

The statistical metadata project under the Conference of the European Statisticians

A note by the secretariat

Due to recent technological developments, especially the introduction of microcomputers and electronic data interchange in the statistical production process, statistical metadata have become one of the major issues for statistical offices. In fact, international cooperation on this subject began in 1980 with the launching of the Statistical Computing Project Phase 1 (SCP-1), organized jointly by the Economic Commission for Europe and the United Nations Development Programme (UNDP). This project, running from 1980–1985, was subdivided into four working groups and, at that time, dealt mainly with software development for mainframe applications on data editing, table generation and statistical database management. The fourth group attempted to deal with metainformation systems (METIS).

This group focused on methodological problems in developing metainformation systems. Its activities were targeted towards:

- describing data within the statistical information system;
- developing tools assisting users in finding their way through the contents of the statistical information system; and
- developing tools which would facilitate the management of statistical information systems.

Two of the major outcomes of this project were the “Users’ Guide to Metainformation Systems in Statistical Offices” [ECE/UNDP/SCP/H.4] and “Selected Chapters for Designers of Statistical Information Systems” [ECE/UNDP/SCP/H.6].

Based on requests of ECE member countries, work on the METIS project, with annual work sessions, was initiated again in 1990 under the auspices of the Conference of European Statisticians.

The first meeting on statistical metadata was organized in autumn 1991, bringing together not only representatives of statistical offices but also representatives of inter- and supranational organizations, for example Eurostat, academia and the private sector.

In addition to providing a forum for exchanging experiences on how to develop

and implement metainformation systems as well as on other topics of general interest, the group also tackles problems of the transition of metainformation systems caused by methodological, technological or political changes. Currently, the following tasks are under development:

1. Inventory on standards for the presentation of statistical data and metadata

The group has set up an inventory on international standards and recommendations relevant for the representation of statistical data and metadata. All major producers of this type of information within the international statistical system, such as the United Nations Statistical Office, the Conference itself, the ILO, WHO, UNESCO, Eurostat, etc., have been included in the inventory which is maintained by the Conference's secretariat.

2. Common terminology of METIS

The group is documenting the terminology related to statistical metainformation. It was felt that a common understanding of the expressions – a common professional language – used in this area would greatly facilitate future work.

3. Guidelines for metainformation systems modelling and development

The group is currently working out guidelines for the systems design and development. As for the design of METIS, three main topics have been identified as important: development of a conceptual framework for the METIS; specification of the user needs; and design of the systems architecture.

The guidelines will also provide a frame for assistance in the implementation by tactical activities, or example: to prepare a detailed documentation system and description model for the statistical production process; to introduce systematic working procedures for the development, operation, and maintenance of the statistical system; to assist these tasks with adequate computing support; to ensure systematic and automated exchange of metadata between the different activities; and to stimulate staff to participate actively in the work.

4. Generic model of statistical indicators

The objective is to develop a generic model of statistical indicators specifying catalogues for all metadata necessary for the description of indicators. The next step would then be to define standard descriptions for the primary data elements within the catalogues. For some of them, for example measurements, some standards already exist, but for most of them descriptions have to be identified and standardized. Ongoing standardization activities, for example the UN/EDIFACT, may help to formulate specific data elements with their respective code lists. All these activities will be undertaken in close cooperation with the respective subject-matter specialists.

5. Evaluation criteria for statistical metainformation systems

The group is considering questions dealing with the formulation of evaluation criteria for metainformation systems. Little has been done in national statistical offices or elsewhere in this respect. The efficiency of METIS is being examined in close connection with the needs of individual classes of METIS users. Cost-efficiency aspects of evaluation of metainformation systems are also being sur-

veyed, taking into account confidentiality and security rules (laws) in individual countries. In this respect, it could be interesting to specify a minimum level of meta-information to be associated with statistical data. Questions dealing with the possible measurement of revenues or cost savings of METIS are also considered.

Requests for further information on this project should be addressed to the Statistical Division of the United Nations Economic Commission for Europe