KEY ELEMENTS OF A QUALITY MANAGEMENT SYSTEM: EXAMPLE OF GEORGIA

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**Abstract**

*The Adapted global assessment mission conducted jointly by Eurostat and UN ECE Statistical Division in 2012 recommended an introduction of quality management system at Geostat and the use of the ESS quality parameters for monitoring the quality of statistical outputs.*

*In May 2014 a Methodology and Quality Management Unit (MQMU) was created at Geostat. The main area for this unit is to handle quality issues within all areas of Geostat activities. It also includes quality culture, naturally emphasizing continuous improvement of processes and results in satisfied customers and improved image of Geostat. Creating a full-time unit dedicated to quality issues was a key institutional element for the systematic monitoring of quality.*

*Based on the desk research on international standards the EU model as a priority for Quality Assurance Framework based on the ESS Code of Practice (CoP) has been selected. The quality component within the cooperation project with Statistics Sweden gave Geostat a good foundation for future work in that area.*

*MQMU has taken some active steps in monitoring and improving quality. Quality mapping was conducted for all processes, resulting in prepared reports and recommendations; standard routine descriptions based on GSBPM has been prepared; quality reports (based on ESMS) writing process has started; several policy documents and guidelines on statistical data confidentiality and revision have been prepared. In order to facilitate the quality culture spread through the whole statistical system an interagency working group on quality issues has been created. Training courses on CoP and quality assurance issues for other producers of statistics and data providers have been conducted.*

*The paper will talk about the challenges and problems experienced in setting-up the MQMU and in spreading a quality culture in Geostat as well as some results of this work.*

**Keywords:** quality culture, quality mapping, quality reporting.

**1. Quality Management System at Geostat**

The Adapted global assessment mission conducted jointly by Eurostat and UN ECE Statistical Division in 2012 recommended an introduction of quality management system at National Statistics Office of Georgia (Geostat) and the use of the ESS quality parameters for monitoring the quality of statistical outputs.

In May 2014 a Methodology and Quality Management Subdivision was created at Geostat, consisting of four staff members including the head of the subdivision. The main area for this unit is to handle quality issues within all areas of Geostat activities. It also includes quality culture, naturally emphasizing continuous improvement of processes and results in satisfied customers and improved image of Geostat. Creating a full-time unit dedicated to quality issues was a key institutional element for the systematic monitoring of quality.

Based on the desk research on international standards the EU model as a priority for Quality Assurance Framework based on the ESS Code of Practice (CoP) has been selected. The quality component within the cooperation project with Statistics Sweden gave Geostat a good foundation for future work in that area.

Up until now the following work has been done:

* Quality mappings have been conducted and evaluated for all important regular statistics production processes; Quality audit process started in April 2018;
* A systematic approach to make routine descriptions (“process descriptions”) has been developed based on the Generic Statistical Business Process Model (GSBPM). The approach includes structure and template for the descriptions, place to store them as well as support to the staff writing. The writing of process descriptions is ready in progress for basic statistical processes, others will follow;
* Systematic approach to write quality reports has developed, and the reports should be published Q2 2018 according to the plan;
* Policy and guidelines for confidentiality and data security written;
* Revision Policy written;
* Interagency working group on quality issues has been created. Training courses on CoP and quality assurance issues for other producers of statistics and data providers have been conducted.

**2. Quality Mapping and Audit at Geostat**

Methodology and Quality Management Subdivision has taken some active steps in monitoring and improving quality within the cooperation project with Statistics Sweden in 2014-2015. At the first stage the list of processes within the organization has been defined (65 processes). Than quality mappings (small quality audit reports) have been conducted and evaluated for all important regular statistics production processes. This type of audit focuses on quality aspect on production process. The statistical methods used are not evaluated. The audit team interviewed staff from the subject matter divisions involved in all parts of the production process. The interviewers had, in advance, prepared questionnaires to check based on the GSBPM structure. The interviewed persons showed how the work is performed. The results, including findings and agreed recommendations for improvements, were documented (29 reports in total). The recommendations were discussed, and agreed, with the responsible head of production. Preparations have been made to follow up those improvements according to the recommendations done. Frequent flaws and the need of common improvements were identified (routine descriptions for the production work and quality reports for users).

In 2018, Methodology and Quality Management Subdivision started the quality audit of the statistical processes according to the experience gained from quality mapping on the basis of the recommendations given by the consultants from Statistics Sweden. Internal Audit Division staff is also involved in the process. The aim of the current quality audit is the detailed analysis of statistical processes, finding and evaluating the possible risks and monitoring the activities connected to the risks and recommendations found out during the previous processes. The preparation of the guidelines describing the quality audit process is planned in the framework of the above-mentioned project for the standardization and the existence of guidelines of quality audit process.

**3. Routine Descriptions**

The results of the 2014-2015 quality mapping conducted by the Methodology and Quality Management Subdivision showed that the subject matter divisions did not have the integrated standard form for the description of statistical processes: the documentation which would describe the statistical process coherently from the first to the final stage and which would contain the positions of the staff members responsible for each stage of process. The integrated standard form describing the working processes was developed based on the GSBPM for each statistical process in order to solve the problems. The positions of people responsible for each level statistical process were also emphasized in the documentation.

The aforementioned documentation about the statistical processes ensures:

* Standardization of processes;
* Transferring the existing documents of statistical processes to the unified system;
* Documenting the changes in processes;
* Providing the guidelines to staff;
* Availability of information about the statistical processes for staff.

The documentation describing the working process includes the main document and the system of annexes. For instance, the instructions for filling out the questionnaires, the templates of questionnaires, tables and figures for publishing, the methodological guidelines, the instructions for working with computer programs, etc.

The approach also included structure and template for the descriptions, place to store them as well as support to the staff writing. The writing of process descriptions has been finalized for 80% of statistical processes, other 20% will follow.

**4. Quality Reports**

The working process on the customer-oriented quality reports has been started on the basis of quality audit report. After the consultations with European colleagues EURO-SDMX Metadata Structure (ESMS) 2.0 has been selected as a pattern for quality reports. According to the developed design, preparation of Georgian versions of quality reports was planned at the first stage, and the preparation of English versions at the next stage. The end of the second quarter of 2018 was the term for the completion of Georgian versions. Based on this plan, the Methodology and Quality Management Subdivision has developed a Georgian version of EURO-SDMX Metadata Structure. At the initial stage of the working processes, the Methodology and Quality Management Subdivision together with subject matter divisions constituted the list of statistical processes and products, and later the subject matter divisions started the preparation of reports on the processes and products in the list. Methodology and Quality Management Subdivision is in the constant contact with subject matter divisions and ensures organizational and consulting activities related to the completion of quality reports.

After the completion and dissemination of customer-oriented quality reports, Geostat plans to prepare the producer-oriented quality reports as well. The ESS Standard Quality Report Structure (ESQRS) will possibly be selected as the pattern for producer-oriented reports.

**5. Policy Documents**

The AGA Mission Report has been recommended to have guidelines and policy documents. Based on this recommendation, several policy documents and guidelines on statistical data confidentiality and revision have been prepared.

*5.1. Confidentiality Policy Documents and Guidelines*

In 2016, in the cooperation with Statistics Sweden, Geostat developed confidentiality policy documents and guidelines.

The list of prepared Confidentiality policy documents and guidelines include:

* “Confidentiality policy”;
* “Public use microdata dissemination policy”;
* “Confidentiality reminder”;
* “Guidelines on the protection of tabulated personal data”;
* “Guidelines on the protection of tabulated business data”.

During the working process confidentiality policy documents were prepared, in which general policies and principles related to confidentiality were specified. Guidelines on the protection of tabulated personal and business data were prepared on the next stage and the general rules of processing and treating confidential data were defined.

During the working process “Confidentiality reminder” was prepared as well; all employees of Geostat who signed this document are obliged to follow the rules related to data confidentiality. “Confidentiality reminder” has been signed by all employees of Geostat.

The following stage of the activities includes the preparation of confidentiality guidelines for specific statistical process at the level of divisions. In this guidelines confidentiality related rules and principles of specific statistical processes must be detailed.

During the confidentiality policy document development process training course has been given on statistical disclosure control and micro data dissemination for Geostat middle management.

*5.2 Revision Policy Document*

The Methodology and Quality Management Subdivision has also developed a revision policy document which contains the general principles of planned and unplanned revision policy, the needs for revision and their possible reasons.

The following stage of activities will be connected to preparing the guidelines for statistical data revision in divisions. The rules and principles for statistical data revision of concrete spheres will be specified in the guidelines.

**6. The Inter-agency working group**

In order to facilitate the quality culture spread through the whole statistical system an inter-agency working group on quality issues has been created. The Inter-agency working group consists from the representatives of ministries and other governmental bodies providing data for statistics and producing statistics. In general, the Inter-agency working group express determination to cooperate with Geostat. Training courses on ESS CoP and quality assurance issues for other producers of statistics and data providers have been conducted within the cooperation project with Statistics Sweden.