Development, the International Monetary Fund and the World Bank Group. The 2008 SNA reflects the evolving needs of its users, new developments in the economic environment and advances in methodological research.

Policies for sustainable management of water resources (WR) are becoming a priority in many countries agendas and in Armenia too, in presence of an increasing competition within socio-economic systems in the use of WR among humans, industry, agriculture and of climate changes in place.

Current goals are oriented to improving knowledge on water availability and demand by strengthening water statistics (WS) and water accounts (WA) adopting an integrated overall approach of domains.

The System of Environmental-Economic Accounting for Water (SEEA-W, UN 2012) is a Satellite Account System of SNA 2008 providing a conceptual framework for organizing hydrological and economic information in a coherent and consistent manner, to obtain information comparable across countries and over time.

Within ESEA 2008, Physical water flow accounts (PWFA) have been developed by Eurostat between 2010 and 2013. PWFA belong to the SEEA main area of physical flow accounts (see SEEA- Central Framework, UN et al. 2012) containing the internationally agreed standard concepts, definitions, classifications, accounting rules, and tables for producing internationally comparable statistics on the environment and its relationship with the economy. PFWA consists on a set of standard tables (physical-monetary) distinguishing different type of flows, namely flows from the environment to the economy,

flows within the economy and from the economy back to the Nature. It also includes emissions of relevant substances to water.

The main purposes of compiling WS and WA are:

- assess the state of WR
- allocate WR efficiently
- analyze how much each sector contributes to pressures on WR water resources (water pollution, overexploitation of groundwater)
- improve efficiency in the use
- reduce losses
- understand the impacts of water management
- evaluate the sustainability of water use vs water availability
- identify areas of social, economic or environmental stress
- monitor relevant policies
- promote the use of environmental accounting as a key element of environmental assessment and policy support.

Status at the beginning

At the beginning of the Twinning Project WA for Armenia were not compiled yet.

The current state of the art on WS and WA was at first described by ISTAT experts. Referenced International Statistical Frameworks, international projects and Task Forces on water issues were presented to the NSSRA staff.

Furthermore, NSSRA staff and ISTAT experts shared information about their activity in WR issues. In detail, NSSRA staff described the system of environmental statistical reporting and main data sources for Water in the Republic of Armenia. In parallel, Istat experts described the work carried on in Italy.

A preliminary data analysis showed:

- a wide availability of administrative data and a richness of NSSRA database, in line with main WS and WA requirements
- good quality of data

Concerning human resources, NSSRA teamwork involved in the project is made by skillful and committed experts.

The goal of the Component 6 within the Twinning Project has been to develop WA useful to construct for Armenia a conceptual framework for WR, aimed to describe the interaction between economy and environment, in line with the System of Environmental-Economic Accounts (SEEA 2003) strictly linked to the System of National Accounts (SNA).

3. Status of project results

The output of the Component 6 is in line with the recommendations and the road map and the goals fixed. At the end of the work of the Component, Armenia is at date among the few countries that have launched WA compilation belonging to a System of Environmental Satellite Accounting.

The learning and the use of statistical methodologies to develop WS and WA have been promoted, with reference to international standards and manuals (agreed internationally by UN, OECD, Eurostat, FAO). In particular have been presented manuals on (i) WS such as Data collection Manual for the OECD/Eurostat Joint Questionnaire on Inland Water (JQ-IW) and (ii) WA derived from SEEA, SEEA W and P WFA statistical frameworks. They have been deeply analyzed taking into account

some country specific features, with the aim to find some practical proposals for a realistic and shared approach towards this complex issue.

Considering the richness of the Armenian database and the general complexity of the WA framework, still in progress worldwide, Istat experts evaluated to consider as an adequate final result of this component the compilation of WS (JQ-IW) and a core set of WA tables (including derived indicators) referred to the most recent years data available, for Armenia:

- Joint Questionnaire on Inland Waters (JQ-IW physical units, 8 tables)
- Physical supply and use tables for water and emissions to water (PWFA, 4 tables)
- Hybrid supply and use tables (physical and monetary units, 2 tables)
- Matrix of flows of water within the economy (physical units, 1 table)
- Key Indicators derived from WA: construction, calculation methods, relevance, meaning and use for policy decision making (PWFA Indicators, 1 table)

The compilation of these tables required a hard work and dedication. A considerable amount of time was devoted to check and validation methods of the output achieved.

Some critical points were analysed and interesting and in-depth discussions were developed on some relevant ones, necessary to have a better overview of country specific features, as always based on the international literature and glossary.

Developing project activities, relevant stakeholders have been involved in many occasions to discuss and underpin some specific issues emerged. That has represented an important value added because it allowed to address some relevant issues immediately and directly with data producers.

During the activities 6.1 and 6.6, meetings open to all stakeholders, mostly consisting of personnel operating in the ministries involved in environmental issues, were organized by NSSRA in the home-room of the office in Yerevan.

In particular, in the first meeting NSSRA experts presented their activity on environmental field and ISTAT experts presented WA, with the aim to explain what WA are and why a country should prepare WA. The speech focused the attention on the importance of doing WA for a country, in terms of evaluation of WR and optimization of policies and promotion of the use of environmental accounting as a key element of environmental assessment and policy support. The second meeting with the stakeholders (during the activity 6.6) aimed to present the work developed and results of the project. WA tables compiled by NSSRA were presented and described in detail, underlying what type of information is useful for policy evaluation and decision making.

Finally, discussions and hypothesis on results dissemination were largely faced together between Istat and NSSRA colleagues, sharing contents and format to enhance the work done in attaining the objectives and to make information available to the public, providing data and metadata.

NSSRA human resources involved in the activities have acquired along the way substantial competences and specific expertise in the field, that represent a solid basis of scientific knowledge, necessary also to ensure the future sustainability of the WS and WA production for Armenia.

During the Twinning Project period, Armenian-Italian teamwork has worked in efficacious cooperation reaching relevant results, sharing information and experiences on the field in an atmosphere of mutual esteem and friendship.

The expertise acquired during the activities face to face provided the basis for further training and support actions. Through contacts by e-mail, Skype or Viber app, Istat and NSSRA staff were able to stay in contact, sharing continuously views and opinions, analyzing work results in the short run, finding time by time solutions to various problems arisen. Online meetings proved to be a very efficient way to update the teamwork involved and to overcome problems related to the physical distance, the different language and the different time zone.

4. Sustainability of the achievements

To ensure future sustainability of the project achievements, an integrated approach in the production of official statistics is suggested by the following main actions:

- setting up meetings with data producers
- increasing activities coordination to meet the information needs of WS and WA
- improving reporting forms of data sources
- verifying linkages of administrative data bases
- staying engaged with methodological updating and innovations on WS and WA developed in the international statistical context.

At the end of this component work, NSSRA staff have implemented for the first time WA in the Republic of Armenia. The principle of a sustainable development of WA has to be recognised as a guiding principle in the current official statistical production, to carry on the work they have been doing.

Co-operation and commitment is needed from all concerned actors and interest groups.

The success of this initiative has to be attributed to the hard work and dedication of NSSRA staff. The close co-operation and contact established with Istat experts, during the six activities developed, enabled the NSSRA group to achieve a wide technical expertise and an understanding of how best to use this expertise in the work they will lay ahead. This expertise, in our opinion represents a very important professional heritage not to be neglected.

5. Recommendations for the future (short and long term)

Keeping in mind that WA is an ongoing process, the work done represents a good basis for further work and improvements. Considering the sustained effort by the NSSRA teamwork involved, is recommended to consolidate WS and WA goals achieved, providing tables updating on a regularly basis. This work will provide time series of homogeneous data and indicators, in order to describe and analyze phenomena related to WR comparable over time and space.

To reach this objective, is essential to stay engaged with methodological updating and innovations both on WS and on WA developed in the international statistical context.

It is suggested to maintain a dedicated page in the NSSRA website for WA dissemination to make information available and accessible for all users (policy makers, researchers, students, experts, citizens, firms, managers). Producing metadata and guidelines to enable tables meaning will be an efficient tool to reach this aim.

It is also recommended to promote specific training dealing with these issues to support many users about consultation and involvement in the tables contents (i.e. because of specific technical terms, estimation methods).

Taking into account the positive experience shared, in the future pursue the collaboration between Istat and NSSRA experts on methodological comparisons, results analysis and production of working paper and publications is desirable.

6. Identification of needs for additional support

- No needs identified at the end of the project

7. Outstanding issues

- There are no outstanding issues within this component

Annex 1: Terms of Reference

<p style="text-align: center;">Terms of Reference</p> <p style="text-align: center;">EU Twinning Project AM/14/ENP/ST/15</p> <p style="text-align: center;">22-25 May 2017</p>

Component 6: Water Accounts

Activity 6.6: Follow-up on achievements and recommendations for the future

0. Mandatory results and benchmarks for the component

Mandatory results:

- Water account compiled (July 2017)

Benchmarks:

- Inventory of data sources (availability, information flow) for water accounts defined (April 2016)
- Methodology for water accounts developed (January 2017)
- Meeting with stakeholders held (July 2017)
- Water account compiled (July 2017)
- Staff of NSSRA trained on issues related to the water account compilation (July 2017)

1. Purpose of the activity

- To discuss the status regarding the component at the beginning of the project
- To discuss the status of the project results
- To prepare recommendations regarding the sustainability of the achievements
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2. Expected output of the activity

Water Accounts component follow up (for each topic in the component):

- Status at the beginning of the project
- Status of the project results
- Sustainability of the achievements
- Recommendations for the future (short and long term)
- Clarification of outstanding issues

3. Participants

NSSRA

Component leaders

- Mr. Yurik Pogosyan
- Ms. Nelly Baghdasaryan

Other staff from the division

- Ms Naira Mandalyan
- Ms Ani Hambardzumyan
- Ms Astghik Podmogova

Other staff from NSSRA

- Macroeconomic Indicators and National Accounts Division
- Agriculture Statistics Division
- Industry Statistics Division
- Finance Statistics Division
- Trade and Other Services Statistics Division
- Methodology of Statistical Work and Classifications Division
- Construction statistics division will also be invited.

MS experts

- Mr. Stefano Tersigni, Expert, Istat
- Ms. Simona Ramberti, Expert, Istat
- Ms. Donatella Vignani, Expert, Istat

Other stakeholders taking part in the activity

Staff from

- RA Ministry of Nature Protection
- RA Ministry of Economy
- RA Ministry of Agriculture
- RA Ministry of Finance
- RA Ministry of Healthcare
- RA Ministry of Territorial Administration and Development
- RA Ministry of Emergency Situations
- Commercial organizations
- International organizations (UNDP, USAID, WB etc.)

will also be invited

Annex 2. Programme for the mission

Time	Place	Event	Purpose / detail
Monday, morning (22/5)	NSSRA	Meeting with RTA	To discuss the programme of the week
	NSSRA	Meeting with BC Component Leader and BC Experts	Assessment of situation and presentation by BC of the work conducted since last mission, evaluation of assignments fulfilled
Monday, afternoon (22/5)	NSSRA	Meeting with BC Component Leader and BC Experts	Follow-up on outstanding issues Identification of needs for additional support
Tuesday, morning (23/5)	NSSRA	Meeting with BC Component Leader and BC Experts	Discussion on how to ensure comprehensive sustainability and continuity of the achievements
Tuesday, afternoon (23/5)	NSSRA	Meeting with stakeholders	Meeting with stakeholders Presentation of preliminary results of the project Discussion of possible recommendations and comments
Wednesday, morning (24/5)	NSSRA	Meeting with BC Component Leader and BC Experts	Comprehensive discussions of the activities following the end of the project Outlining further short term and long term plans
Wednesday, afternoon (24/5)	NSSRA	Meeting with BC Component Leader	Preparation of final conclusions, recommendations and Mission Report
		Ad-hoc meetings	
Thursday, morning (25/5)	NSSRA	Debriefing with BC Project Leader	Discussion of MS Experts' findings and agreement on the reached conclusions De-briefing and presentation for BC Project Leader

Annex 3: Persons met

NSSRA:

- Stepan Mnatsakanyan, President of the NSS RA
- Anahit Safyan, Member of the State Council on Statistics of RA
- Yurik Pogosyan, Member of the State Council on Statistics of RA
- Nelli Baghdasaryan, Head of Social Sphere and Natural Protection Division
- Naira Mandalyan, Leading Specialist, Social Sphere and Natural Protection Division
- Ani Hambardzumyan, Junior Specialist, Social Sphere and Natural Protection Division
- Astghik Podpomogova, Statistician, Social Sphere and Natural Protection Division
- Nadezhda Astvatsaturova, Chief Specialist, Macroeconomic Indicators and National Accounts Division
- Georgi Torosyan, Transport and Communication Statistics Division
- Ashot Ananyan, Industry and Energy Statistics Division
- Arsen Avagyan, Agriculture Statistics Division
- Inga Baroyan, Trade and Other Services Statistics Division
- Naira Baboyan, Macroeconomic Indicators and National Accounts Division
- Susanna Khachatryan, Macroeconomic Indicators and National Accounts Division
- Silva Garanyan, Macroeconomic Indicators and National Accounts Division
- Arus Galstyan, Households Survey Division
- Babken Julhakyanyan, Construction Statistics Division
- Anush Khamoyan, International Statistical Co-operation Division

External stakeholders:

- Abel Abrahamyan, RA Ministry of Agriculture
- Gohar Harutyunyan, RA Ministry of Nature Protection

RTA Team:

- Peter Bohnstedt Anan Hansen, Resident Twinning Adviser
- Charlotte Juul Hansen, EU MS Project Leader, Statistics Denmark
- Mikael Skovbo, DST consulting division, Statistics Denmark
- Liana Atoyan, RTA Assistant
- Anush Poghosyan, RTA Language Assistant