FOOD SECURITY DEPARTMENT

The Implementation and Management of Food Security Database (FSDbase)

An Overview and A Proposal for Improvement

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Part 1: Background

How it started

Following initiatives at SADC the efforts have been made to benefit from the existing time series data. It was observed that since the inception of the Early Warning System in the SADC, whereby CMEWU started in 1978, a lot of data has been compiled for making appropriate early warning analyses for food security. It was noted that this information is not well organised for easy access and retrieval. It was therefore concluded that it would be wise to organise and store this broad-based data for easy access and retrieval in a uniform manner. Accordingly the efforts to do so were made and in 1996 the FSDbase project was implemented at Harare bringing together all NEWUs from SADC countries. On the basis of these efforts a system was designed comprising of a number of databases, categories and variables of food security interest.

An example of existing databases and associated components are as follows:

Databases

Tanzania agricultural yield
Others cover area, production, drinking water, primary schools, health centres, etc

Categories

Maize yield
Others cover sorghum, millets, wheat etc.

Variables

Maize yield (kg/ha) 1998/99
Others cover 1997/98, 1996/97, 1995/96, etc.

The DMV System

The databases indicated here are available both at national and regional levels of geographic aggregation. They are also accessible, browsable and updateable using

DMV (a PC based program). Further creations are also possible. We now wish to discuss DMV and its capability to browse, georeference, export, update and create databases.

DMV and database browsing

One of the uses of DMV is to browse geo-referenced databases like FSDbase, which is regional level of geographic aggregation. DMV uses thematic maps to geographically display the information. You can browse the default databases, or any other databases in the list of available databases. It is possible to access specific information about a geographical area using DMV.

DMV and quality improvements on maps

The quality of maps displayed using DMV can be improved using the overlaying capability. You can, for instance, overlay such features as roads, rivers, lakes etc. You can also change number of classes or classification methods (e.g. reducing the number of classes, equal class intervals, or manual classifications).

DMV and exporting

DMV can be used to change palate e.g. to grey pattern 'Notebook' and export/extracting maps as well as extracting the database or part thereof.

DMV and database updating

When new data is available or data gaps are to be filled DMV offers a useful facility to update. The updating process involves adding/entering new data to the database, compiling the database and linking the database to a geographic information.

DMV and database creation

The database creation process simply involves linking the available data with a geographic area a BNA file (map boundary file). Data in DMV is aggregated according to the BNA file.

Challenges

General

1. Without information food security management is like driving a car without fuel
2. The Network Economy is coming. Its essence is knowledge and connectivity.
3. Those who play by the new ruler will prosper; but those who ignore them will be left by the wayside.

Specific

1. The existing information resources and networking facilities are dispersed, fragmented and limited in terms of quantity, quality and level of computerization.
2. Yet, there exists demand for reliable information.
3. The present systems cannot satisfy the demand.

FSDbase Concept

FSDbase will support food security management by providing

- Specific and strategic information to the decision-makers and analysts.
- Connectivity to allow for easy communication.
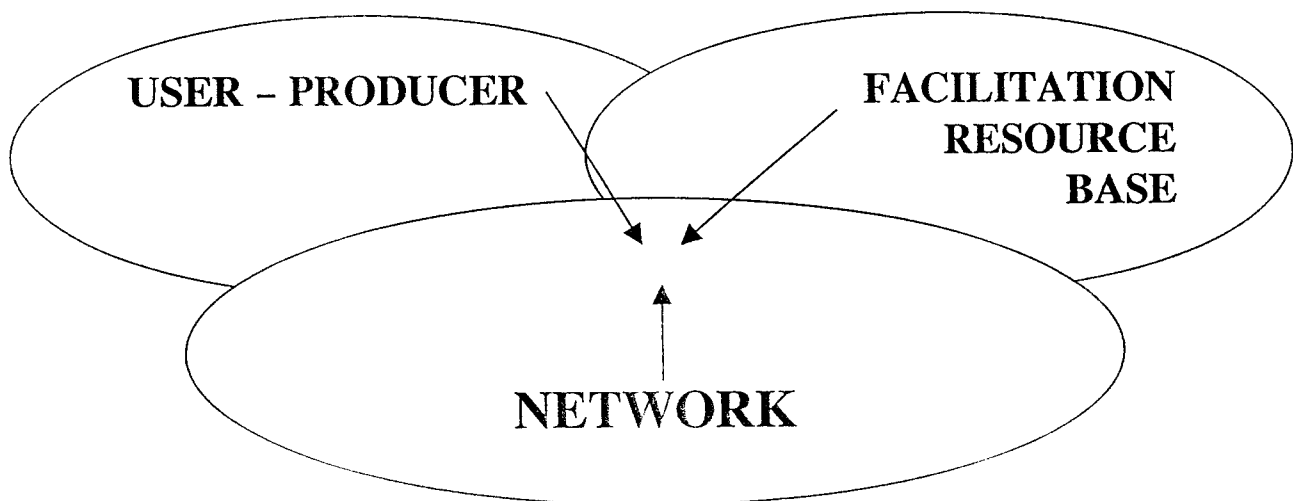
Objectives

The ultimate purpose of the FSDbase project is twofold:

1. To set up a collaborative Work Platform for the Food Sector administration (intranet)
2. To establish a Management Resource Facility (MRF), which will be a country-wide knowledge and management network aimed at supporting statutory activities of the stakeholders and other collaborating agencies.

Websites, specific databases dynamically interfaced with the web sites and data warehouses along with Electronic Documents Repository will be a pillar of MRF.

MFR has to be:
- learning based
- user – oriented
- demand – driven and
- decentralized
to the closest point of action with products and services based on local experience and tailored to user needs.
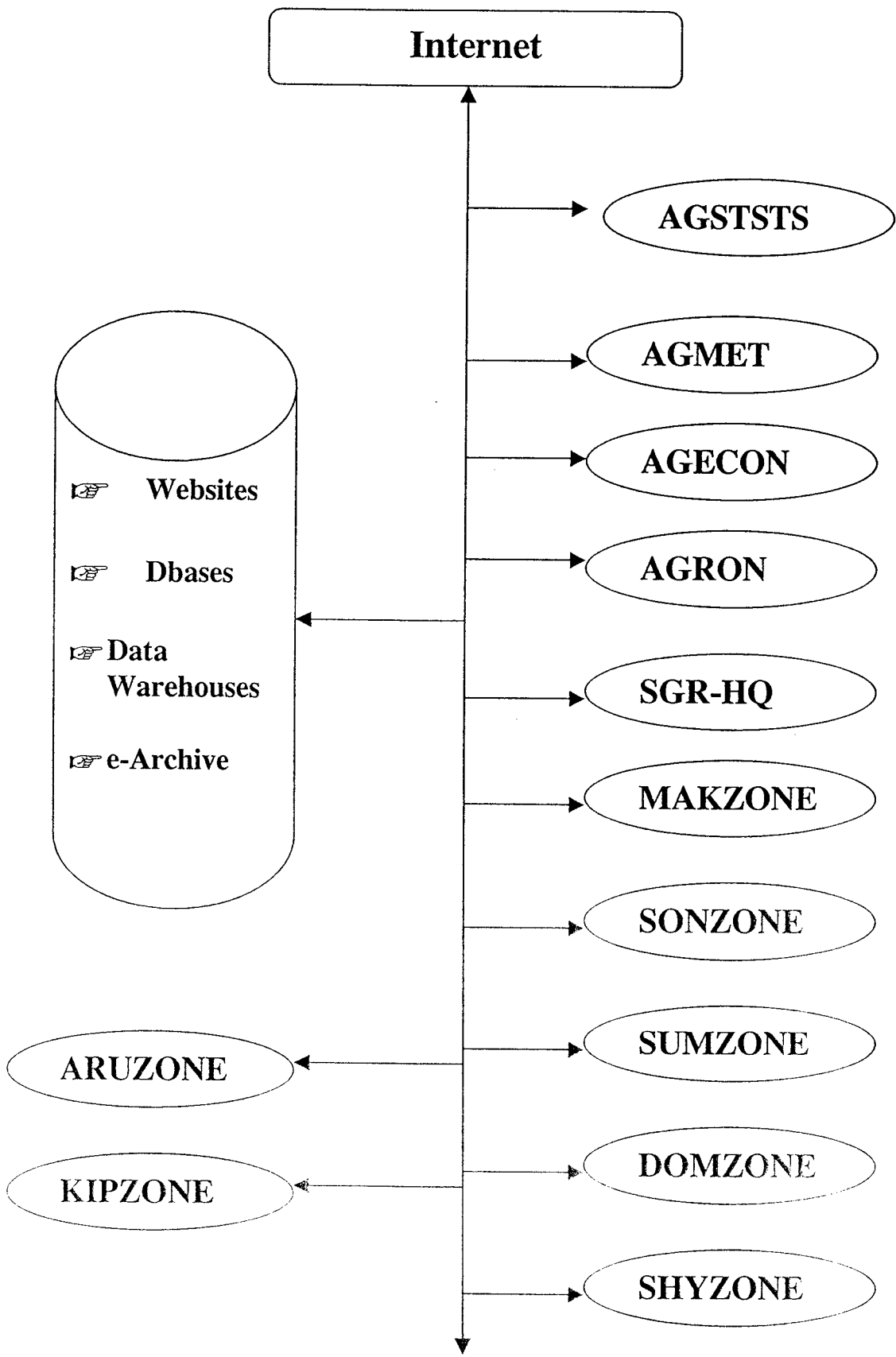
Management Intranet Topology
Phase I

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Project Execution Strategy (5-6 months)

To set up the system development team made up of:

☞ Specialists
☞ Project Integrators
☞ Representatives of project participating institutions
☞ International consultant

To acquire, install and make operational the computer equipment
To develop the website shell
To develop the database shell
To develop contents for the websites and databases
To interface dynamically the webs and databases

Critical factors

☞ System analysis report
☞ Information needs and structure
☞ Preparation of contents by the involved parties
☞ Good cooperation among involved parties.