

# **TWINNING CONTRACT**

**AM/14/ENP/ST/15**

## **Strengthening of the National Statistical System of Armenia – Phase II**



### **MISSION REPORT**

**on**

#### **Water Accounts**

##### **Activity 6.3: Compilation of water accounts I**

Mission carried out by

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Final version



National Statistical Service  
Republic of Armenia



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## List of Abbreviations

EU	European Union
NSSRA	National Statistical Service of the Republic of Armenia
JQ-IW	OECD/Eurostat Joint questionnaire on inland waters
PWFA	Physical Water Flow Accounts
PSUT	Physical Flow Supply and Use tables
SEEAW	System of Environmental-Economic Accounting for Water
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”. The Report refers on the activity 6.3 and on the actions planned linked to this activity to be carried out as scheduled.

The objectives of the Istat mission were:

- assessment of situation and presentation by BC of the work conducted since last mission
- revision and practice in the compilation of JQ-IW questionnaires and Physical Water Flow Accounts tables
- theory and practice in the compilation of Hybrid supply and use tables. A first attempt of compilation
- involvement of relevant stakeholders in the discussions

The MS experts would like to express their sincere thanks to all officials and individuals met for the kind and professional 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 experts and do not necessarily correspond to the views of EU, NSSRA, Istat or Statistics Denmark.

## 2. Assessment and results

### 2.1 Assessment of situation and presentation by BC of the work conducted since Istat last mission

The first objective reached in this mission was the presentation by NSSRA staff of the work conducted after the previous Istat mission and the study visit of the NSSRA staff in Italy.

In particular all tasks requested by Istat have been completed.

In detail, NSSRA staff showed:

- tables already almost completely filled and updated (JQ-IW tables);
- a synthetic scheme of water flows, very useful to obtain a first evaluation of water abstraction, water use and water discharge;
- a table with physical and monetary data, useful to review some important intersections between volumes and economy sectors, and that, after a general revision, could be used to extract some indicators to fill in the standardised tables.

### 2.2 Revision and practice in the compilation of JQ-IW questionnaires and Physical Water Flow Accounts tables

During the analysis of the tables already compiled by NSSRA, as some critical points have been underlined by Istat staff, a review of existing data started in order to check some calculation steps. For this reason, some items have been identified for a further check and updating, on the basis of the revised definitions, as always based on the international literature and glossary.

An interesting and in-depth discussion was developed on some relevant points, necessary to have a better overview of country specific features.

The most important discussion points were addressed on data sources and methodological aspects related to specific items. For this reason, in particular for the JQ-IW tables, the official Eurostat Manual guidelines have been analysed together in relation to some specific chapter, with the aim to verify the correspondence between data and definitions.

Besides, as some critical points were identified for some indicators, Istat expressed the need that NSSRA staff reviews such values by the next mission.

### **2.3 Theory and practice in the compilation of Hybrid supply and use tables. A first attempt of compilation**

The richness of the Armenian database and the general complexity of the WA framework, that is still in progress worldwide, have led experts Istat to evaluate the opportunity to consider as a final step of this twinning project the compilation of:

- JQ-IW tables;
- physical and supply tables for water and emissions to water;
- hybrid supply and use tables;
- matrix of flows of water within the economy.

The last table, referred to flows of water within economy, is a new entry in the final goals of Armenian project. But, considering the availability of data in Armenian database on Water, Istat staff proposed the compilation of this new table, that surely could enrich the information resource on water.

In this sense, international experiences (Denmark, Australia, ...) on WA have been taken into consideration; these case studies show that the approach to the subject has been, in general, customized according to the information present in the country.

Sticking to what expressed and shared in these months, all of us know that the work on the Water issues must be refined and improved over time and that this twinning project is a starting point for the Armenia, rather than an ending point.

NSSRA staff welcomed Istat's proposal, so all together started to focus on PSUT and Hybrid PSUT. In this second case, in fact, the conjunction of both physical and monetary data allows the calculation of interesting and helpful indicators for researchers and policy makers.

For the monetary part it was necessary the collaboration with National Account Division (see point 2.4)

For this reason, much part of the week was focused on the review of these tables, both from the methodological point of view that more purely practical one.

The work, done together for the compilation of PSUT and Hybrid PSUT tables, was very important and fruitful.

The general advice given in this part of the work was: not to forget the need to always have in mind the methodological part, in this case referred to the SEEA-Water and methodological manual ensured by Eurostat. For this reason, some part of the SEEA-W were printed and analysed together; in particular some examples were studied to better understand the rules of tables construction.

### **2.4 Involvement of relevant stakeholders in the discussions**

During the working days, stakeholders from Ministries and NSSRA National Accounting Directorate, involved in environmental field and in the compilation of monetary national accounts, were invited by the NSSRA staff to participate in the discussion table. This made possible, as first important result, the compilation of the hybrid tables for the monetary part (point 2.3).

### 3. Conclusions and recommendations

#### Conclusions

- NSSRA did a good work in line with the recommendations and the road map fixed at the end of the previous Istat mission in Yerevan and during study visit in Italy (activities 6.2 and 6.4).
- The revision of Water statistics indicators made in this week was full of new points that have been (and have to be continuously) examined in depth, in reference with international statistical standard (UN, Eurostat), before the final validation of the tables.
- Theoretical and practical aspects of Hybrid supply and use tables (physical and monetary) have been developed in the present activity 6.3.
- Methodological aspects of water monetary accounts have been presented, taking in to account the international frameworks (SEEA2003, SEEA-Water2012).
- The compilation of Physical and Hybrid SUT shared in these days was an important moment to discuss some critical points, to resolve uncertainties, to cause new uncertainties necessary to a better understanding.
- After having analyzed in these months data present in Armenia on water related issues, and overall considering the work still in progress worldwide on WA issues, we believe that the objective of this twinning project should be materialized in the production of Inland water tables/ Physical supply and use tables for water and emissions in environment / Hybrid supply and use tables.
- Given the richness of the Armenian database, we think it might be useful enrich the production also with some tables not initially provided, but probably easy to fill in (such as the matrix of water transactions). These tables, in fact, might give an important value added in understanding “water”.
- The cooperation between Istat and NSSRA staffs continues to be very fruitful, sharing experiences and results.

#### Recommendations

- To persist in analyzing in-depth official statistical manuals indicated in the bibliography (in particular the SEEA-Water), basic condition to a successful compilation of the Physical Water Flow Accounts and Hybrid supply and use tables.
- Do not forget that Water Accounts is an ongoing process.
- In case of doubts or uncertainties NSSRA staff have to contact Istat experts in any moment, by email or by Skype, in order to receive the support that is necessary, and overall to share problems and solutions.

Actions needed for moving forward as well as for preparing the next mission:

<b>Action</b>	<b>Deadline</b>	<b>Responsible person</b>
Update of JQ-IW and PSUT tables, previously compiled, according to the revisions discussed during the activity 6.3	28 February 2017	NSSRA
Study of the conceptual framework and methodologies referring to monetary accounts on water related products. In particular we suggest to deeply analyze SEEA-W and to pay attention to all the examples presented and the exceptions analyzed. In particular chapters 3 and 5	15 March 2017	NSSRA
Compilation of Hybrid Supply and Use tables	15 March 2017	NSSRA
Compilation of the matrix of flows of water within the economy	10 March 2017	NSSRA
Discuss on critical aspects arisen during the Hybrid tables compilation	15 March 2017	NSSRA
First evaluations on indicators derived by the PWFA and Hybrid Supply and Use tables	20 March 2017	NSSRA
Design the data dissemination format. In particular, prepare a draft summary of the publication to do in conclusion of the twinning project, a list of tables and maps in attach.	20 March 2017	NSSRA
Submit tables on Air emissions accounts for discussion, in accordance with the agreement during the study visit in Italy	10 March 2017	NSSRA

## Annex 1: Terms of Reference

<p style="text-align: center;"><b>Terms of Reference</b></p> <p style="text-align: center;"><b>EU Twinning Project AM/14/ENP/ST/15</b></p> <p style="text-align: center;"><b>30 January – 3 February 2017</b></p>
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### Component 6: Water Accounts

#### Activity 6.3: Compilation of water accounts I

#### 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 accounts compiled (July 2017)
- Staff of NSSRA trained on issues related to the water accounts compilation (July 2017)

#### 1. Purpose of the activity

- Compilation of water accounts
- How to integrate water accounts in national accounts
- To involve relevant stakeholders in the discussions

#### 2. Expected output of the activity

- Work on compiling water accounts done
- Integration of water accounts with national accounts identified
- A lining up of work programme for the next activities
  - 6.5 “*Compilation of water accounts II*” is scheduled to 27-30 March 2017
  - 6.6 “*Follow-up on achievements and recommendations for the future*” is scheduled to 22-25 May 2017



### 3. Participants

#### **NSSRA**

Component leaders

- Mr.Yurik Pogosyan
- Ms.Nelli Baghdasaryan

Staff from the division

- Ms. Naira Mandalyan, head of the working group in the project
- 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
- Construction statistics division will also be invited.

#### **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
- Commercial organizations
- International organizations (UNDP, USAID, WB etc.)

will also be invited

#### **MS experts**

Mr. Stefano Tersigni, Expert, Istat

Ms. Simona Ramberti, Expert, Istat

## Annex 2: Programme for the mission

<b>Time</b>	<b>Place</b>	<b>Event</b>	<b>Purpose / detail</b>
Monday (30/1) <i>(start at 11:00)</i>	NSSRA	Meeting with BC Component Leader and BC Experts	To discuss the programme of the week  Assessment of situation and presentation by BC of the work conducted since last mission
Tuesday, morning (31/1)	NSSRA	Meeting with BC Component Leader and BC Experts	Presentation of water monetary accounts and tables, experiences of other countries
Tuesday, afternoon (31/1)	NSSRA	Meeting with BC Component Leader and BC Experts	Define the indicators of water monetary accounts, discussion of methodological approaches of calculation and registration
Wednesday, morning (1/2)	NSSRA	Meeting with BC Component Leader and BC Experts and stakeholder(s) from RA Ministry of Nature Protection	Discussions continued, with participation of representative from RA Ministry of Nature Protection
Wednesday, afternoon (1/2)	NSSRA	Meeting with BC Component Leader and BC Experts, stakeholders from	Discussions continued. Choosing final format of monetary tables. Defining tool kits and mechanisms of filling in the tables.  Cultural Program
Thursday, morning (2/2)	NSSRA	Meeting with stakeholders from RA Ministry of Nature Protection and Ministry of Finance and others (the frame will be specified during the discussions).	Meeting with stakeholders. Environmental accounts, particularly the essence of water accounts, it's place and role in the system of national accounts (ISTAT Experts: the meeting will last up to 1-2 hours, questions and answers).
Thursday, afternoon (2/2)	NSSRA	Meeting with BC Component Leader	Defining homework to be done until next mission
		Ad-hoc meetings	Final clarifications with BC Experts, preparation of report and presentation for BC Project Leader
Friday, morning (3/2)	NSSRA	Debriefing with BC Project Leader	Preliminary discussion on Air accounts. Conclusions and decisions and their consequences for the next activity and the implied work programme for BC Experts

## **Annex 3: Persons met**

### **NSSRA:**

Mr. Stepan Mnatsakanyan, President of the NSS RA  
Ms. Anahit Safyan, Member of the State Council on Statistics of RA  
Mr. Yurik Pogosyan, Member of the State Council on Statistics of RA  
Ms. Nelli Baghdasaryan, Head of Social Sphere and Natural Protection Division  
Ms. Naira Mandalyan, Leading Specialist, Social Sphere and Natural Protection Division  
Ms. Ani Hambardzumyan, Junior Specialist, Social Sphere and Natural Protection Division  
Ms. Astghik Podpomogova, Statistician, Social Sphere and Natural Protection Division  
Ms. Nadezhda Astvatsaturova, Chief Specialist, Macroeconomic Indicators and National Accounts Division

### **External stakeholders:**

Ms. Gohar Harutyunyan, Testing and Programming Specialist, “Information Analytical Centre” SNCO, RA Ministry of Nature Protection  
Ms. Lusine Avetisyan, Division of economic mechanisms, standards and technical regulations of environmental protection

### **RTA Team:**

Mr. Peter Bohnstedt Anan Hansen, Resident Twinning Adviser  
Ms. Liana Atoyan, RTA Assistant  
Ms. Anush Poghosyan, RTA Language Assistant