



STATISTICS  
DENMARK



Statistisk sentralbyrå  
Statistics Norway



Statistiska centralbyrån  
Statistics Sweden

MZ:2011:06

## FOREIGN TRADE STATISTICS (FTS)

Report from a mission to the National Statistical Institute of Mozambique, Maputo,  
Mozambique

19 September – 4 October 2010

within the frame work of the

*AGREEMENT ON CONSULTING ON  
INSTITUTIONAL CAPACITY BUILDING,  
ECONOMIC STATISTICS AND RELATED AREAS*

between

*INE and Scanstat*

*Hans Kristian Østereng  
Krassimira Jeneva*



INSTITUTO NACIONAL DE ESTATÍSTICA

Hans Kristian Østereng  
Senior Adviser, Statistics Norway  
e-mail: [hko@ssb.no](mailto:hko@ssb.no) , mob.: 0047 4500 4952

Krassimira Jevena  
State Expert, National Statistical Institute Bulgaria  
Email: [KJeneva@nsi.bg](mailto:KJeneva@nsi.bg) , mob.:00359 8872 10181

#### List of abbreviations

FTS	Foreign Trade System / Sistema de Comércio Externo
INE	Instituto Nacional de Estatística, Mozambique
MZM	Mozambique Meticais
Scanstat	Consortium between Statistics Denmark, Statistics Norway and Statistics Sweden

#### CONTENT:

<b>1</b>	<b>SUMÁRIO EXECUTIVO EM PORTUGUES.....</b>	<b>3</b>
1.1	<i>A razão principal para a missão.....</i>	3
1.2	<i>Principais conclusões e recomendações .....</i>	3
1.3	<i>Resultados principais durante a missão .....</i>	4
<b>1</b>	<b>EXECUTIVE SUMMARY IN ENGLISH.....</b>	<b>5</b>
1.1	<i>Major reason for the mission .....</i>	5
1.2	<i>Major conclusions and recommendations .....</i>	5
1.3	<i>Major progress/achievement during the mission.....</i>	6
<b>2</b>	<b>FTS SPSS system – Main Tasks and challenges.....</b>	<b>7</b>
2.1	<i>Progress in developing the SPSS system .....</i>	7
2.2	<i>FTS staff, work conditions and work planning .....</i>	8
2.3	<i>If not EUROTRACE – Why a SPSS System?.....</i>	8
2.4	<i>FTS Publishing and data to important users .....</i>	9
2.5	<i>FTS – Cooperation with data sources, including NATIONAL ACCOUNTS.....</i>	9
2.6	<i>SADC – FTS improvements via International Harmonisation .....</i>	10
<b>3</b>	<b>APPENDIX 1. Persons met .....</b>	<b>11</b>
<b>4</b>	<b>APPENDIX 2. Terms of Reference .....</b>	<b>11</b>
<b>5</b>	<b>APPENDIX 3. Earlier FTS missions - overview.....</b>	<b>14</b>
<b>6</b>	<b>APPENDIX 4. FTS MANUAL. Data corrections and FTS methods .....</b>	<b>15</b>
<b>7</b>	<b>APPENDIX 5. Proposals for Press-Release tables .....</b>	<b>16</b>

# 1 SUMÁRIO EXECUTIVO EM PORTUGUES

## 1.1 A razão principal para a missão

Esta missão foi organizada como uma continuação do programa Estatísticas do Comércio Externo para desenvolver um novo sistema de produção baseado em habilidades de TI própria e usando o software SPSS. A última missão decorreu em Setembro de 2010.

---

Relatórios das missões anteriores dão uma documentação extensa sobre o que tem sido feito neste projecto. Veja [INE Intranet](#) ou a página do [SCANSTAT](#)

---

## 1.2 Principais conclusões e recomendações

As principais conclusões após a missão são:

1. O desenvolvimento do sistema SPSS já começou há muito tempo (iniciado em 2008). A equipe do Comercio Externo teve por isso tempo suficiente para trabalhar no desenvolvimento de programas bem como beneficiara de treinamento intensivo, tanto em processamento de dados como na programação em SPSS.
2. O actual sistema SPSS inclui todos os programas necessários para entrada de dados, processamento de dados, correções de dados, e produção de quadros. No entanto alguns programas de tabulação adicionais têm que ser desenvolvidos. Não obstante, os exemplos podem ser encontrados na sintaxe já produzida.
3. Foi elaborado um MANUAL para correcções, FTS ERROR, e pode servir como base para a melhoria da qualidade da informação produzida.
4. Com base nas experiências realizadas até ao momento, foi acordado o seguinte:
  - O sistema SPSS será utilizado a partir dos dados de Janeiro de 2011 e será a única base para a produção de estatística de Comércio Externo.
  - As entregas de dados da alfândega devem ser melhoradas, de modo que tais extracções de dados mensais são seguros (o que significa que não haverá duplicações ou faltas, usando um formato de dados que se encaixa no INE e no sistema SPSS = formato de texto separado, e bandeiras / marcas nas declarações atrasadas - não aprovados em é o “mês dos dados” e declarações corrigidos - novas versões de declarações já entregues).
  - A qualidade e frequência de dados EXTRA devem ser seguidos e melhorados, para que o INE possa produzir relatórios mensais e não apenas trimestralmente, ver a § seguir abaixo. Dados do Comércio Externo devem ser publicados mensalmente, de acordo com um calendário pré estabelecido. Foi acordado que os dados relativos ao 1<sup>o</sup>, 2<sup>o</sup> e 3<sup>o</sup> trimestre de 2011 seriam publicados no dia 21 de Novembro de 2011, com base no novo sistema de produção desenvolvido em SPSS.

- Os consultores desenvolveram protótipos (layout e sintaxe SPSS) de quadros Press-Release. Estes protótipos podem ajudar na criação de anexos com quadros SITC-Rev4<sup>1</sup> (principais produtos) e quadros por país (importações / exportações em separado).
- Melhoria da informação das quantidades no Comércio Externo será a primeira prioridade a focar, após a estabilização do sistema de produção . Veja mais § 2.5 abaixo.

### 1.3 Resultados principais durante a missão

Como as correcções dos dados do SPSS ERROR-lists para 2011, 1º e 2º Trimestres não foram feitas antes do início da missão, os consultores tiveram que fazer este trabalho durante os primeiros sete dias para completar a correcção dos dados.

Isto foi necessário para fechar os arquivos e produzir arquivos de item preliminar, prontos para publicação.

Durante a segunda semana, quando os arquivos SPSS "final" foram produzidos, foi possível comparar os agregados mensais com os agregados mensais do Sistema Manual (quer dizer, dados já publicados).

As diferenças encontradas não se mostraram aceitáveis. A razão principal é que o Departamento de Comércio Externo atualmente não comparou os dados produzidos pelo novo sistema e pelo antigo, para 2010. O mesmo problema foi encontrado para os dados de 2011. Portanto, o sistema SPSS não foi modificado de acordo com experiências e conhecimentos obtidos do Sistema Manual.

Este problema foi discutido na reunião com o director Mr. Azarias Nhanzimo, sexta-feira 30/9-2011. A conclusão principal é a seguinte:

- Em vez de utilizar dados SPSS para 2010, ou seja dados produzidos pelo novo sistema, o antigo Sistema de arquivos Manual (publicado) será convertido num arquivo de formato SPSS, e o arquivo SPSS 2010 não será utilizado para disseminação.
- O Sistema SPSS entrará em vigor para os dados produzidos a partir de Janeiro de 2011. Neste caso os dados e trabalho de correcções basearam-se somente em listas SPSS ERROR.
- Os dados a serem publicados devem basear-se em programas SPSS, produzindo as matrizes tabela como saídas de arquivo de texto. A disposição final das tabelas ocorre em MS Office, por exemplo, Excel.

Além disso, para incrementar a melhoria do sistema e para mudar para a divulgação mensal, as seguintes acções têm que ser aceleradas:

- Meta data actualizados das Alfândegas, em especial a nova PAUTA ADUANEIRA de 2010 tem que ser recebida em formato electrónico e uma versão nova do SPSS Catálogo de Mercadorias deve ser feita.

---

<sup>1</sup> SITC = United Nations nomenclature for international trade in goods (Standard International Trade Classification, revision 4)

- Além disso, a LISTA da Alfândega sobre alterações nos números das mercadorias (linhas tarifárias), deve estar disponível e deve ser utilizada na actualização do catálogo SPSS - Catálogo de Mercadorias.
- O acordo já feito com empresas (cerca de 10 importadores / exportadores) para entregar mensalmente os arquivos de dados EXTRA (por exemplo, folhas de Excel em formato SPSS) deve ser objecto de acompanhamento constante com contactos e lembretes às empresas.
- Quando a equipe do Comércio Externo executa o sistema SPSS, e em particular a verificação das listas de ERRO, a advertência sobre valores altos dos itens (por exemplo, agora mais de 999 999 999 MT), deve ser cuidadosamente controlada e verificada.

## 1 EXECUTIVE SUMMARY IN ENGLISH

### 1.1 Major reason for the mission

This mission was arranged as a continuation on the FTS program for developing a new production system based on own IT skills and using SPSS software. The last mission was in September 2010.

---

Earlier mission reports give an extensive documentation about what have been done in this project.

---

### 1.2 Major conclusions and recommendations

The main conclusions after the mission are:

1. The development of the SPSS system has already taken a lot of time (started in 2008). FTS staff has had good time to work on developing the programs and have had extensive training, both in data processing and in SPSS programming.
2. The SPSS system now includes all programs needed for data input, data processing, data corrections, and table productions. Some more table programs have to be made. However, examples are already in found in syntax made.
3. A MANUAL for FTS ERROR corrections has been drafted, and may serve as a basis for further quality improvements (Content page is annexed, full version in separate document).
4. Based on experiences up to today, the following was agreed to:
  - The SPSS system shall be used as from January 2011 data, and be the sole basis for producing FTS.
  - The data deliveries from Customs should be improved, so that such monthly data extractions are safe (means no doublets or missing, a data format **which** fits INE

and SPSS system = separated text format, and flags/marks for delayed declarations – not approved in the month with is ‘data month’ and corrected declarations – new versions of already delivered declarations).

- The quality and frequency of EXTRA-data should be followed up and improved, so that INE receive reports monthly and not only quarterly, see next § below. FTS should be published monthly, according to a fixed release Calendar deadline. It was agreed that all 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarter 2011 data will be published Monday 21<sup>st</sup> of November 2011 based on the new SPSS production system.
- The consultants have developed prototypes (layout and SPSS syntax) of Press-Release table. They may assist in creating attachments with SITC-Rev4<sup>2</sup> tables (main products) and country tables (imports/exports separately).
- Improvements of the quantity information in the FTS will be 1<sup>st</sup> priority to focus on, after the system shows to be in stable production. See more § 2.5 below.

### **1.3 Major progress/achievement during the mission**

Since data correction work on the SPSS ERROR-lists for 2011 Quarter 1 and Quarter 2 were not done before the mission started, the consultants had to do that instead participate during the 1<sup>st</sup> seven days to complete data correction work.

This was needed in order to close files and produce preliminary item files ready for publishing.

During 2<sup>nd</sup> week, when SPSS “final” files were produced, we were able to compare monthly aggregates with the monthly aggregates from the Manual System (means, already published data).

The differences found showed to be not acceptable. Main reason for this is that the FTS Division did not currently compare 2010 monthly / quarterly new and old production. Same problem relates to 2011 data. Therefore, the SPSS system was not modified according to experiences and knowledge obtained from the Manual System.

This problem was discussed at the meeting with Director Mr. Azarias Nahnzimo Friday 30/9-2011. The main conclusion to this is following:

- Instead of using SPSS data for 2010, the old Manual System files (published) will be converted into a SPSS-format file, and the SPSS 2010 file not used.
- The SPSS System shall be put into force as from January 2011 data and further correction work shall base on SPSS ERROR lists only.
- The data to be published shall be based on SPSS-programs producing the table matrixes as text file outputs. Final Layout of tables takes place in MS Office, e.g. Excel.

---

<sup>2</sup> SITC = United Nations nomenclature for international trade in goods (Standard International Trade Classification, revision 4)

Further, to be able to improve the system, and to switch to monthly dissemination, the following actions have to be speeded up:

- Updated Metadata from Customs, -in particular new 2010 PAUTA in electronic format has to be received, and a new version of the SPSS Commodity Catalogue to be made.
- Also, the Customs LIST over changes in commodity numbers (Tariff lines), should be available and used when updating the SPSS Commodity catalogue.
- The already done agreement with companies (about 10 importers/exporters) to deliver monthly EXTRA data files (e.g. excel sheets in SPSS system format) should be followed up by constantly contacting the companies with reminders.
- When FTS staff run the SPSS system, and in particular check ERROR lists, the warning about high item values (e.g. now over 999 999 999 MZM), should be carefully checked and verified.

## 2 FTS SPSS system – Main Tasks and challenges

### 2.1 Progress in developing the SPSS system

This mission revealed an important weakness during development of the system. Macro figures, e.g. monthly totals for imports and exports, have now been systematically compared during development of the SPSS system. Finally the differences have shown too big to allow 2010 SPSS data to substitute already published data from the manual editing system. In any case, this just point to the fact, that it is better to decide to abandon the old manual system, than to wait even longer.

During the mission a MANUAL for ERROR corrections has been drafted and should be developed further, as a basis for quality improvements and for documentation on what INE really do with the raw data from Customs and from companies (National Bank).

During the mission, a new SPSS-converting programs have been made, which enable final manual publishing files (Access/Excel databases) to be converted into SPSS system final file format. Data for 2008 has been transformed, and data for 2009 and 2010 has to be processed in the same manner. This will allow INE to easily make tables with historic data as from 2008, in a first round.

The month production system has been improved by adding a new control for currency check. Monthly exchange rates from the National Bank are merged with customs data, to compare if these two rates do not differ too much. Extremes are found in the ERROR lists.

To avoid similar situations concerning abnormal macro figure variations, all big value items are transferred to the ERROR lists, to be checked carefully.

The price control has been changed by setting a separate value-limit for executing the price control. This is done to better decide the number of price messages out. Before, the universal value limit for big-value items was the same as the value limit for activating the price control. So, now two universal value-limits have to be decided to, as input to price control program (imports / exports separately).

A new version of program 02, reading 'raw' data into SPSS, has been made. Here, two text files are input (see more § 2.5 below), one gives the data in the Head of the Declaration, the other the Items of the Declarations, which is merged and fit to previous program version.

A list, or a register over importers and exporters has been made, in order to substitute missing information (e.g. transport code, delivery terms, other). This can be updated by using SPSS programs. Since a unique company code do not exist in Customs data, this serve as a substitute. The list reflects all the spelling mistakes of the name of the importer and exporter, but for manual use, this does not matter.

## **2.2 FTS staff, work conditions and work planning**

The PC used by Geraldo Timbe is not useful for the purpose any longer. Up to now he mainly ran monthly data (20-30 000 records), but when dealing with annual files for table production (400-500 000 records one year) the processor load and elapsed time increase far beyond what is capacity now. A proper laptop is a reasonable solution, and it can't wait.

The staff has too many things, e.g. user requests, disturbing the time needed for development of the system. However, that manual operation in old system is very time consuming compared with running tables in SPSS from ready files.

Also, staff has a habit to postpone current work to be done by not organising jobs in proper sequence and by right priority. Even though, it is advisable to have a staff of minimum three persons for so important statistics like FTS, and all persons should learn to overlap each other on running SPSS programs and to produce tables for ad hoc situations.

## **2.3 If not EUROTRACE – Why a SPSS System?**

### ***Why do INE build a tailor-made production system for FTS?***

A “tailor-made” system built by INE staff, involve a significant training potential. Staff obtains practical knowledge in designing and implementing production systems, which have a relevance to statistical production systems in general.

This expertise (staff skills) might be used to develop quality components as Price Control Systems, Imports- and Exports Price Indices, new information for NA and Balance of Payments etc.

### ***Why is not the Eurotrace system<sup>3</sup> installed instead?***

A “tailor-made” production system has a lot of adaptations to solve local problems/situations during the data processing paths. This opens for later quality improvements, by modifying details which common software do not allows so easily. In a ready - made software like Eurotrace this is difficult.

Eurotrace creates dependencies where urgent quality changes (technically in the system) are not any more under INE's direct control.

---

<sup>3</sup> Eurostat is the main source behind the development of the Eurotrace software. The source code is developed by private companies, and the maintenance is also outsourced to IT companies in Europe.



## 2.4 FTS Publishing and data to important users

### *Why is it so important to create a regular production system for FTS with regular publishing dates according to a Calendar?*

The ultimate goal is a regular dissemination where a Press Release is published according to a calendar and preset date/time. The reason for this is to “force” the FTS to keep the work in a fixed cycle and that staff learn to stick to the deadlines.

The trust from the users of FTS (and INE in general) increases when an important statistics as imports and exports are published timely and with well supported quality, methodology and definitions.

Data suppliers have to start to take their obligations more seriously, since the output quality is more highlighted by main users.

The National Accounts and Balance of Payments can receive and integrate the FTS data in a predictable manner, fitting the specific needs of these users / receivers. In particular, a FTS Price Control System (a solutions is already programmed in the SPSS system), will improve quality of the import and export price information delivered to the National Accounts.

## 2.5 FTS – Cooperation with data sources, including NATIONAL ACCOUNTS

The meeting with Customs Friday 23/9 shows how difficult it is to communicate efficiently. The custom officer in charge promised to deliver an electronic version of the 2010 PAUTA to INE the same day, but it never showed up. There are little initiatives for prompt reminders to force people to deliver what they promise.

The problems with data deliveries were discussed. The customs officer agreed that it is possible to change the program/system in Customs which produce the data extractions to INE. The demand is:

- To produce pure text-files e.g. semicolon separated for direct imports into SPSS.
- To establish a Declaration-ID control system used during the data extractions, which:
- **Prevent duplications (repeated extraction of the same declaration)**
- **Secure that no declarations miss (failure is selecting a declaration once)**
- **To flag / mark late approved declaration (Goods arrived in earlier months than declaration is approved)**. This tends to increase during the year (paper in use)
- **To flag revised declarations (which already have been extracted once)**.

Meeting with National Accounts Thursday 22/9. Conclusion from this meeting was that National Accounts select products (CPC linked to HS6) over important import and exports products, where price information might influence significantly the deflation of the NA. The list of products is:

15 Principais produtos importados			15 Principais produtos exportados		
PAUTA C	CGCE	10^6 MTn	PAUTA C	CGCE	10^6 MT
					23 108
76042900	22	1 616 196	72104900	22	974
39039000	22	1 011 652	72104900	22	7 382 920
76042900	22	924 572	72104900	22	5 886 326
27160000	322	778 516	72104900	22	1 880 580
76042900	22	751 600	27112100	31	756 989
27160000	322	608 113	27112100	31	699 740
27160000	322	586 815	76011000	22	691 880
27160000	322	576 140	76011000	22	691 750
76042100	22	565 285	76011000	22	684 827
27160000	322	538 941	76011000	22	682 497
27160000	322	461 545	76011000	22	681 226
76042900	22	424 723	27160000	322	661 248
76042900	22	419 842	27160000	322	656 497
76041000	22	406 228	76011000	22	655 054
27160000	322	376 969	76011000	22	654 951

A Price Control system is already programmed in the SPSS System. However, the corrections of Price-Errors (read warnings) have not been corrected until now. This is because the FTS has had limited time for this, and that the SPSS system still was not used in regular production.

To start working on the quality of the Price Control for the above mentioned products, The Commodity Catalogue first should be updated based on the new PAUTA-2010 version. Also, the PRICE MASTER catalogues should be produced again, based on current data.

Probably, we might start activating this price control, during the next proposed mission, March 2012.

Improvement of the quantity information will first of all be done for the products / commodities, which the National Accounts select as important products. The price control will be tuned to focus on these products, and the FTS staff can systematically work to improve weight-, quantity- and value information for these products.

## 2.6 SADC – FTS improvements via International Harmonisation

The recent initiative on Development of the SADC Regional Strategy for Development of Statistics is interesting for FTS as SADC makes top priority to development of FTS harmonisation. This cooperation could result in a big push for INE, to reach more an international quality level of the FTS for Mozambique. It could even make INE Mozambique the focal site of excellence regarding Foreign Trade Systems.

In that case Scanstat would be most pleased to assist in the further development of the area.

### 3 APPENDIX 1. Persons met

#### **Participants during the mission:**

Mr. Geraldo Adriano Timbe, Mr. Afonso Soberano Uate, Mr. Adriano Atanásio Matsimbe, Mr. Cirilo Tembe, Mrs. Júlia Cravo, Mr. Lars Carlsson and director Mr. Azarias Nahnzimo

#### **Meetings during the mission:**

Thursday 22/9-2011 9:00 at National Accounts - INE

Friday 23/9-2011 9:00 at Customs

### 4 APPENDIX 2. Terms of Reference



INSTITUTO NACIONAL DE ESTATÍSTICA  
DIRECÇÃO DE ESTATÍSTICAS SECTORIAIS E DAS EMPRESAS

**Annex A**  
July 11, 2011

#### **TERMS OF REFERENCE**

**For a Short-term Mission to  
strengthen the capacity of the system for Foreign Trade Statistics**

**during the period of 19 September to 30 September, 2011**

within the

**AGREEMENT ON CONSULTING IN INSTITUTIONAL CAPACITY BUILDING,  
ECONOMIC STATISTICS AND RELATED AREAS  
BETWEEN INE AND SCANSTAT.**

**Consultants:** Hans Kristian Østereng SSB Oslo, Krassimira Jeneva, NSI Sofia

**Counterparts:** Azarias Nhanzimo, Adriano Atanásio Matsimbe and other staff at DESE

#### **Introduction**

During 2007 a pilot system was developed in SAS for starting a regular production of Foreign Trade Statistics (FTS) based on systematic file treatment and simple data processing. During 2008 these pilot programs were converted into SPSS, since SAS licenses were not affordable.

A mission took place between 8 and 18 September 2009. During that mission the core SPSS programs in the FTS Pilot system were demonstrated in details. The staff started training SPSS syntax/programs, which is quite new to all the staff. The training was done just for two weeks and this was not enough for the staff to continue alone to run SPSS syntax and modify programs.

Another mission with further practical training and use of the SPSS programs, took place in March 2010. The work included file and data treatment and organizing file & folder structures in a good way. The work focused on executing data controls and how to get the correction of ERROR-lists into a permanent system. Also tables for publishing the corrected data were put in place. Lastly, overview over Pilot system long-term quality improvements were discussed and recommendations were done..

During that mission in March 2010, INE together with the experts, decided to arrange a Long-Distance support Agreement to assist FTS staff with basic training to be able to handle the pilot FTS production system. It was decided to use the 2009 pilot to start production from January 2010 data and to have 2010 as base year to compare with the data for the following years.

Now it's important to check all the data series from January 2010 till now produced with the FTS system that is in place, and evaluate if the staff has already the skills to begin the dissemination in a regular basis with the FTS system.

### **Objectives of this support**

- To investigate and run the programs to control prices for main (important) products;
- To built programs for the generation of outputs ( Exported and imported Main products to and from Mozambique, and also tables for annual, monthly and quarterly publications);
- Improve the rules for error corrections;
- Improve the performances of the FTS programs that already are in place.

### **Experts engaged**

Main responsible for this mission is Mr. Hans Kristian Ostereng, SSB.

### **Execution of the work**

The expert will depend on active participation from the FTS staff. The advice will be based on their demand of tasks, which target practical realistic problems to solve. The expert will respond to requests from the FTS staff and help to solve bottlenecks and give advice the staff on how to work efficiently. The pieces of work to be done by the experts should be described briefly by the INE / FTS staff beforehand, to secure that the expert get well-defined jobs before the work starts.

### **Documentation of work done**

The time spent has to be documented in Time Sheets which has to be attached to the invoices. The experts will keep copy of communications which explains what type of work has been done, time spent and result/output of the activity.

### **Period**

The mission will take place from 19<sup>th</sup> to 30<sup>th</sup> September 2011.

### **Preparatory work to be done by INE / FTS to facilitate the work**

**INE will prepare and send the experts following status and information at latest 2 weeks before the mission takes place:**

- *A brief status on how the cooperation with Customs has developed:*
- 1- Are there any quality improvements in data from Customs, -if so what?
- 2- Are there now plans for future monthly data transfers, if not how to make it?
- 3- What are now the possibilities for INE to receive regular updates of Customs Metadata (e.g. electronic version of Pauta (as computer-readable data file not a text-document); Updates of code lists for REG-CPC codes + explanations/text; Country catalogue; Quantity Units catalogue; etc..)

- *A brief status on any improvements with National Bank:*
- 1- How can INE get EXTRA-data directly from the specific companies, importers / exporters?
- 2- How can the work Group between INE-Customs- National Bank agree on commitments about plans for real quality improvements (in a long-term time span)?
- A brief status on experiences using the ERROR-correction system up to now: WHAT kind of errors are the most difficult/time consuming to investigate and correct? WHAT types of new errors-corrections do you see are needed?
- Elaborate proper *Task-Lists* (or *Terms of Reference*) for the mission work
- During the whole work period prepare and supply the consultants with necessary documents and information.

**Benefactors of the mission**

The beneficiary of the mission will be the Repartition of Foreign Trade Statistics Staff at Directorate of Sectorial and Enterprise Statistics and at the end all INE users.

**Source of Funding**

Project: MPD008-04-MPD-2008-0012 – Estadísticas Económicas Básicas  
 PAAO10 – 1.3.5 Estadísticas Económicas Básicas

**Reporting**

The consultants will prepare draft Technical Reports on request to document the progress done at any time interval during the Agreement period. A final draft report will be submitted to INE for final comments within one week of the end of the Agreement.

*Approved by Azarias Nhanzimo INE/DESE*

*Day / / .....*

*Confirmed by Luis Mungamba, Contract Manager for the INE – Scanstat Contract*

*Day / / .....*

## 5 APPENDIX 3. Earlier FTS missions - overview

A first short-term mission on FTS took place in *November 2001* with support from the Twinning Arrangement (*MOZINE 2001:10*). The objective of this mission was to review the current production routines and suggest the basic actions for how to improve.

The second short-term mission on FTS took place during *28 April - 9 May 2003*. This mission was to review the status and to give advises about how to proceed. [MZ:2003:08](#)

The third short-term mission took place during *12 April - 25 May 2004*. A trial to create an Eurotrace-based system (Eurotrace is a software financed by Eurostat, tailor made for Foreign Trade Statistics). [MZ:2004:20](#)

A fourth short-term mission took place during *14 - 17 November 2006*. The start of a new pilot production system was made using the SAS software. The mission was interrupted because of early return of illness home in the expert's family. [MZ:2006:16 \(Eng\)](#) [MZ:2006:16 \(Por\)](#)

A fifth short-term mission took place during *14 - 17 June 2007*. The SAS pilot production system started in 2006 was completed to include necessary metadata files and prototype of full data controls.

[MZ:2007:05](#)

A sixth short-term mission took place during *8 - 18 September 2009*. The SAS pilot system was converted into SPSS-programs during December 2007. The reason was that INE in the end could not manage to get reasonable SAS licenses. It was therefore decided to use the SPSS instead. Also this took time, but in summer 2009 the SPSS version 13 was replaced by SPSS version 17. This mission was testing all the SPSS programmes and the programs and system were discussed in details. [MZ:2009:05](#)

The seventh short-term mission took place during *15 - 26 March 2010*. The SPSS prototype was discussed, and a training phase was executed. The training focused on data organisation and to execute the SPSS programmes. Another important part focused on the ERROR-lists and how to correct each single error type. A final conclusion was to agree to a Log-distance Support Agreement with the two FTS consultants, Hans K Ostereng and Krassimira Jeneva. [MZ:2010:04](#)

The eighth short-term mission took place during *15 - 26 September 2010*. This mission was combined with the internal SSB Annual Planning meeting in Maputo, arranged by Statistics Norway, Division for International Cooperation Development. The mission focused on updating the results from the Long-term assistance.

## 6 APPENDIX 4. FTS MANUAL. Data corrections and FTS methods

THE MANUAL IS AVAILABLE AS A SEPARATE DOCUMENT (electronic version):

Page 1 – Content of the Manual:

### PREFACE / PREFÀCIO

The second, revised edition of the handbook was developed to facilitate expert in FTS in INE, when collecting and checking the import or export of goods with other countries, which is needed for compiling the foreign trade statistics in goods. This guide does not constitute a legally binding act, but has merely an explanatory nature.

The Manual contains:

- Practical and validation guidelines for Error Corrections, which aim to facilitate experts in FTS in completing the necessary information for statistical purposes and will contribute to improving the quality of primary statistical data on foreign trade.
- Main definitions in use for Foreign Trade Statistics and content of the terms under which they have to be used
- Control reports from the SPSS programs

In developing of this guide were used documents developed by IMTS "Concepts and definitions" -2010, Directorate General TAXUD and other International institutions.

### PRACTICAL GUIDELINES FOR ERROR CORRECTIONS

#### 1. **All CONTROLS and ERROR corrections should be done, based on current, valid versions of METADATA**

**1.1. METADATA is:** Variable Code-LISTS which is directly written in the SPSS-programs in separate files, or in separate CATALOGUES.

#### 1.2. METADATA with List of Valid Codes in use by September 2011 are:

✓ Transport-Codes, ✓ Delivery-Terms, ✓ Supplementary-Unit-Codes in PAUTA, ✓ Customs Procedure Code (CPC), ✓ Country code according to Geonomenclature on force, ✓ Commodity codes according to PAUTA, ✓ Price-Master CATALOGUES for import+ export

#### 2. **ERROR TYPES:**

**2.1. RED = MUST be corrected,**

**2.2. BLACK = should be investigated and corrected as far as time allows.**

#### 3. **ERROR\_CODES as they appears in Excel-Sheet Data Error File:**

##### **3.1. The ERROR codes in use for the FTS production routine**

-----> cont. ... request the Separate doc

## 7 APPENDIX 5. Proposals for Press-Release tables

A main table (Table 1) may include comparison between the two last years, with current month (or quarter) and accumulated figures as from January.

The grand totals for imports and exports are divided by the different sources. For the moment it might be useful to put a focus on the FTS data-sources, which also reflect certain data quality challenges.

Table 2 is a main product table by SITC (imports and exports separately), and Table 3 is a similar setup, but by main countries (trading partners by country of origin for imports and country of destination for exports).

Table 2 and 3 will follow mainly same column pattern as for the Press-Release table below.

**Table 1. (EXAMPLE, figures are not correct)**

<b>Foreign Trade Statistics of Mozambique</b>						
<b>Preliminary release. January - February 2010-2011. Million Metecai. General trade 1)</b>						
	<b>February 2 010</b>	<b>February 2 011</b>	<b>Per cent Change</b>	<b>Jan-Feb 2 010</b>	<b>Jan-Feb 2 011</b>	<b>Per cent Change</b>
<b>Total IMPORTS</b>	<b>8 260</b>	<b>9 230</b>	<b>12</b>	<b>17 461</b>	<b>62 597</b>	<b>258</b>
-Data based on Customs declarations	7 137	9 230	29	13 469	62 597	365
-EXTRA-data: HS27 - Oil prod + Electric Current 2)	1 106	0	-100	2 476	0	-100
-EXTRA-data: Other products directly reported 2)	17	0	-100	1 517	0	-100
<b>Total EXPORTS</b>	<b>3 572</b>	<b>2 932</b>	<b>-18</b>	<b>8 663</b>	<b>5 395</b>	<b>-38</b>
-Data based on Customs declarations	671	2 856	326	2 050	5 240	156
-EXTRA-data: HS27 - Oil prod + Electric Current 2)	821	0	-100	1 716	0	-100
-EXTRA-data: HS76 - Aluminium products 2)	2 000	0	-100	4 700	0	-100
-EXTRA-data: Other products directly reported 2)	81	76	-5	197	155	-21
<b>EXPORTS as per cent of IMPORTS</b>	<b>43</b>	<b>32</b>	<b>-26</b>	<b>50</b>	<b>9</b>	<b>-82</b>

Notes:

1) General trade means including warehousing and free zone trade (= all goods passing border physically)

2) EXTRA-data are data collected directly from traders or other administrative sources than Customs  
These products might be substantially revised when more detailed information has been collected  
HS means chapter in the commodity classification (Harmonized System used in the Customs Tariff)

**Table 2.**  
**SITC. Will be sent INE separately**

**Table 3.**  
**Main countries. Will be sent INE separately**