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**THE METADATA SYSTEM AT THE NATIONAL STATISTICAL SERVICE OF THE
REPUBLIC OF ARMENIA**

Submitted by the National Statistical Service of the Republic of Armenia ¹

Contributed paper

I. INTRODUCTION

1. In the transition to a market economy, the role of statistics in the life of society has increased. In this connection, the National Statistical Service (NSS) of the Republic of Armenia is concentrating on issues of information dissemination, as well as designing the metadata system.

2. In February 1999 the NSS opened its site on Internet. Using modern means of communication, users of statistical information are provided with high quality and reliable information describing the situation of the economic and social sphere in Armenia. These users are the government bodies, public and international organizations, educational institutions, companies and private citizens. It should be mentioned that the number of entrepreneurs using statistical information is constantly increasing.

II. MAIN PROVISIONS

3. Taking into account the increased demand for statistical information, it was decided to post information on the socio-economic situation in the Armenia on the web site. Data is available for 1997, 1998 and consequent years. Four types of information are presented:

- ◆ General yearbooks on socio-economic development;
- ◆ Quarterly publications on the socio-economic situation;
- ◆ Special publications describing the surveys implemented within the framework of the various programs;
- ◆ Analytical publications on different topics.

4. In September 1999 the principles of the publications, including standardization of formats and contents of the publications, were changed. With the IMF recommendations in mind, the titles of these publications are subject to unified rules. According to these rules, each publication should consist of several files, the first part of the filename designating the type of publication and the rest designating applicability, i.e. publication code, file number, chapter number, etc.

- ◆ the first file is the title of the publication and has a title publ-03à-99-I;
- ◆ the second file presents the contents of the publication and has number II - publ-03-99-II;

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- ◆ the files of the third level should contain the text of an appropriate part of the publication and should repeat the beginning of the name, then number III, number of the chapter and ordinal number of the text;
- ◆ the files of the fourth level repeat the beginning of the name and through the point the ordinal number of the sub-item is added.

4. The names of files of the special publication on various branches begins with the "otr" name and code of the branch (for example, ind, soc), otherwise as stated above.

5. Using the above-mentioned standards, we have, together with the Institute of Informatics, Academy of the Sciences of the Republic of Armenia, created a data base of publications to facilitate searching for the appropriate material. It should be noted that this work requires additional instructions in virtue of its novelty.

III. DEVELOPMENT OF THE SYSTEM

6. Analysis has shown that the efficiency of disseminating data uniquely in the form of publications on Internet is not satisfactory. Therefore, we have begun work on designing a corporate data bank of statistical information (Data Warehouse) which will contain data from different statistical areas together with the metadata.

7. The metadata system is developed in close connection with the designing of the data bank. Two types of metadata will be used:

- ◆ Metadata for search and navigation;
- ◆ Metadata for the interpretation of statistical data.

8. At present, at the NSS processes annually 225 different questionnaire forms (QF) of statistical reporting. During the transition period, the requirements for QFs are significantly modified; it is therefore efficient to automate their creation. The Department of Information Resources, Management and Technologies of the NSS has developed a software package called GENER which automatically produces the QF. In parallel, information on the periodicity of information processing using this form, the list of organizations presenting it, and instructions on how to fill it in are introduced to the metadata base. Where necessary, the document is accompanied with information on features of the calculations of the given form. Therefore, during the work with some form the user will already have sufficient information obtained from the metadata base.

9. The entered metainformation is linked to data bases, which produce the statistical product. During the modifications of the QF, any changes in data bases should be made automatically. It is supposed that with the development of this system, the output information will from now on be accompanied by metadata.

IV. PARTICIPATION IN THE INTERNATIONAL PROJECTS ON DEVELOPMENT OF THE METADATA SYSTEM

10. Bearing in mind that the use of the IMF general system of data dissemination (GDSS) will expand the possibilities of statistics sphere development, in particular for presenting timely, reliable statistical information to users, the NSS informed the IMF Statistical Department at the beginning of November 1999 of Armenia's desire to subscribe to this system.

11. Since April 1999, the NSS statistical publications are composed and produced according to the IMF General Data Dissemination System (GDSS).

12. In July 2000, work began on the collection of the necessary information for drawing up the metadata tables for the main statistical indicators based on the format presented by the IMF Statistical Commission. These tables, composed by the IMF Statistical Department specifically for the main data included in GDDS, are intended for the special GDDS site, which will contain the metadata of all country-subscribers to GDDS. The information contained in these 22 tables is expected to be updated each year.

13. The basis for metadata composition for Armenia is the design of pilot metadata used in certain countries, in particular Kazakhstan. These pilot metadata are composed with the help of IMF experts, the specific purpose of which is to serve as a manual for other countries. Jointly with the Department of Statistical Work Methodology, this work is coordinated by the inter-service working group on the data dissemination system. This working group particularly coordinates the work connected with receiving the necessary information to draw up metadata from other Departments (Central Bank of the Republic of Armenia and Ministry of Finance and Economy of the Republic of Armenia). These metadata tables must be presented to the IMF Statistical Department for their input into the special GDDS site on Internet, and taking temporary restrictions into account, finalisation of the work on drawing up the metadata tables is planned for August 2000. The tables will then be presented to the experts of the IMF multipurpose mission, which will visit Armenia at the end of August 2000. The metadata tables are primarily composed in English and Russian.

14. Because of the importance of such data for users of statistical information within the country, it is planned to translate the contents of the tables into Armenian. In parallel, the scope of the statistical indicators for which the metadata are required will be expanded. They will be accessible to the public either on request and/or through statistical publications.

V. CONCLUSIONS

15. Taking into account the experience of international statistical agencies in the development of the integrated statistical space concept, NSS considers the development of a metainformation system to be one of its primary tasks. Large perspectives exist particularly in the sphere of the development of metainformation standards and it will thus be easier to create international corporate data warehouses.