



STATISTICS  
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MZ:2007:10

## Mission Report

From a short-term mission on

Improving NADABAS

*22 – 26 October 2007*

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

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Instituto Nacional de Estatística

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## **Executive summary**

The purpose of this mission was to improve the NADABAS system used for the National Account system regarding the response times.

During the mission a new database platform was introduced that has resulted in improved response times.

NADABAS has in 2007 been introduced in Lesotho and some new features has been added. These features was introduces to INE.

The expert wants to thank the staff at INE for help and support during the mission.

## **1 New Database**

The original NADABAS was developed using Microsoft Access as the database platform. The reason for this was to have a database at no cost or a very low one time fee as the base of the system.

Microsoft Access however is a flat file database. It works quite well on a single computer. In a multi-user solution over a network, there are some severe drawbacks. Whenever a user wants to access a table or change parts of a table, very large amount of data may have to be transferred across the network, as all processing is done on the client side.

Since the introduction of NADABAS, Microsoft has released SQL Server Express, as full blown client-server database, free of cost. It is in fact identical to SQL Server only with a limitation on the size of the database that can be used. This limitation is well about the need in any National Account System.

The benefit of a true client-server solution is, that all processing against the database is done on the server side, so only commands and data actually needed on the client side has to be transferred. This leads to improved response times.

The consultant had prepared a new version of NADABAS running SQL Server Express before the mission and tested it against an old copy of the CN for a previous mission in order to fine tune the system.

During the mission, with the help of the IT staff at INE, SQL Server Express was installed and the new system tested on the site. Data was then transferred from the existing database and the new system was set into production.

## 2 New Features

NADABAS has been introduced in Lesotho during 2007. During the work in Lesotho together with experts from the National Accounts Divisions at Statistics Denmark some improved and new functions has been introduced.

New versions of the guide for the system were delivered and during the mission a short introduction to the new system was given to the staff of the National Account Department at INE.

A new feature is an option to summarize data along one or more dimension when loading from the database, i.e. saving data on a monthly or quarterly basis and then loading the sum for the year. An alternative is to load the average.

Another new feature allows the administrator to perform a complete update of the whole system. It requires that the system can determine an order for handling each workbook. The system examines the database to find all workbooks that only writes data to the database. These are then the base layer. Now all workbooks only reading data saved by these workbooks are next layer and so forth.

However, with the present setup of the system at INE, this does not work, there are some circular references discovered. It is recommended that this is further investigated and the system is cleaned up.

## **Appendix 1. Terms of Reference**

### **TERMS OF REFERENCE Within the Scandinavian Support Program For a short-term mission October 22-26, 2007**

#### **On Improving the Compilation System of National Accounts**

##### **Background**

When implementing the 1993 SNA some ten years ago, the National Institute of Statistics (INE) adopted software developed in Microsoft Excel by the United Nations Statistical Department. In the on-going rebasing and revision of the national accounts, the general design and ideas of this system has been kept. However, the IT-solution has been improved by integrating the database software Microsoft Access in the system. This application is called NADABAS (National Accounts Database System). It is fully functional and is being used in the compilation of the revised national accounts.

##### **Main Reasons for the Mission**

As experience of using NADABAS in practice is gathering, needs for minor adjustments and modifications have been identified. Furthermore, there is a need to accordingly update the NADABAS documentation. A similar mission was made September 20 – October 5 last year, see [MZ:2006:12](#).

##### **Beneficiaries of the Mission**

The mission will primarily benefit the staff at the National Accounts Department and, besides, selected staff at the IT-Department by providing knowledge of the software (NADABAS) for national accounts compilation. The beneficiaries in the long run will be the users of NA through improved regularity, timeliness and contents quality of the National Accounts.

##### **Objectives of the Mission**

- Adjust and modify the system in co-operation with the national accounts staff and the resident adviser.

##### **Expected Results**

- Adjusted version of NADABAS.

##### **Work to be carried out by the Consultants**

- See point 4 above.

## **2. Agenda for the Mission**

- Working sessions with national accounts staff

### **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

### Consultants and Counterparts

Consultants: Søren Netterstrøm

Counterparts: Saide Dade and Mónica Magaua

### **Timing of the mission**

Se above.

### Report

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