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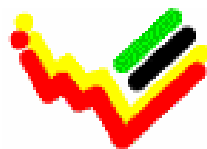
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REPORT OF A CONSULTANCY MISSIONS TO THE NATIONAL
STATISTICS INSTITUTE, DEPARTMENT OF NATIONAL ACCOUNTS,
MOZAMBIQUE

18 April – 06 May 2005

TA for the Scandinavian Support Program to Strengthen the
Institutional Capacity of the National Statistics, Mozambique

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ASSIGNMENT FOR A CONSULTANCY IN THE NATIONAL INSTITUTE OF ESTATISTICS, DEPARTMENT OF NATIONAL ACCOUNTS AND ECONÓMIC STUDIES, IN MOÇAMBIQUE.

1. EXECUTIVE SUMMARY

This is the Summary of the extended report prepared in Portuguese and contains its most relevant facts.

1.1. TERMS OF REFERENCE:

The objectives, expected results and the tasks to be executed are aimed to the assistance the National Accounts for Mozambique in the integration of national accounts for periods 1998 and 1999; the assistance in the preparation of reduced version for 2000 - 2002 accounts, with institutional main sectors and transactions; assist in the revision and generation of production accounts by industries for periods 1998 – 2002, give guidelines for preparation of the second edition of national accounts and at the same time transfer of know ledge and experience to technicians of National Accounts department on the integration process and verification of consistency on tables and accounts in the elaboration of national accounts of Mozambique.

1.2. EXPECTED RESULTS AND ACHIEVEMENT

1. Complete tables of System of National Accounts (SNA), Supply and Use Tables (SUT), Criss Crossed Industry – Institutional Sectors (CRIIS) and Integrated Economic Account (IEA) for 1998 and 1999 were elaborated and ready for publication;
2. Institutional sector accounts elaboration in progress for period 2000 – 2003 for Government sector is advanced, in the financial sector for the banking and the insurance are made also. Rest of the World sector is in stand by until the data of balance of payments published in IMF Version IV is transformed to version V which is being done in Bank of Mozambique, although the 2003 is available in the new version. The non financial sector accounts for 2000 is in progress, currently they are being in the process of internal consistency verification.
3. Production accounts for industries at the current and constant prices on bench year 1996 for periods 1998 — 1999; are ready for publication after the integration process as a definitive version. For the years 2000-2003, the compilation of balances of products was analyzed to verify their consistency. There were found and corrected some gross distortions, many of them introduced by the technicians in the process of compiling the annual calculations. In order to improve the checking process, the checking tables were improved to identify the most significant biased values. In the middle of the mission this activity was decided as priority, in order to improve the Gross Domestic Product estimations to present in the IMF evaluation visit..

4. Operation Matrices for 1998 – 2002 were not carried out. As this task is the last stage in the integration account processing, there are many compilations steps to execute before.
5. Training the staff of National Accounts department in the reconciliation and integration process was undertaken as part of the entire mission. At least three technicians assisted actively the entire process. Some problems were solved directly by them.
6. Guidelines in the publication of a new version of Mozambican national accounts, for this purpose were identified the procedures and macros (in EXCEL), those are in need to be up dated to the new available data set.

2. BACKGROUND

The SCN for Mozambique encloses in its yearly version the accounts i) for the industries and Goods and services, ii) the accounts for institutional sectors, and iii) the integrated economic account whose elaboration gives consistency the whole framework.

As a result of **Project Moz97/012** PNUD, from 1997 for the implementation of a system of national according to United Nations SNA 1993 version, for Mozambique, there was a publication with the complete system of National Accounts for years 1996-1997 (industry accounts, institutional sectors accounts and integrated economic account), and tables for production accounts and income generation accounts by industries for 1998 – 2000.

As immediate and important reference for the reconciliation and integration procedure is the report on documentation of the system which describes step by step the progressive processing compilation of the entire system, the files main contents, and their inter relations. It includes a description of the integration process.

An important fact to have in consideration in the compilation of national accounts in Mozambique is the continuous change in the external data source contents and availability. In the external source, as the different data source are up dating and improving their information framework to new standardized classifications (government, banks, insurance and customs), the layout and contents are changing from one year to other in such a way that it is not possible to design a definite framework in the data processing and the conversion to SNA scheme. This process which in the long term will improve the compilation process, in the mean time the changes is affecting the SNA compilation.

The national accounts integration is a very complex procedure, the reconciliation and aggregation of flows from different data sources and the need to design and maintain the conceptual and physical links between many working files determines the need of repeated experience to undertake this kind of work.

3. ACTIVITIES DURING THE MISSION

3.1. INTEGRATION OF 1998-1999 ACCOUNTS

If this procedure begins with the comparison of production and generation of income accounts by industries with the corresponding institutional sector accounts. There is need to keep in mind the variables classified by industries are calculated using direct and indirect data source, before the institutional sector accounts whose data source are business records, mainly business accounts statements or standardized schemes as the Government General Account or the Banking Accounting and the Business accounting for the non financial sectors.

The tables in the CCRASI file provide a way to compare and identify the

statistical discrepancies between both calculations for each transaction analyzed. The procedure for compilation the national accounts for Mozambique allows to identify distortions on the records for monopolistic activities performed by identified enterprises or group of enterprises in a determined institutional sector as communications, electricity, aerial transport, financial, and government.

The tables CCRASI is designed also to calculate data for the sub non financial "residual" sector S1122 which encloses the economic units whose statistic data are not available. The values incorporated are obtained as a residual value, (Total ISIC Value – Sum of all sectors and sub sector excluded S1122).

The solution for discrepancies after the careful analysis in both set of tables, include the change in the level of the transaction in the industry side, when the variable is related to out put level, determines the changes in calculations of the product balances at current prices and its change can affect the value at constant price.

In this stage were analyzed: the output, intermediate consumption, wages, taxes on products and production, subsidies and fixed capital consumption. For year 1998 there was some work made before the mission which made easier to conclude the calculations for this year.

The integration of 1998 needed to change the value of production in few activities as transport and communication services, the value of intermediate consumption for other activities, transport, communications, financial services and governments. There was need to change value in wages calculation at institutional sector level, caused by a repeated adjustment error and also in the industries.

For 1999, there was need to introduce more adjustments in the institutional sector and the industries accounts. There were changes in output and intermediate consumption. In the institutional accounts there was need to verify the consistency in the intermediate consumption for some units classified by ISIC compared with the consolidated account. At industry level, it has to be calculated the values for wages, recalculate the taxes and introduce values for subsidies.

The next step in the integration process is the solution for discrepancies in the generation and allocation of income, transfer and capital transactions. This process known best as "whom" to "whom" analyses, is made using a matrix of two dimensions for each item. The analysis were directed to solve discrepancies in : Interests (D.41), Dividends (D.421), Property income attributed to insurance policyholders (D.44), Current taxes (D.51, D.59), Social contributions (D.611, D.612) and Social benefits other than social transfers in kind (D.621 – D.624), Current and miscellaneous transfers (D.73 – D.75), Net non-life insurance premiums and claims (D.71, D.72), Capital transfers (D.9).

The reconciliation process for some transactions was done at aggregated level to correlate with the data source where the transactions were not classified at the SNA level.

In the reconciliation process it was used some of the details in the data source. The most des aggregated was in the financial sector their business accounts statement, where it was possible to identify the main balancing sector, although

the non financial sector and the households were recorded together. In other sectors data source there were some details in the main operations that made easier to balance the value flows of resource and employments (government, rest of the world).

3.2. THE INDUSTRIES PRODUCTION ACCOUNT

In order to guarantee a minimum quality in the compilation of industry production and generation of income accounts there was need to check the process of calculation the obtained results. As the mentioned accounts are compiled starting in the products supply-use balance, the first analyses were made to the flow of goods and services. For this purpose there was need to improve the analysis of volume (quantity) and price indexes, introducing new conditions in the analysis table, so in the quality checking should be looked up first the most significant biases. This analysis works in two ways, first the product behavior compared with other products in the same supply or use category, as second step the examination of the category (supply or use) compared to the total supply.

In this process it was found many biases were as consequence of a non appropriate correction in the formulas or values of transactions in such a way the indicators no more represented the variable behavior.

It is tiresome to repeat but it is necessary until the problem is solved. While the basic data sample is not enough to represent its strata and the results have a minimum quality, the compilation of national account will be always elaborated with the introduction of arbitrary adjustments as some experimental exercise with no guaranteed quality and reliability.

The analysis were done and repeated by the technicians, many times up to understand the most important meaning of indicators. After some time they know the biases and introduce the correct adjustment, at least in the most important variables. It was stressed the understanding of trade margin indicators, since this indicators summarize the basic behavior in the table.

3.3. COMPLEMENTARY ACTIVITIES

In the process of evaluation the different accounts and tables, there was need to analyze with more attention some subjects:

The Government accounts, although the data has improved a lot, still there are some concepts not clearly recorded as the "Fondos consignados", the recording of subsidies in the government, how its collected when there are specific sources (as the radio and TV taxes) and paid as subsidies. Another problem aroused in the data checking is the treatment of Value Added (IVA) taxes, for which there is a recorded value for 1999, but was fully implemented from 2000 and will affect the accounts. As a general recommendation to be applied, is the concept of Import Duties, it is an item recorded as a source of the Government, and its use should not be recorded as expenditure of the economic units because it is incorporated in the purchaser price of goods used as intermediate consumption, final consumption or capital formation, if there is any record in the economic units for this concept it should be added to the intermediate

consumption or capital formation.

In the accounts of rest of the world, the balance of payments starting in 2003 is compiled with the recommendations of V Manual of IMF, before this year this data source was presented in a difficult layout to transform to National Accounts scheme. The results show a significant value of statistical "Error and Omissions". One of the reasons could be the under valuation of Imports, phenomena accepted as a fact but not measured systematically. From the bench year up to 1999 there was a correction in the imports of selected products using the data on exports by the neighbor countries.

In the Non Profit Institutions sector, in order to process the Survey executed to collect data for the new bench year, there was need to identify and classify the variables in terms of national accounts, task performed by the technician.

4. CONCLUSIONS AND RECOMMENDATIONS

The objectives for the assignment were achieved in the main parts. The integration for the Accounts for the years 1998 and 1999 was achieved, by available information and it was facilitated by previous work performed.

This national accounts integration was the first experience on this kind of work for the local technicians. This experience should mean a very useful reference, but it won't be possible for them to execute a similar procedure without external help.

The institutional sector accounts are already advanced for two of the main sectors up to 2003, but it was not elaborated for the rest of the world because the data presented in a different layout from the 5th version of IMF Manual, and the Non financial sector is working for 2000.

The available data should be used to prepare the remaining sectors account, specifically the rest of the world sector, a key sector in the economy, adjusting the data as was done for 1999, with information of these accounts for years 2000-2002 will be possible to calculate the national variables (gross national income, disposable income, saving and net lending). The non financial sector accounts should be finished for 2000 and prepared for 2001 and 2002 with the available data, in order to integrate the accounts and complete the series 1996-2002.

The persistence in errors in the elaboration of for the products balances has as explanations: i) the lack of quality in the data base which determines the procedures can not be used in a standardized procedure, but every period the technicians have to solve different problems. iii) The system complexity, which include concepts related one to another expressed in files linked between them to obtain significant variables iii) the humane resources, with not enough training and capability to understand the meaning of flows of different nature. Some of their university studies were not related to economics or statistics.

One way to improve the coordination and understanding the process in data base and in national accounts could be technicians from basic statistics and national accounts working as a team in some stages of activities where their

work are inter related.

The exercises made in the integration process, as first time for the local technicians and the adaptation of tables for analysis of products flows has improved the capability of the technicians present in those experiences, but it is not enough to undertake a complete quality control or to proceed an integration of national accounts. They still need the expertise of a consultant to help supervising the current work being done and in the last stages of aggregation of GDP or other macroeconomic scheme as this account integration process.

Two more weeks of consultancy would possible have been needed to fulfill the expected results. By this experience it can be assumed, there is need at least 8 days of intensive and exclusive work to complete the account integration for each year, once the industry and institutional sector accounts were finished with the basic consistency process done.

1. 5. APPENDIX 1. PERSONS MET

Mr. Valeriano Levene, Vice-president of Instituto Nacional de Estatística

Mr. Azarias Marcos Nhanzimo, Director of Statistics Basic Data Department (DESE)

Mr. Erik Altvall, Team Leader of the Scandinavian Bridging Support Program

2. 6. APPENDIX 1. LIST OF LITERATURE¹

- PROCEDIMENTOS METODOLOGICOS NA ELABORAÇÃO DAS CONTAS NACIONAIS DE MOÇAMBIQUE, finished in July 1998, File <CNMET960>,
- MANUAL DAS CONTAS NACIONAIS DE MOÇAMBIQUE, BASE 1996, prepared in 2000, Files of HandBook: <HBiiEsqCmp>, <HBiiEsqComA>, <HBiiEsqComB, HBiiEsqComC>.
- Report: Mission on National Accounts IT Documentation, carried out in July 2003, Within the Scandinavian Bridging Support Program

¹ These documents are available in Portuguese in the Departamento de Contas Nacionais



3. 7. APPENDIX 1. PROGRAMME FOR THE MISSION

DAY	MEETING	SUBJECT
1	Director, Chief of Department, Consultants, Scanstat, FMI	Coordination of the Mission
2	Director, Chief of Department, Consultants, Scanstat, FMI, staff	Presentation on Mozambique SNA Accounts Integration process presented by the consultant.
5	Director, Chief of Department, FMI consultant	Evaluation and prioritization and coordination of activities
15	Director, Scanstat consultant	Report Draft Revision

4. 8. APPENDIX 4: TERMS OF REFERENCE

TERMS OF REFERENCE

Within the Scandinavian Bridging Support Program



INSTITUTO NACIONAL DE ESTATÍSTICA
DIRECÇÃO DAS CONTAS NACIONAIS E INDICADORES GLOBAIS

TERMS OF REFERENCE

Within the Scandinavian Support Program

For a short-term mission from 7 to 25 March 2005

On

Integration and Reconciliation of the Accounts of the Current System

1. Background

Mozambique has received extensive SNA support in the past financed by UNDP, during which period the accounting framework and compilation approach were established. The extensive SNA implementation has accomplished the development of large national accounts database far beyond the GDP. The data that resulted from the project activities included a comprehensive SNA data set for 1996-1998, including Supply and Use Tables (SUT), Cross Classification by Industry and Sector (CCIS) and Integrated Economic Accounts (IEA).

Currently, one of INE's major tasks in the compilation of national accounts is the change of base year and the compilation of a new benchmark. This comprises the inclusion of the results of the latest household income and expenditure survey. In line with common praxis, other activities are planned alongside the change of base year.

In 2000 a special National Accounts publication was published including a breakdown by institutional sector (7 sectors) for the years 1996 and 1997 and simplified Supply and Use Tables for 27 products for 1996, 1997 and 1998. The complete compilations by institutional sector have not been conducted for the years after 1997. Therefore, there is a need to work in order to generate the comprehensive data set for the remaining period of 1998-2002.

However, as pointed out by previous mission, though the compilation system is methodologically sound, due to the lack of appropriate experience and the complexity of the system it has been increasingly difficult for the NA department

to complete the NA compilations and come out with a second special National Accounts publication, which will give the opportunity to the users to have the complete national accounts database for Mozambique. It was also recognized that the program output from the SNA implementation in Mozambique based on the past external support, was accomplished with considerable involvement of the resident external expert on the day-to-day work, contributing to the lack of appropriate transfer of knowledge to the national accounts staff in the integration and reconciliation of the whole system of accounts. Moreover, some of the technicians involved in the SNA implementation process in Mozambique are no longer working with INE.

In view of this, INE plans to carry out a specific short-term mission on the integration and reconciliation of the Accounts for the years after 1997, which will result on a special National Accounts Publication for the series 1996 - 2002.

2. MAIN REASONS FOR THE MISSION

The introduction of the new benchmark year 2003 in 2005, will require backwards revision of the time series before 2003. Long and comparable time series are very important for analysing a countries economic development. As the complete compilations by institutional sector have not been conducted for the years after 1997, there is a need to work in order to generate a comprehensive data set for the remaining period of 1998-2002, i.e. the Supply and Use Table, the Integrated Economic Accounts, and finally the Cross-Classification by Industries and Sectors, which reclassifies production data by sectors and also sub-sectors of the IEA.

3. BENEFICIARIES OF THE MISSION

The mission will primarily benefit the staff at INE and especially the National Accounts Department by providing knowledge on the integration and reconciliation stage of National Accounts compilation. In addition, it will benefit the work on the new benchmark and the change of base year. Finally, the mission will also benefit the users of National Accounts through new improved and contents quality of the National Accounts publication.

4. OBJECTIVES OF THE MISSION

To assist in the revision and generation of the institutional sector accounts and the corresponding core tables of the SNA implementation in Mozambique. More specifically:

- To assist in the finalization of the compilation and generation of comprehensive Core SNA Tables for the years 1998 and 1999;

- To assist in the revision and generation of industry accounts (production accounts), for the year 1998 through 2002.
- Assist in the generation of a set of simplified operation matrices for the period 1998 - 2002
- To give orientation on what will be the 2nd special National Accounts publication

5. Expected Results

- § Comprehensive Core SNA tables (SUT, QEI and CCIS) for the year 1998 and 1999;
- § Simplified institutional sector accounts finalized for the period 2000 - 2002
- § Production accounts for all industries at current and 1996 constant prices for the period 1998 – 2002;
- Simplified operation matrices for the period 1998 – 2002;
- § National Accounts staff trained on the reconciliation and integration procedures;
- § Orientation on the National Accounts publication

2. Work to be carried out by the Consultants

- § Meet with the NA Director, Head of department and with the long term national account advisor, to discuss and agreed on the methodology
- § Meet and work with NA staff
- § Carry out the task as outlined in this Terms of reference
- § Train the staff on the integration and reconciliation of the accounts.

As the duration of the mission at INE is very short, preparation is a priority. Emphasis should be on taking the NA database for the referenced period (to be sent to the consultant) as a starting point.

3. Agenda for the Mission

To be prepared,

4. Tasks to be done by INE to facilitate the Mission

- § Elaborate the Terms of Reference for the mission
- § Prepare and supply the consultant with necessary documents and information
- § Arrange meetings with key persons
- § Supply good working conditions for the consultant

5. Consultants and Counterpart

Consultants: António H. Lazo

Counterpart: Monica Magaua

6. Timing of the mission

The mission will take place 07 to 25 March 2005

7. Report

The consultant will prepare a draft Technical Report to be discussed with INE before leaving Maputo. He will submit a final draft to INE with all the results for final comments within one week of the end of the mission.

These Terms of Reference were prepared by:

Day 19/02/04 Saide Dade – Director of National Accounts and Global Indicators

Approved by/in the name of the President of INE

Day / /

5. ANNEX 2: ..

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6. EXECUTIVE SUMMARY (IN ENGLISH)

TERMS OF REFERENCE AND BACKGROUND

WORK ACCOMPLISHED DURING HE MISSION

CONCLUSIONS: ASSESSMENT AND SUGGESTIONS FOR IMPROVEMENT

transmitted to Scanstat (electronic form: Word) in the Scanstat standard layout