

Workshop on Compilation of International Merchandise Trade Statistics

Trade Data Processing

Addis Ababa, Ethiopia 8-11 November 2004

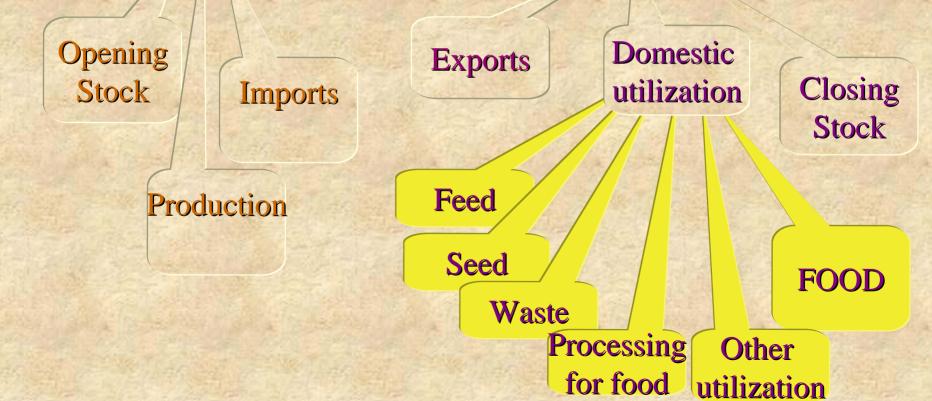


One of the most important attributes of FAO's statistical activities is the implementation of a integrated statistical system to permit the interlinked presentation of production, trade, stocks and utilisation of food and agricultural commodities.

The FAO database FAOSTAT, which is one of the most comprehensive databases on the food and agricultural sector, covers more than 200 countries and 1,019 commodity accounts of which: 441 are for crops and crop products, 233 for livestock and livestock products, 147 for fish and fishery products as well as agriculture inputs and population.

The statistics of any single commodity have to be traced all the way from production and utilization to final consumption.

Supply == Utilization



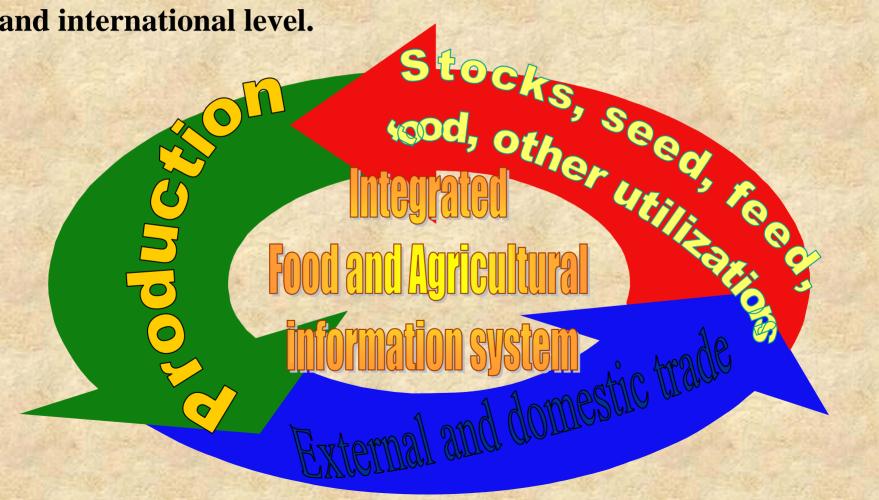


Food consumption is strongly influenced by many elements and this is the reason why FAO statistical database FAOSTAT (http://apps.fao.org/default.htm), has been designed to correlate the supply of commodities with their utilisation, to reflect the regional or national particularities and consumption traditions, to evaluate food and agriculture needs.





In fact the food and agricultural information system is an integrated system which requires the harmonisation of the statistical concepts, definitions and classifications at the national and international level.



Trade Statistical Methodology

- Concepts, definitions
- Classifications
- Coverage of the data, periodicity

Trade data Processing

- Data collection
 - Methods of data collection
 - Characteristics of basic material availability, detail level, quality,
- Data processing
 - Editing and Imputation strategies
 - Application software
- Data dissemination
 - Dissemination strategies
 - Confidentiality



◆Trade Statistical Methodology

- Classifications:
 - **4** SITC Rev3
 - **HS** 1992, 1996, 2002

Statistical Territories

Link PAOSTAT item codes

FAOSTAT country codes





FAO trade data sources and data collection System

•Electronic files

- **country request** including the specifications on the **standard layout** of the trade data file;
- conventions between FAO and other international organizations (UN, EU, OECD)

Questionnaires

- hardcopy questionnaires
- virtual questionnaire

•Other forms:

- Traditional publications (trade yearbooks)
- Virtual publications (web sites)

FAO trade metadata

FAO Data Collection

National Authorities and Contacts

National Data Sources

Country Methodology and Classifications

- General Information
- Top 10 Imports (in % of value)
- Top 10 Exports (in % of value)
- External Trade Legislation
- Statistical Methodology
- Classifications
- Data Coverage

Data Dissemination

- Periodicity
- Dissemination Format
- Publications available in the library
- Other Web Addresses





External Trade in: Ethiopia



FAO Data Collection

National Authorities and Contacts

Ministry of Finance and Economic Development - Central Statistical Authority

P. O. Box 1143, Addis Ababa

+251-1-55 30 11 (phone)

+251-1-55 03 34 (fax)

CSA@telecom.net.et (email)

Contact: Mr. Mageru Haile Team leader of Trade Statistics +251-1-55 30 11, 11 51 31, 55 04 50 (phone)

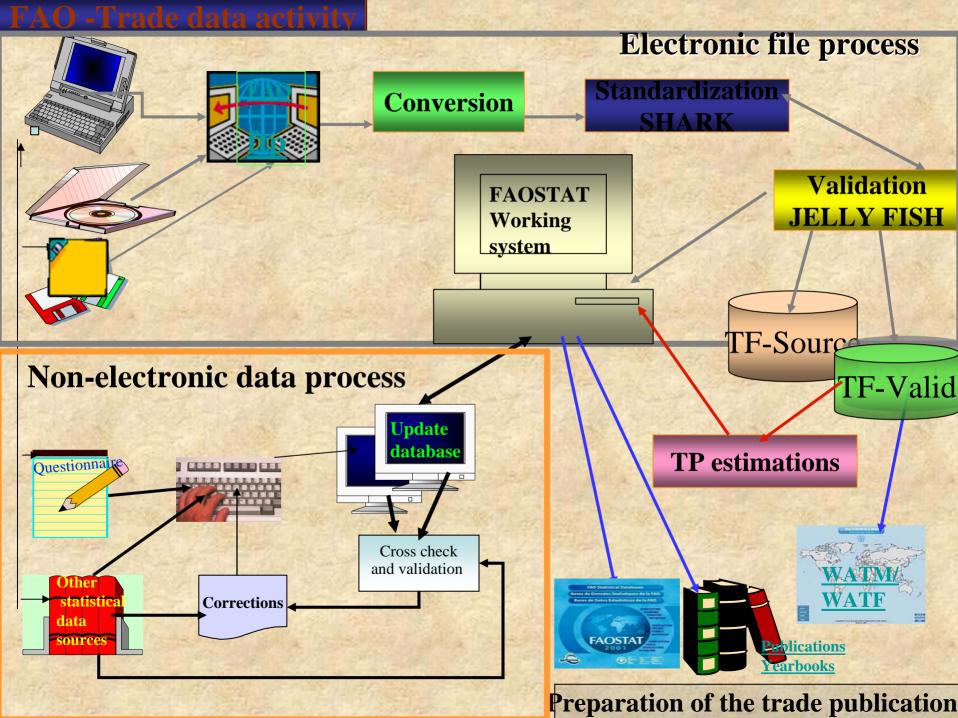
+251-1-55 03 34 (fax) csadp@telecom.net.et (email)

Contact: Yasin Mossa

Head of Industry and Trade Stat. Dept

csadp@telecom.net.et (email)

National Data Sources

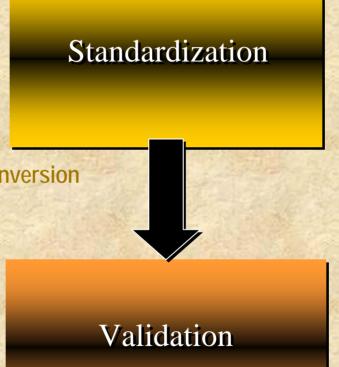




Overview:

TradeSys is made up basically of two principal components:

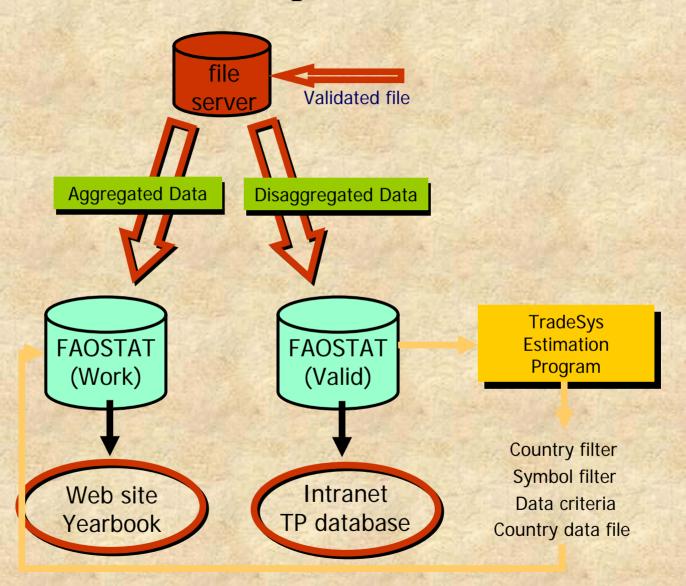
- Standard format
- Country code link
- Commodity filters
- Commodity code link
- Currency & quantity unit conversion
- Aggregation by commodity

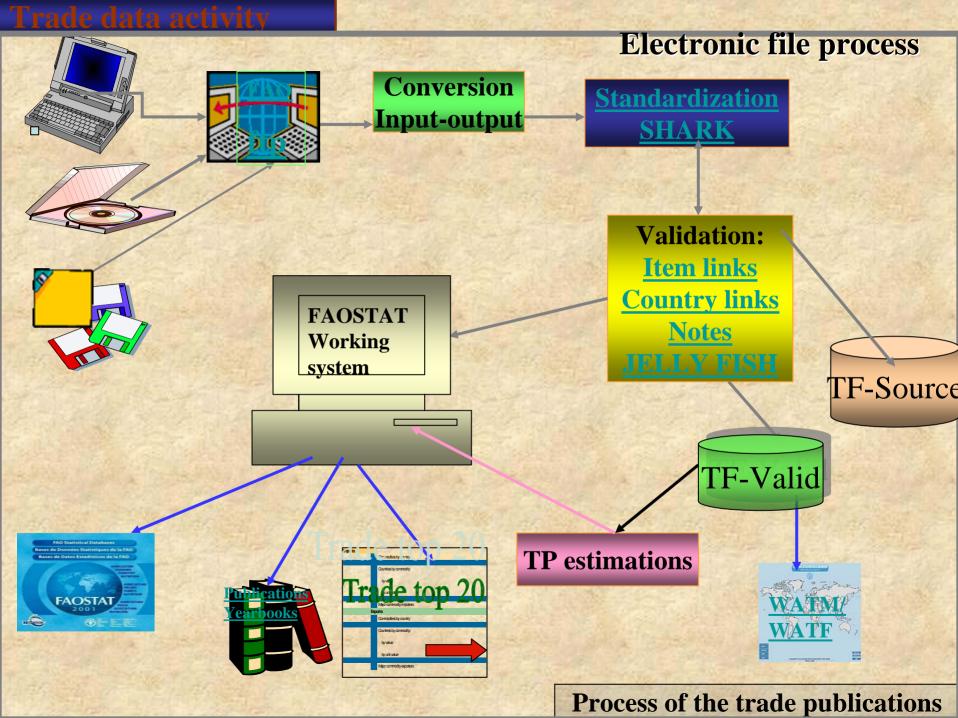


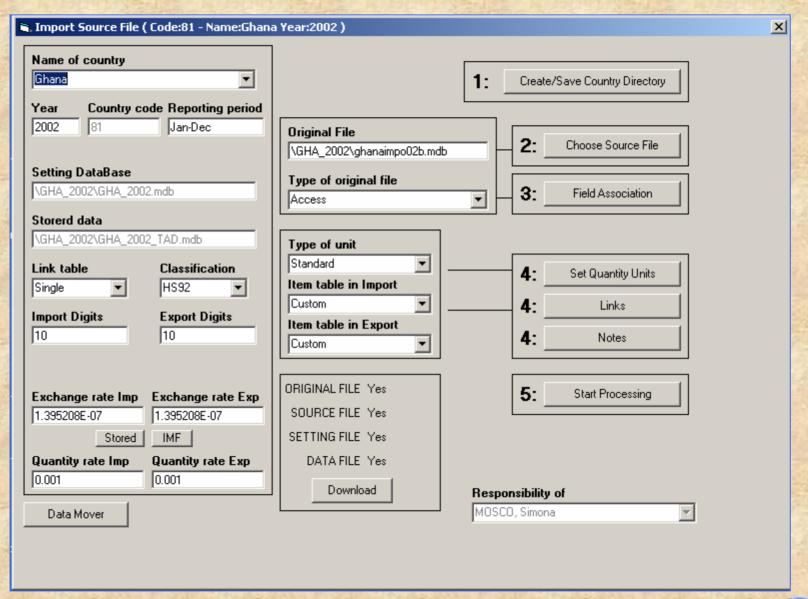
- · apply 'Notes'
- missing item links
- comparison to time-series data
- graphics showing quantity, value, unit value trends
- data corrections/ adjustments
- upload of data



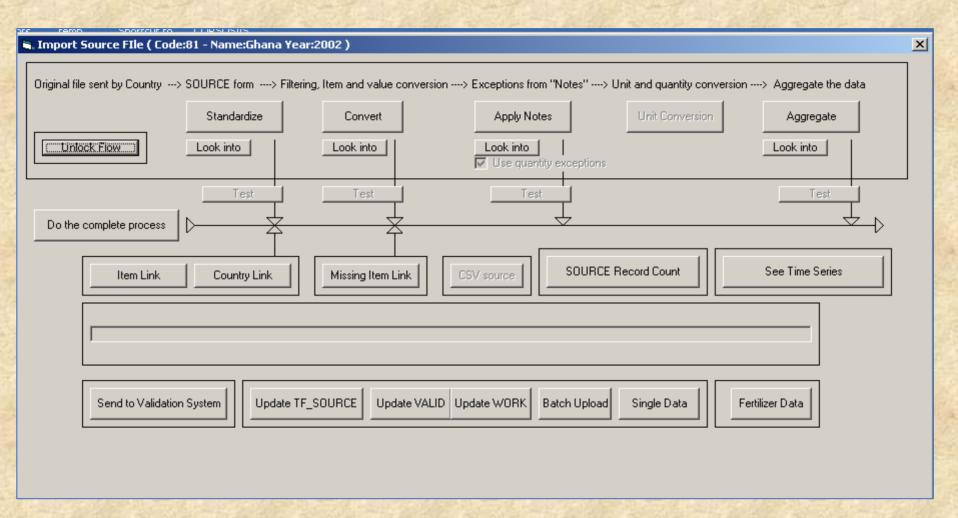
Data upload:



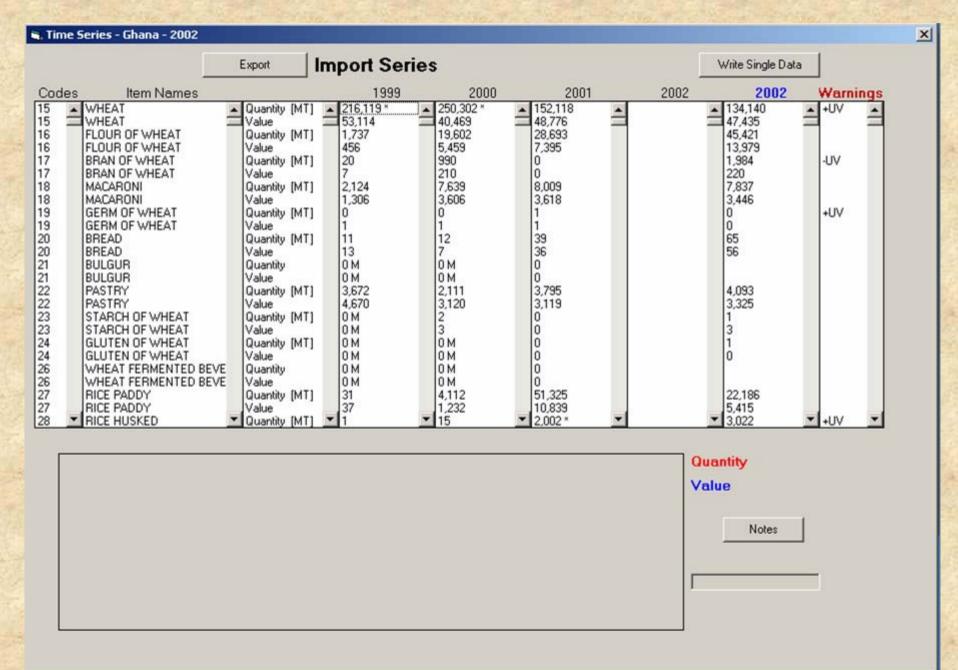


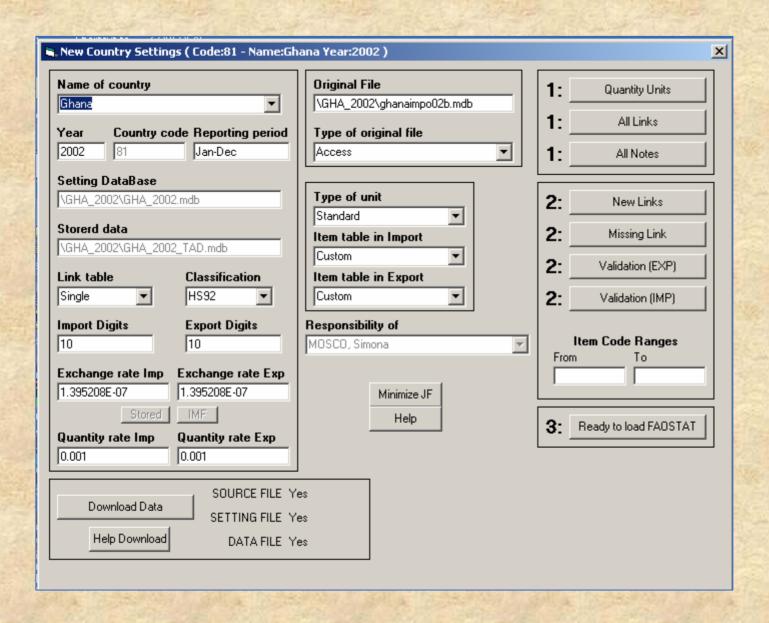




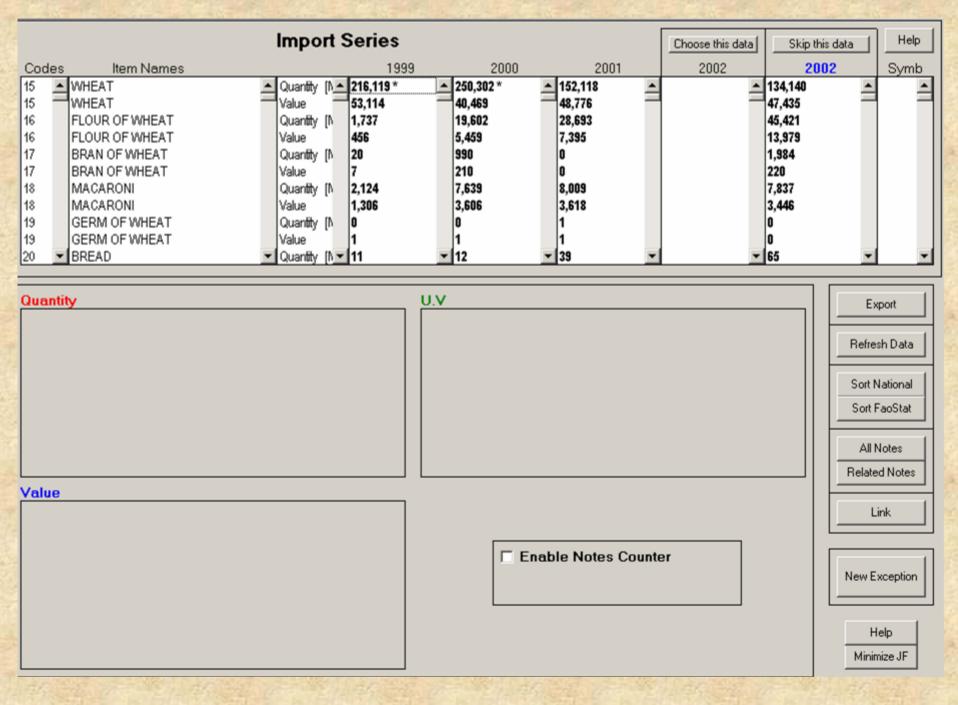














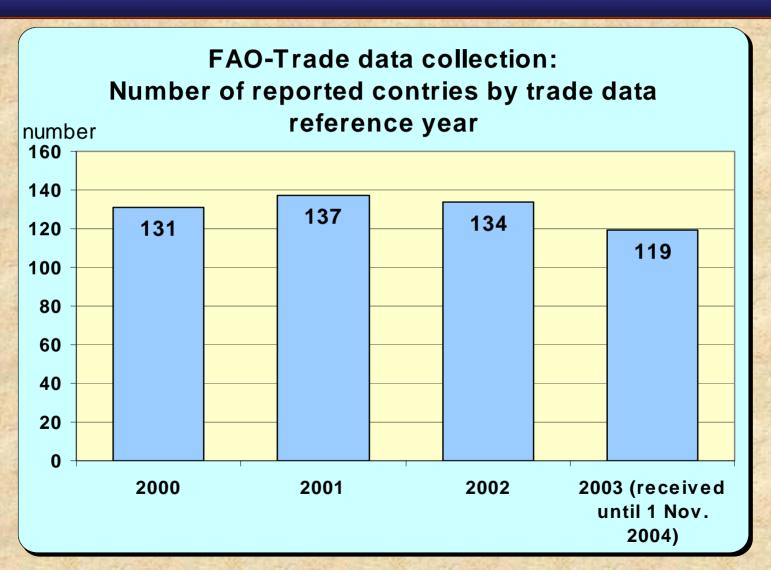
Trade data Processing

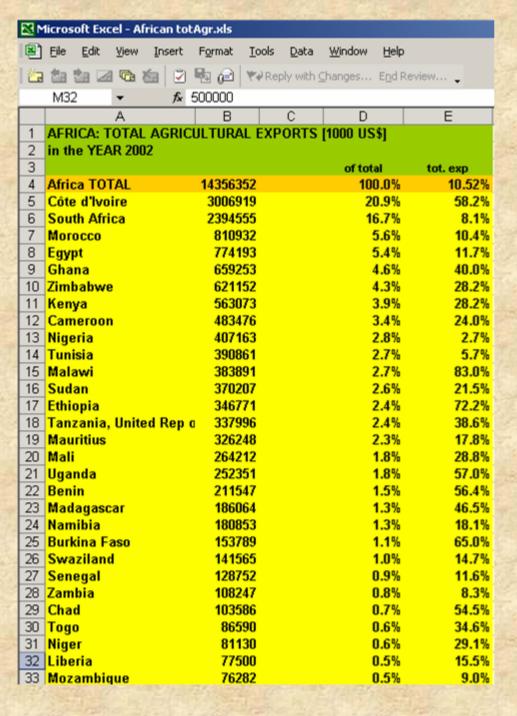
FAO trade monitoring system

■ Status of the trade data collection for the year 2003

	Current status of trade data processing							9/15/04	14:10:53		
	2004				Files country/year						
	Number Number							, ,			
		of	of	% of					in Jelly		Uploaded
		countries	files/year	reported	Conversio	Standar			Fish		into
Working region	Total	reported	received	countries	n	dized	%	Validated	process	Analyzed	FAOSTAT
Africa	54	20	32.0	37.0	32.0	32.0	100.0	26.0	6.0	26.0	26.0
America	42	25	28.5	60.2	27.5	25.5	89.5	21.0	4.5	21.0	21.0
Asia&Pacific	60	29	39.0	48.3	33.0	33.0	84.6	29.0	4.0	29.0	28.0
Europe	50	45	47.0	90.0	46.0	46.0	97.9	31.0	15.0	24.0	24.0
TOTAL	206	119	146.5	57.9	138.5	136.5	93.2	107.0	29.5	100.0	99.0

FAO-Trade data availability





Two countries, namely Cote d'Ivoire and South Africa, account for one third (38%) of all African agricultural exports. While the bottom 17 countries account for only 1%.

Cote d'Ivoire agricultural exports account for 21% of all African agricultural exports; yet account for only 11% of its total national exports.

The top 5 countries account for half of all African agricultural exports.

Malawi's agricultural exports have the highest share of total national exports (83%). Followed by Burundi at 72% and Burkina Faso at 65%



FAO - Trade data dissemination TF-Valid **FAOSTAT** Working system TF-Source **FAO Statistical Databases** Bases de Données Statistiques de la FAO Bases de Datos Estadísticos de la FAO Commodities by country Countries by commodity: byvalue FAOSTAT 2001 Trade Torontics 90 **Publications** Yearbooks



ECONOMIC AND SOCIAL DEPARTMENT

THE STATISTICS DIVISION

■ Français ■ Español

ONLINE DATABASES FAOSTAT OTHER STATISTICS WORLD CENSUS OF AGRICULTURE CHARTROOM P

PUBLICATIONS - STUDIES METHODOLOGY - SYSTEMS TECHNICAL ASSISTANCE PROJECTS MEETINGS AND WORKSHOPS

FAO Constitution

The Organization shall collect, analyse, interpret and disseminate information relating to nutrition, food and agriculture. ...the term "agriculture" and its derivatives include fisheries, marine products, forestry and primary forestry products.......

World Agriculture Trade Flows

- A graphical presentation of the World's agricultural tradeflows (WATF)
- An analytical presentation of the World's agricultural trade matrix (WATM)



News And Events

Statistics Division staff meeting with the Assistant Director-General, Economic and Social Department, Mr. de Haen.



Statistics Brief

- Major Food and Agricultural Commodities and Producers
 - Agricultural production statistics for the 20 most important food and agricultural commodities (ranked by value) in a given country for the year indicated. Users can select by country and by commodity.
- → Key Statistics of Food and Agriculture External Trade
- → World Crop and Livestock Statistics 1948-1985
- Global Food and Agricultural Perspectives: Map Presentation
- Food Balance Sheets Millennium Issue 1999-2001 Special Charts

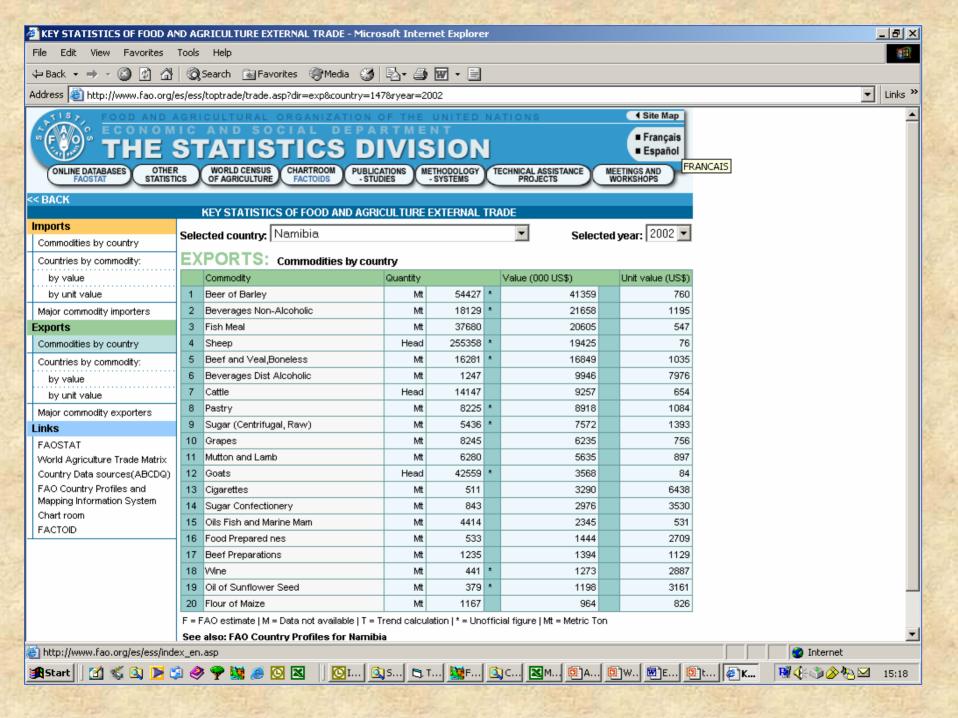
Publications

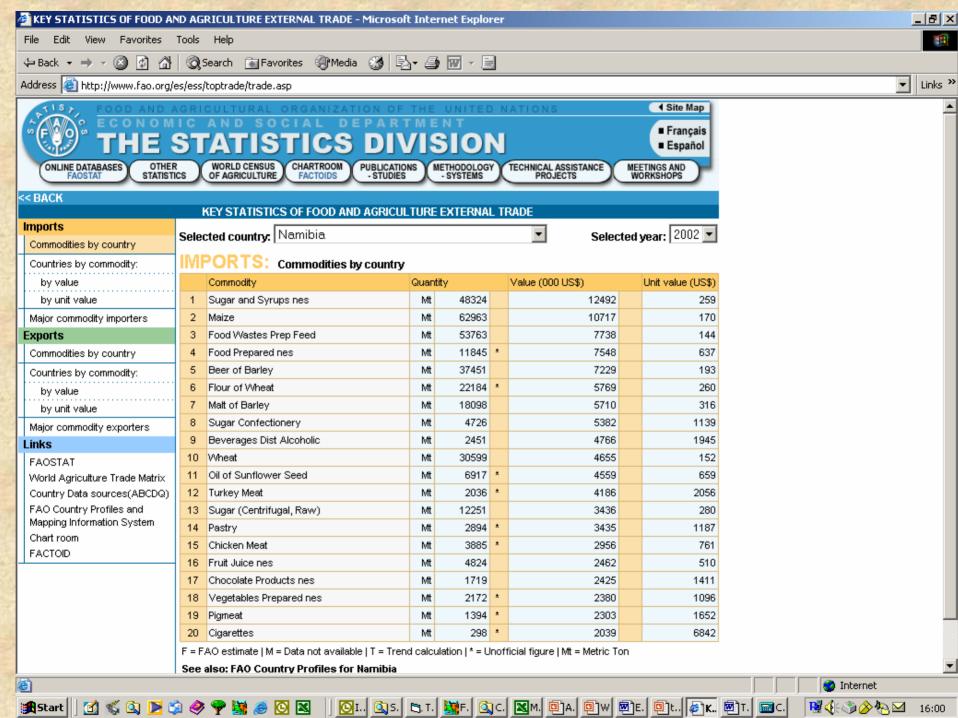
Compendium of Food and Agricultural Indicators 2003

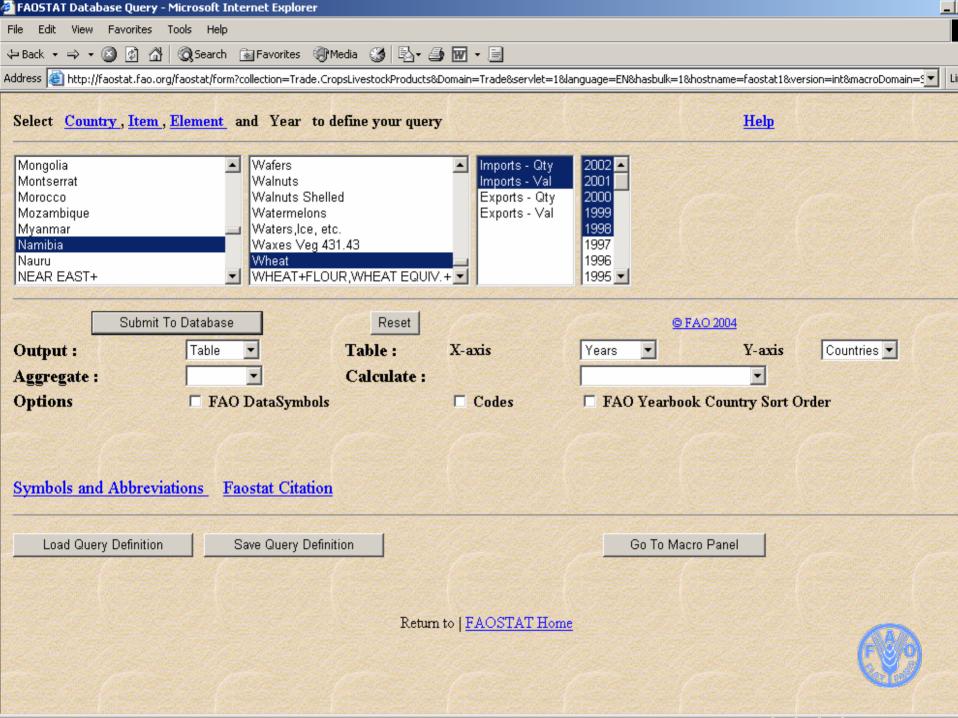
- → World Census of Agriculture 2000 UPDATED 01.08.2004 New Results by Country
- → Summary of World Food and Agricultural Statistics 2003 NEW 16.07.2004

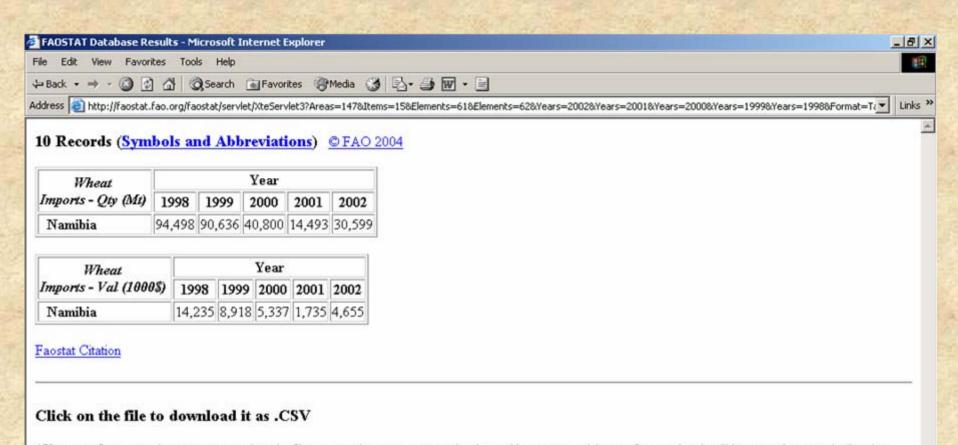
This report shows a broad range of statistics pertaining to world food and agriculture. It presents, where appropriate, the differences between developed and developing countries, continents and regions. more...

- MDG Information Tool UPDATED 30.01.2004 An information tool to support country level activities related to the monitoring of the Millennium Declaration and World Food Summit goals has been prepared by the Statistical Analysis Service. It contains general information on the Millennium Development Goals, the role of FAO and the monitoring reports prepared by FAO on the progress achieved by the different countries, using the most recent data available.
- → Statistics on prices UPDATED 15.01.2004



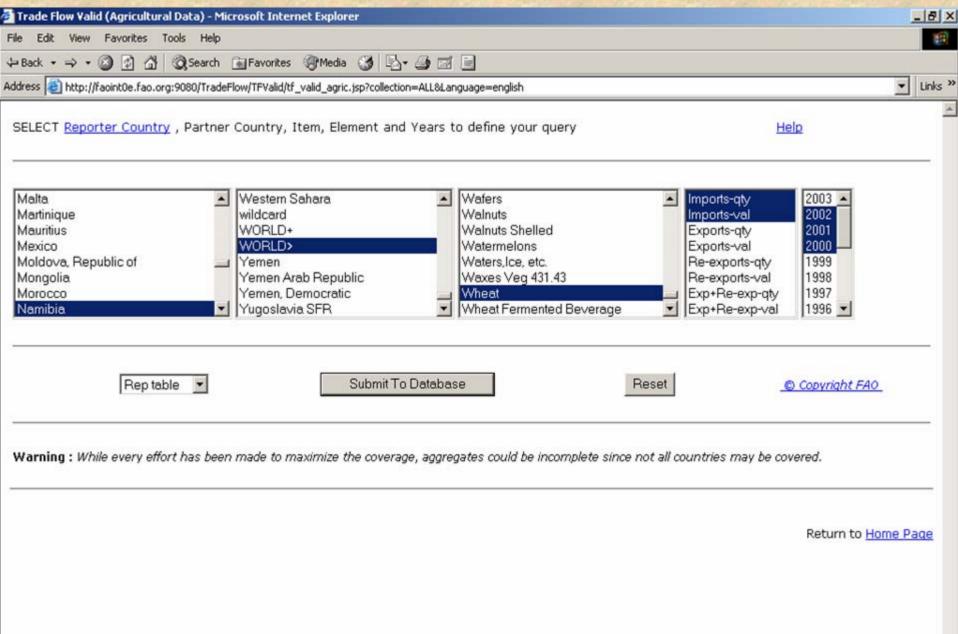


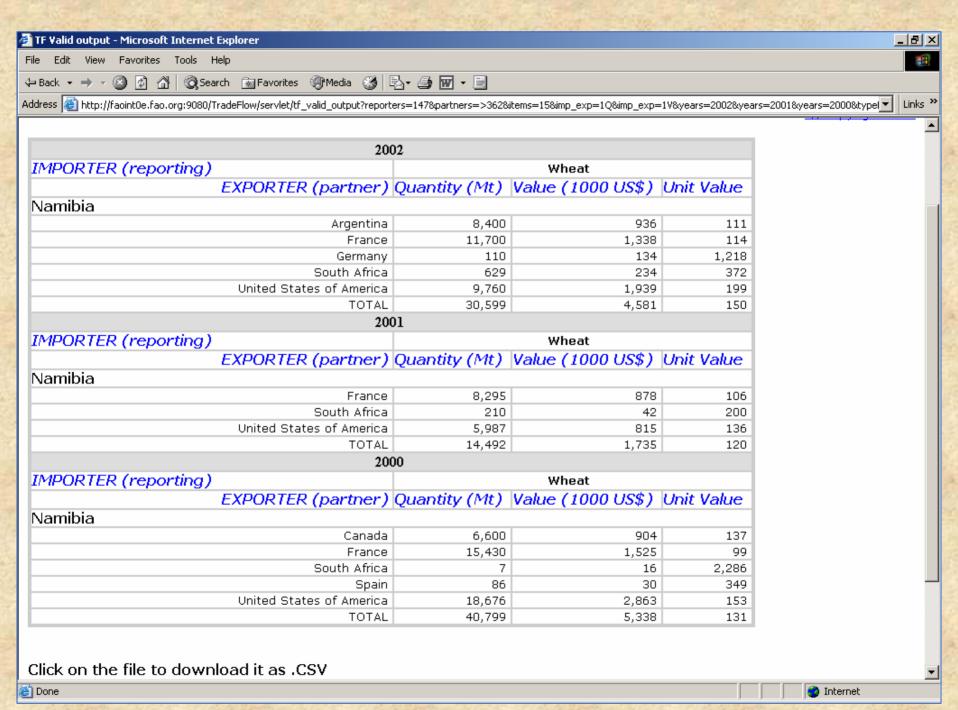


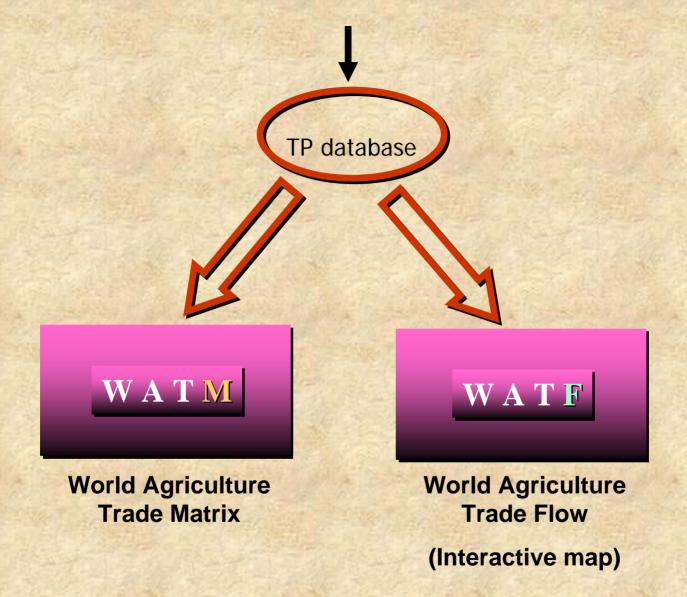


(If you configure your browser to associate the file type text/comma-separated-values with your spreadsheet software, then it will be started automatically when you download the file.)

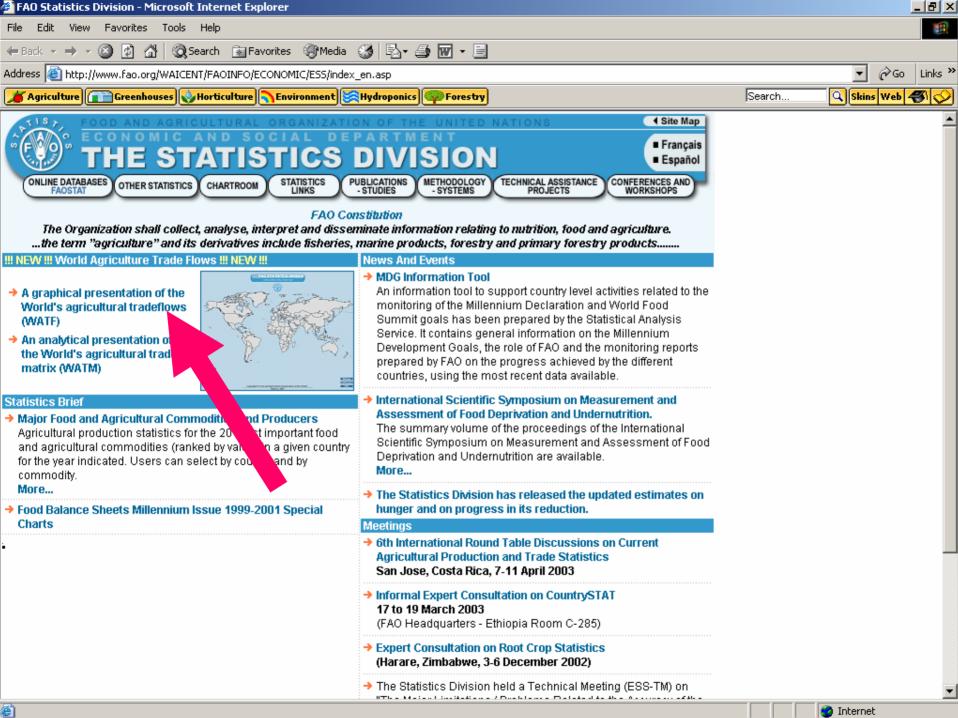
CSV File











The Statistics Division of F.A.O. receives trade data, on an annual basis, from many countries and in different formats (such as electronic media, publications, questionnaires)

Increasingly over the last decade, countries are providing their detailed trade data through electronic media such as CD-ROMs, e-mail files, FTP transfers.

Data exchange with other organizations, specifically with UNSD, as well as EUROSTAT and OECD, has also contributed substantially to improving our world coverage of trade flows.

These detailed data in electronic format allow us to compile trade by origin and destination, by commodity, in quantity and value, in a matrix format.

Hardcopy data, on the other hand, are entered by commodity totals only (without trading partner detail).



Agricultural trade data are stored by the Statistics Division of F.A.O. in two major databases:

 one database contains data by country (+ geographic and economic aggregates) per commodity and commodity aggregates (e.g. South African total exports of sugar as one figure)

Country:	Commodity:	Element:	Year: 2001
South Africa	Sugar (Centrifugal, Raw)	Export Quantity (MT)	1,235,193
South Africa	Sugar (Centrifugal, Raw)	Export Value (1000 US\$)	231,191

These data are disseminated through the FAOSTAT website

 the other database contains the breakdown of the commodity total of a country by trading partner detail (e.g. South African exports of sugar to Turkey in a given year)

Commodity: 9	Sugar (centrifugal, raw)		REPO	RTER EX	PORTS					
Year: 2001		PARTNER:								
REPORT_AREA	Data	Angola	Bulgaria	Comoros	Egypt	Iran, Islamic	Japan	Kenya	Korea, Repul M	adagascar
South Africa	QUANTITY (MT)	280	25,000	2,967	55,000	133,500	202,000	16,502	215,000	5,361
	VALUE (1000 US\$)	96	4,911	668	10,153	23,886	37,126	4,109	41,512	1,348

These data are presently available on CD-ROMs (beta version) and will shortly be available on-line on the Statistics Division Homepage



FAOSTAT

Country:	Commodity:	Element:	Year: 2001
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The totals, of both quantity and value, at the end of the row are equal to the totals shown in FAOSTAT

TRADE MATRIX

	Commodity: Sugar (centrifugal, raw)		REPORTER EXPORTS									
ŧ,	Year: 2001		PARTNER:									
	REPORT_AREA	Data	Angola	Bulgaria	Comoros	Egypt	Iran, Islamic	Japan	Kenya	Korea, Repul N	/ladagascar	
	South Africa	QUANTITY (MT)	280	25,000	2,967	55,000	133,500	202,000	16,502	215,000	5,361	
		VALUE (1000 US\$)	96	4,911	668	10,153	23,886	37,126	4,109	41,512	1,348	



- the FAOSTAT trade data include official and unofficial figures (from all hardcopy/electronic sources) in addition to estimates (but by country/commodity totals only)
 - the TRADE MATRIX data include only official electronic data as reported by each country (but with detailed commodity/trading partner breakdown).

So, if USA has not provided us with their electronic file for the year 2001, USA data will not be available in the TRADE MATRIX for that year - whereas USA data (from hardcopy or other sources) will appear in the FAOSTAT database.

Therefore, it is essential to be aware that continental and world totals in the TRADE MATRIX could be partial in that they reflect only the reporting country data coverage available in that given year.

The TRADE MATRIX database, however, feeds the FAOSTAT cells by providing the official country/commodity totals, in addition to being quite an **accurate estimation tool** for filling empty FAOSTAT cells (by using "mirror data" as we shall see later)



Having viewed and ranked the African countries
based on their agricultural trade totals, let us now use the
World Agricultural Trade Matrix
to extract detailed data, by quantity and value,
which will enable us to view the trading partner detail of the African countries.





Having viewed the African agricultural trade data from FAOSTAT, and extracted the trade matrix detail using WATM, let us now use the

World Agricultural Trade Flow
to view the matrix data graphically.

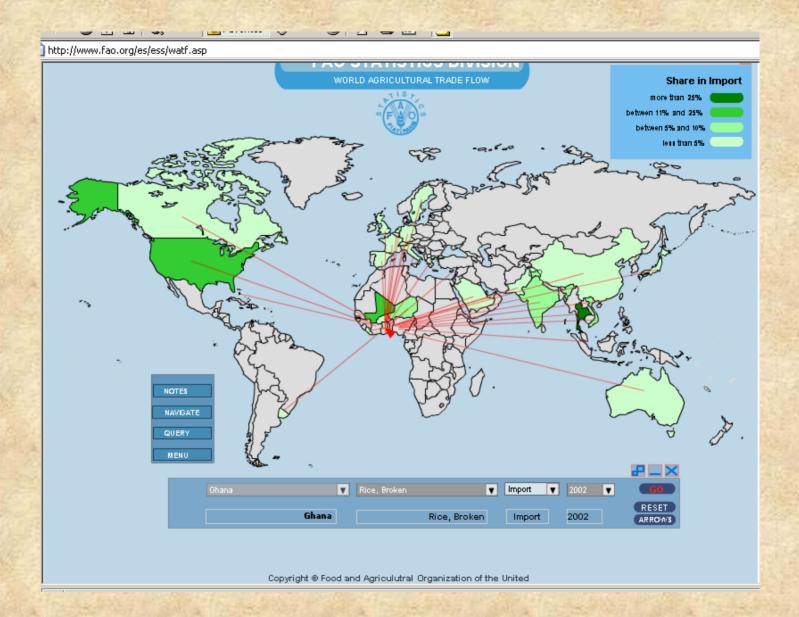
WATF is available on the Statistics Division Homepage as well as on CD-ROM.



FAO STATISTICS DIVISION WORLD AGRICULTURAL TRADE FLOW

Window

FullScreen



Import / Export Discrepancies in reporting:

There are a number of reasons which may, in part, explain these discrepancies:

- Time lag: with minor exceptions, the trade data are on an annual basis. So, if an export reported in December of a given year reaches destination in January, the import will be reported in the following year.
- Commodity misclassification: there could be misclassification of the product between the exporter and importer. For example, South Africa reports the export product as "Lemons" (HS code 0805.50), while the importer, Zimbabwe, reports the same product as "Citrus Fruit, other" (HS code 0805.90). Commodity misclassification may be purposely done for customs tax avoidance; e.g. the import duty on "wheat flour" could be less than that on "maize flour".
- Trade reporting system: some countries report data on "General Trade" basis (all imports and exports + re-exports, including Free-Zones), while others report on "Special Trade" basis (imports for domestic consumption only and 'nationalised' exports). For example, Cote d'Ivoire (General Trade) reports Banana export to the Netherlands (Special Trade); but, since these bananas will reside temporarily in a free-zone warehouse in Rotterdam to be reexported to Sweden, the Netherlands will not report this Banana import Sweden will.

Import / Export Discrepancies in reporting:

- Country of Origin/Destination: confusion could arise regarding the original exporter and the final importer. For example, Belgium reports an export to Botswana (country of final destination). The goods, however, will transit through South Africa. Botswana might report the import as originating from South Africa.
- Data Confidentiality: some countries will not report the trade quantities and/or values in certain products for reasons of confidentiality. Or, the partner country detail will not be provided and indicated as "Unspecified". Confidentiality can arise due to policy issues, trade monopolies, circumventing trade embargoes, etc.
- Food aid: a country may report only its commercial imports of a certain commodity and exclude the "Food aid" transhipments. We, however, include food aid data in the FAOSTAT trade figures wherever available information indicate that such transhipments were not included in the official detailed data.
- Loss or damage: exported quantities could get destroyed or lost en route due to accidents, weather conditions, etc.

Import / Export Discrepancies in reporting:

So, While the Statistics Division does adjust/modify some official trade figures where there are evident inconsistencies (such as clear data entry errors, out-of-trend unit value variations, unreported Food Aid, etc.), no overall adjustments are made to purposely match reported imports with corresponding reported exports.

The TRADE MATRIX data are, therefore, un-reconciled.

In the past, attempts have been made at reconciling the data using various methodologies, but it was evident that the final modified figures were too 'cosmetic' and deviated notably from reality.

Some of the reconciliation criteria taken into consideration in the past included taking importer declarations for specific commodities as the 'correct' figures; while for other commodities, the exporter figures were considered as 'correct'.

Another criteria was to keep the dollar values and base the quantities on either the exporter or importer unit-value calculations.



The perspectives of the trade statistics in FAO

- 1. To harmonize the national trade methodology with the international concepts, definitions and classifications;
- 2. To increase the availability of the trade data in electronic format according to the standard requests;
- 3. To increase the quality of the trade statistics at the national level and implicit the quality of the FAO trade databases;
- 4. To improve the statistical techniques related with the imputation/estimation of the missing data;
- 5. To create more flexible system for disseminating the external trade statistics and to adopt the adequate methods related with the trade data confidentiality;



The perspectives of the trade statistics in FAO

- 6. To extend the decentralization of the trade data collection and data processing; the experience accumulated during the current AOAD project should be used for other similar activities;
- 7. To integrate the trade data processing system into the new FAOSTAT 2 system;
- 8. To extent the cooperation and the collaboration with the national trade data producers and with other international organizations on trade statistics;
- 9. To create an interactive system of the international trade offices in order to implement a "real-time" trade data exchange and to reduce as much as possible the duplication of the work;
- 10. To create a network of the national and international trade statisticians and to use the internet facilities in order to have a permanent contact;

