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SESSION 9: Common tools

**Topic: The Need of Common Tool for the Implementation
of System of National Accounts (SNA) Advantages and
Challenges**

BY: ERETES User Forum on Common Tool

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Context

This paper is an outcome of the contributions of the ERETES user group on “Common Tool” for national accounts statistics constituted in January 2008. The group’s sole aim was to reflect on the advantages and challenges of using common software for the compilation of national accounts. In this paper, the group made continuous references to the ERETES software used by several countries in Africa, Asia and Latin America as an example of common software. The views expressed in this Paper are those of the author(s) and do not necessarily represent those of the institutions where they work or that of the developers and owners of ERETES software.

1. Introduction

1.1 Accordingly, the paper dwelt on the need for common tool for the implementation of national accounts either at the national, regional or international levels. The compilation of all the accounts and tables envisaged by the central framework of the SNA is a difficult task to many countries. It could appear impossible to some even on reduced scale. To measure these variables, requires a synthesis of numerous basic data supplied by the national statistical system drawn from various sources such as; census of business and industries; household surveys; balance of payment and external trade statistics, taxes and other administrative sources. The measurements of all these activities and products require a specific methodology as stipulated by the 1993 System of National Accounts (SNA 93). It is in this direction that one finds the existence of software or tool common to several countries intended for the compilation of national accounts necessary. It facilitates the task and provides instructions and methodological guides to compile timely and reliable national accounts. In this regard, the French Ministry of Cooperation in collaboration with the Ministry of Finance and Economic Development in the 90s developed a microcomputer tool (ERETES) to assist with the task of compiling national accounts.

1.2 ERETES system is an example of common tool, it is both a database and a tool for the compilation of national accounts statistics and related indicators used by several countries. The module helps with the organization of statistical data using the recommendation of SNA 93 to transform the inputs (available statistics entered) into output (results, particularly GDP). A prototype, tested in Cameroon and in the Central African Republic in the early 90s, led to an industrial version V 1.0 (GDP by kind of Economic Activities and SUT) in 1997 and today version 3.3 (for SUT and Integrated Economic Accounts) is available and used in about 27 countries spread on several continents¹.

1.3 In section 2, we attempt to review the challenges of national accounts estimates in developing countries. In section 3, we identify some basic functions and characteristics of a common tool for national account, based on our experience with the ERETES software. In section 4, the merits of using common software for the implementation of system of national accounts by all the member countries were discussed. Section 5, highlights the challenges of the implementation of common software, equally, based on our experience with the implementation of ERETES in some countries and finally, conclusions and recommendations in section 6.

¹ Visit ERETES website www.eretes.net for the detailed development, installation and uses of the software.

2. Challenges of national accounts estimates in developing countries

2.1 There are many challenges confronting the compilation of national accounts statistics in developing countries. The major ones include; inadequate statistical capacity (human resource and computing equipment), lack of reliable data and lack of coordination and poor statistical management. The problem with the implementation of SNA is not restricted to the national statistical offices alone, but the entire national statistical system. Reliable information on informal activities, which is the predominant feature of the developing economies, is lacking. The personnel in-charge of research and statistics in line ministries, agencies and departments of government in most cases had little or no training on statistics. Public finance remains government secret until published three years after the fiscal year. The last census or survey was ten to fifteen years old, so the accounts are entirely based on indicators.

2.2 Consequently, the accounts are characterized by delays in publication and dissemination due to poor state of technology, most operations are manually done and access to internet is not regular. Few tables and accounts are produced, sometimes only value added based on limited coverage is available. The coverage cannot be ascertained for some countries, the industry and products nomenclatures are too aggregated. In some cases, only formal activities are covered and informal activities still has a big question mark, institutional sectors are partially covered, for example, the non-profit institutions and civil societies, other levels of governance like state and local government, and aid agencies are not covered.

2.3 The integrity of the accounts is often questionable because of lack of proper documentation of sources and methods. The SNA constitutes the base of the concepts of national accounting, the definitions and standards represent the starting point of any methodology for the compilation of the accounts.

2.4 The use of internationally accepted software like ERETES for the compilation of national accounts could then represent a significant contribution to overcome most of these problems, especially as it concerns metadata, timeliness and standard classification and methodology, this the case with the AFRISTAT and UEMAO member countries that have implemented the ERETES System.

3. Functions and Characteristics of common tool (ERETES Software)

3.1 A common computer tool should be able to function as a methodological guide and a control; two levels of control may be highlighted depending on the moment it is effected, during or after data capture. During the data capture, the control should apply to data coherence. After the capture, the control is on the exhaustiveness of the capture. For example, ERETES plays the role of a methodological guide as well as control of erroneous and arbitrary entries. Even though, the later role is limited since it does not prescribe solution, it is left to the national accountant. Nevertheless, still it creates the consciousness required in the national accounts statistician for a sound and reliable methodology.

3.2 Common tool should have the capability of data management; this function will make possible to perform the task of a database, analysis, updating and publishing in a standard and

consistent manner. For example, the ERETES system, any data relevant to the national accounts statistics is stored in the form of a basic economic data. Each item of basic economic data is entered in the database along with “attributes”, which allow it to be identified and called up in the worktables. No data is destroyed in the database, it can only be made active for the current use or inactive for future use. Calculated fields such as the relationships between output and intermediate consumption and factor inputs are automatically stored in the ERETES database over time. In the case of source data not available, national accountant could resort to them to provide timely provisional accounts for the use of planners

3.3 Common tool should be flexible: The great diversity in statistical development and approaches of different countries should be taken into account at the level of parameters. Any country at any level of statistical development should be able to customize it to suit her present circumstance. ERETES for example permits the use of a complimentary tool and allow for the decentralization of work. A country could choose to use ERETES to produce only part of the accounts instead of the complete system or may decide to publish aggregate results instead of detailed results depending on source data availability.

3.4 Diversity: The software must be seen as a platform for calculating statistical indicators related to a particular national accounts estimate. Diversity must also involve the type of accounts and tables that could be computed. For example ERETES is capable of computing the Supply and Use table as well as the complete set of Integrated Economic Accounts (IEA).

3.5 Other related functions: The system should have in-built parameters that could be translated into any language to allow its use by different countries, currently ERETES specs is available in four languages. Other related functions like recording, Copy / paste, Data import / export, online help should be possible to allow for data management.

4. Advantages of Common Tool (ERETES Experience)

4.1 Facilitate the production of comparable national accounts figures: Internationally acceptable statistical estimates from different countries must be comparable. That is to say that, international and regional organizations are interested in the comparison of the various national accounts estimates from member countries. The difference in the accounts of individual countries may start from the fact that in some countries there may be an under coverage of activities and use of outputs, difference in methodology, difference in the nomenclature of activities and products and differences in the classification of institutional sectors. The use of a common tool for the computation of national accounts is certain to overcome most of these problems. Therefore, the use of common software guarantees the regional and international institutions comparable national accounts estimates.

4.2 Common tool facilitates reliable national accounts estimates and serves as a teaching document: experts in national accounts statistics and computer experts using the current definitions and concepts of SNA as well as respecting all the economic identities for example developed Common tools like ERETES. These identities, concepts and definitions are updated from time to time in consonance with the current economic trends and changes in SNA as can be seen from the ERETES versions 1.0 in 1997, 2.0 in 1998, 3.0 in 2001 and version 3.2 in 2003

just to mention but a few. At the country level, errors in data entry and data source are queried and pointed out immediately, thus saving the national accounts statistician valuable time and embarrassment. Attached to each common software are complete documentations of methodology and a user manual, therefore, a national accountant with little experience will still use the software by regularly making reference to the manual and help menu in-built in the system. The ERETES Documentation and manual is often used as a teaching document in the user countries

4.3 Facilitate mass data analysis and timely accounts: The demand for quick, timely and reliable detailed estimates of national accounts has skyrocketed at all levels of economic governance (state, regional and international levels). It is not possible to meet these demands without some form of automation of the process of data capture and analyses. Because of the poor states of technologies in some countries, the national statistical offices can not meet up with the demand and hence, planning offices, central banks and ministries of finance have all resorted to providing national economic accounts for their own and public use. Most often, these figures are contradicting and unreliable. Reliable computer software capable of summarizing millions of records and producing a reliable statistics is necessary if the current national, regional and the international needs for timely and reliable national accounts must be met. In our opinion, ERETES is one of such common software that could deliver timely and reliable national accounts statistics and indicators to the international community.

4.4 The use of common software will promote the judicious use of scarce resource and time at both the international and country levels: A common software use by all countries in a particular region becomes the regional software; the regional institution may therefore take up the responsibility for the acquisition, training, maintenance and implementation of the software. This is the case in the ECOWAS region with the EUROTRACE software for the compilation of external trade statistics; the regional member countries do not require spending a dime on the software acquisition, maintenance and training. The ECOWAS Community Computer Centre and the Research and Statistics Departments of the Commission have taken over the responsibilities for technical maintenance and statistical aspects respectively in the implementation of the software. For the same reason the ECOWAS Commission is encouraging member countries to adopt a common software for national accounts and CPI. Already all the ECOWAS Member States are either using ERETES software or have had training on the software.

4.5 Promote regional cooperation and exchange: The use of common software facilitates the sharing of best practice and program exchange among participating countries, thus promoting regional and international cooperation. In the ECOWAS region, for example countries like Mali, Cote d'Ivoire, Benin and Burkina Faso are very experienced users of ERETES software with indigenous capacities. It is therefore at the disposal of ECOWAS Commission to make the best use of their experience through exchange program; consequently, countries that are just introducing the software do not need to travel abroad for training and maintenance of the software

4.6 Participatory Approach to the Development of National Accounts and Software: One of the major advantages of using common software especially for a participating country is that it

provides a forum for democratic exchange of ideas; Individual statisticians and countries will decide where and when to make improvements in the system. At the end, the collective desires of the countries determine the overall direction of progress and change and yet without compelling anyone. This is the case with the various versions of the ERETES software for the compilation of national accounts. The desire for modification did not come from the developers; it came from the users and changes in the system of national accounts.

4.2.4 Any country can participate: The software is flexible and could be customized, thus no matter the stage of national statistical development the country could still participate

4.2.5 Transparency of the work and division of labor; Users of the ERETES result can follow systematically the work of each national accountant, what he did with data from what source to produce a final table. ERETES national accountants necessarily must work as a team in a hierarchical manner, each member of the team is checked and accountable to the group.

5. Challenges with the implementation of common tool

5.1 Prerequisite knowledge of national accounting and computer appreciation, statistical capacity and detailed reliable data is the major determinant for the implementation of ERETES system. In practice, it is important to make a clear distinction between a helping tool, which is ERETES and the methods for national accounting. ERETES is not a substitute for trained national accountant, viewing the system like a tool for automatic production of national accounts will lead to trouble in the implementation. This is the assumption of some statistical offices and hence, blames the delay of the production of their accounts on ERETES tool.

While using the tool, it would be important to point out that the national accountant is still primarily responsible for the compilation of the accounts, even if the system offers assistance. For example, the tool provides the consistency check but without taking decisions or offering the analysis of the existing economic situation to the national accountant. An effective use of the tool requires some dedicated member of staff and pre-requisite knowledge, particularly of national accounting.

6.2 Availability of relevant statistical data: In fact, the installation of ERETES module supposes the availability of a reliable source data in sufficient details. The general idea with some persons is that once the ERETS system is installed, then timely and reliable accounts will immediately follows. This may not be realized as far as one of the important pre-requisites remains elusive.

The general idea about the installation of a common software in most countries is that the instrument for fast delivery of national accounts estimates is in place and therefore, the country relaxes. This vision will remain unrealized as long as one of the important pre-requisites of the software is unattained. Thus, the process of establishment of common software is long, the system may take as long as 2 years on average depending on the national statistical capacity, it is usually accompanied by training on national accounts and computer appreciation in some cases as well as collection of relevant statistical data. The adoption of the system must be systematic; the theoretical aspect must always be followed by practice.

6. Recommendations and Conclusions

6.1 Common tool for the compilation of national accounts has numerous advantages at country, regional and international levels, it will fast track the implementation of the SNA 93 at the country level and guarantees the international community a comparable GDP.

6.2 However, for the impact of the common software to be felt, the international and regional organization should institutionalized the prerequisite trainings; training in national accounts, training in computer appreciations and economic statistics analysis in the universities and other training institutions.

6.3 At the country level, the basic data and human resource requirement should be anticipated in advance and the country should not to wait until ERETES is in place before embarking on recruitment and training. The country should seek financing and carry out major sources such as census of businesses and establishment and household surveys in anticipation of the implementation of SNA.

6.4 Participatory and pragmatic approach to the implementation of the software and SNA 93 to enable the users and managers of the program dialogue and fine common solution to problems. The implementation should also be pragmatic by considering country specificities, such as human resources availability.

6.5 National Strategy for the Implementation of SNA; the strategy for the implementation of the SNA should approach the National Statistical System (NSS) rather than the National Statistical Offices (NSO). In the same vain, the current NSDS process should be seen to its logical conclusion in all the countries and strategy for the implementation of SNA be identified and pursued vigorously.

6.6 Based on the group's experience, a robust and flexible common tool for the implementation of SNA such as ERETES software will fast track the process.