



STATISTICS  
DENMARK



Statistisk sentralbyrå  
Statistics Norway



Statistiska centralbyrån  
Statistics Sweden

MZ:2010:04

## FOREIGN TRADE STATISTICS (FTS)

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

**15-26 March 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***



---

Instituto Nacional de Estatística

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

### List of abbreviations

CO	Scanstat Coordination Office in Statistics Denmark
Danida	Danish International Development Assistance
DKK	Danish Kroner
DSt	Statistics Denmark
EUR	European Euro
INE	Instituto Nacional de Estatística, Mozambique
INE-P	Instituto Nacional de Estatística, Portugal
MZM	Mozambique Meticais
NOK	Norwegian Kroner
Scanstat	Consortium between Statistics Denmark, Statistics Norway and Statistics Sweden
SCB	Statistics Sweden
SEK	Swedish Kronor
SSB	Statistics Norway
USD	US Dollars
ZAR	South African Rand

### CONTENT:

<b>1</b>	<b>EXECUTIVE SUMMARY.....</b>	<b>3</b>
1.1	<i>Major reason for the mission .....</i>	3
1.2	<i>Major conclusions.....</i>	3
1.3	<i>Major progress/achievement during the mission.....</i>	4
1.3.1	Work (task list) INE / IT management should do	4
1.3.2	Work the FTS staffs should do	5
1.3.3	Work the expert (Statistics Norway) should do	6
<b>2</b>	<b>INTRODUCTION &amp; information.....</b>	<b>8</b>
2.1	The experts background.....	8
2.2	Earlier missions .....	8
<b>3</b>	<b>FTS pilot system: Program functionality and files.....</b>	<b>9</b>
<b>4</b>	<b>APPENDIX 1. Persons met .....</b>	<b>12</b>
<b>5</b>	<b>APPENDIX 2. Terms of Reference .....</b>	<b>12</b>
3.	Work the expert (Statistics Norway) should do	14

## 1 EXECUTIVE SUMMARY

### 1.1 Major reason for the mission

After the 8-18 September 2009 mission the FTS staff didn't manage to run the pilot system. It showed that this training was too short for the staff to continue alone. It was also difficult to establish the FTS system permanent in a server. The access to the SPSS software on the server was unstable. Lastly, the practising to handle both the operation of the file system and the SPSS programs were too short.

This mission is therefore a direct continuation of the 8-18 September 2009 mission. In September 2009 the SPSS programs were discussed and explained in details and documented in the mission report. Also the folder system, file naming, file treatment, relations between data and metadata (catalogues) were topics and discussed in details during that mission.

It seems that during previous missions we have probably been too ambitious. Common meetings / discussion have not been efficient as wanted. It is better to use time for individual training with appointed key staff. This was set in focus during this mission in March 2010.

---

### 1.2 Major conclusions

The main conclusions after the mission are:

- The 1<sup>st</sup> quarter 2009 PILOT system should be utilised by the FTS staff to train more, in order to **start production in end of April 2010 of the 1<sup>st</sup> quarter 2010 data**. The staff needs more training in doing data corrections (using the ERROR-lists) and in running ad-hoc tables on existing data, to use in cases where it is necessary to impute missing codes (commodity numbers, country code, transport code and delivery terms).
- The FTS staff has to **specialise and to be given clear responsibility**, e.g. Geraldo shall run the SPSS-progs and the system, and be responsible for order in the source folder, backup, etc. His PC needs upgrading in the near future, in order to run the system efficiently.
- The **ERROR-lists have to be handled systematically**, and the FTS staff has to train month-by-month to improve the system quality and the quality of manual work. They must make notes on how they work with error detection, and systematically make notebook on contacts they do with importers/exporters, brokers, Customs and others.
- To **secure that the validity checking is done 100% complete**, a program 04 was added. This program do a full data control again and shows in the OUTPUT list what might be still errors remaining. This test has to be repeated until no errors remains.
- To support the FTS staff to reach a high enough level of experience to go on themselves **we agreed to establish a Long-Distance Support Agreement**, which covers all parts of the system. A draft will be discussed at INE before a final agreement will be approved.

- The **coverage and quality of the EXTRA-data**, which by now is collected via the National Bank, **has to be improved**. The best for INE is to establish direct contact/collection directly from each data provider. The data collected should be complete set of variables used in the FTS file format, and all codes should be valid.
- The **Working Group with Customs meets regular (monthly)**. This Group should work systematically on daily quality improvements of all parts of the FTS. The Group should be responsible for development work and quality improvements, and report on their progress.
- We decided to **skip correcting the PRICE-CONTROL messages now**, but to secure a good validity checking first of all (with priority to commodity number, country code, transport code and delivery terms). The price control should later on be activated and focus on a less number of commodities important for the *National Accounts* and/or *Producer Price Index*. Instead of running a complicated automatic updating system, these (annual) average prices can be written manually into the import-export Price Master Catalogues.

### 1.3 Major progress/achievement during the mission

The tasks during this mission were the 1.3 Major Recommendations agreed to in the previous report, see annexed ToR. **Following were done related to this ToR task list:**

#### 1.3.1 Work (task list) INE / IT management should do

##### A. Short-term period ( 4<sup>th</sup> quarter 2009)

1. Create a FTS/ - folder in a file-server and give the 3 FTS staff read/write permission to all files in this folder structure (Which also includes right to create new sub-folders):-----  
-----> ***As explained, it was not stable connection to the server. Therefore we decided that the new productions routine should be installed in Gerando's PC, and where he should be responsible for the source version. The main folder is annual, named eg FTS2009..etc. At a new year the previous year's folder is copied into e.g. a FTS2010 folder.***
2. Secure full access to SPSS for all 3 staff (both on PCs and on the server)-----  
--> ***All three staff have access to SPSS software.***
3. Run proper backup systems-----  
-> ***Gerando take daily backup of the whole folder on an USB memory, dedicated for only this purpose. (In addition it might be back up copied to the server).***
4. Develop more the cooperation with the National Bank and eventually involved companies (importers and exporters) about Standard Format for EXTRA-data (EXCEL-file) and integrate this in existing cooperation Agreements-----  
-----> ***The Working Group on FTS plan to visit main companies which deliver EXTRA-data. The goal is to get all data providers to give a full set of data, all variables, as the FTS data file used for data processing. This will be done with participation by all members of the Working Group.***

5. Complete the Agreement with Customs about Data deliveries, Quality work and Practical daily cooperation about system Metadata (update of Pauta-commodity numbers, changes in Customs Procedures, Historic Corrections of already accepted declarations etc...)-----> ***There is a working-group with Customs, where these questions will be discussed and concluded to.***

## B. Long-term tasks ( 2010)

6. Support FTS in English-courses and/or IT courses about data processing / programming-----> ***Despite still a need for English training, the FTS staff can work reasonable good using English. However, all possibilities for the staff to train English should be used.***
7. **Approve a plan for completing the FTS pilot system and organised it into a production system; Goal:** The FTS staff produce FTS monthly according to a preset system and the data controls are all executed by computerized data processing. All output (tables and data extractions) are done by running programmes and not by manual operation / extractions.-----> ***These goals were partly reached during this mission. The FTS2009 folder includes test data for the 3 first months 2009, and the programs are now complete.***

### 1.3.2 Work the FTS staffs should do

#### A. Short-term period ( 4<sup>th</sup> quarter 2009 and as soon as possible)

1. Produce the EXTRA-data files for 2009 so far it is possible
2. Re-produce EXTRA-data files for 2008 (and if time also for 2007)-----  
--> ***We decided to limit the treatment of historic data to 1<sup>st</sup> quarter 2009. The reason is that the FTS staff did not manage to go on alone after the 2009 September-mission. As a result, it is better to keep 1<sup>st</sup> quarter 2009 as a pilot, and start production as from January 2010.***
3. Contact Customs and agree on what are the correct and valid list of reg-cpc (Customs Procedure codes) and discussed with Customs that ALL codes are coded correctly according to Special trade and General trade or not FTS. This work has to be done BEFORE finally executing the 2009-data. Discuss with experts (Customs Procedures) what kind of reason there are, for the invalid reg-cpc, which we found in the 2009 data and in the 2006-data, presented at the meeting with Customs during the mission.-----  
----->***During the mission the reg-cpc catalogue was changed, to include about six 'invalid' codes in the REG-CPC CATALOGE. Later on these invalid or strange reg-cpc codes should be clarified with Customs and it should be decided in more details if it is correct to include them permanently in FTS or not. Also correct definitions should be checked up (general or special trade).***
4. Contact Customs and get a copy of all commodity numbers for 2009 in the Customs declaration system. Get an electronic copy of the Pauta. Verify what VERSION of the Harmonized System is used as basis for the 2009-Pauta. Get information on what commodity numbers have been changed durinf the years 2007 and 2008. -----

-----> *A copy of the 2009 PAUTA was sent by email in November/December 2009. The expert analysed this Tariff and found that likely, the commodity numbers are still based on the HS2002, and not on the last update – HS2007. The conclusion is that we will not convert old HS into HS2007, since for the users it is better that published commodity numbers are identical to the Tariff. (However, for international reporting it might be a problem to use HS2002).*

5. Start to work in a common FTS – folder in the server. Only training should take place on the pc and using the C:\-drive-----  
-----> *As written above we decided to do the 2010 production on Geraldo's PC. There is a need to upgrade this PC with higher capacity and to run quicker, and the data volumes increase during the year.*

## B. Long-term tasks ( 2010)

6. Learn how to do data-correction on the ERRORLIST file and complete correcting all data in this manner. This monthly correction system is a Current-revision system (**Current-revision** means to correct data which never has been published before)-----  
-----> *Much of the mission time was spent on training how to correct ERRORS in these lists. To simplify the start we decided to preliminary skip to use the price-control, and focus on full validation (correct codes) of the commodity number, country codes (including to re-code MZ) the transport code and the delivery terms. The staff should learn to make systematic NOTES of how the different types of errors are handled, and also over contact (e.g. by phone calls) to the traders, brokers or Customs.*
7. Train SPSS syntax editing, and to modify programs and to create new programs----->  
*Done*
8. Start creating Table-programs and prepare the system for regular publishing----->  
*Done*

Make a strategy for Historic-revision of data; -including how to deal with >Customs and corrections which can be done in the Customs declaration system (**Historic-revision** means a system handling changes in data *that already have been published*)----->  
*This was too early to start with now. First, the prototype 2010 system has to run (meaning that the staff is able to run programs and handle to file system, including ERROR-list corrections. But, it is VERY IMPORTANT that FTS discuss with Customs how to avoid to repeat sending all data again, after the Customs final data are available.*

**Data/declarations, which have been sent already to INE during the reference year, should be never sent again. This means that the declarations Customs revise (correct) after having sent the declaration to INE, should be extracted and sent as separate files. To make this possible all data which already sent to INE, should be flagged in appropriate manner into the Customs data base.**

### 1.3.3 Work the expert (Statistics Norway) should do

#### A. Short-term period ( 4<sup>th</sup> quarter 2009 and as soon as possible)

1. Produce a **new Commodity Catalogue** (ComCat, after a design similar to the Country-catalogue), when the basic information collected by point 1.3.2-4 above is available-----> *The programmes which is used to analyse the 2009 PAUTA and create a 2009 commodity catalogue, is under folder: C:\FTS2009\cat\sorce\SPSS\_MZ\_Comcat2009. FTS staff has to check if there has been some changes in the commodity numbers as from January 2010.*
2. Communicate with the FTS staff on SPSS programs producing this catalogue (ComCat)----> *The first mission day was used to demonstrate how the 2009 Commodity Catalogue could be created. ( See file: C:\FTS2009\cat\MZcomcat2009.sav). The MZ Pauta 2009 has been merged with the United Nations LINK-file between HS-2007 codes and SITC-revision 4. In addition, the MZ Pauta was merged with the Norwegian Commodity Catalogue, which includes a full history of all Harmonized System hs-6 codes. By these merges, it is clear that the MZ 2009 Pauta, is based upon HS-2002 version (and not upgraded to HS-2007). The MZ Commodity Catalogue includes indicators showing which hs-6 codes is valids HS-2007 codes and which is HS-2002 codes.*
3. **Quality secure** that prog-03, the data control programs are functioning in all details, before a final run on the 2009 data start-----*Done*
4. Complete a next program which produce the **final output file**, ready for publishing---> *Done*
5. Communicate with the FTS staff on SPSS programs producing **tables**----- *Done*

## B. Long-term tasks ( 2010)

6. Contribute to make a strategy for Historic-revision of data; -including how to deal with Customs, and corrections which can be done in the Customs declaration system, see 1.3.2-9 above-----> *We have to wait to implement this, -- see point 9. above*

## 2 INTRODUCTION & information

Thanks to the FTS staff and also to Mr Cirilo, Mrs Júlia for good time spent during the mission days. For this mission another FTS expert joined, Mrs. Krassimira Jeneva from NSI, Bulgaria. In particular she took part in training of the error handling and the training of how to use the ERROR-lists. It was a very useful extra assistance and a good help to get the FTS staff on a track.

### 2.1 The experts background

The report is written by Mr. Hans Kristian Ostereng. He is senior adviser at Statistics Norway, Division for Development Cooperation. Mrs. Krassimira Jeneva is educated Master of economics and works at the Bulgarian National Statistical Institute as State Expert, mainly with Foreign Trade Statistics, Business registers, dissemination and contact with users.

From September 2004 to September 2007 Mr. Ostereng was the Project leader for a NORAD-funded cooperation project with the Eritrean National Statistical Office and permanently settled in Asmara. During last half of 2007 until February 2009 he was Project leader for the Europe Aid financed TACIS project named Statistics-10 with Uzbekistan. He also took position as Project leader for a Eurostat project<sup>1</sup> in the period January 2008 until June 2009.

### 2.2 Earlier missions

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](#) Ref. no. 104. Mozambique.1.MFS.1-5 June 18, 2003

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](#) Ref. no. 104.Moz.98 June 2004.

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](#) Ref. no. 104.Moz.98 November 2006.

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](#) Ref. no. 104.Moz.98 July 2007.

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

---

<sup>1</sup> Phare - Multi-beneficiary statistical co-operation programme in 2006 for Bulgaria Croatia Romania Turkey Lot 1, Contract EuropeAid/125264/C/SER/multi.

could not manage to get reasonable SAS licenses. It was therefore decided to use the SPSS. 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](#).

### 3 FTS pilot system: Program functionality and files

This chapter is the same as in the September 2009-report, but with some updates. The tables explain the main steps in the programs and what files are read and which output files are created.

The programs should be executed in the sequence below. All error messages or wrong record-count should be checked and eventually corrections done, before to start the next program.

*There are some **obligatory quality checks**, which has to be analysed and result approved, before you continue the processing and to run the next program. **See Notes under each table**. In addition, all programs-steps produce frequency tables – counting number of in-out-records. **It is obligatory** to keep track on the number of records processed all the way through the data processing.*

All source-files are stored as Excel-files. These files are converted to text-files; semicolon-separated files. The SPSS-programs store output files at semicolon-separated text-files. Manual operations in the files will be done in Excel-files, e.g. Error-list files. Output files for quality checks can be read directly in Notepad etc., or analysed in Excel.

#### SPSS program: 01\_INE-EXTRAdata\_intoSPSS.sps

Steps	Activity description – in/out files
Step 01	read text-data SEMICOLON separated file into SPSS <b>Input file:</b> FTS2009TEST\data\INE\EXTRA_IMP_EXP_jan2009.csv
Step 02	Concat variables, introduce new variables (split old). Make freq statistics. <b>Output file:</b> FTS2009TEST\data\INE\FTS_EXTRA_200901jan.sav
Step 03	Merge the reg_cpc catalogue, classify imports exports flows and general - special trade <b>Output LIST:</b> -A- CASE: regcpc codes in the DATA is NOT in regcpc Cat -B- CASE: DATA in regcpc-Cat, BUT -trade- not G,S,B:- NOT per def FTS-data (reg_cpc is Customs Procedure Code. Trade = G general trade, S special trade B both types of trasde)

**Note: The LIST: -A- and -B- MUST be empty, before running next program 02**

This test prevent invalid reg\_cpc codes and not-FTS records, to be merged with the Customs-data

#### SPSS program: 02\_Step1-5\_INEdata\_intoSPSS.sps

Steps	Activity description – in/out files
Step 01	Read text-data SEMICOLON separated into SPSS <b>Input file:</b> FTS2009TEST\data\INE\2009mar.csv
Step 02	SELECT / split the items from Customs RAW data, which should be replaced by EXTRA data

	<b>Output file:</b> FTS2009TEST\data\INE\CustomsDELETE200903mar.sav
Step 03	merge the reg_cpc catalogue, classify imports exports flows and general - special trade <b>Output file:</b> FTS2009TEST\outFTS\regcpc_INVALID200903mar.txt
Step 04	NEW variables, check values, ERRORS classification and error checks. Common variables for imports and exports: <i>value</i> and <i>country</i>
Step 05	Display statistics and error list
Step 06	Write out files as text-files (produced in steps 02 and 03). Split final data in FTS data (for further control-processing) and NOT FTS data <b>Output file:</b> FTS2009TEST\data\INE\FTS200903mar.sav <b>Output file:</b> FTS2009TEST\outNOTFTS\notFTS_200903mar.txt

**Note:** The selection criteria in step 02 needs quality refinements, -try to improve this step. Check output files in step 02 and 03 carefully before proceeding. If wrong, correct and re-run.

#### SPSS program: 02\_Step6\_Table\_CustDelete\_ExtraADD.sps

Steps	Activity description – in/out files
Step 01	table 01-A SUM up EXTRAdata ADDED to the FTS file
Step 02	table 02-B SUM up CUSTOMS-data DELETED from the FTS file <b>Output file:</b> FTS2009TEST\outFTS\TABLE-01B_EXTRAdata_DELETED_FTS_200903mar.txt

**Note:** The content of these two tables should be investigated (values by commodity numbers, the size of the value added and deleted etc. When something seems suspicious, investigate input data in more details. If errors: correct and run all from the beginning.

#### SPSS program: 03\_FTS\_IMP\_PRICE\_validity\_control\_03mar\_IMP.sps

Steps	Activity description – in/out files
Step 00	Merge PRICEMASTER into data <b>Input file:</b> FTS2009TEST\data\INE\FTS200903mar.sav
Step01a	New variables for marking Price Control results initiating these variables - DEFAULT
Step01 b	prepare price limits for the PRICE CONTROLS, using global factors
Step 03	PRICE CONTROL FOR ITEMS
Step 04	Check and substitute Quantity & Weight for com no which ARE in the Price master
Step 05	VALIDITY CHECKS FOR COM. NO AND COUNTRY CODES
Step 06	PRODUCE OUTPUT LISTS: ERROR LISTS + READY CHECKED DATA <b>Output files:</b> FTS2009TEST\outFTS\FTS_ERRORLIST_IMPORT200903mar.txt FTS2009TEST\data\INE\FTS_OK_export200903mar.sav
	ERRORLIST file will be read into ECXEL and formatted /prepared for manual correction work FTS_OK is saved as SPSS-file. A copy in text-format is available, if necessary.

**Note:** The price control has to be experimentally fine-tuned: The middle-price in the master-file has to be manually quality-approved, -eventually corrected, before using it. Prog-03 has (near top of program) variables which is used to expand limits, and so increase or reduce number of warnings. ALSO, choose a proper MAX-VALUE limit, where error-items above this limit should be checked more strictly than the ones below.

**SPSS program: 03\_FTS\_IMP\_PRICE\_validity\_control\_03mar\_EXP.sps**  
**In principle same as for imports, but the price-control fine-tuning has to be done separately for imports and exports. Run imports first!**

**SPSS program: 04\_FTS\_IMP\_ERRORS\_CORRECTED\_OK-check.sps**

Steps	Activity description – in/out files
Step 01	Convert the .csv (semicolon-separated) ERROR-list into a SPSS-file with the same file format as the FTS-OK... data files. <b>Output file:</b> FTS_OK_IMPORT200901jan_IMP_corrected.sav (+one for exports)
Step 02	Repeat to execute all types of controls done during the progs 02... and 03... Error overview is listed in OUTPUT, which has to be checked, in order to confirm that NO errors are left in the error-file.

**SPSS program: 91\_A----E\_Table\_By-----selected variables---.sps**

Steps	Activity description – in/out files
Step 01	These ad-hoc tables are used to impute missing codes in a systematic way, which reduce the risk for unwanted impact on published data. Staff has to train to run and use such types of tables. Either the monthly data itself, or earlier published data can be used as input.

\*\*\*\*\*

**Already made Ad-hoc programs:**

- 11\_CPC-REG\_CAT\_intoSPSS.SPS
- 12\_Country\_CAT\_intoSPSS.SPS
- ComCat in Folder C:\FTS2009\cat\sorce\SPSS\_MZ\_Comcat2009\prog\ Progs 91..., 92..., 93..., 94.
- 91\_TABLE-A-B-C-D-E-TOTALS.sas -- Ad-Hoc tables for imputing invalid codes, ERROR-list

**Programs missing (in SPSS) which still need to be made/transformed:**

- 21-import\_remove\_extremes\_HB-method.sas
- 22\_import\_make\_pricemaster.sas
- 92\_Table-02\_A\_SITC\_IMPORT\_Table.sas
- 93\_Table-03\_A\_Country\_IMPORT\_worldparts.sas (same for exports)
- 94\_Table\_Press-Release\_Main-Figures.sas
- 95\_Table\_COMECON\_countries.sas
- 99\_FREQ\_TABLE\_REG-CPC\_raw-data.sas

**How to organized folders, errormessages etc. in described in the June 2007-report or in folder: C:\FTS2009\System\_Description file: FTS\_FILE\_Descriptions.xl**

## 4 APPENDIX 1. Persons met

### Participants during the mission:

Mr. Geraldo Adriano Timbe, Mr. Afonso Soberano Uate, Ms Monica Manchonhane, Mr. Cirilo Tembe

### Participants in the welcome meeting and the closing meeting:

Mr. Cirilo Timbe, Mrs. Júlia Cravo, and director Mr. Azarias Nahzimo

**Others:** Mr. Lars Carlsson

## 5 APPENDIX 2. Terms of Reference



**INSTITUTO NACIONAL DE ESTATÍSTICA**  
DIRECÇÃO DE ESTATÍSTICAS SECTORIAIS E DAS EMPRESAS

**TERMS OF REFERENCE**  
**Short Term Mission (2 weeks) for**  
**Strengthen the capacity of the system developed for Foreign Trade Statistics**  
**( project no 1.3.5)**

### 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.

This mission is a continuation of the previous mission 8-18 September 2009.

During this mission the core SPSS progs in the FTS Pilot system were demonstrated in details. The staff started training SPSS syntax/progs, which is quite new to all the staff. The training for just two weeks were not enough for the staff to continue alone to run SPSS syntax and modify progs. A work guideline for the mission is previous mission *1.3 Major Recommendations*, see Annex 1 below.

This mission should focus on further practical training and use of the SPSS progs. This work should include file- and data treatment and organising file & folder structures in a good way. It should also focus on executing data controls and how to get the correction of ERROR-lists into a permanent system. Also tables for publishing the corrected data have to be put in place.

Lastly, overview over Pilot system long-term quality improvements have to be discussed and recommendation agreed to.

### Objectives of the mission:

A main guideline for the objectives of this mission is the *1.3 Major Recommendations*, stated in the 8-18 Sep 2009 mission report. Based on this some main objectives for the consultant are:

- Train the FTS staff in executing and to run the SPSS progs
- Develop and practise a system on how to treat the ERROR-lists system produce
- Process 2009 monthly data so far time allows, starting with January 2009
- Teach on how to work with the system and to run SPSS syntax
- Discuss and give recommendation for short- and long-term quality improvements
- Discuss and agree on how the FTS staff can continue to take over and run themselves

**Benefactors of the mission**

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

**Consultants and counterpart**

Main counterpart at INE: Azarias Nhanzimo  
Consultants: Scanstat

**Timing of the mission**

The mission should take place in March 2010

**Things to be done by the Counterparts before the mission**

INE and the FTS staff should check which, and how many of the *1.3 Major Recommendations*, which they have done something with, or which they are able to do further preparations for, before the mission starts.

The consultant will work more on the recommendation point 3. – and in specific how to create a complete Commodity Catalogue, which is in lone with HS 2007 valid codes. Preliminary analysis of the 2009 PAUTA handed over (Nov/dec 2009), indicates that the Customs Tariff (Pauta) is not 100% correctly based on HS-2007 codes.

**Report**

The consultant will prepare a draft report to be discussed with INE before leaving Maputo. He will submit a final draft to INE for final comments within one week of the end of the mission. Statistics Denmark as Lead Party will print the final version within 3 weeks of the end of the mission. The structure of the report should be according to Danida-format.

The Counterpart has to ensure that the final printed report is translated into Portuguese according to the existing procedures.

These Terms of Reference were prepared by

Day / / .....

Approved by/in the name of the President of INE

Day / / .....

## ANNEX 1 to the Terms of Reference

### 1.3 Major recommendations (Copy from the 8-18 September 2009 mission report)

The FTS staff will have a big job to work with the pilot system, to train how to use it, and to contribute on improvements further on. All available data for 2009 should be processed as soon as possible. If time allows, then process 2008 and 2007 data. Even the solution has been made as simple as absolutely possible there are many details, which has to be paid attention to. The FTS staff is not used to work with IT systems and programming, and need to do trials & failures before work and principles are in a routine.

## 1. Work (task list) INE / IT management should do

### A. Short-term period ( 4<sup>th</sup> quarter 2009)

8. Create a FTS/ - folder in a file-server and give the 3 FTS staff read/write permission to all files in this folder structure (Which also includes right to create new sub-folders)
9. Secure full access to SPSS for all 3 staff (both on PCs and on the server)
10. Run proper backup systems
11. Develop more the cooperation with the National Bank and eventually involved companies (importers and exporters) about Standard Format for EXTRA-data (EXCEL-file) and integrate this in existing cooperation Agreements
12. Complete the Agreement with Customs about Data deliveries, Quality work and Practical daily cooperation about system Metadata (update of Pauta-commodity numbers, changes in Customs Procedures, Historic Corrections of already accepted declarations etc...)

### B. Long-term tasks ( 2010)

13. Support FTS in English-courses and/or IT courses about data processing / programming
14. **Approve a plan for completing the FTS pilot system and organised it into a production system; Goal:** The FTS staff produce FTS monthly according to a preset system and the data controls are all executed by computerized data processing. All output (tables and data extractions) are done by running programmes and not by manual operation / extractions.

## 2. Work the FTS staffs should do

### A. Short-term period ( 4<sup>th</sup> quarter 2009 and as soon as possible)

9. Produce the EXTRA-data files for 2009 so far it is possible
10. Re-produce EXTRA-data files for 2008 (and if time also for 2007)
11. Contact Customs and agree on what are the correct and valid list of reg-cpc (Customs Procedure codes) and discussed with Customs that ALL codes are coded correctly according to Special trade and General trade or not FTS. This work has to be done BEFORE finally executing the 2009-data. Discuss with experts (Customs Procedures) what kind of reason there are, for the invalid reg-cpc, which we found in the 2009 data and in the 2006-data, presented at the meeting with Customs during the mission.
12. Contact Customs and get a copy of all commodity numbers for 2009 in the Customs declaration system. Get and electronic copy of the Pauta. Verify what VERSION of the Harmonized System is used as basis for the 2009-Pauta. Get information on what commodity numbers have been changed during the years 2007 and 2008.
13. Start to work in a common FTS – folder in the server. Only training should take place on the pc and using the C:\-drive

### B. Long-term tasks ( 2010)

14. Learn how to do data-correction on the ERRORLIST file and complete correcting all data in this manner. This monthly correction system is a Current-revision system (**Current-revision** means to correct data which never has been published before)
15. Train SPSS syntax editing, and to modify programs and to create new programs
16. Start creating Table-programs and prepare the system for regular publishing
17. Make a strategy for Historic-revision of data; -including how to deal with >Customs and corrections which can be done in the Customs declaration system (**Historic-revision** means a system handling changes in data *that already have been published*)

## 3. Work the expert (Statistics Norway) should do

### A. Short-term period ( 4<sup>th</sup> quarter 2009 and as soon as possible)

7. Produce a **new Commodity Catalogue** (ComCat, after a design similar to the Country-catalogue), when the basic information collected by point 1.3.2-4 above is available
8. Communicate with the FTS staff on SPSS programs producing this **catalogue (ComCat)**
9. **Quality secure** that prog-03, the data control programs are functioning in all details, before a final run on the 2009 data start
10. Complete a next program which produce the **final output file**, ready for publishing
11. Communicate with the FTS staff on SPSS programs producing **tables**

### B. Long-term tasks ( 2010)

12. Contribute to make a strategy for Historic-revision of data; -including how to deal with Customs, and corrections which can be done in the Customs declaration systems see 1.3.2-9 above