

Peer Review  
of Armstat and Armenian Official Statistics

**Final Report**  
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## List of abbreviations

AGA	Adapted Global Assessment
BoP	Balance of Payments
CES	Conference of European Statisticians
EFTA	European Free Trade Association
ENP	European Neighbourhood Policy
ESCoP	European Statistics Code of Practice
ESS	European Statistical System
GA	Global assessment
GDDS	General Data Dissemination Standard
GFS	Government Finance Statistics
GLOS	Generic law on official statistics
GSBPM	Generic Statistical Business Process Model
HS	Harmonised System
ICD	International Classification of Diseases
ID	Identification
IMF	International Monetary Fund
ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
ICT	Information and Communication Technology
LFS	Labour Force Survey
LPR	Light peer review
MoU	Memorandum of Understanding
NACE	Statistical classification of economic activities in the European Community
NSI	National Statistical Institute
NSS	National Statistical System
SAQ	Self-Assessment Questionnaire
SDDS	Special Data Dissemination Standard
SDG	Sustainable Development Goals
SIMS	Single Integrated Metadata Structure
SNA	System of National Accounts
UNECE	United Nations Economic Commission for Europe
UNFPOS	United Nations Fundamental Principles of Statistics
UNSC	United Nations Statistical Commission
USSR	Union of Soviet Socialist Republics

## 1. Introduction

Adapted Global Assessments (AGAs) and Light Peer Reviews (LPRs) were carried out by Eurostat in cooperation with the United Nations Economic Commission for Europe (UNECE) and European Free Trade Association (EFTA) in enlargement countries, in European Neighbourhood Policy (ENP) East and Central Asian countries, and in some ENP South countries during the period 2009-2013. In each of the enlargement countries, LPRs were conducted between 2010-2012. The seminar on the follow-up of AGAs and Peer Reviews held in Alushta, Ukraine, in June 2013 concluded that there was a common need for a new round of assessments, preferably about five years after the first review took place.

The Armenian national statistical institute (NSI), then the National Statistical Service of Armenia, now termed Armstat, was subject to a Peer Review in 2014. As a part of their stock-taking of the state of affairs of Armstat following the enactment of a new Law on Official Statistics in March 2018 and as input to their new five-year strategic planning and further alignment to European statistics, Armstat requested Eurostat and its cooperation partners, UNECE and EFTA, to conduct a new Peer Review of Armstat and the Armenian statistical system in 2018. It was decided that this would be a full Peer Review, extending to all the principles of the European Statistics Code of Practice (ESCoP) and that it should follow the guidelines set out in the Eurostat document *Methodology of the new round of peer reviews in the enlargement countries*. Accordingly, the Peer Review was preceded by Armstat's completion of two self-assessment questionnaires (SAQs), a standard SAQ on the operations of the NSI benchmarked against the ESCoP, and a SAQ on the coordination of the national statistical system (NSS). The Peer Review was organised in accordance with the model agenda contained in Annex II to the Methodology document and conducted along the lines laid down there. Similarly, this report uses the structure proposed in the same document.

The Peer Review was conducted at Armstat in Yerevan during the period 26-30 November 2018. The Peer Reviewers were Mr Mike Hughes and Mr Hallgrímur Snorrason, independent consultants in official statistics, Mr Steven Vale, Regional Adviser at the UNECE Statistics Division, and Mr Volker Täube, Director of the office of the EFTA Statistical Adviser.

At Armstat, the Peer Review was organised by the Armstat President, Mr Stepan Mnatsakanyan and Ms Anahit Safyan, Member of the State Council on Statistics, along with their colleagues on the State Council and heads and experts of divisions. The Peer Reviewers would like to express their gratitude to their Armenian hosts and colleagues for their efficient organisation, interesting and very professional discussions, and their warm reception and hospitality.

## **2. Executive summary**

2.1 Armstat is a dynamic and professional institution. Its operations are based on the Law on Official Statistics from March 2018; the Law is modern, fully based on the United Nations Fundamental Principles of Official Statistics and the main principles of the ESCoP. The Law provides for the workings of an NSS under the leadership of Armstat which has signed memoranda of understanding (MoUs) with some NSS institutions and leads the work on drawing up an annual plan for the production of official statistics. These particular NSS institutions cooperate closely on this and their work is also mainly coordinated through their application of modern international statistical standards, classifications and procedures. In spite of this, there seems little awareness of the existence of an NSS. The Peer Reviewers conclude that there is both scope and opportunity for developing the operations of the NSS and the cooperation of its partner institutions.

2.2 The Law grants Armstat the right to use administrative records and registers for the production of official statistics. It also charges public institutions with the responsibility to grant Armstat access to their administrative data for the purposes of official statistics. Armstat already makes important use of administrative registers held by the Revenue Authority and aims at extending such use as much as possible. A limiting factor in that respect is the lack of common identifiers and the largely undeveloped population register. Establishing a fully-fledged civil registration system and a population register containing ID numbers common for all administrative registers in the country seems to be a prerequisite for further utilisation of administrative data for official statistics and for realising current plans on conducting a register-based census in 2020.

2.3 The resource situation at Armstat is, in the opinion of the Peer Reviewers, neither adequate nor tenable. Staffing levels seem inadequate compared with the workload. The activities of Armstat have expanded rapidly to satisfy both domestic needs for statistics and international requirements. The increase in activities has not been met by increasing the number of staff but rather by longer hours of work. Information and Communication Technology (ICT) staff are particularly few. Armstat is funded by the central government budget but those appropriations are only sufficient to cover salaries and maintenance of office space. All funding for IT related needs has come from donors. The result is that IT generally is underfunded, and has not been able to update its equipment, neither software nor hardware.

2.4 Apart from the resource situation, Armstat is largely compliant with the ESCoP. In several instances, the Peer Reviewers have identified both the need and scope for improvement and made corresponding recommendations or offered suggestions of actions. These are listed here immediately below but discussed further in Chapter 4 of this report.

### **Recommendations**

1. The Statistics Council should formally adopt the title Armstat for the Armenian NSI and use this title in all publications / statistical releases / documents, etc;
2. Armstat should raise awareness of the new law through an immediate presentation to all staff and by an urgent conference with stakeholders, with the production of associated publicity material. It should also exploit the SDG agenda to raise awareness of the NSS;
3. Armstat should use the annual and five-year work programmes as the main mechanism for coordination of the NSS; and should set up a high-level committee comprising representatives of data producers and data providers chaired by the Armstat President, to coordinate the planning process;

4. Armstat should change the basis of the five-year programme to a rolling one rather than one for a fixed five-year period;
5. Armstat should complete MoUs with all data producers and all data providers;
6. The Prime Minister's office should expedite membership of the Public Council and initiate meetings;
7. Armstat should make a general case for increased resources, both staff and IT;
8. Armstat should consider the danger of the increased work load on staff. The work load of new tasks has increased in many units and may continue to increase; this may endanger the well-being of staff as well as the quality of statistics. Armstat should consider mapping this and taking appropriate actions (curtailing tasks, moving staff, etc.);
9. Armstat should be provided with additional staff resources in order to decrease the work load, in particular for:
  - Labour market statistics;
  - IT services;
10. Armstat should take an active approach to staff training through the development / expansion and promotion of a rolling internal training programme to:
  - Introduce induction training - course or brochure;
  - Include courses in IT, methodology and quality in the training programme;
  - Introduce English language training;
11. Armstat should undertake a skills audit;
12. Armstat should consider introducing arrangements for mobility of young staff between divisions / departments / subjects;
13. Armstat should consider granting young staff members the opportunity to make study visits, both internal to regional offices and external to neighbouring countries, etc;
14. Armstat should consider running a regular survey on staff satisfaction to seek views from staff on how their conditions could be improved. This could help to identify non-financial incentives and "quick-wins" to increase motivation and staff retention;
15. Armstat should be provided with increased IT resources including:
  - Modern PCs that allow efficient handling and usage of recent software packages for data treatment / analysis;
  - New web content management software that allows for programming of updates in advance of publications in order to increase flexibility of IT staff;
16. Armstat should ensure greater standardisation of the different versions of software used for statistical production in the regions and in the central office to increase the efficiency of data processing and data transfer;
17. Armstat should consider introducing automated disclosure checking for tabular data, for example using the free "Tau-Argus" software used in many European countries;

18. Armstat should build on the excellent work already done regarding quality of outputs by introducing a more systematic measurement of quality of inputs and processes, in a coherent “Total Quality Management” approach;
19. Armstat should publish on its website the criteria and procedures for gaining access to microdata for statistical research and consider preparing access to un-anonymised microdata under controlled conditions;
20. Armstat should develop an e-reporting system, serving both communications with data providers and with regional offices;
21. Armstat should at the first available opportunity move to the next stage of implementing the GSBPM by using it as a framework to organise a new survey or revise an existing one;
22. The Ministry of Finance should prioritise adopting the 2014 version of the IMF’s Government Finance Statistics Manual;
23. Armstat should continue to pursue the possibility of a third twinning programme. That programme should include support and training on questionnaire design, with a focus on questionnaires for electronic data collection. It should also include preparations for establishing a corporate metadata system, in line with Eurostat specifications and international best practices;
24. The Government should take decisive steps to develop a fully-fledged civil registration system and population register. Strengthening the population register needs to be done to make it fit for both proper administrative functions and for statistics. This is a prerequisite for realising current plans on conducting a register-based population and housing census in 2020;
25. The Government should progress and implement the plans for development and improvement of administrative registers and databases in line ministries. Unique ID numbers should be integrated in all administrative registers;
26. Armstat should adopt a more positive and determined approach to access data from line ministries and public institutions, based on the provisions of the Law in this respect;
27. Armstat should strive to expand the release calendar for publications to include all statistical publications of its main NSS partners (Central Bank, Ministry of Finance, Ministry of Education, Ministry of Health, etc.);
28. Armstat should post on its website a preliminary version of the release calendar for the coming year no later than at the end of November;
29. Armstat should consider how to further improve the visualisation of statistical data, using graphs, charts, maps and infographics.

### 3. The Armenian Statistical System

#### 3.1 Recent history

3.1.1 In the period 1921-1990, work on Armenian official statistics was carried out in the Central Statistical Department of Armenia under direct guidance of the Union of Soviet Socialist Republics (USSR) Central Statistics Department. After the collapse of the USSR in 1991, official statistics were the responsibility of the State Department of Statistics, State Register and Analysis (1992-1998), and later the Ministry of Statistics, State Register and Analysis (1998-2000). In the year 2000, a Law on State Statistics was enacted, largely based on the United Nations Fundamental Principles of Official Statistics (UNFPOS). The National Statistical Service was established and granted the status of a state body, independent from other state and local government bodies, implementing functions for the public interest. In 2018, the name of the National Statistical Service was changed to Statistical Committee of the Republic of Armenia. While this is the legal name, the State Council has decided to introduce the name *Armstat* as a new name for the NSI of Armenia. That name will be used in this report (for both the National Statistical Service under the former Law on State Statistics and the Statistical Committee under the current Law on Official Statistics of the Republic of Armenia).

3.1.2 During the last 20 years or so, Armstat has gradually developed to become an independent NSI of Armenia, basing its operations on the UNFPOS and the ESCoP. In Armenia, Armstat has been the main and leading institution producing official statistics. In the international arena, Armstat assumed the duties of the NSI of the country; it adopted the General Data Dissemination Standard (GDDS) of the International Monetary Fund (IMF) in 2001, and subscribed to the IMF's Special Data Dissemination Standard (SDDS) in 2003. Armstat has participated actively in international statistical cooperation, mainly the statistical cooperation of the former Soviet republics, the United Nations Conference of European Statisticians (CES) and the United Nations Statistical Commission (UNSC). Armenia was elected as member of the UNSC for the four-year period 2009-2013. The President of Armstat was elected as Vice-Chair of the Bureau of the CES 2015-2019.

3.1.3 Since 1992 Armstat has sought cooperation with Eurostat and the member states of the European Statistical System (ESS), increasingly aligning its statistics and the underlying methods, classifications and procedures to those of the ESS and the ESCoP.

#### 3.2 Statistical legislation

3.2.1 The current Law on Official Statistics of the Republic of Armenia (hereinafter referred to as the Law) was adopted by the Armenian legislative assembly on 21 March 2018. The Law repealed the former Law on State Statistics, the Law on Population Census, and the Law on Agricultural Census, incorporating the relevant provisions of the three laws into the new Statistics Law. The Law is based on the so-called *generic law on official statistics* (GLOS), developed by UNECE jointly with Eurostat and EFTA. Given that it is based on the GLOS, the Law contains all the clauses relating to professional independence prescribed by the UNFPOS.

3.2.2 The new Law replaces the former concept of state statistics by official statistics, which it defines as statistics developed, produced and disseminated by authorized bodies in accordance with the requirements of the UNFPOS as contained in statistical programmes. It also replaces the former organisation National Statistical Service by the Statistical Committee and introduces the National Statistical System (NSS) which covers all producers of official statistics in Armenia.

3.2.3 The Law establishes Armstat as the NSI of the country and charges it with the responsibility of being the main producer of official statistics, leading and coordinating the NSS as well as setting standards for it. The Law includes the Central Bank as a main partner in the NSS, albeit under its own legislation, with other producers of official statistics also being partners.

3.2.4 As well as setting out the main principles of official statistics and the usual provisions on data capture and data confidentiality, the Law grants Armstat the authority to utilise administrative records and registers for its production of official statistics and charges custodians of such records and registers with the responsibility to make these available for official statistical purposes.

3.2.5 Armstat is headed by the President who holds non-political ministerial rank and is on the same level as the heads of other Armenian government departments. The Law specifies the responsibilities and terms of service of the President including independent appointment and no termination on political grounds.

3.2.6 A notable feature of the Law is that it establishes a State Council as the supreme body of governance of the NSS (except for the Central Bank). The State Council is composed of seven members who are appointed by the Government of the Republic based on proposals by the Prime Minister. The President of Armstat simultaneously holds the post of the Chair of the State Council. The Council elects from its members two Deputies of the President of Armstat who are at the same time members of the State Council. At the present time, all seven members of the State Council are Armstat staff members. Hence, the State Council performs not only its governance function but also acts as a management board of Armstat.

3.2.7 A unique feature of the governance of Armenian official statistics is that Armstat does not report to a superior authority other than the State Council and that the Council is only accountable to the public. Moreover, the Council has the authority in law to adopt “normative and individual decisions on official statistics”, as further described by the Statistics Law. Other functions of the Council include, for example, adopting statistical programmes, controlling the implementation of statistical programmes, and approving the principles of the development, production and dissemination of official statistics. Members of the State Council are considered in the Law as autonomous.

3.2.8 Relations with users are dealt with in detail in the Law. While encouraging good user contacts both in general and in specific domains, such as dissemination, the Law provides for two formal channels of user relations: the Public Council and user groups. The Public Council is intended to be the main advisory body to the State Council, Armstat, and other producers of official statistics. The Public Council is to be composed of eleven members representing users of different spheres. The President of Armstat is an ex-officio member of the Public Council and Armstat acts as its secretariat. The Public Council is charged with the tasks of making proposals on prioritisation in statistical programmes, their implementation and strategic development of official statistics. The Public Council is also asked to advise on issues of compliance with the principles of official statistics. The new Law entered into force on 9 April 2018 and nominations of persons to serve on the Public Council should have taken place shortly thereafter. However, these have been delayed with the result that it has not been possible to convene a meeting of the Public Council to date.

### **3.3 Current state of official statistics**

3.3.1 The Peer Reviewers found Armenian official statistics at a crossroads. Armstat and the State Council are currently finding their foothold with the new Law. The Law is sound and the operations of Armstat are in line with established international principles of official statistics. The work at Armstat is also to all intents and purposes aligned to the principles and indicators of the ESCoP. The last few years have seen rapid development of the operations of Armstat, based on its alignment to best international practices, assisted by European and international support, not least European twinning programmes. Currently, Armstat appears to be confronting the two main issues of putting their new learning and development into practice and starting to operationalise the new Law. The main challenges in operationalising the Law are forming an integrated and coherent NSS and extending the utilisation of administrative data for statistical purposes.

3.3.2 The NSS appears to work well in some respects already. Most important is the existence of an annual statistical programme. The annual programme is drawn up by Armstat in cooperation with the Central Bank, other producers of official statistics, users, respondents, and administrative data providers. The main inputs are provided by the Central Bank, the Ministry of Finance, Ministry of Health, and Ministry of Education. Early each year, Armstat requests inputs of the main producers to the annual programme and around mid-year produces a draft programme for the coming year. This is circulated to the relevant institutions for their scrutiny, comments, and proposals for amendments and is also discussed in the user groups operated by Armstat, as relevant. A preliminary draft release calendar for the coming year for all the institutions participating in the annual programme is included already at mid-year as an annex to the draft programme. The draft annual programme is developed further in the second half of the year, to be finalised in the last month of the year when the central Government budget has been approved by the legislative assembly and signed by the relevant Minister. The statistical programme may then be amended depending on the budget outlays that have been determined for Armstat and official statistics.

3.3.3 According to the Law, Armstat shall also draw up a five-year programme. The programme still has to be developed for the NSS as a whole, defining the strategic development directions of official statistics of the country in order to meet current and emerging needs of users. The five-year programme shall define the conceptual approaches and the development priorities of the NSS. Both the annual and the five-year programmes are posted on Armstat's website while being developed, inviting recommendations and comments from users of statistical information. The programmes are adopted by the State Council and posted on Armstat's website. The first five-year programme under the new Law is now in the making. It has been conceived as a programme for a fixed five-year term. However, the Peer Reviewers propose that Armstat develops the programme as a dynamic five-year rolling programme.

3.3.4 An important feature of the NSS is the application of international standards, methods and procedures by all main producers. This was already mainly established before the enactment of the new Law but is further reinforced in the Law. There it is stipulated that, in order to guarantee quality, official statistics are to be developed and produced on the basis of common standards and classifications, harmonised methods, concepts and definitions in line with internationally agreed statistical standards and guidelines. Currently, most of the main producers of official statistics use up-to-date or at least very recent versions of main international classifications. A major step in that direction was taken with the adoption of NACE Rev. 2 by Armstat, the Revenue Authority and the relevant statistical producers, including the Central Bank and the Ministry of Finance. Of other international classifications used, it can be mentioned that Armstat uses the SNA

2008 for its national accounts, ISCO 2008 for its labour statistics, and updates regularly the Harmonised System (HS) for foreign trade. Moreover, the Central Bank uses the most recent IMF standards for its compilation of the balance of payments (BoP), monetary and financial statistics. Also, education statistics are based on a recent version of ISCED (2011) and health statistics on ICD 10. There is one notable exception from the use of recent classifications among the main producers and that is the failure of the Ministry of Finance to migrate its government finance statistics (GFS) from the outdated GFS 2001 to the current one from 2014.

3.3.5 The main weakness of the NSS is that, despite the common statistical programme, it does not function as a coherent body. Neither is it perceived as such by most of the NSS partners, where there is little awareness or understanding of the new Law. There is clearly scope for improvement here as discussed later in this report. Armstat has a clear legal mandate to lead and coordinate the NSS. The Peer Reviewers consider it to be an important task and offer some suggestions on how that might be approached.

3.3.6 As regards administrative data, Armstat is already using important data from the Revenue Authority, both customs data and income tax data for both households and enterprises. Armstat has recently gained access to the tax data which has enabled the institution to develop and strengthen its business register, both as a sampling frame for economic surveys and for direct statistical purposes. The main challenges for further developing the use of administrative data are, in the opinion of the Peer Reviewers, establishing and developing the population register as the basic administrative register of the central administration, with unique identifiers common to all administrative operations and continuous updating, including addresses as well as the main civil events.

3.3.7 Regarding other uses of administrative data for statistical purposes, both the Ministry of Health and the Ministry of Education are using and developing management information systems for their respective administrative domains. These are already the main sources for important parts of health and education statistics and are being developed further, both to increase their coverage and raise their quality.

## **3.4 Resources**

3.4.1 Armstat currently has 342 permanent staff members. Additionally, Armstat employs around 440 temporary field interviewers. Most of the permanent staff are highly qualified, with 94% having received university education and 2% having PhDs. However, compared with the statistical office of Lithuania, a similarly sized country to Armenia (580 permanent staff members for a population of 2.87 million), Armstat's staffing might be considered to be relatively low. Compared with the current workload, the staffing of the institution seems inadequate.

3.4.2 Armstat is mainly funded by the central Government budget but the funds it receives are only sufficient to cover wages and salaries and the operating and maintenance costs of the office. All renewal and development of IT hardware and software has been funded by donors linked to specific projects. This situation is hardly tenable, not least because the IT resources are currently clearly inadequate, as regards work force, software and hardware.

## 4. Compliance with the ESCoP

### 4.1 Self-assessment

4.1.1 In preparation for this Peer Review, Armstat submitted a SAQ concerning its operations benchmarked against the ESCoP as well as a similar one for issues of coordination and cooperation. Armstat also submitted a SAQ for its operations by domains. While that was not considered relevant in the Peer Review it shows clearly the breath of the statistical production and a relatively high standard of the work carried out in many of the statistical domains.

4.1.2 The SAQ relevant to the ESCoP shows that Armstat fulfils the ESCoP in all main instances and scores high in compliance as measured against the ESCoP indicators. All main principles are adhered to and most of the conditions reflected by the indicators of good practices are fulfilled. There is hardly any case of non-compliance. This was confirmed in the Peer Review discussions. In several cases, however, it was found that there is scope for improvement but in varying degree of importance and expediency. This is discussed further in the following chapter with recommendations offered for improvement.

### 4.2 Main strengths of Armstat in terms of the ESCoP

#### Institutional environment

4.2.1 Armstat enjoys full *professional independence (ESCoP Principle 1)* by the Law from 21 March 2018. The Law charges Armstat with the responsibility of drawing up annual and five-year strategic programmes for the production of official statistics. Both programmes are approved and controlled by the State Council which is a professionally independent body. Armstat, under the supervision of the State Council, is also granted the freedom and responsibility of deciding on the application of standards, classifications, methods and procedures for official statistics. The President of Armstat enjoys high rank within the Government.

4.2.1a As regards *coordination and cooperation (ESCoP Principle 1bis)*, the Law stipulates that Armstat shall direct and coordinate the NSS of Armenia. This includes coordination of standards, classifications, methods, and procedures for the official statistics produced by the relevant public institutions other than the Central Bank which participates in the NSS on the basis of its own legislation. There is the urgent need, however, to promote the Law and its obligations amongst both Armstat staff and line ministries.

4.2.2 The Law grants Armstat and other producers of official statistics the *right to collect data* for the purposes of producing official statistics (*ESCoP Principle 2*). The Law also contains a clear mandate for the use of administrative data for the same purposes as well as requiring public custodians of administrative data to grant Armstat full access to their data for statistical purposes.

4.2.3 The principle of *commitment to quality (ESCoP Principle 4)* is well respected. Compliance with the different dimensions of the quality of official statistics is reflected in Articles 6 and 29 of the Law, whilst Article 30 requires regular quality assessments in cooperation with users of statistics.

4.2.4 The principle of *confidentiality and data protection (ESCoP Principle 5)* has been stipulated in law and enshrined in solid practices for a number of years.

4.2.5 Similarly, the principle *impartiality and objectivity (ESCoP Principle 6)* is guaranteed in the Law and is diligently observed and practiced. Statistics are compiled on

an objective basis and they and their data sources based on statistical considerations. Errors discovered are corrected and published systematically, information on sources and methods is published, statistical release dates and times are pre-announced, and advance notice is given on changes in methodology. Statistical releases are determined solely by the statistical authorities, devoid of any political influence and considerations, and are released in a neutral manner simultaneously to all users.

### **Statistical processes**

4.2.6 Armstat, the Central Bank and all the main producers of official statistics follow international and / or European standards, classifications, approved *methodology* and recommended procedures in their statistical operations (*ESCoP Principle 7*). This is prescribed in the Law and ensured by consultations and MoUs between Armstat and many other producers of official statistics. The MoUs also contain, where relevant, provisions on the use of administrative data for the purposes of producing official statistics which is a major concern of Armstat. The recent access granted to Armstat to tax data is an important milestone in this respect (*ESCoP Principles 8, 9, and 10*).

### **Statistical output**

4.2.7 The Law charges the producers of official statistics with the responsibility to ensure that their collection of data and compilation of statistics is *relevant* and meets the needs of users (*ESCoP Principle 11*). The Law provides for specific mechanisms to underpin this. Thus, the annual and five-year plans are drawn up in cooperation among producers and feedback sought from users before they are adopted. The Law also prescribes two different mechanisms for user consultation; through a Public Council of users of official statistics and through user groups.

4.2.8 Armstat operates a modern and accessible website ([www.armstat.am](http://www.armstat.am)) for releasing its statistical publications and information as well as an interactive databank ([www.armstatbank.am](http://www.armstatbank.am)). These allow easy access to statistical releases and statistical tables as well as the available metadata which is contained in so-called quality declarations compiled for a large number of products.

## **4.3 Issues and recommendations**

4.3.1 The Armenian statistical system has undergone major changes since Armenia regained its sovereignty. The main objectives have been to modernise the statistical activities, increase the coverage and output of official statistics in line with international requirements, and raise the level of quality of official statistics. Armstat has also made considerable effort to align its activities with European statistical practices and the ESCoP. These developments have been led and largely undertaken by Armstat which is by law the leading statistical institution of the country. Armstat is a dynamic body set on streamlining its statistical activities, emphasising quality and utilising modern technologies.

4.3.2 The Peer Reviewers find that the statistical activities of Armstat are largely in harmony with the ESCoP. Nonetheless, the Peer Reviewers are of the opinion that there is scope for improvement in a few areas. Thus, the report contains several recommendations for improvement that would enhance the quality and the efficiency of Armstat and the NSS and bring their practices even closer to the principles of the ESCoP.

### **Statistical law and independence (ESCoP Principle 1)**

4.3.3 The new law created the Statistical Committee as the Armenian NSI in place of the National Statistical Service. At the same time, the term Armstat has also been used to describe the NSI. The latter term is considered more modern and more in line with the titles of neighbouring NSIs than the current legal title. To avoid confusion, and to assist in promoting the NSI and the NSS, the Peer Review recommends that:

1. The Statistics Council should formally adopt the title Armstat for the Armenian NSI and use this title in all publications / statistical releases / documents, etc.

### **Coordination and cooperation (ESCoP Principle 1bis)**

4.3.4 The Law establishes Armstat as the NSI of the country and charges it with the responsibility of leading and coordinating the NSS. It was clear to the Peer Reviewers, however, that details of the Law and its obligations were not widely known to either Armstat junior staff or data producers / providers in other departments and agencies. Armstat therefore needs both to mount a significant exercise to promote the Law and to put measures in place to coordinate the NSS. The Peer Reviewers therefore recommend that:

2. Armstat should raise awareness of the new law through an immediate presentation to all staff and by an urgent conference with stakeholders, with the production of associated publicity material. It should also exploit the SDG agenda to raise awareness of the NSS;
3. Armstat should use the annual and five-year work programmes as the main mechanism for coordination of the NSS; and should set up a high-level committee comprising representatives of data producers and data providers chaired by the Armstat President, to coordinate the planning process;
4. Armstat should change the basis of the five-year programme to a rolling one rather than one for a fixed five-year period;
5. Armstat should complete MoUs with all data producers and data providers.

4.3.5 Membership of the new Public Council specified in the Law has not yet been established. The Peer Reviewers recommend that:

6. The Prime Minister's office should expedite membership of the Public Council and initiate meetings.

### **Adequacy of resources (ESCoP Principle 3)**

#### ***Human Resources***

4.3.6 The Peer Reviewers are of the opinion that Armstat's staffing is not adequate. Armstat has lately expanded its operations in all the main domains of economic, social and environment statistics. Armstat is also at the centre of developing and producing statistics to fulfil the requirements of SDG indicators. This has largely been done without an increase in resources, both human and financial resources, mainly through lengthening working hours. There is evidence that the work load of staff has basically reached its upper limits. This was particularly noticeable in the labour market statistics and IT. The Peer Reviewers are of the opinion that Armstat should consider revising its work programme with the intention of slimming down or curtailing old tasks to make room for new ones and to mitigate the work load of some units and key staff members.

4.3.7 The resource situation is also fragile in another sense. Salaries are low, although they have recently been lifted to equal those of line ministries, and are a constraint on

recruitment, particularly of IT staff. The limited salaries are seen by the young generation of Armstat staff as the main, perhaps the only, source of discontent and considered likely to discourage young staff from staying at Armstat and making official statistics their future occupation. The junior staff felt that the working environment in Armstat was superior to that in other government departments, but it would be prudent for senior management not to take this for granted and they should hold a periodic staff satisfaction survey.

4.3.8 In discussion with the junior staff, it also became apparent that Armstat does not have a systematic approach to training and developing new entrants, nor does Armstat provide the opportunity for staff mobility in their early years to gain a wider knowledge and experience of official statistics. The Peer Reviewers concluded that Armstat should adopt a more proactive approach to staff training and development in order to assist retention as mapped out in the recommendations.

### ***IT Resources***

4.3.9 Armstat is mainly funded by the central Government budget. However, the budget funds are only sufficient to cover wages and salaries as well as the operating and maintenance cost of the office. All renewal and development of IT hardware and software has been funded by donors linked to specific projects. Armstat is currently in urgent need of renewing and expanding its IT resources. The Peer Reviewers are of the opinion that the current budget policy of relying on donor funds for IT resources is not viable.

4.3.10 Armstat's IT department comprises eleven staff members. The Peer Review team considers this level of staff resources to be insufficient to deal with the regular volume of work resulting from outdated IT equipment and software.

4.3.11 It was reported that problems of interoperability of IT equipment regularly occur because of the differing software versions used between the regional offices and the central office. This issue impedes not only the statistical production but also the data flow between different production entities and might in extreme cases even have an impact on data quality. One solution to this problem could be the standardisation of different software versions used for statistical production in the central and the regional offices.

4.3.12 The software used for web content management is outdated and does not allow for programming of new or updated contents in advance. As a result, one IT officer has to be employed on manual intervention every time an update is published since the content has to be provided in real time.

4.3.13 At present, disclosure control of data for publication is undertaken by manual checking of cells and tables. This is a rather time-consuming task which should be automated by using a suitable freeware package (e.g. "Tau-Argus", which has become a standard software tool in many European countries for disclosure control).

4.3.14 The financial resources provided by the Government are insufficient to cover the staffing levels needed for current commitments. IT requirements currently have to be met from donor funds. There is also a need for Armstat to take a more active approach to staff training.

4.3.15 In light of the foregoing, the Peer Reviewers recommend:

7. Armstat should make a general case for increased resources, both staff and IT.
8. Armstat should consider the danger of the increased work load on staff. The work load of new tasks has increased in many units and may continue to increase; this may endanger the well-being of staff as well as the quality of statistics. Armstat should consider mapping this and taking appropriate actions (curtailing tasks, moving staff, etc.).

9. Armstat should be provided with additional staff resources in order to decrease the work load, in particular for:
  - Labour market statistics;
  - IT services.
10. Armstat should take an active approach to staff training through the development / expansion and promotion of a rolling internal training programme to:
  - Introduce induction training - course or brochure;
  - Include courses in IT, methodology and quality in the training programme;
  - Introduce English language training.
11. Armstat should undertake a skills audit.
12. Armstat should consider introducing arrangements for mobility of young staff between divisions / departments / subjects.
13. Armstat should consider granting young staff members the opportunity to make study visits, both internal to regional offices and external to neighbouring countries, etc.
14. Armstat should consider running a regular survey on staff satisfaction to seek views from staff on how their conditions could be improved. This could help to identify non-financial incentives and “quick-wins” to increase motivation and staff retention.
15. Armstat should be provided with increased IT resources including:
  - Modern PCs that allow efficient handling and usage of recent software packages for data treatment / analysis;
  - New web content management software that allows for programming of updates in advance of publications in order to increase flexibility of IT staff.
16. Armstat should ensure greater standardisation of the different versions of software used for statistical production in the regions and in the central office to increase the efficiency of data processing and data transfer.
17. Armstat should consider introducing automated disclosure checking for tabular data, for example using the free “Tau-Argus” software used in many European countries.

#### **Commitment to Quality (ESCoP Principle 4)**

4.3.16 Armstat has clear policies and procedures in place to assess and manage the quality of statistical outputs. A Quality Management Division was established in 2016 and comprises three staff members. Quality declarations have been produced and published in Armenian and English for almost all products (139 declarations at the time of the review). The format of the quality declarations is based on the ESCoP.

4.3.17 Armstat has also put considerable efforts into documenting its statistical production processes in line with the Generic Statistical Business Process Model (GSBPM) and is now seen as one of the most advanced NSIs in the region in this respect (see also Principle 7).

4.3.18 There is some assessment of quality of inputs by the Business Register, Sampling and Classification Division. Regular surveys of user satisfaction are conducted by the Dissemination Unit. The next logical step would be to bring together these different strands into one framework in the context of a “Total Quality Management” approach.

18. Armstat should build on the excellent work already done regarding quality of outputs by introducing a more systematic measurement of quality of inputs and processes, in a coherent “Total Quality Management” approach.

#### **Statistical confidentiality and access to microdata (ESCoP Principles 5 and 15)**

4.3.19 Currently, Armstat may grant access to anonymised microdata for statistical research purposes. For obtaining such access, researchers have to submit an application which is then scrutinised by Armstat’s confidentiality committee. Doing so, Armstat follows internal practices which have been developed for that purpose. However, the procedures for applying to access microdata have not been published and the same applies to the rules and conditions set for the use of microdata. The Peer Reviewers recommend that such rules are written up and published on the website. A related issue regarding use of microdata is that Armstat has so far not allowed any access to un-anonymised microdata, i.e. data which contains identifiers to specific respondents, households or firms. International practice, as developed and discussed in CES publications, recommends that such access be facilitated in specific cases and under controlled conditions. The Peer Reviewers recommend that Armstat should consider preparing such access. Thus, the Peer Reviewers make the following recommendation:

19. Armstat should publish on its website the criteria and procedures for gaining access to microdata for statistical research and consider preparing access to un-anonymised microdata under controlled conditions.

#### **Sound methodology (ESCoP Principle 7)**

4.3.20 Currently, Armstat relies on old-fashioned and insecure methods for communications with data providers as well as for communications between the central office in Yerevan and its regional offices. Armstat has been aiming at modernising its data communication methods but lack of funds has hindered developments in that respect. The Peer Reviewers endorse the importance of Armstat putting in place a secure and efficient e-reporting system, for its own benefits as well as that of its data providers.

4.3.21 Armstat has spent considerable effort on adopting the GSBPM and, in particular, on documenting its statistical processes in terms of the model. The Peer Reviewers are of the opinion that Armstat would be well advised to consolidate this excellent work by moving to the next stage of implementing the GSBPM by using it as a framework to organise a new survey or revise an existing one.

4.3.22 Armstat, the Central Bank and several other important producers of official statistics have strived to apply modern classifications and procedures in their statistical production. They have largely succeeded in this and the use of the most recent or very recent international classifications is a major strength of the NSS. The Ministry of Finance, however, lags behind in this respect, as it is still compiling its government finance statistics (GFS) according to the IMF’s GFS manual from 2001, including compiling its accounts on cash basis instead of the recommended accruals basis. The GFS 2001 is outdated and no longer in harmony with other modern classifications, most notably the SNA 2008, which is the most current standard for national accounting and is used by Armstat. The Peer Reviewers encourage the Ministry of Finance to make all effort to adopt the current GFS standard of 2014 at the earliest opportunity.

4.3.23 Armstat has in recent years enjoyed technical cooperation through two twinning programmes, funded by the EU and led by Statistics Denmark. Armstat has greatly appreciated these programmes the outcomes of which are clearly tangible and of importance for the statistical operations. Armstat is currently pursuing the possibility of a third twinning programme. The Peer Reviewers support this. They recommend that, if

realised, such a programme should include support and training on questionnaire design, with a focus on electronic data collection. It should also include preparations for establishing a corporate metadata management system, in line with Eurostat specifications (e.g. the Single Integrated Metadata Structure [SIMS]) and international best practice.

4.3.24 The current system of civil registration and the population register is not adequate, neither for administrative nor statistical purposes. The Peer Reviewers are of the opinion that it is of utmost importance for the Armenian administration and Armenian official statistics that civil registration is reorganised and established within an independent administrative unit focusing solely on that task. Such a civil registration unit should be charged with the responsibility of maintaining a population register with total coverage of the population, continuous updating and of sufficient quality, serving both administrative and statistical needs. The population register needs to contain unique identifiers common to all administrative operations. The Peer Reviewers consider that developing the population register along those lines to be a prerequisite for conducting a register-based population and housing census in the coming round of censuses in 2020.

4.3.25 In light of the foregoing discussion, the Peer Reviewers recommend the following:

20. Armstat should develop an e-reporting system, serving both communications with data providers and with regional offices.
21. Armstat should at the first available opportunity move to the next stage of implementing the GSBPM by using it as a framework to organise a new survey or revise an existing one.
22. The Ministry of Finance should prioritise adopting the 2014 version of the IMF's Government Finance Statistics Manual.
23. Armstat should continue to pursue the possibility of a third twinning programme. That programme should include support and training on questionnaire design, with a focus on questionnaires for electronic data collection. It should also include preparations for establishing a corporate metadata system, in line with Eurostat specifications and international best practices.
24. The Government should take decisive steps to develop a fully-fledged civil registration system and population register. Strengthening the population register needs to be done to make it fit for both proper administrative functions and for statistics. This is a prerequisite for realising current plans on conducting a register-based population and housing census in 2020.

#### **Non-excessive burden on respondents (ESCoP Principle 9)**

4.3.26 At present, Armstat is utilising administrative records and registers for statistical purposes to the extent possible. The Peer Reviewers find, in concordance with Armstat, that there is both need and scope to extend the utilisation of administrative registers for statistical purposes. Hence, they recommend that the Government takes actions to develop and improve administrative registers and databases in line ministries that could be used for statistical purposes. This would, inter alia, involve introducing unique identifiers in all administrative registers.

4.3.27 The new Law of March 2018 makes it clear that Armstat has the mandate to request access to administrative data from line ministries and public institutions. It also makes it clear that the line ministries and public institutions are obliged to grant access to their data for statistical purposes. The Peer Reviewers have learned of the efforts made by Armstat in this respect and of hesitant or reluctant responses from some line ministries. They would

advise Armstat to make a more positive and determined approach to the ministries in order to obtain their administrative data for statistical purposes.

4.3.28 In the light of the discussion above, the Peer Reviewers make the following recommendations:

25. The Government should progress and implement the plans for development and improvement of administrative registers and databases in line ministries. Unique ID numbers should be integrated in all administrative registers.
26. Armstat should adopt a more positive and determined approach to access data from line ministries and public institutions, based on the provisions of the Law in this respect.

#### **Accessibility and clarity (ESCoP Principle 15)**

4.3.29 Concomitant with the preparation for the annual programme, Armstat draws up a plan for statistical releases in the coming year, the release calendar. The calendar includes all statistical releases of Armstat and its partner NSS institutions. It is available in a draft form already at mid-year in an annex to the draft annual plan to be released on the first working day of January. Armstat also compiles a release calendar for its own publications but not the statistical publications of its partner NSS institutions. The Peer Reviewers find it to be unusual but very positive that the calendar for statistical releases includes the planned releases of the main NSS institutions. In light of this good practice, they would like to recommend that this is extended to involve all statistical publications of the main NSS institutions. They would also like to propose that the release calendars for the coming year be published well before the end of the year in accordance with recommended international practices.

4.3.30 Currently, Armstat publishes its statistics mainly in tabular format. The Peer Reviewers are of the opinion that Armstat could modernise and improve its publication practices by applying modern visualisation methods.

Hence, the Peer Reviewers recommend the following:

27. Armstat should strive to expand the release calendar for publications to include all statistical publications of its main NSS partners (Central Bank, Ministry of Finance, Ministry of Education, Ministry of Health, etc.).
28. Armstat should post on its website a preliminary version of the release calendar for the coming year no later than at the end of November.
29. Armstat should consider how to further improve the visualisation of statistical data, using graphs, charts, maps and infographics.

## ANNEX A: Agenda

### Peer Review

**Statistical Committee of the Republic of Armenia (Armstat)**

**26-30 November 2018, Yerevan, Armenia**

### Programme of Review

Peer Review Team:

Icon-Institute experts: Mr Mike Hughes and Mr Hallgrímur Snorrason

UNECE: Mr Steven Vale

EFTA: Mr Volker Täube

<b>Day 1, 26 November 2018</b>	
09.00 – 12.00	Welcome and introductory meeting with Mr Stepan Mnatsakanyan, President of Armstat, and Ms Anahit Safyan, Member of the State Council on Statistics and leader of coordination team. Organisational matters.
<i>Lunch</i>	
13.00 – 15.30	Presentation on Armstat and general information session on the Statistical Law, Independence, NSI and NSS with President of Armstat and State Council members. (ESCoP principles 1, 2, 5 and 6)
15.30 – 15.45	Coffee break
15.45 – 17.00	Coordination role of Armstat, President of Armstat (ESCoP principle 1bis)
<b>Day 2, 27 November 2018</b>	
09.00 – 11.00	Statistical work programmes, planning and dissemination. Ms Narine Musheghyan, Head of Statistical Information Dissemination and Public Relations Division (ESCoP principles 6 and 15)
11.00 – 12.00	Resources, Mr Araik Hayrapetyan, General Secretary (ESCoP principle 3)
12.00 – 13.00	Confidentiality and dissemination, Mr Vanush Davtyan, Member of the State Council and Ms Narine Musheghyan (ESCoP principle 5 and 15)
<i>Lunch</i>	
14.00 – 16.00	Quality (organisational structure, tools, monitoring), Ms Anahit Safyan, Member of the State Council, and Ms Ruzanna

	Shaboyan, Head of Quality Management Division (ESCoP principles 4 and 11 to 15)
<b>Day 3, 28 November 2018</b>	
09.00 – 10.15	Methodology, data collection, data processing and administrative data, Ms Nelly Baghdasaryan, Member of the State Council and team (ESCoP principles 2, 7, 8 and 9)
10.15 – 11.15	Integrated Living Conditions Survey and Poverty, Ms Diana Martirosova, Advisor to the President of Armstat
11.15 – 12.00	Ms Lusine Kalantaryan, Head of Labour Statistics Division
12.00 – 13.00	Meeting with junior staff
<i>Lunch</i>	
14.00 – 15.15	Meeting with other National Authorities (the Central Bank and Ministry of Finance)
15.15 – 17.00	Statistics methodology, data collection, data processing and administrative data, Mr Gagik Ananyan, Member of the State Council (ESCoP principles 2, 7, 8 and 9)
<b>Day 4, 29 November 2018</b>	
09.00 – 10.30	Meeting with main users – Ministries and other public / private institutions (including Central Bank as a user)
<i>10.30 – 10.45</i>	<i>Coffee break</i>
10.45 – 12.45	Meeting with main data providers / respondents
<i>Lunch</i>	
14.00 – 15.00	Meeting with main users – Media
<i>15.00 – 15.15</i>	<i>Coffee break</i>
15.15 – 16.15	Meeting with main users – Scientific community
16.15 – 17.15	Meeting with international organisations
<b>Day 5, 30 November 2018</b>	
09.00 – 11.00	Meeting with senior management: conclusions and recommendations
11.00 – 13.00	Peer Review team meeting – finalisation of recommendations

## **ANNEX B: List of participants**

### **Armstat Staff**

1. Mr Stepan Mnatsakanyan - President
2. Mr Gagik Ananyan - Member, State Council on Statistics of RA, Deputy President,
3. Ms Anahit Safyan - Member, State Council on Statistics of RA
4. Ms Nelly Baghdasaryan - Member, State Council on Statistics of RA
5. Ms Vanush Davtyan - Member, State Council on Statistics of RA
6. Ms Diana Martirosova - Adviser to the President
7. Mr Araik Hayrapetyan - General Secretary
8. Ms Anahit Manandyan - Head, Internal Audit Department
9. Ms Narine Musheghyan - Head, Statistical Information Dissemination and Public Relations Division
10. Ms Hasmik Yeghiazaryan - Head, International Statistical Cooperation Division
11. Ms Ruzanna Shaboyan - Head, Quality Management Division
12. Ms Lusine Kalantaryan - Head, Labour Statistics Division
13. Ms Alina Grigoryan - Head, Social Sphere and Nature Protection Statistics Division
14. Ms Gayane Harutyunyan - Head, Personnel Management Division
15. Ms Lusine Markosyan - Head, Households Surveys Division
16. Ms Kristine Poghosyan - Head, Balance of Payments and External Trade Division
17. Ms Lusya Khachatryan - Macroeconomic Indicators and National Accounts Division
18. Ms Haykush Ttizyan - Head, Finance Statistics Division
19. Mr Arshak Qerobyan - Head, IT Development Division, Information Resources Management and Technologies Department
20. Mr Artur Amirkhanyan - Main Specialist, Quality Management Division
21. Ms Anna Hakobyan - Main Specialist, Social Sphere and Nature Protection Statistics Division
22. Ms Anna Amroyan - Main Specialist, Households Surveys Division
23. Ms Gohar Nshanyan - Main Specialist, Statistical Information Dissemination and Public Relations Division
24. Ms Nelli Margaryan - Main Specialist, Statistical Information Dissemination and Public Relations Division
25. Ms Alina Hunanyan – Leading Specialist, Statistical Information Dissemination and Public Relations Division
26. Ms Hasmik Simonyan - First Category Specialist, Social Sphere and Nature Protection Statistics Division
27. Ms Emma Isakhanyan - Statistician, Social Sphere and Nature Protection Statistics Division,

28. Ms Asya Podpomogova - Statistician, Social Sphere and Nature Protection Statistics Division,
29. Ms Elena Gevorgyan - Statistician, Social Sphere and Nature Protection Statistics Division

**Meeting with Armstat Junior Staff**

1. Ms Sona Shahgeldyan - Main Specialist, IT Development Division, Information Resources Management and Technologies Department
2. Ms Anna Antonyan - Main Specialist, Food Security Statistics Division
3. Ms Arpine Babikyan - Main Specialist, Accounting Division
4. Ms Ani Harutyunyan - Leading Specialist, Accounting Division
5. Ms Anush Khamoyan - Leading Specialist, International Statistical Cooperation Division
6. Ms Anahit Grboyan - Leading Specialist, Quality Management Division
7. Mr Vahe Chagharyan - Leading Specialist, Agriculture Statistics Division
8. Mr Vrezh Majkalyan - First Category Specialist, Databases Development and Programming
9. Mr Movses Chapanyan - First Category Specialist, IT Development Division
10. Ms Anna Nalbandyan - First Category Specialist, International Statistical Cooperation Division
11. Ms Armine Martikyan - First Category Specialist, Statistical Information Dissemination and Public Relations Division
12. Ms Mariam Dallakyan - First Category Specialist, Trade and Other Services Division
13. Ms Tatevik Hakobyan - First Category Specialist, Trade and Other Services Division
14. Ms Seda Movsisyan - First Category Specialist, Macroeconomic Indicators and National Accounts Division
15. Ms Satik Karapetyan - First Category Specialist, Households Survey Division
16. Ms Lusine Postoyan - First Category Specialist, Legal Division
17. Ms Narine Baloyan - First Category Specialist, Financial and Economic Division
18. Ms Hermine Mkrtychyan - First Category Specialist, Accounting Division
19. Ms Asya Ghandilyan - First Category Specialist, Accounting Division
20. Ms Narine Baboyan - Price Statistics and International Comparisons Division
21. Ms Varduhi Soghatyan - Second Category Specialist, International Statistical Cooperation Division
22. Ms Flora Ghazaryan - Second Category Specialist, Social Sphere and Nature Protection Statistics Division
23. Ms Laura Avetisyan - Second Category Specialist, Households Survey Division
24. Ms Armine Hakobyan - Second Category Specialist, Industry and Energy Statistics Division

### **Meeting with Media**

1. Ms Anna Grigoryan - Armenpress

### **Meeting with Ministries and Other Public/Private Institutions**

1. Mr Arman Afrikyan - Rusal Armenal
2. Mr Andranik Abovyan - RA Police
3. Ms Siranush Badalyan - Ministry of Emergency Situations of RA
4. Mr Ashot Avetisyan - Ministry of Territorial Administration and Development of RA
5. Ms Kristina Mehrabekyan - Ministry of Territorial Administration and Development of RA
6. Mr Artak Hovhannisyan - "GAZPROM ARMENIA"
7. Ms Anna Qartashyan - Ministry of Agriculture of RA
8. Ms Dianna Andreasyan - National Institute of Health
9. Ms Araqsya Nazaretyan - Ministry of Territorial Administration and Development of RA
10. Ms Meri Markosyan - Ministry of Labor and Social Affairs of RA
11. Ms Nare Abrahamyan - Ministry of Labor and Social Affairs of RA
12. Ms Hasmik Tadevosyan - State Employment Agency of RA
13. Mr Zaven Aghabekyan - "VEOLIA DJUR"
14. Mr Sergey Zohrabyan - RA Police
15. Mr Hrant Gnuni- Scientific Research Institute of Energy Closed Joint-Stock Company (CJSC)
16. Ms Mariam Margaryan - Ministry of Transport, Communications and Information Technologies of RA
17. Ms Ani Mkhitarian - Ministry of Transport, Communications and Information Technologies of RA
18. Ms Tatevik Barseghyan - Ministry of Transport, Communications and Information Technologies of RA
19. Mr Tigran Baghdasaryan - Central Bank of RA
20. Ms Anna Martirosyan - Ministry of Energy Infrastructures and Natural Resources of RA
21. Ms Tamar Aleqsanyan - Ministry of Education and Science of RA
22. Ms Ruzanna Gleshyan - Ministry of Culture of RA
23. Ms Tatevik Miqayelyan - Ministry of Labor and Social Affairs of RA
24. Ms Anushka Mkhitarian - Ministry of Emergency Situations of RA

### **Meeting with Main Data Providers/Respondents**

1. Mr Arman Afrikyan - Rusal Armenal
2. Mr Andranik Abovyan - Police of the Republic of RA
3. Mr Artak Hovhannisyan - "GAZPROM ARMENIA"

4. Mr Zaven Aghabekyan - "VEOLIA DJUR"
5. Mr Sergey Zohrabyan - RA Police
6. Ms Tamar Aleqsanyan - Ministry of Education and Science of RA
7. Ms Ruzanna Gleshyan - Ministry of Culture of RA

#### **Meeting with International Organizations**

1. Mr Vahram Janvelyan - IMF
2. Ms Anna Hovhannesyan - UNFPA
3. Ms Elmira Bakhshinyan - UNWFP
4. Ms Gayane Chukhajyan - UNHCR
5. Ms Adrine Babloyan - UNICEF
6. Ms Armine Hovhannisyan - UNDP

#### **Meeting with Scientific Community**

1. Mr Vardan Aleqsanyan - Armenian National Agrarian University
2. Ms Alvard Matinyan - Armenian National Agrarian University
3. Mr Sevak Markosyan - Armenian National Agrarian University
4. Mr Roman Hakobjanyan - Armenian National Agrarian University
5. Ms Anush Shirinyan - Armenian State University of Economics
6. Ms Nune Sahakyan - National Institute of Labour and Social Research SNPO
7. Ms Arevik Torosyan - National Institute of Health
8. Mr Gevorg Panosyan - National Academy of Sciences of Armenia, Academician
9. Ms Karine Danielyan - Head of Department, Ecology and Sustainable Development, Armenian State Pedagogical University After Khachatur Abovyan Fund.