



SADC SECRETARIAT



EUROPEAN DEVELOPMENT FUND

**Promotion of Regional Integration in the SADC Livestock Sector
(PRINT Livestock Project)**

9 ACP SAD 002



Report of a Mission to the Republic of Namibia



**LIMS adoption mission (Stakeholder meeting, Training on application and
Standards Operating Procedures)**

PRINT Report N°: PB-BB-LIMS-NAM-10-2008

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Dates: 28rd October– 31rd October 2008

Acknowledgments

We would like to thank all the colleagues who contributed to the success of this mission in one way or another, particularly [Dr Alec Bishi](#) and Dr. Cleopas Bamhare, for the warm welcome accorded to us and their patience during long intense and fruitful discussions. Their commitment is highly appreciated.



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BACK TO OFFICE MISSION REPORT

Summary

Country : Namibia
Mission team : Dr Pascal Bonnet CTA PRINT, Dr Gift Wanda Epidemiologist PRINT
Dates : 23rd September– 3rd October 2008
Venue : Thuringer Hof Hotel, Windhoek, Namibia

Introduction: mission rationale and objective

The Livestock Sector Unit (LSU) in the Food, Agriculture and Natural Resources (FANR) Directorate of the SADC Secretariat is entrusted to promote regional integration and sustainable livestock development. The PRINT Livestock Project in FANR became operational in July 2005. The project's specific objective is to establish a livestock information management system (LIMS) in Animal Production and Health, Marketing and Trade. The generation of up-to-date and reliable information will assist the coordinating role of FANR as well as the development of harmonized policies and strategies in the SADC livestock sector.

The mission team comprised two SADC staff, namely, Dr. Pascal Bonnet (Animal Health & Livestock Economist, CTA Chief Technical Adviser PRINT – CIRAD), Dr Gift Wanda Epidemiologist PRINT.

Summary of SADC PRINT mission:

The mission was the launching of the SADC LIMS system and comprised three components:

- the organisation of a AIMS-LIMS Stakeholders workshop, with potential contributors to LIMS and potential users of the system
- a 3 days Training of trainers on the LIMS application and
- the drafting of the first elements for establishing Standards Operating Procedures of LIMS.

Detailed ToR's and timetable of the mission are provided in full in the annexures.

Funding of mission:

PRINT DL, corresponding budget line in PE4 / Addendum number 1 by DEC.

Disclaimer

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Adviser, PRINT, Dr Gift Wanda Epidemiologist PRINT.

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Report N°: PB-GW-LIMS-NA-10-2008, By Dr. Pascal BONNET, Chief Technical
Adviser, PRINT, Dr Gift Wanda Epidemiologist PRINT.

1. OBJECTIVES OF THE MISSION

The overall objective of the mission was to launch the LIMS system. This mission was also a follow up of the comprehensive situation analysis and information needs assessment started by PRINT in SADC member states in 2007.

The **LIMS system** is made of 1/ the **LIMS software** and **reporting templates** (in Excel) which some staff were sensitized and trained on, 2/ **procedures** for information **exchange (SoP)** and for using **LIMS toolkit** applied through 3/ a **network of stakeholders** (forming the national **LIMS network**) working in collaboration

The **national LIMS network** means the various institutions being sources of livestock data / information in the respective member states, all sharing the effort to collect and compile data into LIMS at national level (some how soon at regional/provincial level), then transferring the information to SADC secretariat at regional level using the procedures agreed upon.

Therefore a selection of professionals was trained on the harmonized templates, the software and on the procedures. Secondly one purpose of the mission was to assess thanks to a participatory approach, the national data sources in the areas of Animal Health, Animal Production and Livestock Trade and Marketing in order to start drafting the SoP's and share of responsibilities for running the LIMS system.

This report complements the report on the first formal situation analysis made in the country in 2006 and therefore the later should be considered and consulted as an annexe.

2. INSTITUTION VISITED AND PERSONS

The summarized list and some detailed contact addresses of persons met are provided in listings within the text of the report.

3. ACTIVITIES

3-1. Stakeholder meeting

The objective of such stakeholder workshop was to present the entire AIMS initiative in order for participants to “locate” the LIMS system as a component under the AIMS system. It is therefore a follow up of former meetings dedicated to regional agriculture information systems, but this time focussing on the Livestock sector.

The two AIMS workshops held in 2007 and 2008 have been opportunities to sensitize the MS on the expected achievement of AIMS :

- formation of **AIMS networks**,
- compilation of numerical data and key information at regional level by sub sector and given stakes – topics (data contributors perspective),

- improvement of systems **interconnectivity** so that information is available from browsing in a portal (users perspective).

LIMS into AIMS: List of Participants invited to the AIMS meeting Pretoria 2008 – From Ministry of Agriculture and other institutions

From the original group of attendees at the **AIMS workshop** in Pretoria, two were present at our seminar

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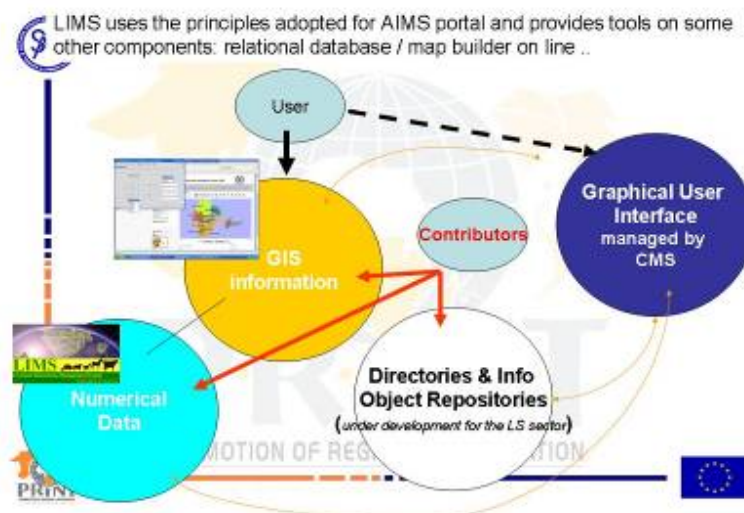
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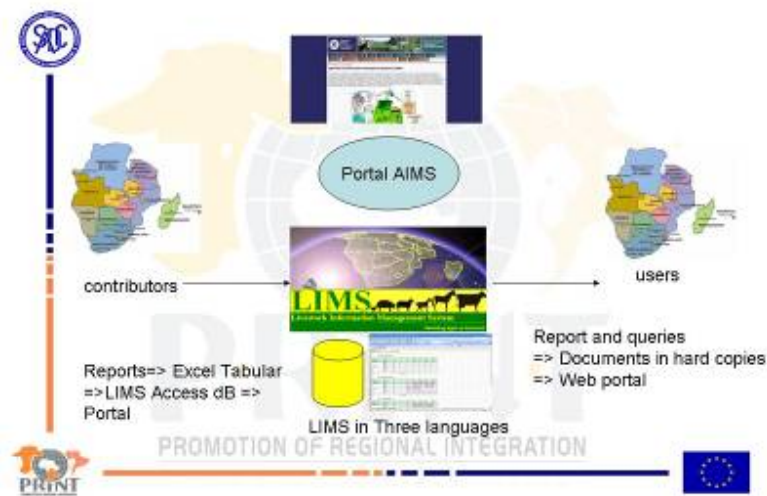
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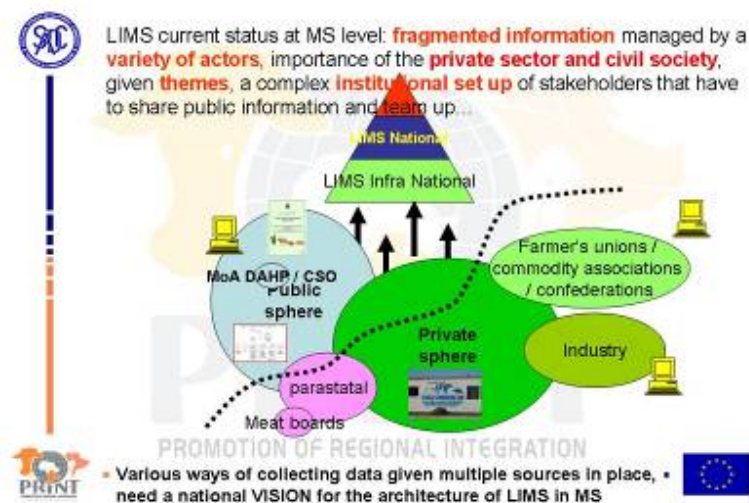
The entire presentation made by PRINT is provided in the annexe.



The expected components of AIMS and the place of LIMS elements were presented (i.e. the Excel Templates, database in MS Access application to facilitate data compilation and exchange, and LIMS web-based mapping portal to display indicators computed from the database).



LIMS is a system not only a database: it has **contributors** (from the LIMS national network) and **users** (any one using the portal), and it has a toolkit made of Excel Templates, database in a MS Access application and **procedures** for data compilation and exchange.

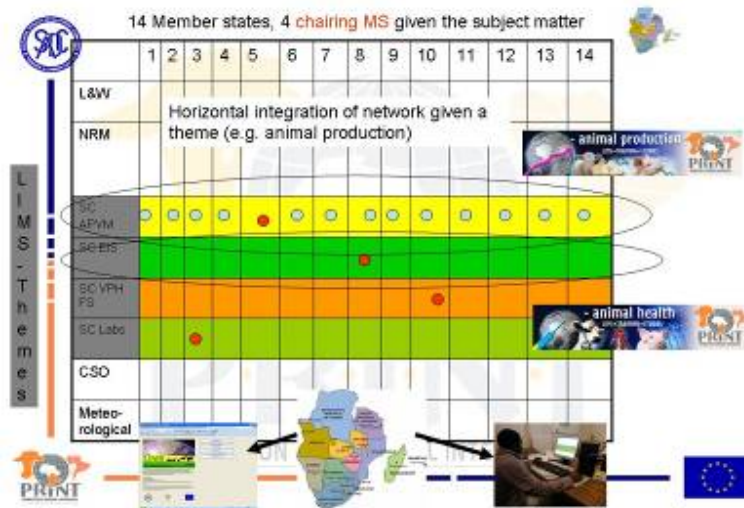


Contributors to LIMS are expected to originate from **multiple sources** and will have to work in collaboration thanks to the formation of LIMS national network. Therefore, LIMS provides for capturing data from various stakeholders and institutions, given their expertise and interest in the system, at various scales and can therefore be decentralized and it is a therefore a modular system.

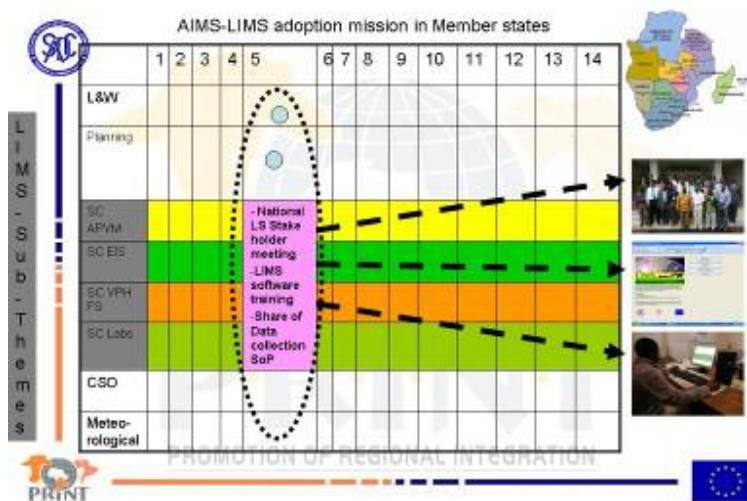
Nevertheless a **central coordination and management unit** is required (coordinated by the network) as there will be a national LIMS database centralized in the country.

Networking of institutions

PRINT has already worked out the networking aspect of the information system (IS) by supporting the **horizontal integration** of actors, thanks to the support given to the 4 subject matter **SADC sub committees of LTC**, composing four task forces aiming at managing part of the LIMS and therefore being its **custodian at regional level**. Horizontal integration means the integration of networks of stakeholders on a subject matter or specific areas of interest for the LS sector



The AIMS initiative and the LIMS launching missions are opportunities to complement the process initiated in 2007 by boosting the **vertical integration** of national networks “at the periphery” of the core Livestock sector represented by the four representatives to the sub committees of SADC, this topic being central at this occasion. Vertical integration means an aggregation and integration of new players (e.g. specialist of meteorology, of early warning systems), i.e. new professionals to the core group, and to the network of pure Livestock specialists.



The following slides are summarizing the AIMS networking rationale as established by the Namibian AIMS team in Pretoria: an example of **vertical integration** towards the formation of an AIMS network in a country of SADC

WHAT a) to put in place, b) want to strengthen?

- ❑ a) National information network → Namibian Agricultural Information Management system
- ❑ b) Communication, coordination, info/data exchange between different sectors within government,
- ❑ b) Better communication between GRN and the private sector



- ❑ Improving active & relevant contribution to NDP3 / Vision 2030 / MGs:
 - Alleviation of poverty,
 - ensuring food security,
 - sustainable management of natural resources
- ❑ Development of human capital
- ❑ Improving & Increasing Agricultural production, trade / marketing

WHO ARE THE IDENTIFIED STAKEHOLDERS FOR NETWORK?

Ministry of Agriculture, Water & Forestry (MAWF)

- Directorate of Agricultural Research & Training
- Forestry (Fire mapping, Forestry inventory database, RSU)
- Hydrology (mapping of river, dams, reservoirs, flood mapping)
- Geo-hydrology (borehole database, yields, capacity)
- Water Environment (Water Quality database)
- National Botanical Research Institute (Vegetation Survey)
- Veterinary Services (Animal Health Database)
- Planning (Early Warning & Food Security Information)

Ministry of Environment & Tourism (MET)

- Directorate of Environmental Affairs
- Directorate of Scientific Services
- Etosha Ecological Institute

National Planning Commission (NPC)

Ministry of Mines and Energy (Geological Survey)

Ministry of Lands & Resettlement (and use planning, land reform)
 Ministry of Fisheries & Marine Resources (aquaculture)
 Desert Research Foundation of Namibia (local level monitoring)
 Namwater (Water Infrastructure)
 Nampower (Power infrastructure)
 Telecommunication infrastructure (data / technology exchange)
 Transnamib (infrastructure – means of trade / marketing)
 Roads Authority (infrastructure – means of trade / marketing)
 Training Institutions (Research & Training) – UNAM, PoN
 Meatboard (Trade & Market information Database)
 Agronomic Board (maintain stats on crop production, control imports & exports)
 Farmers' Unions & Cooperatives (represent farmers needs & interest)
 NGO (Training of communities & upcoming farmers) – FAO, Animal Health Organization

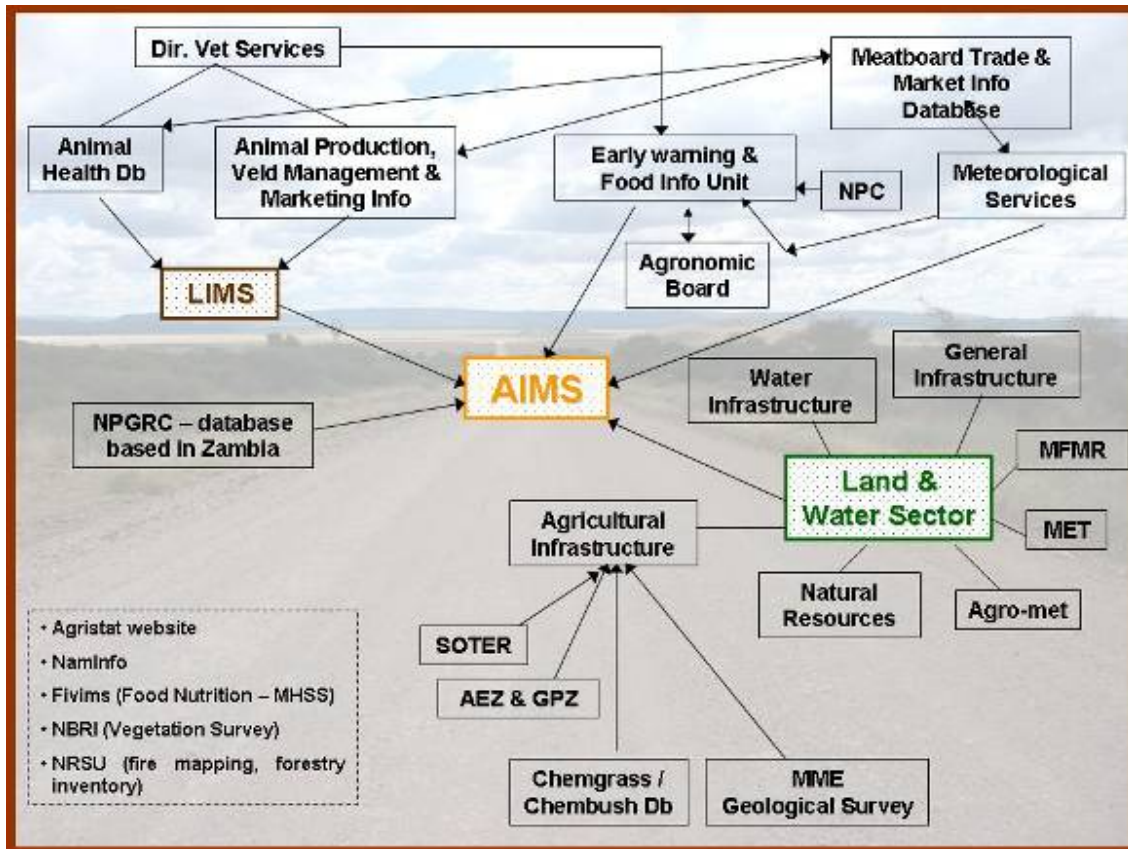
HOW – 5 STEP PLAN

WHO? Celeste Espach (L&W) and Dr Cleopas Bamhare (LIMS) – MAWF

MEETING TIME? Every second month

NETWORK ESTABLISHED? End of July 2008 / first meeting August 2008

- ☐ Identification of thematic focal points
- ☐ Hold a stakeholder consultative workshop to identify data and information needs, potential sources, formats
- ☐ Establish standards on reporting format, frequency and quality
- ☐ Establish efficient data storage and management
- ☐ Develop feedback mechanisms of data to users / suppliers
 - information package
 - report-back meetings / email communication
 - AIMS website



The agenda of the seminar is provided hereafter:

Seminar attendance

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AGENDA of the SEMINAR



**SADC PRINT Livestock Project in collaboration with MAWF Namibia
AGENDA FOR THE LIVESTOCK INFORMATION MANAGEMENT SYSTEM
(LIMS) STAKEHOLDERS MEETING
Tuesday 28th October 2008
VENUE Thüringerhof Hotel – Windhoek**

8:00 – 8:30 Registration

8:30 - 09:00 Opening remarks Introductory remarks by PRINT Chief Technical Advisor, Welcome Remarks by the Acting Director of Veterinary Services, Opening speech – by the Deputy Permanent Secretary

09:00 – 09:45 Introducing Agricultural Information and Management System (AIMS) and its components (e.g. LIMS) – Dr. P. Bonnet

09:45 – 10:00 Discussion

10:00 – 10:20 Introducing LIMS - Dr. P. Bonnet & Dr G. Wanda

10:20 – 10:30 Discussion

10:30 – 11:00 Tea Break

11:00 – 12:30 Demonstration of the LIMS reporting templates

- Livestock Development - Dr. P. Bonnet
- Livestock Marketing and Trade (LMT) – Dr. P. Bonnet
- Animal Production (AP) – Dr. G. Wanda
- Animal Health (AH) – Dr. G. Wanda

12:30 – 13:00 Discussion & Group picture

13:00 – 14:00 LUNCH

14:00 - 15:00 Demonstration of LIMS database – Dr. P. Bonnet & G. Wanda

15:00 -15:15 Demonstration of LIMS/AIMS Portal - Dr. P. Bonnet & G. Wanda

15:15 – 15:30 Discussion

15:30 – 16:00 Tea Break

16:00 – 16:15 Introducing data sources and networking with stakeholders – Dr. P. Bonnet

16:15 – 17:00 Participatory livestock stakeholders mapping

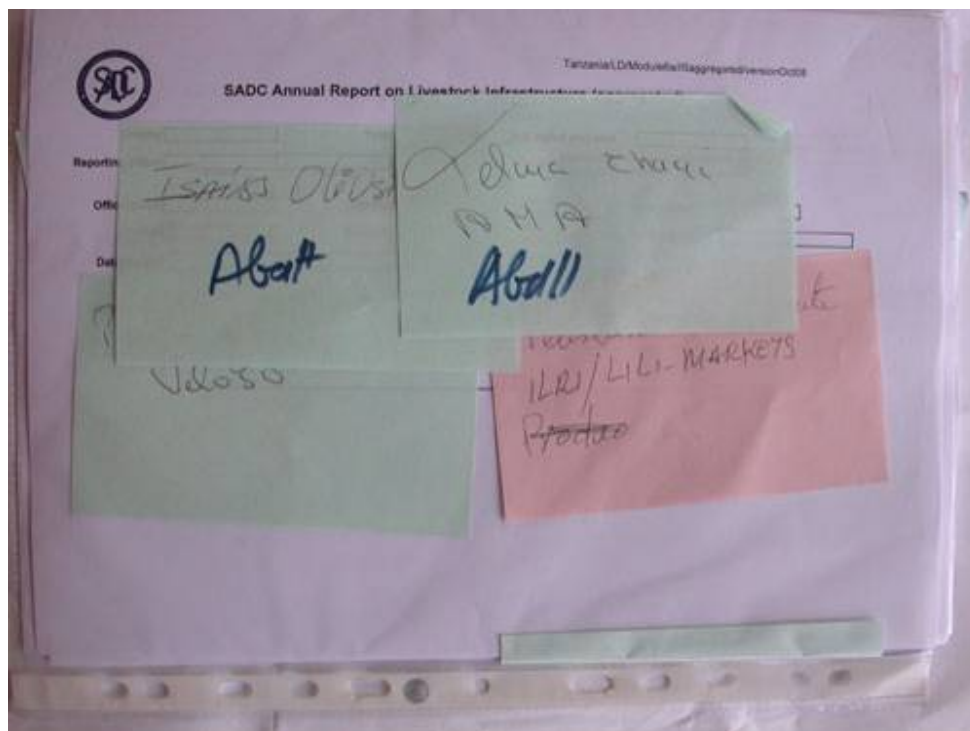
17:00 Closure



The AIMS LIMS group at the venue in Windhoek

First stakeholder mapping on the go as it was carried out the end of the seminar

Participants to the seminar were asked to indicate their preferences in participating to the LIMS by sticking their name and name of their institution on the templates displayed around the table in the seminar venue. It allowed PRINT to identify the various interests and possible contributions to the system, to a point where some appointments were made for the third activity of the adoption mission, i.e. the establishment of a national LIMS network and the drafting of first SoP's. Therefore in doing so the specific interest for a part of the system (some modules or some templates only) or a generic interest for the entire system were highlighted.



Participants were asked to stick their name on the templates of LIMS making a first stage for a stakeholder mapping, before drafting the SoP's for LIMS

3-2. Training on LIMS

Agenda of the LIMS training



SADC PRINT Livestock Project in collaboration with MAWF Namibia
AGENDA FOR LIMS TRAINING OF TRAINERS
LIVESTOCK INFORMATION MANAGEMENT SYSTEM
29th - 31st October 2008
VENUE Thüringerhof Hotel – Windhoek

DAY 1 – Wednesday 29th October 2008

| | |
|----------------------|---|
| 8:00 – 8:15 | Introduction - Training objectives |
| 8:15 - 9:00 | Installation <ol style="list-style-type: none"> 1. First time installation 2. Key files and folders 3. Uninstalling 4. Re-installing |
| 9:00 – 10:30 | Basic concept of LIMS operation <ol style="list-style-type: none"> 1. Opening, navigation and closing the application 2. Menu and sub-menu structure |
| 10:30 – 11:00 | TEA BREAK |
| 11:00 – 11:30 | Basic concept of LIMS operation (Continued) <ol style="list-style-type: none"> 3. Standard tool bar and other GUI |
| 11:30 – 12:00 | Administration: Access Control <ol style="list-style-type: none"> 1. Creating users 2. Assigning roles and granting rights |
| 12:00 – 13:00 | Data entry, modification and saving <ol style="list-style-type: none"> 1. Livestock numbers and composition (Module 1) |
| 13:00 – 14:00 | LUNCH |
| 14:00 - 15:30 | Data entry, modification and saving (continued) <ol style="list-style-type: none"> 2. Livestock Products (Module 3) |
| 15:30 – 16:00 | TEA BREAK and GROUP PICTURE |
| 16:00 – 17:00 | Data entry, modification and saving (continued) <ol style="list-style-type: none"> 3. Livestock Trade (Module 5) |

DAY 2 – Thursday 30th October 2008

| | |
|----------------------|---|
| 8:00 – 9:00 | Revision of day 1 - Discussion |
| 9:00 – 10:30 | Data entry, modification and saving (continued) <ol style="list-style-type: none"> 4. Livestock Infrastructure (Module 6) |
| 10:30 – 11:00 | TEA BREAK |

| | |
|----------------------------------|--|
| 11:00 – 11:30 | Data entry, modification and saving (continued) 5. Meat Inspection (Module 7) |
| 11:30 – 12:00 | Data entry, modification and saving (continued) 6. Laws, regulations and acts (Module 9) |
| 12:00 – 13:00 | Data entry, modification and saving (continued) 7. Disease Report (Module 10) |
| 13:00 – 14:00 | LUNCH |
| 14:00 - 15:30 results | Building queries, generating reports and exporting query 1. Livestock numbers and composition (Module 1) 2. Livestock Products (Module 3) |
| 15:30 – 16:00 | TEA BREAK |
| 16:00 – 17:00 | Building queries, generating reports and exporting query results (continued) 3. Livestock Trade (Module 5) |

DAY 3 – Friday 31st October 2008

| | |
|--------------------------|---|
| 8:00 – 9:00 | Revision of day 2 - Discussion |
| 9:00 – 10:30 results | Building queries, generating reports and exporting query (continued) <ul style="list-style-type: none">4. Meat Inspection (Module 7)5. Disease Report (Module 10) |
| 10:30 – 11:00 | TEA BREAK |
| 11:00 – 11:30 results | Building queries, generating reports and exporting query (continued) <ul style="list-style-type: none">5. Disease Report (Module 10) Cont. |
| 11:30 – 13:00 | Administration <ul style="list-style-type: none">1. Data Management: sending and receiving files (electronic reports)2. Data Management: backup and restore |
| 13:00 – 14:00 | LUNCH |
| 14:00 - 15:30 | General Discussion |
| 15:30 – 16:00 | TEA BREAK |
| 16:00 – 17:00 | Installation and configuration of clean copy of the database |
| 17:00 | End of training course |

The training aims at sensitizing the **future trainers** to the rationale of LIMS system. Obviously it is also to train them on the **LIMS application functionalities** and the **templates contents**, so that they become familiar with the entire concepts and system. Besides, it is also expected that from the training, participants will be in a position to better design and produce *specific training material* derived from the *generic training*

material provided by PRINT, i.e. training manuals for trainers and for data clerks (still to be finalized and translated), with specific examples and illustrations selected from the country context.

The system is based on the principle: “*if you master one template, you master them all*”, as most screens and templates share a similar tabular presentation.

Nine (9) staff were trained as **future trainers for Namibia**. The list of trainers is provided hereafter with detailed address.



The training group in Windhoek

From left to right: Mrs Jeanetha TJITAURA, Dr Wanda (SADC) , Dr Alec Bishi, Mr NEUMBO Fidelis Gerhard , Mrs Maria Magrietha CHRISTIAAN, Mrs Ermelinda Loureime TJIMUNE, Mrs Lucia Ndamonako MARIUS ,Mr. Petrus N. Shifotoka, Angello Robby Robenson GLAZER, Norbert SHIVORO (Photo by Dr Bonnet)

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|---------------|-------------------------------|--------|--|--|-------------------|--------------------------------|---------------|---|
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| SHIFOTO KA | Petrus Nandjigwa Shifotoka | M | Statistician National Planning Commission Central Bureau of Statistics Economic Statistics Division Office Nr: 042, Ground Floor | NPC Central Bureau of Standards (CBS) P/Bag 1835 Windhoek, Namibia | 61283 4006 | 81286 7382 | 6123 5672 | pshifotoka@npc.gov.na pshiphotoker@gmail.com Personal Website: www.germman.com |
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| | | | | | | | | |
|-----------|--------------------|---|--|--|---|------------|---------------------|--|
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The training group was with Dr Bonnet and Dr Wanda



The training room was equipped with 10 eee Asus mini-laptops” though some participants run their personal computers



Training handouts in English were distributed (in files) plus the SoP sheet and the Comment sheet in English to serve during the elaboration of the first draft SoP for the country



All harmonized templates and screens were visited with also the main functionalities of LIMS system and software's











The training room accommodated for 9 staffs plus 2 trainers Dr Bonnet and Dr Wanda. Ten “eee ASUS” mini laptops computers from PRINT project were available, all running XP OS and Access 2003, thus reducing the loss of time due to adjusting LIMS on other systems like Access 2007 and Vista (though LIMS can adapt the other systems and OS and install procedures for such systems are provided in the training package and CD).

External QWERTY keyboard were available to switch from AZERTY genuine keyboards of the minilaptops, to English setting keyboards. In such a training with the LIMS software , all PC must be set up with regional parameters preferably as **English UK** to properly run LIMS software (i.e. numeric decimal is a dot and thousand space separation is allowed). This will also be a prerequisite when running LIMS in all MS (therefore to be put as a warning message in the training material and FAQ)¹.

Validation of Partitions

The concept of partitions of a country is generally well understood (= Administrative divisions and Cadastral Boundaries on one hand and any Technical division used for the purpose of managing other technical issues like Livestock on the other hand). Nevertheless, the alternative use of **technical partitions** versus **administrative partition** must be discussed in depth during a LIMS adoption mission, as these are key features into LIMS to insure interconnectivity with other information chains and provide room for populating the LIMS with external data originating from other sources than the Ministry of Agriculture (e.g. zoonosis records from MoH will use health zones).

¹ Refer to Annexe for more explanation

This aspect of the LIMS allows capturing data from various sources by respecting the **observation units** they originally use. It therefore allows to interact and interconnect with other systems by assuring that one can import/export some information / data in compliance with the relevant observation units required (i.e. with logical and geographical compliance and GIS interconnectivity).

| Country | Partition Type | Partition Level |
|----------|----------------|-----------------|
| Angola | Administrative | 1 |
| Angola | Administrative | 2 |
| Angola | Technical | 1 |
| Angola | Technical | 2 |
| Botswana | Administrative | 1 |

| | | | |
|----------------------|----------------|---------------|------------|
| Country | Angola | Date Created | 01/01/2008 |
| Partition Type | Administrative | Created By | admin |
| Partition Level | 1 | Date Modified | 01/01/2008 |
| Partition Level Desc | Region | Modified By | admin |

| Partition Name | Parent Partition | Start Date | End Date | Date Modified | Modified By |
|----------------|------------------|------------|------------|---------------|-------------|
| Bengo | | 01/01/2008 | 01/02/2008 | 01/01/2008 | admin |
| Benguela | | 01/01/2008 | | 01/01/2008 | admin |
| Bie | | 01/01/2008 | | 01/01/2008 | admin |
| Cabinda | | 01/01/2008 | | 01/01/2008 | admin |
| Quando Cubango | | 01/01/2008 | | 01/01/2008 | admin |
| Cuanza Norte | | 01/01/2008 | | 01/01/2008 | admin |
| Cuanza Sul | | 01/01/2008 | | 01/01/2008 | admin |
| Cunene | | 01/01/2008 | | 01/01/2008 | admin |
| Huambo | | 01/01/2008 | | 01/01/2008 | admin |

The LIMS screen (reference parameters section) which allows to pre populate and therefore define the administrative and technical **partitions** of a country (this must be reflected into LIMS database at SADC level as SADC regional level will consolidate national data using the same shared partitions).

For SADC purpose (regional database), it needs to be populated with at least the **ADMIN2 level** of a country (generally named a “district”, and it refers to the ISO standard for its coding), so that all data are aggregated at such a level and sent to SADC accordingly.

Nevertheless for a national utilisation of LIMS one can think to implement a rather more detailed set of zones (ADMIN3, or Dip Tank catchments areas etc..) in the future. Such level of information will remain in the **national LIMS database**, only aggregated data at ADMIN2 level will be sent to SADC for **regional compilation** at SADC in Botswana.

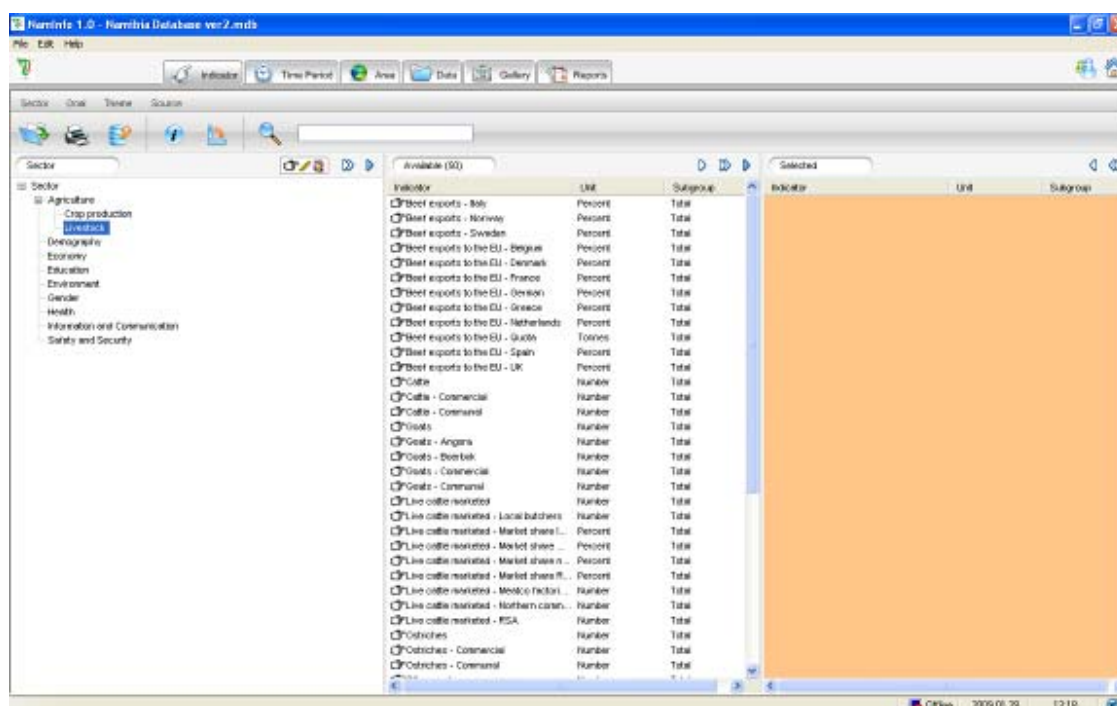
The screenshot shows a web application window titled "Livestock Information Management System - [frmExportImportMain : Formulaire]". The window has a menu bar with items: Administration, Livestock Development, Animal Health, Animal Production, and Livestock Trade and Marketing. The main content area is titled "Export/Import Data" and contains a sub-form titled "Export/Import Livestock Data". This sub-form has a "Select Report Type" dropdown menu, three input fields labeled "Country", "Year", and "Period", and two buttons labeled "Export" and "Import". The sub-form is set against a light blue background, while the main window has a light yellow background.

The facility that allows export of data or import shall soon allow to select the partitions of preference for data exchange.

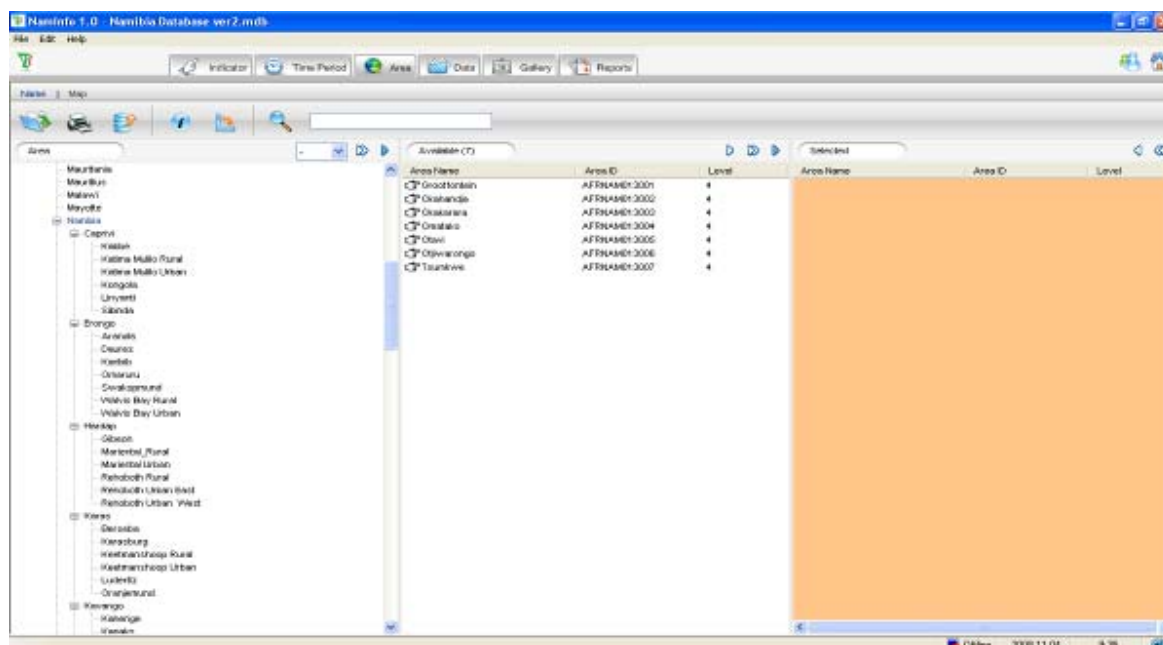
Interconnectivity between systems: geographical compliance of observation units:

As an example, if data shall be imported into LIMS by Livelihood zones, this set of partitions must be populated into LIMS, thanks to the technical partition facility predefined in such a way. Or if animal census data (Module 1 of LIMS) shall be exported by dip tank or crush pens zones, or by vaccination zones, LIMS can export such information to be inputted in any other system, including a GIS.

For the purpose of the demonstration, one will take the example of **DEVinfo** (in Namibia **NAMinfo**), an information system developed under the auspice of UNICEF to monitor the accomplishment of the MDG, and generally implemented in collaboration with national CSO's.



Some screens of DEVinfo attributes and indicators as stored in the database.



Examples of Namibian partitions which are implemented into DEVinfo in Namibia (here Admin zones).

The screens of DEVinfo show how partitions are implemented in an outsider system, here only Administrative divisions are implemented into DEVinfo (e.g. in Zambia the same system encompasses livelihood zones)

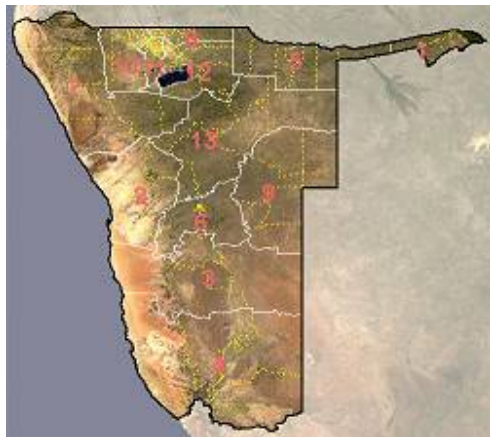
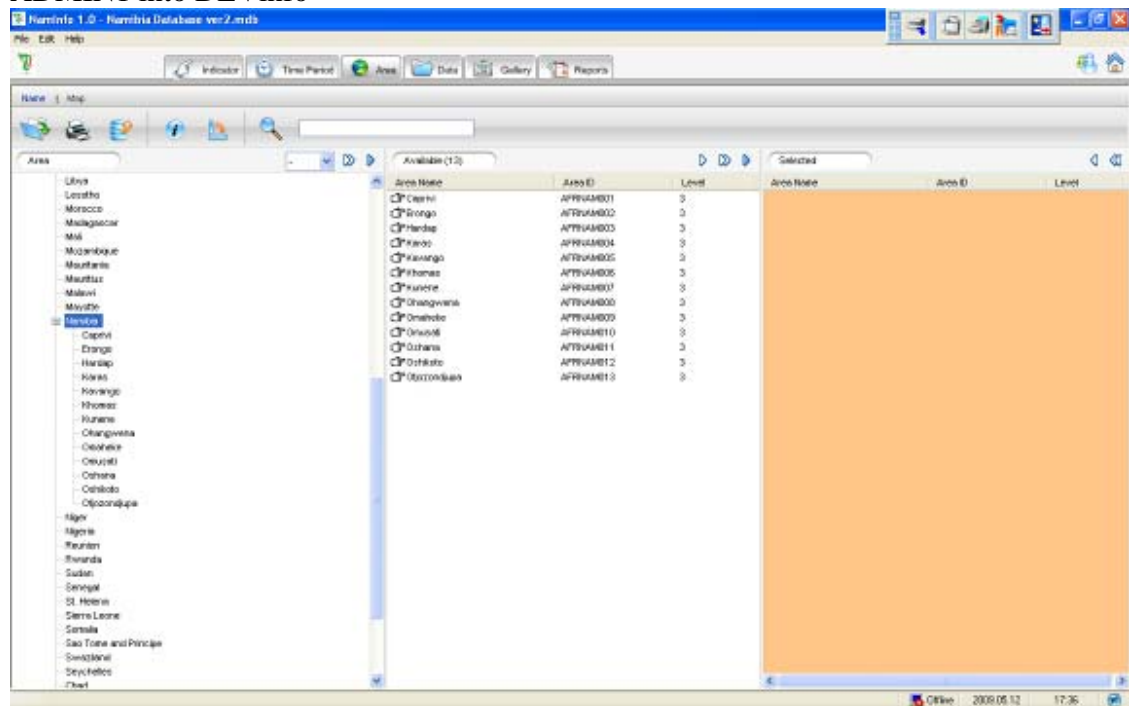
Here we see the selection made for area names (admin in such case = districts), the regions and districts. Before exporting data from DEVinfo one should select the proper zoning scheme that one needs. Some data may have been captured under administrative zoning principle, whereas some other could be under a technical partition (like livelihood zones). Finally all can be overlaid in a GIS.

Bridging data from LIMS to DEVinfo and vice versa will allow for some exploratory analysis like analysing geographical correlation (also called ecological correlations) between some MDG indicators and LIMS indicators, e.g. mortality under 5 years of age in districts (source DEVinfo) against % of HH rearing LS (source LIMS), or production of a given protein (animal product) in districts.

The generic Partitions, Admin 1.Admin, 2. and some Technical partitions have been validated in Namibia² and we provide them into the annexe and some elements in the following paragraphs. **Web-mapping** under the AIMS portal cf. <http://LIMS.sadc.int> requires consistent correspondence between partitions implemented on the portal and in LIMS, therefore the need to monitor anychanges into the system.

² Sources of geographical data were explored during the first situation analysis undertaken in phase one of LIMS cf. the report.

ADMIN1 into DEVinfo



4 - Karas

5 - Kavango

6 - Khomas

7 - Kunene

8 - Ohangwena

9 - Omaha

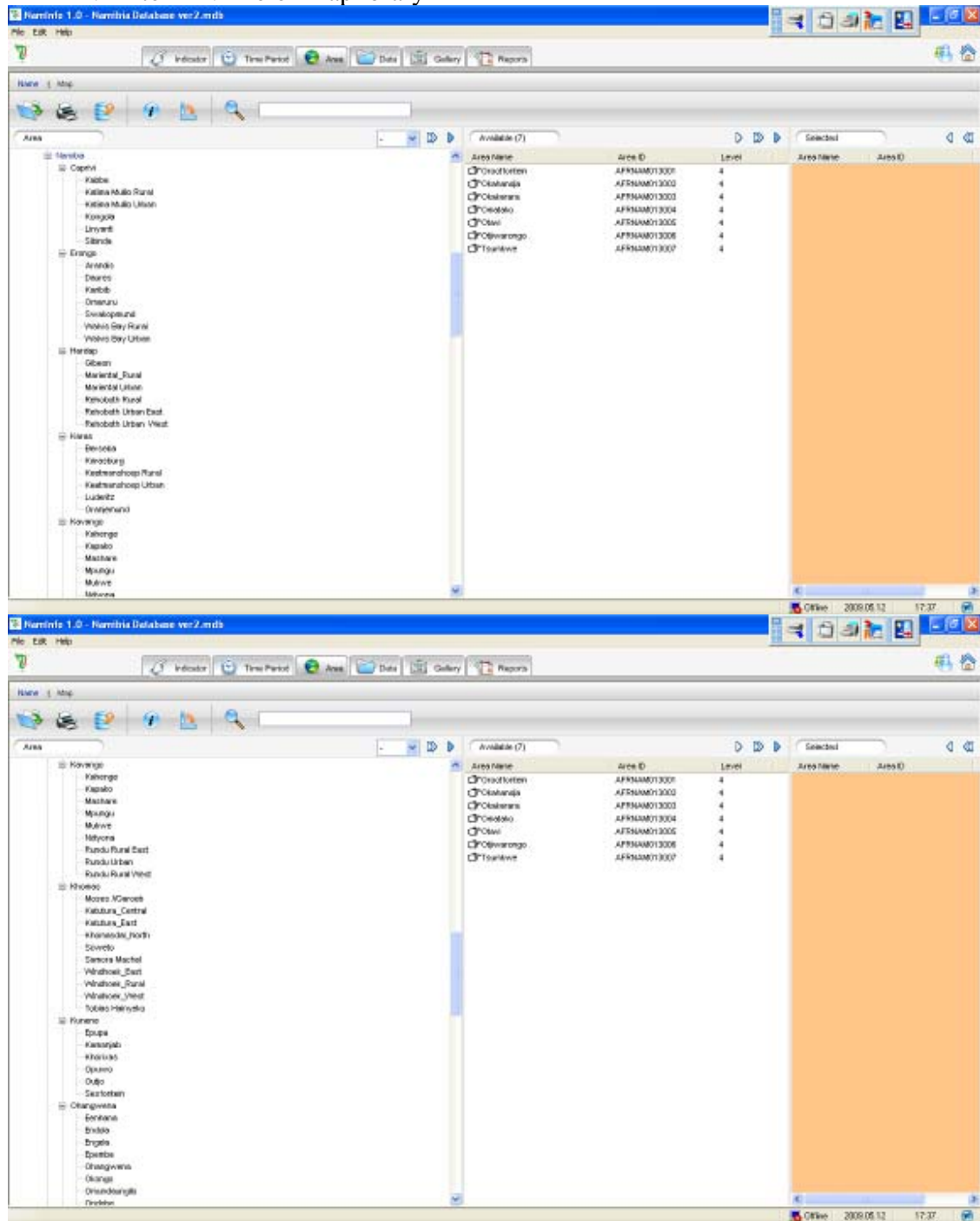
10 - Omusati

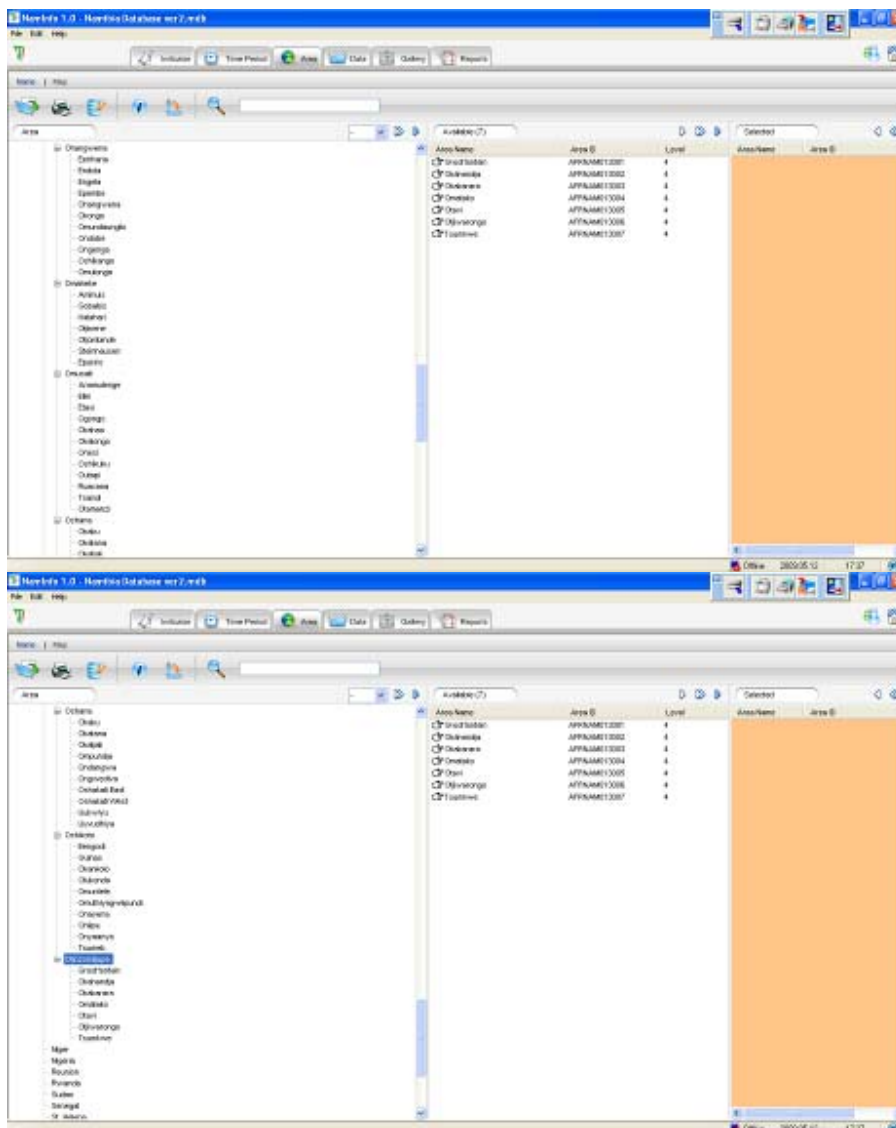
11 - Oshana

12 - Oshikoto

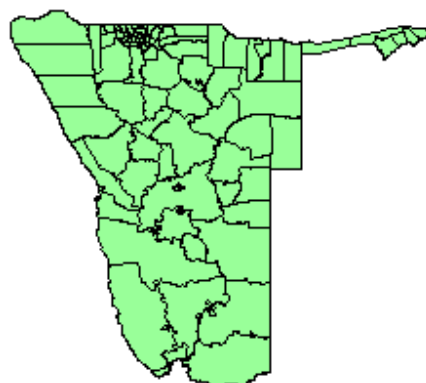
13 - Otjozondjupa

ADMIN2 into DEVinfo or Maplibrary





ADMIN2 into Maplibrary (109 units as ADMIN2)



ADM1
Caprivi
Caprivi

ADM2
Kabe
Katima Muliro Rural

| | |
|---------|---------------------|
| Caprivi | Katima Muliro Urban |
| Caprivi | Kongola |
| Caprivi | Linyandi |
| Caprivi | Sibinda |
| Erongo | Arandis |
| Erongo | Daures |
| Erongo | Karibib |
| Erongo | Omaruru |
| Erongo | Swakopmund |
| Erongo | Walvisbay Rural |
| Erongo | Walvisbay Urban |
| Hardap | Gibeon |
| Hardap | Mariental Rural |
| Hardap | Mariental Urban |
| Hardap | Rehoboth East |
| Hardap | Rehoboth Rural |
| Hardap | Rehoboth West |
| Karas | Berseba |
| Karas | Karas |
| Karas | Keetmanshoop Rural |
| Karas | Keetmanshoop Urban |
| Karas | Luderitz |
| Karas | Luderitz |
| Karas | Luderitz |
| Karas | Luderitz |
| Karas | Luderitz |
| Karas | Luderitz |
| Karas | Luderitz |
| Karas | Luderitz |
| Karas | Oranjemund |
| Kavango | Kahenge |
| Kavango | Kapako |
| Kavango | Mashare |
| Kavango | Mpungu |
| Kavango | Mukwe |
| Kavango | Ndiyona |
| Kavango | Rundu Rural |
| Kavango | Rundu Urban |
| Khomas | Hakahana |
| Khomas | Katutura Central |
| Khomas | Katutura East |
| Khomas | Khomasdal North |
| Khomas | Soweto |
| Khomas | Wanaheda |
| Khomas | Windhoek East |
| Khomas | Windhoek Rural |
| Khomas | Windhoek West |
| Kunene | Epupa |
| Kunene | Kamanjab |
| Kunene | Khorixas |
| Kunene | Opuwo |

| | |
|-----------|------------------|
| Kunene | Outjo |
| Kunene | Sesfontein |
| Ohangwena | Eenhana |
| Ohangwena | Endola |
| Ohangwena | Engela |
| Ohangwena | Epembe |
| Ohangwena | Ohangwena |
| Ohangwena | Okongo |
| Ohangwena | Omundaungilo |
| Ohangwena | Ondombe |
| Ohangwena | Ongenga |
| Ohangwena | Oshikango |
| Omaheke | Aminius |
| Omaheke | Gobabis |
| Omaheke | Kalahari |
| Omaheke | Kalahari |
| Omaheke | Otjinene |
| Omaheke | Otjombinde |
| Omaheke | Steinhausen |
| Omusati | Anamulenge |
| Omusati | Elim |
| Omusati | Etayi |
| Omusati | Ogongo |
| Omusati | Okahao |
| Omusati | Okalongo |
| Omusati | Onesi |
| Omusati | Oshikuku |
| Omusati | Outapi |
| Omusati | Ruacana |
| Omusati | Tsandi |
| Oshana | Okaku |
| Oshana | Okatana |
| Oshana | Okatyali |
| Oshana | Ompundja |
| Oshana | Ondangwa |
| Oshana | Ongwediva |
| Oshana | Oshakati East |
| Oshana | Oshakati West |
| Oshana | Uukwiyu |
| Oshana | Uuvudhiya |
| Oshikoto | Engodi |
| Oshikoto | Guinas |
| Oshikoto | Okankolo |
| Oshikoto | Olukonda |
| Oshikoto | Omuntele |
| Oshikoto | Omuthiyagwipundi |
| Oshikoto | Onayena |
| Oshikoto | Oniipa |
| Oshikoto | Onyaanya |
| Oshikoto | Tsumeb |

Otjozondjupa
Otjozondjupa
Otjozondjupa
Otjozondjupa
Otjozondjupa
Otjozondjupa
Otjozondjupa

Grootfontein
Okahandja
Okakarara
Omatoko
Otavi
Otjiwarongo
Tsumkwe

One could refer to the official list of regions and constituencies (survey and Mapping Namibia, on line sources like Maplibrary). The regions are named **Regional government areas** in Namibia. The districts (102) are named **constituencies** in Namibia. The following table comes from UN SALB project.

| | |
|-----------------------------|---|
| Country: | Namibia |
| Representativity: | January 2000 |
| Source of the data: | Directorate of Survey and mapping |
| Source of the codes: | SALB project, Copyright © United Nations 2003. All rights reserved |
| Comments: | Because of a misunderstanding with the National Mapping Agency, we had to remove the constituency of Mukwe (NAM001006) in Caprivi region. |

| 1st administrative level names | 2nd administrative level names | Priority and first mode of implementation a or b |
|--------------------------------|--------------------------------|---|
| Caprivi | Kabe | |
| Caprivi | Katima Muliro Rural | |
| Caprivi | Katima Muliro Urban | |
| Caprivi | Kongola | |
| Caprivi | Linyandi | |
| Caprivi | Sibinda | |
| Erongo | Arandis | |
| Erongo | Daures | |
| Erongo | Karibib | |
| Erongo | Omaruru | |
| Erongo | Swakopmund | |
| Erongo | Walvisbay Rural | |
| Erongo | Walvisbay Urban | |
| Hardap | Gibeon | |
| Hardap | Mariental Rural | |
| Hardap | Mariental Urban | |
| Hardap | Rehoboth East | |
| Hardap | Rehoboth Rural | |
| Hardap | Rehoboth West | |
| Karas | Berseba | |
| Karas | Karas | |
| Karas | Keetmanshoop Rural | |
| Karas | Keetmanshoop Urban | |
| Karas | Luderitz | |

| | | |
|-----------|------------------|--|
| Karas | Oranjemund | |
| Kavango | Kahenge | |
| Kavango | Kapako | |
| Kavango | Mashare | |
| Kavango | Mpungu | |
| Kavango | Mukwe | |
| Kavango | Ndiyona | |
| Kavango | Rundu Rural | |
| Kavango | Rundu Urban | |
| Khomas | Hakahana | |
| Khomas | Katutura Central | |
| Khomas | Katutura East | |
| Khomas | Khomasdal North | |
| Khomas | Soweto | |
| Khomas | Wanaheda | |
| Khomas | Windhoek East | |
| Khomas | Windhoek Rural | |
| Khomas | Windhoek West | |
| Kunene | Epupa | |
| Kunene | Kamanjab | |
| Kunene | Khorixas | |
| Kunene | Opuwo | |
| Kunene | Outjo | |
| Kunene | Sesfontein | |
| Ohangwena | Eenhana | |
| Ohangwena | Endola | |
| Ohangwena | Engela | |
| Ohangwena | Epembe | |
| Ohangwena | Ohangwena | |
| Ohangwena | Okongo | |
| Ohangwena | Omundaungilo | |
| Ohangwena | Ondombe | |
| Ohangwena | Ongenga | |
| Ohangwena | Oshikango | |
| Omaheke | Aminius | |
| Omaheke | Gobabis | |
| Omaheke | Kalahari | |
| Omaheke | Otjinene | |
| Omaheke | Otjombinde | |
| Omaheke | Steinhausen | |
| Omusati | Anamulenge | |
| Omusati | Elim | |
| Omusati | Etayi | |
| Omusati | Ogongo | |
| Omusati | Okahao | |
| Omusati | Okalongo | |
| Omusati | Onesi | |
| Omusati | Oshikuku | |

| | | |
|-----------------|------------------|--|
| Omusati | Outapi | |
| Omusati | Ruacana | |
| Omusati | Tsandi | |
| Oshana | Okaku | |
| Oshana | Okatana | |
| Oshana | Okatyali | |
| Oshana | Ompundja | |
| Oshana | Ondangwa | |
| Oshana | Ongwediva | |
| Oshana | Oshakati East | |
| Oshana | Oshakati West | |
| Oshana | Uukwiyu | |
| Oshana | Uuvudhiya | |
| Oshikoto | Engodi | |
| Oshikoto | Guinas | |
| Oshikoto | Okankolo | |
| Oshikoto | Olukonda | |
| Oshikoto | Omuntele | |
| Oshikoto | Omuthiyagwipundi | |
| Oshikoto | Onayena | |
| Oshikoto | Oniipa | |
| Oshikoto | Onyaanya | |
| Oshikoto | Tsumeb | |
| Otjozondjupa | Grootfontein | |
| Otjozondjupa | Okahandja | |
| Otjozondjupa | Okakarara | |
| Otjozondjupa | Omatako | |
| Otjozondjupa | Otavi | |
| Otjozondjupa | Otjiwarongo | |
| Otjozondjupa | Tsumkwe | |
| 13 units | 102 units | |

Next table: An example of the ADMIN2 constituencies as used to display statistics of accessibility to service into NAMInfo.

Percent households

| Area Name | Source | Access to computer | Access to radio |
|--------------|--|--------------------|-----------------|
| | | Total | Total |
| | | Total | Total |
| Aminuis | CBS/NPC_2001 Population and Housing Census, Omaheke Region _January 2005 | 2 | 74.7 |
| Anamulenge | CBS/NPC_2001 Population and Housing Census, Omusati Region_January 2005 | 1.2 | 77.2 |
| Arandis | CBS/NPC_2001 Population and Housing Census, Erongo Region_November 2003 | 17.9 | 91.4 |
| Berseba | CBS/NPC_2001 Population and Housing Census, Karas Region_June 2004 | 3.1 | 86.8 |
| Daures | CBS/NPC_2001 Population and Housing Census, Erongo Region_November 2003 | 1.6 | 84.7 |
| Eengodi | CBS/NPC_2001 Population and Housing Census, Oshikoto Region_November 2004 | 0.1 | 63.3 |
| Eenhana | CBS/NPC_2001 Population and Housing Census, Ohangwena Region_November 2004 | 1.2 | 79.9 |
| Elim | CBS/NPC_2001 Population and Housing Census, Omusati Region_January 2005 | 1.4 | 81.4 |
| Endola | CBS/NPC_2001 Population and Housing Census, Ohangwena Region_November 2004 | 0.6 | 76.6 |
| Engela | CBS/NPC_2001 Population and Housing Census, Ohangwena Region_November 2004 | 1.3 | 72.9 |
| Epembe | CBS/NPC_2001 Population and Housing Census, Ohangwena Region_November 2004 | 0.4 | 71.1 |
| Epukiro | CBS/NPC_2001 Population and Housing Census, Omaheke Region _January 2005 | 0.5 | 83.6 |
| Epupa | CBS/NPC_2001 Population and Housing Census, Kunene Region_January 2005 | 0.8 | 48.8 |
| Etayi | CBS/NPC_2001 Population and Housing Census, Omusati Region_January 2005 | 1.1 | 81.8 |
| Gibeon | CBS/NPC_2001 Population and Housing Census, Hardap Region_June 2004 | 4.1 | 78.6 |
| Gobabis | CBS/NPC_2001 Population and Housing Census, Omaheke Region _January 2005 | 13 | 81.7 |
| Grootfontein | CBS/NPC_2001 Population and Housing Census, Otjozondjupa Region_January 2005 | 4.9 | 78.2 |
| Guinas | CBS/NPC_2001 Population and Housing Census, Oshikoto Region_November 2004 | 2.9 | 76.6 |
| Kabbe | CBS/NPC_2001 Population and Housing Census, Caprivi Region_March 2003 | 1.1 | 86.2 |
| Kahenge | CBS/NPC_2001 Population and Housing Census, Kavango Region_June 2004 | 2.3 | 81.4 |
| Kalahari | CBS/NPC_2001 Population and Housing Census, Omaheke Region _January 2005 | 3.8 | 70.8 |
| Kamanjab | CBS/NPC_2001 Population and Housing Census, Kunene Region_January 2005 | 4.7 | 81.3 |
| Kapako | CBS/NPC_2001 Population and Housing Census, Kavango Region_June 2004 | 1.3 | 88.4 |
| Karasburg | CBS/NPC_2001 Population and Housing Census, Karas Region_June 2004 | 5.1 | 62.5 |
| Karibib | CBS/NPC_2001 Population and Housing Census, Erongo Region_November 2003 | 8.2 | 91.4 |

| | | | |
|---------------------|--|------|------|
| Katima Mulilo Rural | CBS/NPC_2001 Population and Housing Census, Caprivi Region_March 2003 | 4.1 | 90.2 |
| Katima Mulilo Urban | CBS/NPC_2001 Population and Housing Census, Caprivi Region_March 2003 | 8 | 91 |
| Katutura_Central | CBS/NPC_2001 Population and Housing Census, Khomas Region_January 2005 | 7.7 | 81.5 |
| Katutura_East | CBS/NPC_2001 Population and Housing Census, Khomas Region_January 2005 | 9.2 | 83.8 |
| Keetmanshoop Rural | CBS/NPC_2001 Population and Housing Census, Karas Region_June 2004 | 7.9 | 83.9 |
| Keetmanshoop Urban | CBS/NPC_2001 Population and Housing Census, Karas Region_June 2004 | 25.1 | 93.2 |
| Khomasdal_North | CBS/NPC_2001 Population and Housing Census, Khomas Region_January 2005 | 20.4 | 88.6 |
| Khorixas | CBS/NPC_2001 Population and Housing Census, Kunene Region_January 2005 | 3.8 | 86.1 |
| Kongola | CBS/NPC_2001 Population and Housing Census, Caprivi Region_March 2003 | 1.1 | 73.8 |
| Linyanti | CBS/NPC_2001 Population and Housing Census, Caprivi Region_March 2003 | 0.6 | 78 |
| Luderitz | CBS/NPC_2001 Population and Housing Census, Karas Region_June 2004 | 8.7 | 83.5 |
| Mariental Urban | CBS/NPC_2001 Population and Housing Census, Hardap Region_June 2004 | 8.7 | 74.9 |
| Mariental_Rural | CBS/NPC_2001 Population and Housing Census, Hardap Region_June 2004 | 7 | 77 |
| Mashare | CBS/NPC_2001 Population and Housing Census, Kavango Region_June 2004 | 2.2 | 68.4 |
| Moses //Garoeb | CBS/NPC_2001 Population and Housing Census, Khomas Region_January 2005 | 3.1 | 74.7 |
| Mpungu | CBS/NPC_2001 Population and Housing Census, Kavango Region_June 2004 | 9 | 72.6 |
| Mukwe | CBS/NPC_2001 Population and Housing Census, Kavango Region_June 2004 | 1.9 | 80.2 |
| Ndiyona | CBS/NPC_2001 Population and Housing Census, Kavango Region_June 2004 | 0.7 | 73.1 |
| Ogongo | CBS/NPC_2001 Population and Housing Census, Omusati Region_January 2005 | 1 | 80.3 |
| Ohangwena | CBS/NPC_2001 Population and Housing Census, Ohangwena Region_November 2004 | 1 | 80.3 |
| Okahandja | CBS/NPC_2001 Population and Housing Census, Otjozondjupa Region_January 2005 | 10.8 | 79.2 |
| Okahao | CBS/NPC_2001 Population and Housing Census, Omusati Region_January 2005 | 1.1 | 70.8 |
| Okakarara | CBS/NPC_2001 Population and Housing Census, Otjozondjupa Region_January 2005 | 1.7 | 87 |
| Okaku | CBS/NPC_2001 Population and Housing Census, Oshana Region_January 2005 | 0.8 | 82.6 |
| Okalongo | CBS/NPC_2001 Population and Housing Census, Omusati Region_January 2005 | 1.9 | 76.4 |
| Okankolo | CBS/NPC_2001 Population and Housing Census, Oshikoto Region_November 2004 | 0.5 | 86.8 |
| Okatana | CBS/NPC_2001 Population and Housing Census, Oshana Region_January 2005 | 1.5 | 84.2 |
| Okatjali | CBS/NPC_2001 Population and Housing Census, Oshana Region_January 2005 | 0.0 | 78.6 |
| Okongo | CBS/NPC_2001 Population and Housing Census, Ohangwena Region_November 2004 | 0.2 | 30.7 |
| Olukonda | CBS/NPC_2001 Population and Housing Census, Oshikoto Region_November 2004 | 1 | 82.5 |
| Omaruru | CBS/NPC_2001 Population and Housing Census, Erongo Region_November 2003 | 9.2 | 85.7 |
| Omatako | CBS/NPC_2001 Population and Housing Census, Otjozondjupa Region_January 2005 | 6.5 | 85.2 |
| Ompundja | CBS/NPC_2001 Population and Housing Census, Oshana Region_January 2005 | 0.6 | 87.7 |

| | | | |
|---------------------|--|------|------|
| Omulonga | CBS/NPC_2001 Population and Housing Census, Ohangwena Region_November 2004 | 0.7 | 79.8 |
| Omundaungilo | CBS/NPC_2001 Population and Housing Census, Ohangwena Region_November 2004 | 0.5 | 62.4 |
| Omuntele | CBS/NPC_2001 Population and Housing Census, Oshikoto Region_November 2004 | 0.5 | 81 |
| Omuthiyagwiipundi | CBS/NPC_2001 Population and Housing Census, Oshikoto Region_November 2004 | 0.5 | 77.1 |
| Onayena | CBS/NPC_2001 Population and Housing Census, Oshikoto Region_November 2004 | 1 | 80.5 |
| Ondangwa | CBS/NPC_2001 Population and Housing Census, Oshana Region_January 2005 | 4.7 | 84.7 |
| Ondobe | CBS/NPC_2001 Population and Housing Census, Ohangwena Region_November 2004 | 0.4 | 82.1 |
| Onesi | CBS/NPC_2001 Population and Housing Census, Omusati Region_January 2005 | 0.9 | 68.8 |
| Ongenga | CBS/NPC_2001 Population and Housing Census, Ohangwena Region_November 2004 | 0.8 | 71.5 |
| Ongwediva | CBS/NPC_2001 Population and Housing Census, Oshana Region_January 2005 | 9.9 | 84.7 |
| Oniipa | CBS/NPC_2001 Population and Housing Census, Oshikoto Region_November 2004 | 2.3 | 81.3 |
| Onyaanya | CBS/NPC_2001 Population and Housing Census, Oshikoto Region_November 2004 | 0.7 | 82.2 |
| Opuwo | CBS/NPC_2001 Population and Housing Census, Kunene Region_January 2005 | 1.1 | 68.9 |
| Oranjemund | CBS/NPC_2001 Population and Housing Census, Karas Region_June 2004 | 44.8 | 86.7 |
| Oshakati East | CBS/NPC_2001 Population and Housing Census, Oshana Region_January 2005 | 10.5 | 83.5 |
| Oshakati West | CBS/NPC_2001 Population and Housing Census, Oshana Region_January 2005 | 2.2 | 83.7 |
| Oshikango | CBS/NPC_2001 Population and Housing Census, Ohangwena Region_November 2004 | 0.8 | 77.3 |
| Oshikuku | CBS/NPC_2001 Population and Housing Census, Omusati Region_January 2005 | 1.3 | 84.7 |
| Otamanzi | CBS/NPC_2001 Population and Housing Census, Omusati Region_January 2005 | 0.1 | 72.2 |
| Otavi | CBS/NPC_2001 Population and Housing Census, Otjozondjupa Region_January 2005 | 6 | 86.7 |
| Otjinene | CBS/NPC_2001 Population and Housing Census, Omaheke Region_January 2005 | 1.9 | 81.6 |
| Otjiwarongo | CBS/NPC_2001 Population and Housing Census, Otjozondjupa Region_January 2005 | 7.5 | 82.9 |
| Otjombinde | CBS/NPC_2001 Population and Housing Census, Omaheke Region_January 2005 | 1 | 64.1 |
| Outapi | CBS/NPC_2001 Population and Housing Census, Omusati Region_January 2005 | 1.4 | 68.9 |
| Outjo | CBS/NPC_2001 Population and Housing Census, Kunene Region_January 2005 | 5.1 | 85.5 |
| Rehoboth Rural | CBS/NPC_2001 Population and Housing Census, Hardap Region_June 2004 | 0.9 | 69.2 |
| Rehoboth Urban West | CBS/NPC_2001 Population and Housing Census, Hardap Region_June 2004 | 11.3 | 86.1 |
| Rehoboth Urban East | CBS/NPC_2001 Population and Housing Census, Hardap Region_June 2004 | 5 | 75.1 |
| Ruacana | CBS/NPC_2001 Population and Housing Census, Omusati Region_January 2005 | 1.4 | 65.3 |
| Rundu Rural East | CBS/NPC_2001 Population and Housing Census, Kavango Region_June 2004 | 2.2 | 71 |
| Rundu Rural West | CBS/NPC_2001 Population and Housing Census, Kavango Region_June 2004 | 6.9 | 81.4 |
| Rundu Urban | CBS/NPC_2001 Population and Housing Census, Kavango Region_June 2004 | 12.1 | 79.4 |
| Samora Machel | CBS/NPC_2001 Population and Housing Census, Khomas Region_January 2005 | 7.4 | 79 |

| | | | |
|------------------|--|------|------|
| Sesfontein | CBS/NPC_2001 Population and Housing Census, Kunene Region_January 2005 | 0.5 | 52.7 |
| Sibinda | CBS/NPC_2001 Population and Housing Census, Caprivi Region_March 2003 | 0.6 | 75.6 |
| Soweto | CBS/NPC_2001 Population and Housing Census, Khomas Region_January 2005 | 14.8 | 85.8 |
| Steinhausen | CBS/NPC_2001 Population and Housing Census, Omaheke Region_January 2005 | 4.5 | 76 |
| Swakopmund | CBS/NPC_2001 Population and Housing Census, Erongo Region_November 2003 | 22 | 85.2 |
| Tobias Hainyeko | CBS/NPC_2001 Population and Housing Census, Khomas Region_January 2005 | 3.7 | 69.9 |
| Tsandi | CBS/NPC_2001 Population and Housing Census, Omusati Region_January 2005 | 0.5 | 72.9 |
| Tsumeb | CBS/NPC_2001 Population and Housing Census, Oshikoto Region_November 2004 | 9.9 | 80.2 |
| Tsumkwe | CBS/NPC_2001 Population and Housing Census, Otjozondjupa Region_January 2005 | 1.5 | 37.9 |
| Uukwiyu | CBS/NPC_2001 Population and Housing Census, Oshana Region_January 2005 | 0.4 | 84.6 |
| Uuvudhiya | CBS/NPC_2001 Population and Housing Census, Oshana Region_January 2005 | 1.2 | 78.2 |
| Walvis Bay Rural | CBS/NPC_2001 Population and Housing Census, Erongo Region_November 2003 | 37.8 | 91.9 |
| Walvis Bay Urban | CBS/NPC_2001 Population and Housing Census, Erongo Region_November 2003 | 39.9 | 92.8 |
| Windhoek_East | CBS/NPC_2001 Population and Housing Census, Khomas Region_January 2005 | 60 | 93.9 |
| Windhoek_Rural | CBS/NPC_2001 Population and Housing Census, Khomas Region_January 2005 | 19.4 | 82.2 |
| Windhoek_West | CBS/NPC_2001 Population and Housing Census, Khomas Region_January 2005 | 46.8 | 92.9 |

Some administrative partitions were implemented into LIMS before the training in Namibia, based on the previous situation analysis:

Partition list as implemented into LIMS with 13 regions (yellow). In green ADMIN2 was mis represented into LIMS and therefore was corrected with the developers after the mission.

| CountryCode | PartitionLevel | PartitionType | PartitionName | ParentPartitionName |
|-------------|----------------|----------------|---------------|---------------------|
| NA | 1 | Administrative | Ohangwena | |
| NA | 1 | Administrative | Otjozondjupa | |
| NA | 1 | Administrative | Oshikoto | |
| NA | 1 | Administrative | Oshana | |
| NA | 1 | Administrative | Okavango | |
| NA | 1 | Administrative | Omaheke | |
| NA | 1 | Administrative | Khomas | |
| NA | 1 | Administrative | Karas | |
| NA | 1 | Administrative | Hardap | |
| NA | 1 | Administrative | Erongo | |
| NA | 1 | Administrative | Caprivi | |
| NA | 1 | Administrative | Omusati | |
| NA | 1 | Administrative | Kunene | |
| NA | 2 | Administrative | Oshikoto | Oshikoto |
| NA | 2 | Administrative | Otjozondjupa | Otjozondjupa |
| NA | 2 | Administrative | Oshana | Oshana |
| NA | 2 | Administrative | Omusati | Omusati |
| NA | 2 | Administrative | Omaheke | Omaheke |
| NA | 2 | Administrative | Okavango | Okavango |
| NA | 2 | Administrative | Kunene | Kunene |
| NA | 2 | Administrative | Khomas | Khomas |
| NA | 2 | Administrative | Karas | Karas |
| NA | 2 | Administrative | Hardap | Hardap |
| NA | 2 | Administrative | Erongo | Erongo |
| NA | 2 | Administrative | Caprivi | Caprivi |
| NA | 2 | Administrative | Ohangwena | Ohangwena |

Technical partitions TP

Some technical partitions were implemented into LIMS before the training in Namibia, based on the previous situation analysis and census data collected by DVS:

Vet districts and sub districts as implemented into the LIMS. This list was discussed and edited .

| CountryCode | PartitionLevel | PartitionType | PartitionName | ParentPartitionName |
|-------------|----------------|---------------|---------------|---------------------|
| NA | 1 | Technical | Gobabis | |
| NA | 1 | Technical | Grootfontein | |
| NA | 1 | Technical | Keetmanshoop | |
| NA | 1 | Technical | Mariental | |

| | | | | |
|----|---|-----------|-------------------------|-------------------------|
| NA | 1 | Technical | Okahadja | |
| NA | 1 | Technical | Omaruru | |
| NA | 1 | Technical | Ondangwa (East Caprivi) | |
| NA | 1 | Technical | Opuwo | |
| NA | 1 | Technical | Otavi | |
| NA | 1 | Technical | Otjiwarongo | |
| NA | 1 | Technical | Outjo | |
| NA | 1 | Technical | Rundu | |
| NA | 1 | Technical | Walvisbay | |
| NA | 1 | Technical | Windhoek | |
| NA | 2 | Technical | Aminuis | Gobabis |
| NA | 2 | Technical | Bethanie | Keetmanshoop |
| NA | 2 | Technical | Bondelswart | Keetmanshoop |
| NA | 2 | Technical | Eiseb | Gobabis |
| NA | 2 | Technical | Epukiro | Gobabis |
| NA | 2 | Technical | Etanga | Opuwo |
| NA | 2 | Technical | Gam | Gobabis |
| NA | 2 | Technical | Gibeon | Mariental |
| NA | 2 | Technical | Gobabis | Gobabis |
| NA | 2 | Technical | Grootfontein | Grootfontein |
| NA | 2 | Technical | Hardap Plots | Mariental |
| NA | 2 | Technical | Hoachanas | Mariental |
| NA | 2 | Technical | Karasburg/Warmbad | Keetmanshoop |
| NA | 2 | Technical | Karibib | Omaruru |
| NA | 2 | Technical | Kavango | Rundu |
| NA | 2 | Technical | Keetmanshoop | Keetmanshoop |
| NA | 2 | Technical | Khorixas & Kunene South | Outjo |
| NA | 2 | Technical | Luderitz | Keetmanshoop |
| NA | 2 | Technical | Maltahohe | Keetmanshoop |
| NA | 2 | Technical | Mangetti East | Grootfontein |
| NA | 2 | Technical | Mangetti West | Otavi |
| NA | 2 | Technical | Mariental + Maltahohe | Mariental |
| NA | 2 | Technical | Namaland Soromaas | Keetmanshoop |
| NA | 2 | Technical | Ohangwena | Ondangwa (East Caprivi) |
| NA | 2 | Technical | Okahandja | Okahadja |
| NA | 2 | Technical | Okakarara | Otjiwarongo |
| NA | 2 | Technical | Okangwati | Opuwo |
| NA | 2 | Technical | Okombahe | Omaruru |
| NA | 2 | Technical | Omaruru | Omaruru |
| NA | 2 | Technical | Omega | Rundu |

| | | | | |
|----|---|-----------|--------------------|-------------------------|
| NA | 2 | Technical | Omudati | Ondangwa (East Caprivi) |
| NA | 2 | Technical | Opuwo | Opuwo |
| NA | 2 | Technical | Oruvandjei / Etoto | Opuwo |
| NA | 2 | Technical | Oshana | Ondangwa (East Caprivi) |
| NA | 2 | Technical | Oshikoto | Ondangwa (East Caprivi) |
| NA | 2 | Technical | Otavi | Otavi |
| NA | 2 | Technical | Otihorongo | Omaruru |
| NA | 2 | Technical | Otiimbingwe | Omaruru |
| NA | 2 | Technical | Otiinene | Gobabis |
| NA | 2 | Technical | Otiwarongo | Otiwarongo |
| NA | 2 | Technical | Outjo | Outjo |
| NA | 2 | Technical | Ovitoto | Okahadja |
| NA | 2 | Technical | Rehoboth | Mariental |
| NA | 2 | Technical | Rietfontein | Gobabis |
| NA | 2 | Technical | Sesfontein | Opuwo |
| NA | 2 | Technical | Swakopmund | Walvisbay |
| NA | 2 | Technical | Tsumeb | Otavi |
| NA | 2 | Technical | Tsumkwe | Grootfontein |
| NA | 2 | Technical | Walvisbay | Walvisbay |
| NA | 2 | Technical | Windhoek | Windhoek |

After deliberation with the group, the status of TP has been adjusted and is reflected in a message sent by Dr. Alec Bishic after the training (reference email April 2009). The partitions table for TP should read as follows

For census data DVS uses the following table

| <i>Vet technical partition source DVS</i> | |
|--|----------------------------|
| <i>Vet Sub District</i> | <i>Vet District</i> |
| EAST CAPRIVI | EAST CAPRIVI |
| OSHANA REGION | ONDANGWA |
| OMUDATI REGION | OUTAPI |
| OHANGWENA REGION | EENHANA |
| OSHIKOTO REGION | OMUTHIYA |
| KAVANGO | RUNDU |
| OMEGA | RUNDU |
| OPUWO | OPUWO |
| ETANGA | OPUWO |
| OKANGWATI | OPUWO |
| OMBOMBO | OPUWO |
| SESFONTEIN | OPUWO |
| OTAVI | OTAVI |
| TSUMEB | OTAVI |
| MANGETTI WEST | OTAVI |
| GROOTFONTEIN | GROOTFONTEIN |
| TSUMKWE | GROOTFONTEIN |

| | |
|-------------------------|--------------|
| MANGETTI EAST | GROOTFONTEIN |
| OKAHANDJA | OKAHANDJA |
| OVITOTO | OKAHANDJA |
| OUTJO | OUTJO |
| KHORIXAS & KUNENE SOUTH | OUTJO |
| OTJIWARONGO | OTJIWARONGO |
| OKAKARARA | OTJIWARONGO |
| OTJINENE | OTJINENE |
| GOBABIS | GOBABIS |
| EPUKIRO | GOBABIS |
| RIETFONTEIN | GOBABIS |
| EISEB | GOBABIS |
| GAM | GOBABIS |
| AMINUIS | GOBABIS |
| OMARURU | OMARURU |
| KARIBIB | OMARURU |
| OTJIMBINGWE | OMARURU |
| OTJIHORONGO | OMARURU |
| OKOMBAHE | OMARURU |
| WALVISBAY | WALVISBAY |
| SWAKOPMUND | WALVISBAY |
| WINDHOEK | WINDHOEK |
| REHOBOTH windhoek | WINDHOEK |
| MARIENTAL + MALTAHOHE | MARIENTAL |
| GIBEON | MARIENTAL |
| HOACHANAS | MARIENTAL |
| HARDAP PLOTS | MARIENTAL |
| REHOBOTH / mariental | MARIENTAL |
| KEETMANSHOOP | KEETMANSHOOP |
| LUDERITZ | KEETMANSHOOP |
| BONDELSWART | KEETMANSHOOP |
| NAMALAND SOROMAAS | KEETMANSHOOP |
| KARASBURG | KEETMANSHOOP |
| MALTAHOHE | KEETMANSHOOP |
| BETHANIE | KEETMANSHOOP |

For disease reporting DVS uses the following table

| | Technical Subdivisions |
|---|------------------------|
| 1 | Eastern Caprivi |
| 2 | Ondangwa |
| 3 | Outapi |
| 4 | Eenhana |
| 5 | Omuthiya |
| 6 | Rundu |
| 7 | Opuwo |
| 8 | Outjo |

| | |
|----|--------------|
| 9 | Otavi |
| 10 | Grootfontein |
| 11 | Okahandja |
| 12 | Otjiwarongo |
| 13 | Otjinene |
| 14 | Gobabis |
| 15 | Omaruru |
| 16 | Walvis Bay |
| 17 | Windhoek |
| 18 | Mariental |
| 19 | Keetmanshoop |

Other TP that could be implemented in to LIMS

Communal areas (source Survey mapping) can be used to enter data from Meat board

Meat board technical partitions

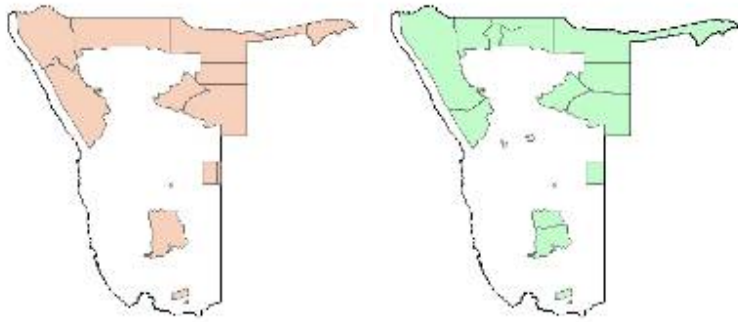
Secondary sources = Meat board from DVS primary source

| NATIONAL LIVESTOCK CENSUS | | | | | |
|--|------------------|------------------|------------------|------------------|------------------|
| Some other technical zone / partitions | | | | | |
| Stock | 2001 | 2002 | 2003 | 2004 | 2005 |
| Cattle | 2,508,570 | 2,329,553 | 2,336,094 | 2,349,700 | 2,219,330 |
| Commercial | 912,315 | 862,480 | 947,377 | 892,347 | 792,897 |
| Communal SCA | 319,665 | 336,231 | 343,045 | 278,845 | 363,576 |
| Communal NCA | 1,276,590 | 1,130,842 | 1,045,672 | 1,178,508 | 1,062,857 |
| Sheep and goats | 4,138,864 | 4,874,345 | 5,042,266 | 4,616,535 | 4,707,274 |
| Commercial | 2,702,879 | 3,153,794 | 3,266,515 | 2,935,688 | 2,985,634 |
| Communal SCA | 675,170 | 723,519 | 718,790 | 721,323 | 729,665 |
| Communal NCA | 760,815 | 997,032 | 1,056,961 | 959,524 | 991,975 |
| Sheep | 2,369,809 | 2,764,253 | 2,955,454 | 2,619,363 | 2,663,795 |
| Commercial | 2,104,397 | 2,498,956 | 2,671,148 | 2,373,195 | 2,407,639 |
| Communal SCA | 182,609 | 173,529 | 192,248 | 192,249 | 193,230 |
| Communal NCA | 82,803 | 91,768 | 92,058 | 53,919 | 62,926 |
| Goats | 1,769,055 | 2,110,092 | 2,086,812 | 1,997,172 | 2,043,479 |
| Commercial | 598,482 | 654,838 | 595,367 | 562,493 | 577,995 |
| Communal SCA | 492,561 | 549,990 | 526,542 | 529,074 | 536,435 |
| Communal NCA | 678,012 | 905,264 | 964,903 | 905,605 | 929,049 |

Two versions of the Communal land arrangement co exist and are under reform. We present the two options that

can be implemented into LIMS as Technical partitions. They serve for some statistics. The communal North

VCF and South VCF are easily identified.



Villages and towns gazeteer

One can implement a list of Villages, city, towns with their names into LIMS, since some screens use such details (e.g. Module 10 or modules on infrastructures M6). Among the possible sources³, an official village's gazeteer can therefore be implemented as a set of parameters of LIMS. A list of **2418 Village's names** is available with a detailed list and their geo-reference from SAHIMS – FEWS source, though we cannot confirm its relevance (**Excel file**). Nevertheless a selection of important cities must be done by trimming such list before implementing it.

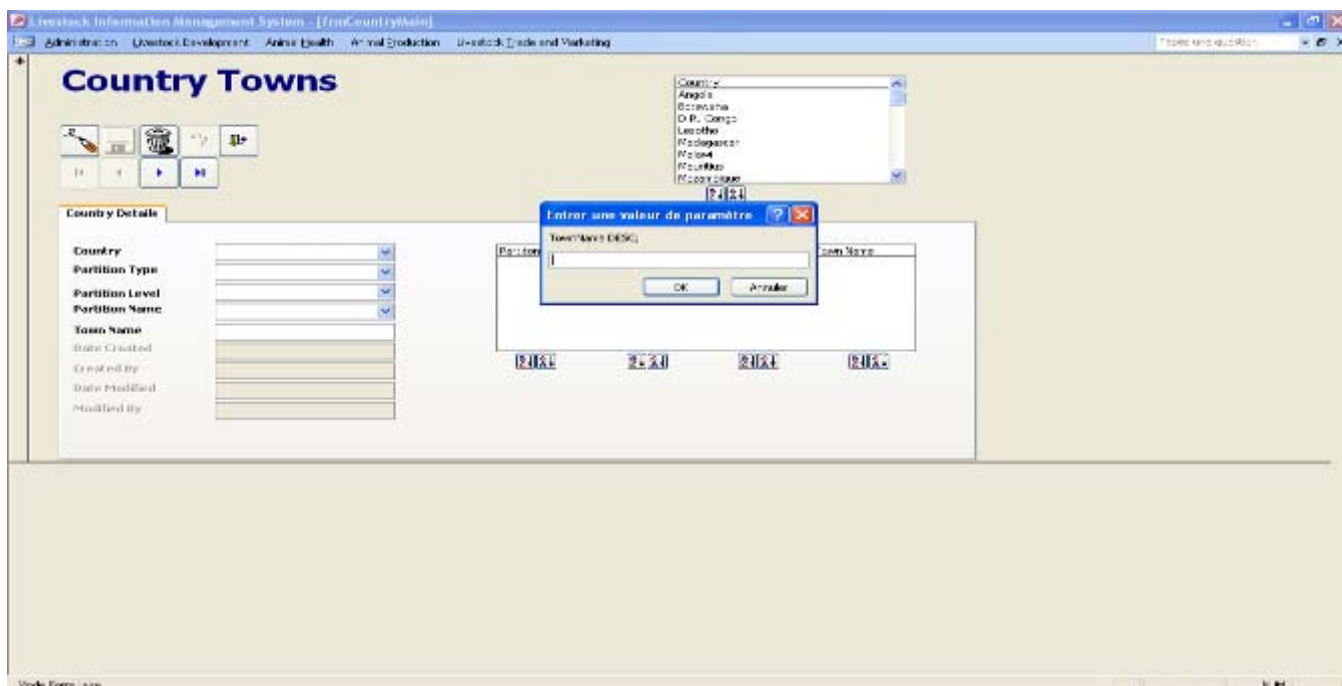
| NAME | TYP E | X_COOR D | Y_COOR D | CLINIC | HOUSEHOL DS | PERSO NS | REGION | DISTRI CT |
|-----------------|-------------|-------------|-------------|---------------------|----------------|-------------|---------------|--------------|
| Amikoka | Villag e | 16.56806 | 17.66611 | - | 30 | 310 | Ohangwe na | Eenhan a |
| E?mulond o | Villag e | 16.84083 | 17.59944 | - | 17 | 149 | Ohangwe na | Eenhan a |
| Edilangho no | Villag e | 16.98611 | 17.75139 | Kongo | 4 | 34 | Ohangwe na | Eenhan a |
| Eehaapa | Villag e | 16.48778 | 17.51583 | Eenhana + Epembe | 18 | 142 | Ohangwe na | Eenhan a |
| Eembaxu | Villag e | 16.16222 | 17.49333 | Okongo | 35 | 310 | Ohangwe na | Eenhan a |
| Eembidi | Villag e | 16.42444 | 17.44722 | - | 16 | 129 | Ohangwe na | Eenhan a |
| Eendadi | Villag e | 16.14917 | 17.49361 | Okongo | 63 | 133 | Ohangwe na | Eenhan a |
| Eendobe | Villag e | 17.21861 | 17.44000 | Okongo | 43 | 278 | Ohangwe na | Eenhan a |

An example of the FEWS gazeteer with longitude and Latitude locations as it can be used in Module 10 and many others (M6 Infrastructures) (Origine Health source SAHIMS 2001)

One of the problem of implementing a **full Gazetteer** into LIMS is that the implementation of a long list is not always necessary and will render LIMS a bit “heavy” and slow when it comes to accessing such a listing (by a scroll down feature in the software).

As a mater of facts only a few items (a few names from the list) will be finally used (e.g. use of only towns where Livestock infrastructures do exist). This remark is important to consider before we implement such a listing into LIMS. The current gazetteer has more than 2000 items (towns or cities or village names). PRINT recommends to explore the list, validate it and only use it as a “reference list of village” (in LIMS manual and guidelines for Namibia) so that any data capture for a new city or village will be made in compliance with such an official listing and will follow a nomenclature.

³ DEVinfo is not providing any reference for such objects as all DEVinfo indicators are zonal statistics.



Any city or town' list can be implemented into LIMS thanks to this screen, before becoming available in any screen (by a scroll down menu item) when requiring access to a town name.

Therefore we recommend that a person be in charge of monitoring any change in the national Partitions list (ADMIN1 and 2) and then be updating LIMS with information communicated to SADC

Components, Modules and Templates looked at during the training

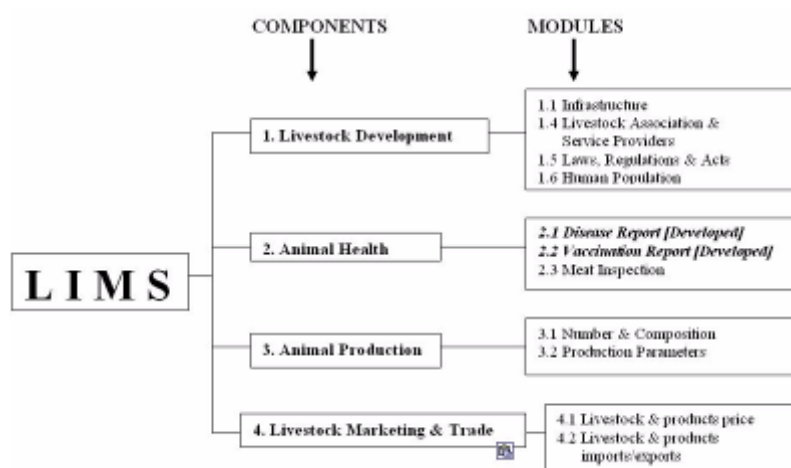


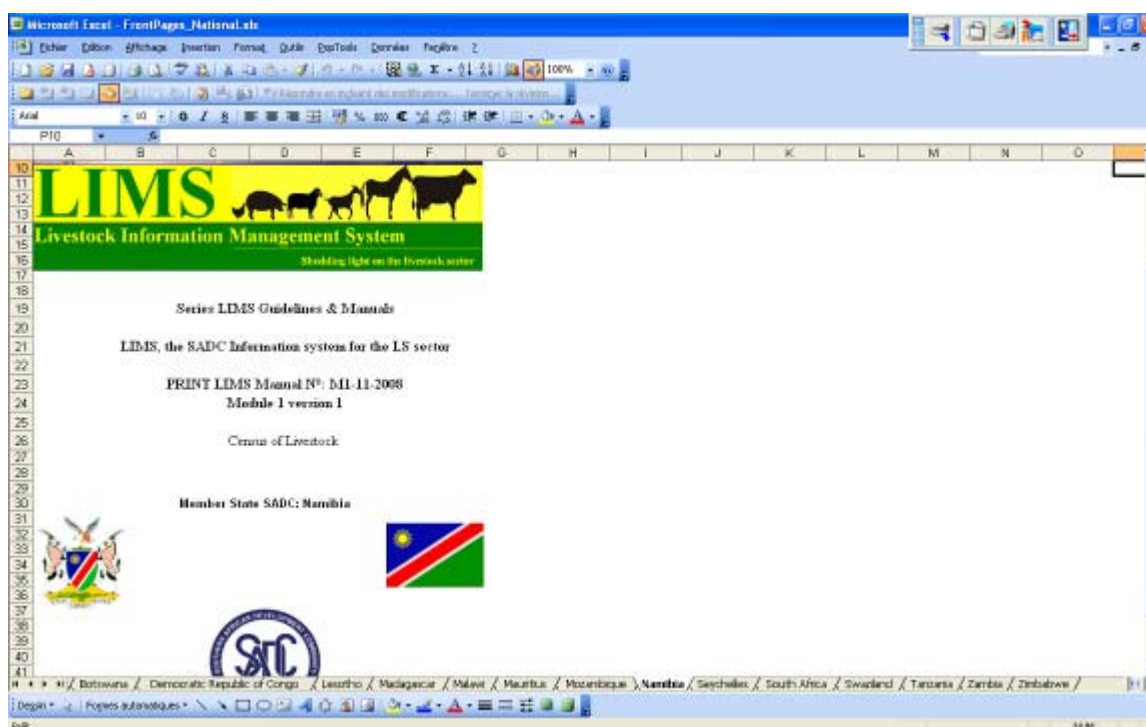
Diagram: the four components of LIMS on which future trainers have been trained (in addition to the administrative module and other functionalities of LIMS).

Liste des Modules et écrans (rapports types Excel) correspondants au système LIMS / *Lista dos Modulos e ecrã (relatorios tipo Excel) do LIMS* / **List of Modules and screens (SADC Harmonized templates) of LIMS**

- Front page national / page de guarda nacional / page de garde nationale
 - Headers / Timbre / Entête

- Module 1 *Numbers & Composition of Herds* / Effectivos animais do rebanho nacional / Effectifs nationaux – recensement animal
 - 1. *Nr by species* / efectivos animais por espécies / Nombre par espèce
 - 2. *Nr by economics* / efectivos animais por função economica / Nombre par fonction économique
 - 3. *Nr by breeds* / Effectivos animais por raça / Nombre par race
 - 4. *Nr by herd structure* / Effectivos animais por idade e sexo / Nombre par âge et sexe (démographie)
- Module 2 *Human Households & Population in Livestock farming* / Agregados familiares criadores / Ménage engagés dans l’agriculture et l’élevage
 - 1. *Human Population* / Agregados familiares / Ménages et population humaine
- Module 3 *Production Parameters* / Produção animal / Production animale
 - 1. *Slaughter* / Abate (carne) / Abattages
 - 2. *Milk* / Leite / Lait
 - 3. *Dairy products* / Lacticínios / Produits laitiers
 - 4. *Eggs* / Ovos / Oeufs
 - 5. *Hides, skins* / Curos e Peles / Cuirs et peaux
- Module 4 *Livestock & Products Price* / Preços dos productos animais / Prix des produits d’élevage et animaux vivants
 - 1. *Live animals* / Animal vivo / Animaux vivants
 - 2. *Meat products* / Producto de carne / Produits carnés
 - 3. *Milk products* / Leite e Lacticínios / Produits laitiers
 - 4. *Eggs* / Ovos / Oeufs
 - 5. *Hides & skins* / Curos e Peles / Cuirs et peaux
 - 6. *Fiber & feathers* / Fibras e plumas / Fibres animales et plumes
- Module 5 *Livestock & Products trade: import/export* / Importação e Exportação / Import et Export
 - 1. *Live Animals* / Animal vivo / Animaux vivants
 - 2. *L. stock Products* / Productos animais / Produits d’élevage
 - 3. *L. stock Inputs* / Inputs / Intrants de l’élevage
- Module 6 *LS Infrastructures* / Infra-Estructuras / Infrastructures
 - *Generic Partitions* / Divisões do país / Divisions du pays
 - 1. *Administrative* / Administrativa / Administratives
 - 2. *Technical* / Técnico / Techniques
 - *Infrastructures Agreg.* / Infra-Estructuras Agregados / Infrastructures description agrégées
 - 3. *Dipping* / Tanque banheiros / Bain détiqueur
 - 4. *Pens* / currais / Enclos de vaccination
 - 5. *Vet clinics* / Clinicas vet. / Cliniques vétérinaires
 - 6. *Govt Offices* / Oficinas do governo / Bureaux de l’état
 - 7. *Mun Abattoirs & slabs* / Matadouros municipais e locais e casas de matança / Abattoirs locaux et tueries
 - 8. *Milk Collection* / Recolha de leite / Récolte de lait liquide
 - 9. *Livestock Markets* / Mercados de Gado / Marchés
 - 10. *Storage Products* / Armazens / Entrepôts et Stocks
 - *Infrastructures Detailed* / Infra-Estructuras detallados / Infrastructures détaillées
 - 1. *Vet Diagnostic Labs* / Laboratorios de diagnostico / Laboratoires de diagnostic
 - 2. *Vet Vaccine Labs* / Productores de Vacinas / Producteurs de vaccins
 - 3. *Industrial Abattoirs* / Matadouros industriais / Abattoirs industriels
 - 4. *Dairy Processing Plants* / Usina de transformação de leite / Unité de transformation laitière
 - 5. *Secondary Markets* / Mercados secundarios / Marchés secondaires
 - 6. *Port of Entry & Exit* / Portos de entrada e saída / Postes d’inspection en frontière PIF
- Module 7 *Meat Inspection / Food safety* / Segurança Sanitaria dos alimentos / Sécurité sanitaire des aliments
 - 1. Ante-mortem / Inspeção ante mortem / Inspection ante mortem en abattoir
 - 2. Post-mortem / Inspeção post mortem / Inspection post mortem en abattoir
- Module 8 *Livestock Associations and Service Providers* / Associações de criadores e fornecedores de serviços / Association d’éleveurs et fournisseurs de services

- 1. *Umbrella org & assoc* / Associações profissionais / Associations et Confédérations
 - 2. *Private companies* / Sector Privado / Secteur privé
 - 3. *Government* / Sector Publico / Secteur public
- Module 9 *LS related Laws, Regulation and Acts, policy docs* / Legislação e políticas agro pecuaria / Législation et documents et politique sur le secteur élevage
 - 1. *National Docs* / Documentos al Nivel nacional / niveau national
 - 2. *International Docs* / Documentos al Nivel internacional e regional (SADC) / Niveau international ou sous régional (SADC)
 - Module 10 *Disease Outbreak notification* / Notificação dos surtos de doenças / Information sanitaire notification d'épidémies animales
 - *Outbreaks* / Epidemias focos / Foyers d'Epizooties animales
 - Module 11 *Vaccinations* (e.g. TAD's) / Vacinação / Vaccinations
 - 1. *Vaccination* / Vacinações efectuadas / Vaccinations effectuées (prophylactique et de contrôle)



Components have **modules** with reporting **templates** (in Excel all reproduced into the application in MS Access© into screens) which pertain to modules. Therefore there are three levels for categorizing and coding the contents Component Ci Module Mj Template Tk, example C1M1T1.

The templates can be customized to the country logos and institutions. Questionnaires can be derived from the tables to be used in the field at any hierarchical level, for instance linking the system with DPT technologies.

COMMENTS made during the TRAINING OF TRAINERS ON LIMS TEMPLATES AND THE APPLICATION

A total of 9 trainees were nominated by different departments for the Training of Trainers. The training took place at the ThüringerHof Hotel.

The Training of Trainers is meant primarily to enable national experts to operate LIMS and that they can conduct similar training sessions at national level at a later stage (multiplier effect), for

livestock information officers at provincial, regional and district levels. The replication of training sessions at national level is a prerequisite for the roll-out of LIMS in the country.

The LIMS training had two major components. These are the training on the LIMS template and the training on the operation and use of the LIMS application.

- a) Training on the LIMS templates – Before embarking on data entry to the database, trainees need to know the data collection forms or templates. The knowledge of what type of data is collected, how often and the right columns where these should be entered are crucial for better understanding of the database at a later stage. Hence, all the 11 modules templates were described to the trainees. Additional information included as footnotes for the selection of parameters where there are multiple choices to pick from were also covered. The trainees were briefed on the Standard Operating Procedure for providing comments and suggestions for further improvement of the templates as well as for daily use when these are introduced to the grass roots from where data is captured on paper copies or MS Excel sheet. The trainees also received both the electronic and hard copy prints of all the templates for the 11 modules of LIMS.
- b) Training on the LIMS application – This component of the training focused on the proper operation and use of the LIMS database. Trainees were taken through the installation and configuration of the application, data entry and modification, query building, report generation, export of data for final analysis and procedures for backing up data and transfer data files between different installation. The complete training timetable is attached. During the training of the three days, most of the 11 modules were covered, first by demonstration followed by exercise using live and in some cases dummy data. All modules were fully covered.

Participants discussed at length on the issue of where to install LIMS at national level in view of the diversity of data sources. It was finally agreed that the LIMS national should be coordinated by the Directorate of Veterinary Services until such time that LIMS is mature enough to be given out to other players. In view of the diversity of data sources, training participants shared the view that Metadata is very important.

At the end of the three days training, a general discussion was conducted with the participants. The trainees expressed their satisfaction with the LIMS performance, but stressed the need for funding for further training at national level to increase awareness on LIMS. Participants also wanted to know deadlines for submission of annual reports. The participants committed themselves to forming a trainer committee and to work out a monitoring and coordination arrangement for LIMS activities.

All the trainees received a CD containing training materials, a copy of the LIMS application and templates, SOP, presentations on LIMS and AIMS, among others.

Example: Component Animal Production with two modules and 9 templates (reporting templates)

- Module 1 *Numbers & Composition of Herds* / Effectivos animais do rebanho nacional / Effectifs nationaux – recensement animal
 - 1. *Nr by species* / efectivos animais por espécies / Nombre par espèce
 - 2. *Nr by economics* / efectivos animais por função economica / Nombre par fonction économique
 - 3. *Nr by breeds* / Effectivos animais por raça / Nombre par race
 - 4. *Nr by herd structure* / Effectivos animais por idade e sexo / Nombre par âge et sexe (démographie)

- Module 3 *Production Parameters* / Produção animal / Production animale
 - 1. *Slaughter* / Abate (carne) / Abattages
 - 2. *Milk* / Leite / Lait
 - 3. *Dairy products* / Lactínicos / Produits laitiers
 - 4. *Eggs* / Ovos / Oeufs
 - 5. *Hides, skins* / Curos e Peles / Cuirs et peaux

These templates are all reflected into the LIMS application with a similar tabular visual approach.

Microsoft Excel - Module 1 - Livestock numbers and composition 13Oct08 updated-SDP2.xls

File Edit Format Insert Window Help

2003 100%

2. Livestock numbers - by economic function

| Partition Type* | Partition 1, e.g. Region/Province | Partition 2, e.g. District | Cattle | | | | | Sheep | | | Goats | | |
|-----------------|-----------------------------------|----------------------------|--------|------|--------------|---------------|----------|--------|------|---------|-------|------|-------|
| | | | Dairy | Beef | Dual purpose | Draft or work | Others** | Wutton | Wast | Karakul | Meat | Milk | Matar |
| ..... | Region/Prov 1..... | District 1..... | | | | | | | | | | | |
| ..... | ..... | District 2..... | | | | | | | | | | | |
| ..... | ..... | District 3..... | | | | | | | | | | | |
| ..... | Region/Prov 2..... | District 1..... | | | | | | | | | | | |
| ..... | ..... | District 2..... | | | | | | | | | | | |
| ..... | ..... | District 3..... | | | | | | | | | | | |
| ..... | etc | | | | | | | | | | | | |

* Specify administrative or Technical boundaries (admin or tech)

** Specify race

| Partition Type* | Partition 1, e.g. Region/Province | Partition 2, e.g. District | Pigeons | | | | Chickens | | | | | |
|-----------------|-----------------------------------|----------------------------|---------|-----------|----------|--------|----------|----------|--------------|--------------|--------|--|
| | | | Pouters | Bachelors | Broilers | Wagers | Layers | Broilers | Dual Purpose | Parent stock | Wagers | |
| ..... | Region/Prov 1..... | District 1..... | | | | | | | | | | |
| ..... | ..... | District 2..... | | | | | | | | | | |
| ..... | ..... | District 3..... | | | | | | | | | | |
| ..... | Region/Prov 2..... | District 1..... | | | | | | | | | | |
| ..... | ..... | District 2..... | | | | | | | | | | |
| ..... | ..... | District 3..... | | | | | | | | | | |
| ..... | etc | | | | | | | | | | | |

H:\Header\SDP\1. Nr by species\2. Nr by economics\3. Nr by breeds\4. Nr by herd struct\

begin

[illegible]

Screen corresponding to the census template by economic function (also attached to the header template in the first screen tab).

We will not display in this report the **entire set of templates and related screens** (provided into the CD delivered at the end of the training).

We will only **highlight** hereafter **some templates** where **comments were made** during the presentation and the training on both the templates and the application (screens). More comments

will flow to PRINT thanks to the participants who shall use the **comment sheet** provided during the training.

The training on the LIMS templates and the application was conducted relatively smoothly. However, the following observations were made.

1. The partition names currently in the LIMS application were not fully compatible with what is currently on the ground. To this effect, we went through the list of names of partitions and made a reconciliation to be included in the final LIMS. LIMS should now be populated with the constituencies (the equivalent of districts).
2. For module 3, participants were of the view that submission of monthly reports is perhaps not realistic as demanded by the current format. Quarterly reports were suggested.
3. Module 5, need to populate the drop down menu for port of entry in the LIMS application.

The following problems were encountered with the LIMS version 16Oct08:

1. Module 2 – House Holds. The query calculation or the label is wrong as it calculates Livestock owned by Total House Holds. The definition of households versus family units should be made clear in the LIMS Manual.
2. Module 3 – Livestock Products. The queries regarding production quantities do not mention unit of measure. After entering one record, participants observed that going back to start a new record poses some problems. On the grading of animals, participants suggested that instead of using grades such as “low weight” and “high weight”, as it currently is in the application, we should adopt the grades such as the ones used by Namibia, Zimbabwe South Africa and Botswana. It should be possible to harmonise them at regional level as they are fairly well harmonised between the countries mentioned. In order to estimate the volume of meat produced from the number of animals slaughtered, it was suggested to use average carcass weights as they are well captured by the Namibia Meat Board. It was further noted that as the quality of skins varies a lot between Member States, harmonisation will pose a challenge.
3. Module 6 - Infra Structure Detailed. Records could not be saved.
4. Module 7 - the figures of animals imported for slaughter should be reconciled with the slaughter figures.
5. For module 9, participants suggested that the way forward is to create a link to the Website containing information on Laws, Regulations and Acts.
6. Module 11 – Vaccination. Labels of queries have been switched (label “Vax by source & lot no” and label “Foci & area of vax”).
7. Query for vaccination figures and coverage was not activated.
8. It was generally observed that for all the automated reports of the modules it is not possible to display more than 12 columns. This perhaps calls for the need for additional pages

Related Manuals on templates and the LIMS application

The draft generic manuals prepared by PRINT were not released at this stage, they will be updated with comments made during the training. The same applies for the Users manual (on how to manage the software). They are expected by November 2008 and will be posted on line (including in a wiki manual), distributed during further meetings and workshops and sent to MS.

In general we recommend that Specific illustrations and comments for the country be added for any national training, to make them user friendly and more specific for the country. Therefore, it is

recommended to add an empty frame in any manual for MS to add their own illustrations and text, in addition to the SADC generic contents provided. The revision of the manuals shall be further part of the mandate of the sub committees of SADC LTC.

3-3. Drafting of first SoP's for LIMS for Namibia

The general principle of LIMS is to share the effort of collecting the data therefore it requires the contribution of various institutions selected from the existing sources belonging to the national AIMS / LIMS networks. Therefore it is essential that such LIMS networks are formed in all MS and procedures agreed upon by the members.

All **templates** (part of the modules) shall be associated with a **SoP** (see next section). This SoP is actually made of some **Metadata** (source of data etc..) on the report and statistics, plus an indication of which **institution** and **person** is dealing with the particular set of statistics (**module or template**) discussed. We at SADC recommend the drafting of SoP on the principle of at least **“one SoP per Module”** (or ideally it should be one SoP per template as part of a given module, but in general one institution will be in charge of an entire module).

The two following screens show the Excel version of one Metadata and one SoP as part for one module.

Every time a template is filled (equivalent of a data screen in the application) then a **header must be filled** with the given template to indicate e.g. the methodology used to get the data, the source of the data and the person responsible for the module. There are 11 modules, some have quantitative attributes (9/11) and two are non-quantitative (listing). All modules have such a header, which is almost similar in all templates, indicating the frequency of reporting and of submission to SADC, the person responsible and some indication on methodology and source for data submitted to the secretariat.

The screenshot shows an Excel spreadsheet titled "SADC LIMS Reporting form MUSH". The form is structured as follows:

- Country:** [Text box]
- Year:** [Text box]
- Date report prepared:** [Text box]
- Reporting officer:**
 - Name:** [Text box]
 - Position:** [Text box]
- Office phone:** [Text box]
- Alternative phone:** [Text box]
- Cell phone:** [Text box]
- Fax:** [Text box]
- E-mail 1:** [Text box]
- E-mail 2:** [Text box]
- Data Source:** [Text box]
- Methodology:** [Text box] with checkboxes for:
 - Census
 - Sample survey
 - Third agencies
 - Estimate
 - Other - describe
- Comments:** [Large text box]

The spreadsheet is displayed in a Microsoft Excel window with a standard menu bar and toolbar.

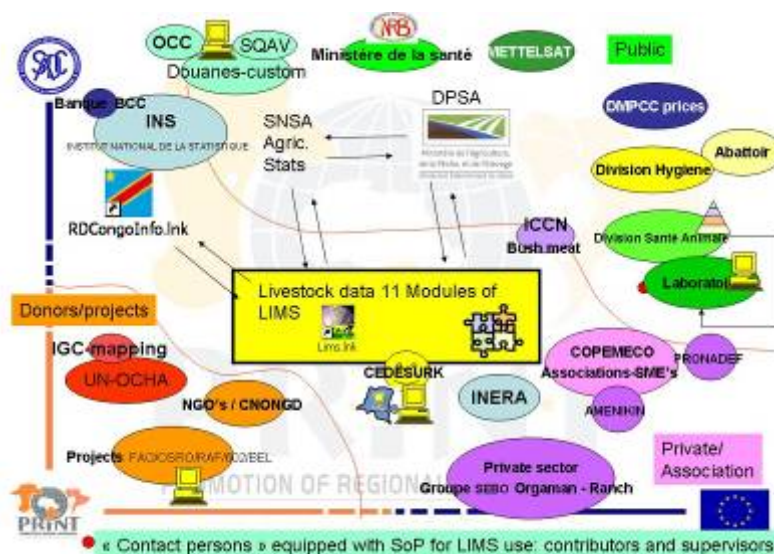
Metadata

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S |
|----|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Standard Operating Procedures | | | | | | | | | | | | | | | | | | |
| 2 | Module 1 coordinator: | | | | Procedures, comments or modification regarding templates or screens | | | | | | | | | | Modification implemented (when, date and version) | | | | |
| 3 | | | | | | | | | | | | | | | | | | | |
| 4 | Tab 1: Nr by species | | | | Template | | | | | | | | | | | | | | |
| 5 | Delegated to: | | | | | | | | | | | | | | | | | | |
| 6 | Name: | | | | | | | | | | | | | | | | | | |
| 7 | Email: | | | | Screen | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
| 10 | Tab 2: Nr by economic function | | | | Template | | | | | | | | | | | | | | |
| 11 | Delegated to: | | | | | | | | | | | | | | | | | | |
| 12 | Name: | | | | | | | | | | | | | | | | | | |
| 13 | Email: | | | | Screen | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | |
| 16 | Tab 3: Nr. by breeds | | | | Template | | | | | | | | | | | | | | |
| 17 | Delegated to: | | | | | | | | | | | | | | | | | | |
| 18 | Name: | | | | | | | | | | | | | | | | | | |
| 19 | Email: | | | | Screen | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | |
| 22 | Tab 4: Nr. by herd structure: | | | | Template | | | | | | | | | | | | | | |
| 23 | Delegated to: | | | | | | | | | | | | | | | | | | |
| 24 | Name: | | | | | | | | | | | | | | | | | | |
| 25 | Email: | | | | Screen | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | | | |

SoP worksheet embeded into the LIMS Excel files (there is also a word version for a comprehensive SoP, with an indication of the process to follow to build SoP by the LIMS LIMS national networks, cf. Annexe)

In the following text, we will highlight only some of the **data sources** that were quoted and can can be used to complete such Livestock related report

SoP's are aimed at indicating the **roles and functions** of some institutions when **contributing** (and **using**) the LIMS. After listing the relevant institutions that can could contribute to the LIMS, one should select the most relevant ones, and then convene a meeting with them and then agree on to organize the data flow. Therefore it will support the completion of the entire information chain for the given module or component of LIMS taken care of.



e.g. a comprehensive stakeholder map made in DRC for LIMS information, will now be reduced according to templates and modules and then reorganized in order to produce a set of recognized and accepted diagrams for contribution and use to/of LIMS.

Livestock Information Management System - [Users and Roles]

Administration - Animal Production - Livestock Marketing and Trade - Livestock Development - Animal Health

Users and Roles

| Full Name | Country Name | Office Position |
|---------------------|--------------|-----------------|
| Administration User | LIMS Admin | |
| Barbara | Botswana | LIMS TA |

2008 2008 2008

Users and Roles Details

Country: SAU / International

Officer ID: 1

First Name: Administration User

Surname: LIMS Admin

Position:

Default Language: English

Office Telephone:

Alternative Telephone:

Cell Phone:

Fax:

Email 1:

Email 2:

Login ID: admin

Password: *****

Date Created: 01/01/2008

Created By: admin

Date Modified: 01/01/2008

Modified By: admin

| Role Description | StartDate | EndDate | Date Created | Created By | Date Modified | Modified By |
|---|------------|---------|--------------|------------|---------------|-------------|
| Administrator | 01/01/2008 | | 01/01/2008 | admin | 01/01/2008 | admin |
| Animal Health Administrator | 04/01/2009 | | 04/01/2009 | admin | 04/01/2009 | admin |
| Animal Production Administrator | 04/01/2009 | | 04/01/2009 | admin | 04/01/2009 | admin |
| Livestock Development Administrator | 04/01/2009 | | 04/01/2009 | admin | 04/01/2009 | admin |
| Livestock Trade and Marketing Administrator | 04/01/2009 | | 04/01/2009 | admin | 04/01/2009 | admin |
| | 12/01/2009 | | | | | |

Mode Formulate

The person who submits the information should always be indicated into the header of the template and therefore its details should be well described into the database.

Livestock Information Management System - [Inv. livestockNumber]

Administration - Animal Production - Livestock Marketing and Trade - Livestock Development - Animal Health

Livestock Numbers & Composition

| Country | Year | Period |
|------------|------|-----------|
| Madagascar | 2008 | Full Year |
| Madagascar | 2008 | Full Year |
| Madagascar | 2008 | Full Year |
| Namibia | 2008 | Full Year |
| Tanzania | 2008 | Full Year |
| Tanzania | 2008 | Full Year |
| Tanzania | 2008 | Full Year |

2008 2008 2008

Report Header

Livestock Number by Species | Livestock Number by Economic Function | Livestock Number by Breed | Livestock Number by Head Structure

Country: Namibia

Year: 2008

Period: Full Year

Officer: Barbara

Date of Report: 01/01/2008

Date of Submission: 01/01/2008

SADC Receive Date: 01/01/2008

Data Source: Department Veterinary Services

Methodology: Census

Comments:

Surname: Barbara

First Name: Felicia Gertzel

Position: Livestock Administrator

Office Phone: +264 208 7711

Alternative Phone: +264 208 7470

Cell Phone: +264 91 294 9224

Fax: +264 208 7367

Email: livestock@mvf.gov.na

Email2: livestock@mvf.gov.na

Date Created: 01/01/2008 11:01:10

Created By: Namibia

Date Modified: 01/01/2008 11:01:10

Modified By: Namibia

Mode Formulate

Stages recommended for implementing the LIMS in a given country.

In general, we recommend MS be gradually implementing the LIMS, by upgrading **hardware, software and humanware** given a national road map (a business plan specific to the country) taking into account with due respect some **regional milestones** agreed upon at LTC and in sub committees of the LTC.

First stage

Firstly, it is advisable to make an **inventory** of what **data is available** without effort (already available in some institutions being major sources) therefore only requiring a networking exercise.

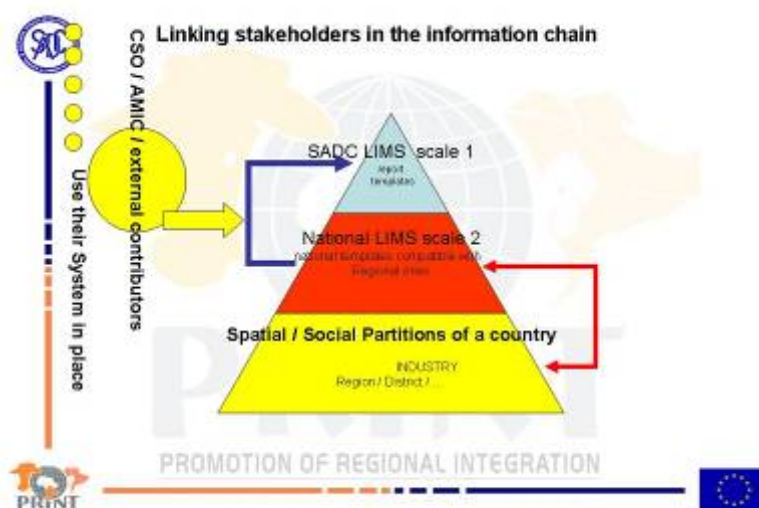
Second stage

Secondly, the system shall be improved by adding information when it will require little effort.

Third stage

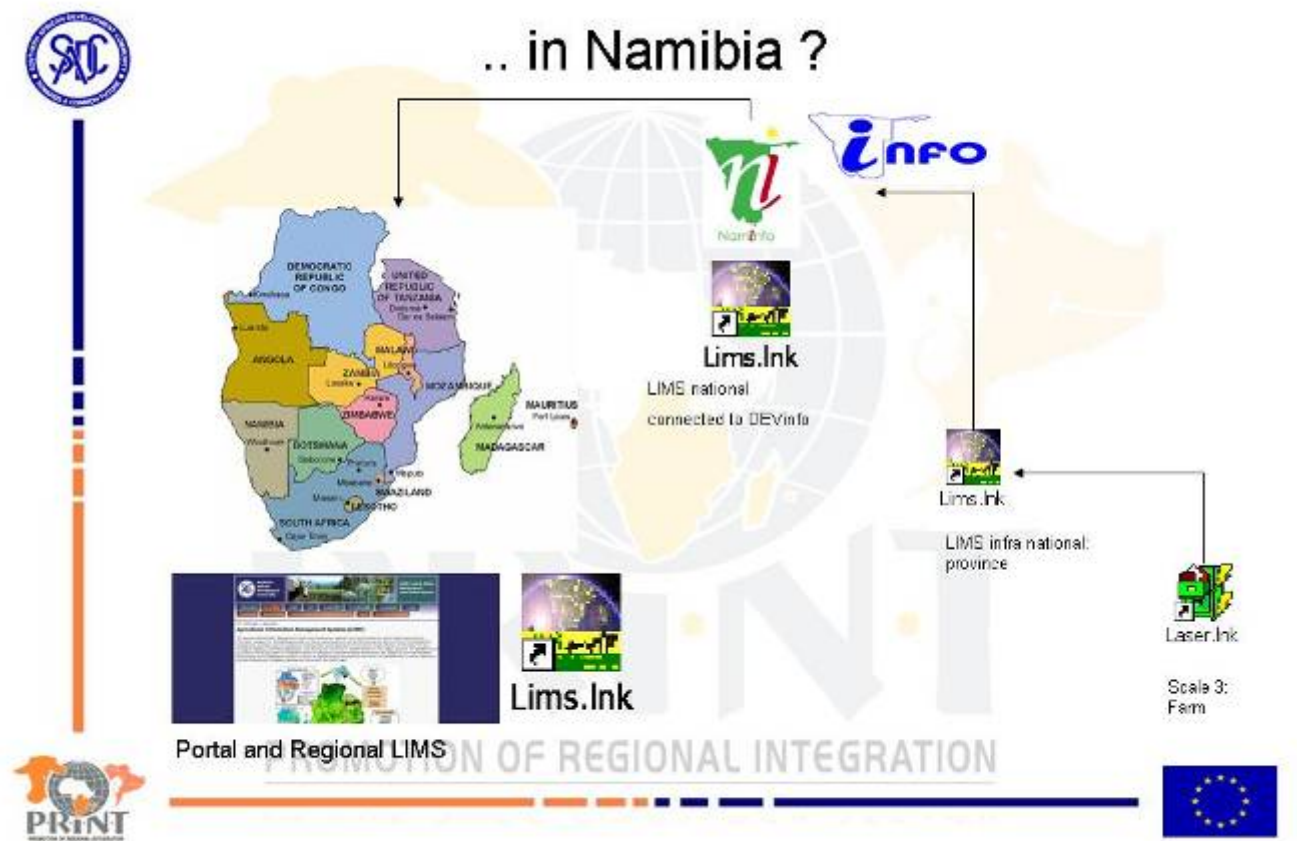
A third stage will be when the completion of the data collection which will require significant effort. It is advised to benefit from other project funds, especially when such projects have been tasked to implement an **information system or a monitoring tool** for a part of or the entire Livestock sector.

An important aspect to consider is **HOW** the contributors will send their contribution **WHO** will, **WHEN**, **WHERE** with which **WHAT** i.e. their dataset (therefore contributing to the LIMS).



Last stage: Contribution and adoption of LIMS procedures, system and tools into other global information chains designed for monitoring the economic development of a country

In some instances, one could insert the LIMS system into a more global system therefore reinforcing it. Here the diagram is highlighting how LIMS can be inserted into the information chain of DEVinfo; all supported by UN, and generally carried out by CSO's in SADC region. These systems are generally weak in capturing indicators and information related to the LS sector. We can actively change this by adopting LIMS as a standard in MS. The same principle applies for chain of information on agricultural statistics that can be sometimes a bit weak on the livestock sector.



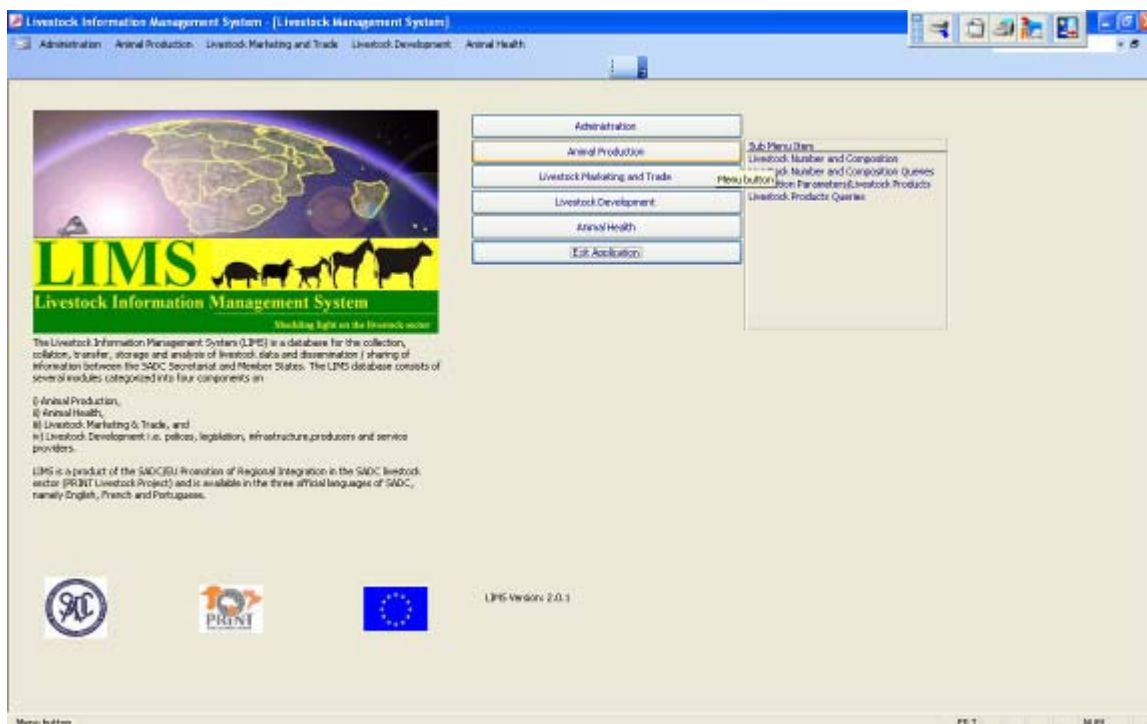
LIMS into a global information chain towards development example with NAMinfo DEVinfo

Constitution of a LIMS task force

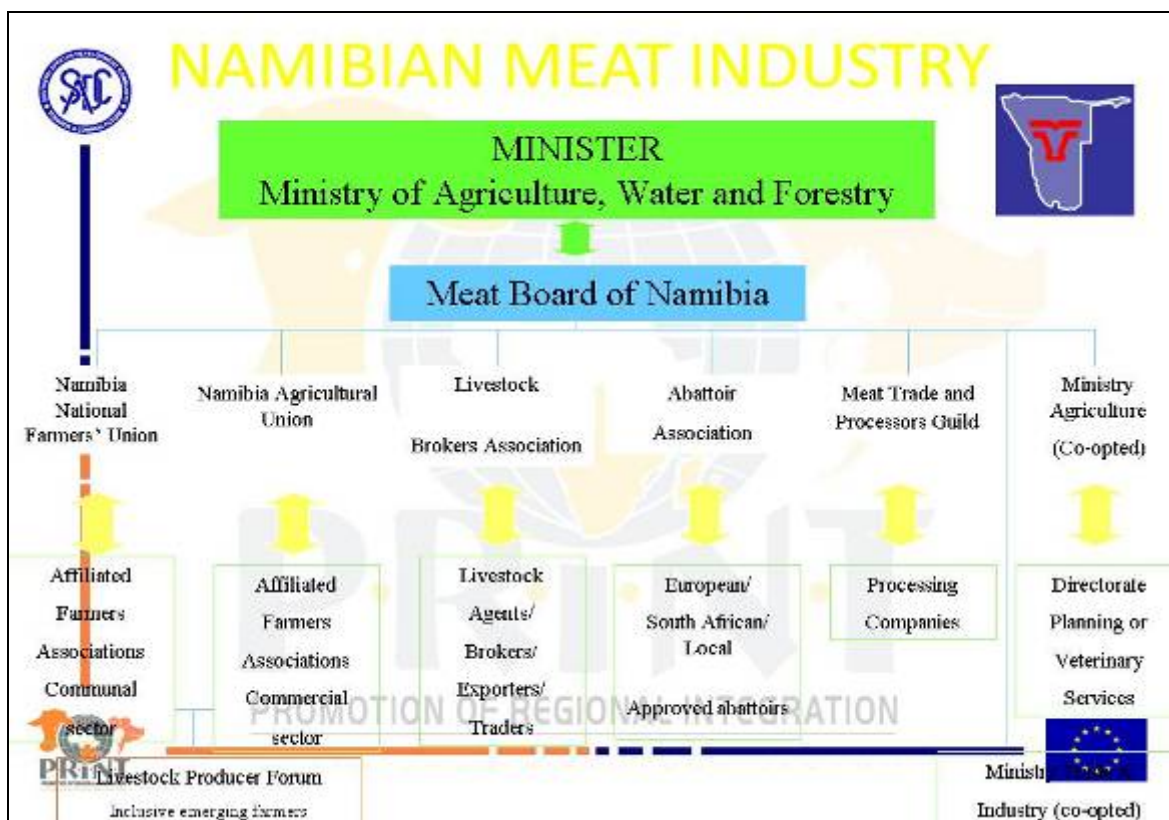
It is recommended that a **LIMS task force** be constituted and that it meets **quarterly**.

Contributors to Modules by the LIMS task force (Module by Module)

We here will briefly describe who could play a role to contribute to the modules. The LIMS task force (or network) once established should develop the SoP's for running the LIMS modules accordingly. The participants of the LIMS training in Namibia were representing enough institutional diversity to be the basis for the first LIMS task force.



According to the LIMS there are 11 modules to be shared



The Namibian Meat board can play a significant role in the LIMS in collaboration with the CSO, MoAWF DVS and planning divisions.

LIMS SoP's Sheet of annexe

A SoP sheet has been proposed by PRINT to be used as a guideline when drafting Standards procedures for exchange of information between the various members of LIMS network and sources (such SoP should be designed and improved by MS during their networking exercise).

This sheet shall be used to respond to the questions: **Who** will do **What** regarding LIMS templates and LIMS application? **Why When and Where?** This check list requires firstly the description of all potential actors: Institutions and name of a personnel and its details etc..

The objective of such guideline is to develop and gradually finalize the **National & specific LIMS SoP's** in the country, i.e. **standard operating procedures** for running the LIMS system, therefore generating a **national network of stakeholders** (with their names and positions) which will have **FUNCTIONS** regarding data contribution and use of the system, such as:

- Be part of the **LIMS national Taskforce** which meets quarterly
- Take a responsibility or/and leadership to **provide** data (**contributors** as **primary** source **or secondary** source) and/or **submit dataset** to a “**parent**” **partner** (it could be NALEIC...) in the information chain. Such function can be broken down like:
 - filling some templates (paper work or possibly into the corresponding excel worksheets)
 - entering data into the screens of LIMS application (where ever it is installed)
- **Coordinate** the data capture, **follow up** the versioning of the LIMS application and update LIMS software in locations where it is installed (update may include changes in the reporting excel templates), and coordinate and **monitor** the submission to SADC
 - **Act as** a national coordinator for the regular **submission to SADC**, but it could be required for any level of submission in the information chain
 - **Download** the new **versions** of the **LIMS application** and **templates** (cf. versioning code) and of the **training material** (manuals) when released and
 - **Revise** the national **SoP's** regularly (yearly)
- Act as a **Trainer** on LIMS, using generic manuals and update manuals by drafting country specific contents to better illustrate the use of LIMS (to **customize manuals** for a national purpose)
- **Use and Interact on the AIMS / LIMS portal**: use and contribute to the portal with general information on LS related events and information
- Participate to the **AIMS national network**

Drafting the first **country SoP's**, one by LIMS module, will also ensure:

1/ the proper **starting of the data reporting** to SADC (in excel or with LIMS) after the date of the visit of PRINT to MS (firstly using LIMS templates and preparing the compilation of datasets, secondly and gradually using the LIMS application)

- by using **TEMPLATES in EXCEL** if one cannot use the application for some reasons, or if one wishes to use the excel templates in hard and soft copies in the field (at province and district levels). One should then also follow up updates of new versions of templates (if any) on the LIMS AIMS portal

- by using **LIMS application** facilities, one should then also follow up updates of new versions on the LIMS AIMS portal: <http://aims.sadc.int> (Livestock part) or <http://lims.sadc.int>

The drafting of SoP will again need to clearly:

- **Identify and list the various and potential source(s)** of information, the **types of data** that sources could provide and manage, one should acquire and share the knowledge on when and where data are available and published (i.e. sources like web sites) in institutions where data are managed by experts (CSO etc..).

- **Prioritize and Select** a few **sources** which will contribute to the core system of 11 modules and start dispatching the LIMS roles and functions: list functions firstly so that *in fine* one institution will be selected to report to SADC

2/ A second goal during the networking effort with partners (when drafting SoP's) is also to start an in depth collection of the most recent **dataset available in the country for a year of reference (retrospective and detailed data** in hard or electronic copies using the LIMS templates).

It is needed in order to properly analyse some trends in the sector and therefore adequately prepare presentations for various SADC meetings like the LTC. It is also needed to prepare the drafting of the Regional Agricultural Policy during the planned workshops, where such data will be used). Electronic files should be preferred and sent to SADC PRINT.

3/ thirdly to **start process of collecting** elements for a “**5 years data retrospective time series**” in hard or electronic copies as well (in order to properly continue trends analysis)
(Particularly ask NSO to provide all relevant documents (possibly purchased for PRINT))

4. Other Topics (than LIMS) discussed during the mission

The use of LIMS and hand held devices in Namibia (DPT), Interoperability with TADinfo.

In view of making advance on the SADC TAD's project, PRINT has been requested by the FANR LSU to provide guidance concerning improvement of information provision regarding TAD's related data. It was decided to improve collection of data in the field for census data, outbreak notification and vaccination (M10, M11, M1 of LIMS), therefore using three modules of LIMS, and their respective templates which are being derived into questionnaires with same minimum data sets), and linking them to a DPT technology (Digital pen technology).

Therefore, in one component of the TAD project, FAO who is the implementing agency will be tasked to test the use of DPT (digital pen technologies) or/and other devices (handheld PALM like cell phones) to better collect field data in the 5 countries benefiting from TAD's project.

Though Namibia is not a beneficiary of the TAD's project, Namibia has been using Tadinfor and the DPT since more than a year and should be able to benefit from the experience of LIMS DPT interoperability from the other MS. Nevertheless to do so, there is a need to adjust the field questionnaires designed only for TADinfo in Namibia, in order to match the LIMS minimum dataset in the three first modules selected as it is done in the other MS i.e. the 5 TAD's countries.



5. CONCLUSIONS & Way forwards

All the points debated in this report will be soon presented during further sub committees meetings and at the LTC in 2008.

The road map for the way forward shall be decided by MS regarding the development of LIMS in their respective country, by **establishing a 5 years roll out plan for LIMS**. It is expected that almost all MS will be visited by PRINT for the adoption mission before end of 2008 (except RSA and DRC & Seychelles planned in 2009), missions which are aiming at a first sensitization to the SADC information system. The success of the LIMS relies on the **formation and the activity of national LIMS networks** (human-ware) and on the **collaboration between national institutions** holding information on the LS sector. Therefore, we recommend MS use the SoP's provided for guiding such exercise and convene frequent meetings of the LIMS network.

PRINT will attempt to continue providing its support to MS in 2009 through the CIRAD service contract lasting up to November 2009, whereas the program estimate PE4 of PRINT ends in March 2009. The 5 years rolling plan for LIMS should be ready by then. The support in 2009 will be devoted to more training on LIMS and AIMS and to the support to MS to form their LIMS network..

Countries are expected to start drafting their **national SoP's** firstly for the 9 quantitative modules (and particularly for the following Five modules i.e. M1 census, M3 production , M5 trade, M10 outbreaks, M11 vaccination on one hand, which are considered as priority Modules, plus when possible on M2 Households and M6 infrastructures).

Member states should also **collect and send information** to SADC secretariat (to Livestock unit FANR c/o PRINT LS project), i.e. the last numerical datasets available for these priority Modules. To do so they could use firstly the **templates provided in Excel**, as the use of LIMS software will be heterogeneous and gradually implemented in MS.

They should start by providing data on **M1, M3, M5, M11**, and continue reporting on **M10** which are essential Modules if we want to publish a **production and trade yearbook** plus a **disease control yearbook** by next year 2009. M10 is relatively well advanced because of the historical accumulation of data regarding outbreaks in the region, and a first disease yearbook has already been published.

Thirdly, they should start collecting retrospective data to provide elements for a trends analysis (5 years retrospective data).

Annexures / Annexes

ANNEX I – Terms of reference for the mission

TERMS OF REFERENCE FOR PRINT LIVESTOCK PROJECT MISSION ON LIMS Launching in Namibia

LIMS Adoption Missions: Stakeholder Consultations & Training: July to December 2008

A major expected output of the PRINT Livestock Project is the development of a Livestock Information Management System (LIMS) for the collection of livestock data, processing and reporting of information between Member States and the SADC Secretariat. LIMS is a component of the SADC/FANR/AIMS i.e. Agricultural Information Management System.

The development of LIMS has necessarily, been undertaken in stages as follows:

- Situation Analyses to establish systems of livestock data management in Member States;
- Consultative workshops on the development of reporting templates for data-capture with Sub Committees of the SADC Livestock Technical Committee, namely:- 1) Epidemiology & Informatics, 2) Animal Production, Veld & Marketing, 3) Veterinary Public Health & Food Safety, and 4) Veterinary Laboratories & Diagnostics;
- Approval of the data-capture templates by the Livestock Technical Committee; and
- Sub-contracting of the LIMS database development.

The LIMS application is now in its final stages of development. The stage has been reached where the LIMS application must be rolled out to Member States for installation, training and final testing, whilst providing an opportunity for establishing institutional networks for livestock data collection at the national level.

To this end, so-called LIMS Adoption Missions to Member States are planned from July to December 2008. Attached is a table giving details regarding the month and proposed dates relevant for each Member State.

The LIMS Adoption Missions will comprise the following activities:

- A stakeholders workshop to present the entire SADC/FANR information strategy i.e. the AIMS portal, the LIMS application, the LIMS Web/GIS, associated reporting templates, national standard operating procedures (SOPs), and the institutional network for implementation;
- Training of trainers on the LIMS application for a limited number of key personnel who will conduct further training at national level;
- A final evaluation of sources of information and use of the harmonized data-capture templates;

Therefore member(s) of the PRINT Livestock Project will firstly hold a one-and-half day workshop whose participants should include representatives of livestock departments, public and private institutions who are a source of livestock data and / or information, including all livestock personnel who have participated in previous workshops or training courses organized by the project as well as selected participants to recent AIMS workshops.

The one-day workshop will be followed by a three-day LIMS training course of a maximum 8 identified personnel involved in livestock data management.

Please note that there will be follow-up communication with each Member State close to the date of the mission. The PRINT Livestock Project will meet all costs associated with the above-mentioned activities i.e. per diems, travel and workshop facilities.

We look forward to your usual support in this important regional activity.

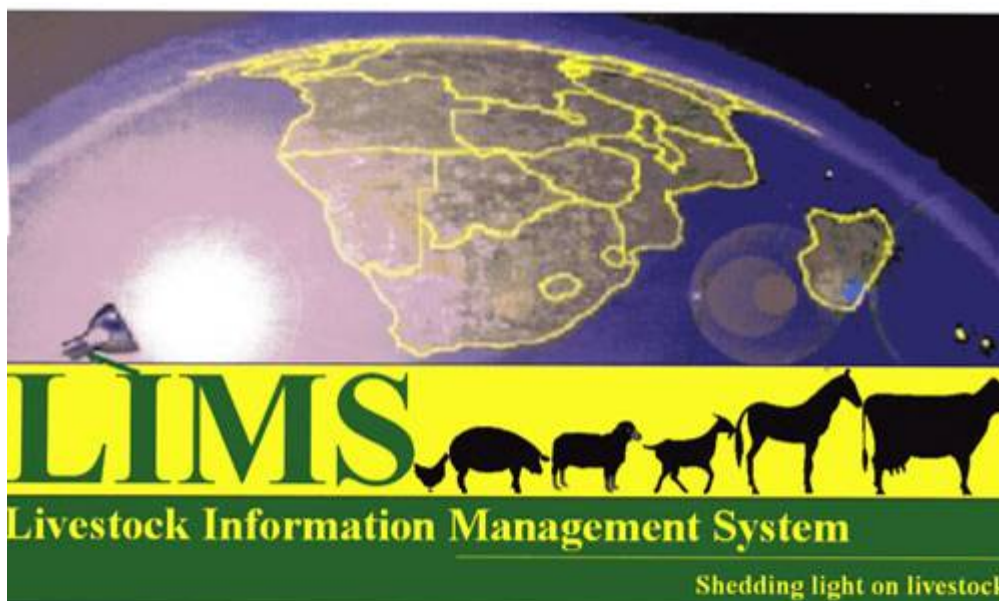
Yours Sincerely,

Dr. Welbourne Madzima
Project Coordinator
PRINT Livestock Project

ANNEX II – CD (electronic annexes):



LIVESTOCK INFORMATION MANAGEMENT SYSTEM (LIMS)



A full package has been distributed at the end of the training

Software's released at per the date of the training (Beta version still under evolution): LIMS beta version

Arc-Explorer XP (Java required)

CODEC to read movie for the AIMS demo video (in file .avi)

LIMS Templates in Excel (version Beta to date)

Listing of Administrative and technical Partitions in Excel

ANNEX III – Presentation made at the Launching seminar

ANNEX IV – Proposed SoP sheet (excerpt to be improved by MS)



LIMS Standard Operating Procedures SoP 'elaboration Sheet for a module or some excerpts of a Module (template) (to complement the LIMS Comment sheet)

Country: **Namibia**



Preamble

This sheet is used to respond to the 5W questions: Who will do What regarding LIMS templates (harmonized reports on LS stats) and LIMS application (software), Why? When? and Where? (Who = Institution and name of a personnel with details etc..)?

Why such a procedure?: The objective is to develop and gradually finalize the **national & specific SoP's** on LIMS in the country (SoP: i.e. **standard operating procedures**). The SoP is used for running the LIMS system, using a **national network of stakeholders** (with their names and positions) which will have **FUNCTIONS** regarding data contribution and use of the system, such as:

- Be part of the **LIMS national taskforce** which establish the organizational chart and specific procedures for the country
- Take responsibility and **leadership to provide data (contributors as primary of secondary sources)** and **submit** dataset to “parent” partner within the country (could be e.g. Meat board transmitting information to DVS...) following an organizational chart established for the country (decentralized system)
 - e.g. fill some templates (Paper report or Excel based)
 - e.g. enter data into screens of the LIMS application (MS Access based)
 - e.g. transfer (send) such data regularly to a parent partner
- Take responsibility and **leadership to coordinate** the LIMS system and its various functions e.g. data capture within the country and the submission of regular statistics to SADC (i.e. manage the centralized database in the country and liaise with SADC secretariat)
 - Submit to SADC and **liaise** with the Livestock unit of SADC
 - Download the new **versions** of LIMS application and of training material (manuals) when released and
 - Revise the national SoP's regularly (yearly), make sure that the procedures used by the contributors follow the one agreed upon
 - Organize **refreshing training** when need be
- Act as a Trainer on LIMS system using the generic manuals and update some contents by drafting “**country specific contents**” (to customize manuals for national purpose)

- Interact on the **AIMS LIMS portal**: use the tools provided and contribute to the forums through the portal, participate to the **AIMS national network**

This activity of drafting the very first SoP will also insure the proper collection of data in three folds:

1/ the proper **starting of the data reporting onwards** (to SADC) from the date of the visit to MS or from the date agreed upon during the 2008 LTC' and sub committee's meetings,

- By using **TEMPLATES** in EXCEL, if you cannot use the application for some reasons, or if you wish firstly to use the excel templates in hard and soft copies in the field (at province and district levels)

firstly use LIMS templates and prepare the compilation of datasets, and gradually move to use of the application)

- By using LIMS application, you will also have to follow up updates of new versions on the LIMS software and manuals on the AIMS portal; <http://aims.sadc.int>; <http://lims.sadc.int> (new specific LIMS pages will be added after the first round of country visits achieved by PRINT by end of 2008)

This activity needs to clearly:

- **Identify and list the various & potential source(s) of information / data** in the country, with the type of data that they could provide / manage. One should know when and where data are available and published, .i.e. use some sources like the web sites of institutions where data are managed by experts and published after finalization of specific surveys, like the CSO agricultural surveys, or the Meat board regular compilation of data on trade & commodity prices etc...
 - **Prioritize and Select the most relevant sources** that will contribute to the system (relevant means also that the methodology to acquire the data is well described and known and accessible, cf. Metadata) and start dispatching the roles and functions in the organizational chart established by the LIMS national task force (network)
 - list sources firstly so that one or two will be selected to report / contribute to the system

2/ the start of an in depth collection of at least **one year of detailed data** in hard or electronic copies. This dataset is needed in order to properly prepare the **SADC Animal Production and Trade yearbook** for 2007-2008 (year of reference according to stat available in the MS) to be published in 2009. This dataset should be used as well in order to support various on going initiatives at SADC level, like the drafting of a regional livestock policy part of the RAP Policy of FANR

-(Electronic files are preferred)

3/ thirdly to **continue the process by collecting** and sending elements for a "**5 years data retrospective time series**" in hard or electronic copies as well (in order to properly prepare trends analysis which will complement the simple snapshot of one year data from 2/)

-(Particularly ask NSO to provide all relevant documents (possibly purchased for PRINT))

SoP LIMS for Country = Namibia For a Component or a Module = Templates / Screens part of a Module

SoP's per Module (11 Modules with their Template) / part of component (4 components see LIMS structure)
Use **one individual SoP sheet per template / screen** so that we can update one individually if the source or the procedure is changing

Recap on Modules and templates

- Headers
- Module 1 Numbers & Composition of Herds
 - 1. Nr by species
 - 2. Nr by economics
 - 3. Nr by breeds
 - 4. Nr by herd struct
- Module 2 Human Households & Population in Livestock farming
 - 1. Human Population
- Module 3 Production Parameters
 - 1. Slaughter
 - 2. Milk
 - 3. Dairy products
 - 4. Eggs

- 5.Hides, skins
- Module 4 Livestock & Products Price
 - 1. Live animals
 - 2. Meat products
 - 3. Milk products
 - 4. Eggs
 - 5. Hides & skins
 - 6. Fiber & feathers
- Module 5 Livestock & Products trade: import/export
 - 1. Live Animals
 - 2. L.stock Products
 - 3. L.stock Inputs
- Module 6 LS Infrastructures
 - Agreg.
 - 3.Dipping
 - 4.Pens
 - 5.Vet clinics
 - 6.Govt Offices
 - 7. Mun Abattoirs & slabs
 - 8.Milk Collection
 - 9. Livestock Markets
 - 10.Storage Products
 - Generic Partitions
 - 1.Admin
 - 2.Technical
 - Detailed
 - 1.Vet Diagnostic Labs
 - 2.Vet Vaccine Labs
 - 3.Industrial Abattoirs
 - 4.Dairy Processing Plants
 - 5.Secondary Markets, etc
 - 6. Port of Entry & Exit
- Module 7 Meat Inspection / Food safety
 - 1.Ante-mortem
 - 2.Post-mortem
- Module 8 Livestock Associations and Service Providers
 - 1.Umbrella org & assoc
 - 2.Private companies
 - 3.Government
- Module 9 LS related Laws, Regulation and Acts, policy docs
 - 1.National Docs
 - 2.International Docs
- Module 10 Disease Outbreak notification
 - Outbreaks
- Module 11 Vaccinations (e.g. TAD's)
 - 1.Vaccination

Part 1: Header of the SoP

Date of elaboration of the SoP:

Persons who elaborated the SoP:

(Generally elaborated after a meeting of the LIMS taskforce in MS, give details and email of contact persons for the modification requested):

This SoP is for which Template / Screen : Give Number: (code : **Component - Module - and Template Number / Screen number** taken from Excel templates or MS Access Screens read from left to right if possible, or copy paste the image of the screen or template)

Part 2: Image of the templates / screens dealt with (when needed)

Template

e.g. Module 3, Template 4 / Screen 4 (with header accounted for in numbering Excel working sheets)

| 4. Processed Dairy Products (from all species) | | | | | | | | | | | | |
|--|-------------------------------|--------------------------|----------------|----------------------|---------------|----------------|--------------|-------------|-------------------|--------------------|--------------------|--------------------|
| Partition 1, e.g. Region/Province | Partition 2, e.g. District | Pasteurized milk Lt** | UHT milk Lt | Fermented milk Lt | Yoghurt Lt | Cheese Kg** | Butter Kg | Cream Lt | Powder milk Kg | Other* products | Other* products | Other* products |
| Reg/prov 1..... | Dist 1..... | | | | | | | | | | | |
| | Dist 2..... | | | | | | | | | | | |
| | Dist 3..... | | | | | | | | | | | |
| Reg/prov 2..... | Dist 1..... | | | | | | | | | | | |
| | Dist 2..... | | | | | | | | | | | |
| | Dist 3..... | | | | | | | | | | | |
| etc | | | | | | | | | | | | |
| * Specify which product | | | | | | | | | | | | |
| ** Lt= Litres, Kg= Kilograms | | | | | | | | | | | | |
| LIMS: Milk equivalent not working | | | | | | | | | | | | |
| LIMS: unit of measure kiloliters?? | | | | | | | | | | | | |
| LIMS gives option for cattle and goat = wrong | | | | | | | | | | | | |
| LIMS: take out option "milk" | | | | | | | | | | | | |
| Not in LIMS: fermented milk, cream, other products | | | | | | | | | | | | |
| LIMS: Yoghurt/fermented products together | | | | | | | | | | | | |

Corresponding Screen

e.g. Module 3, Template 4 / Screen 4 (with header accounted for in numbering Tab of screens)

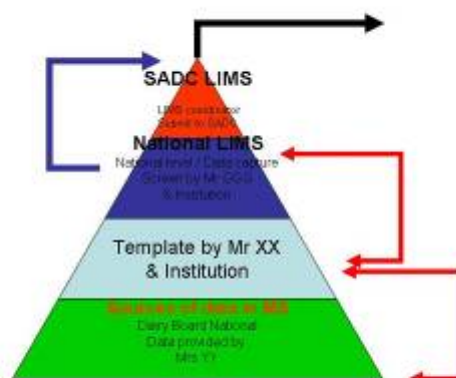
Part 3: Comments on who could / will be responsible for the templates / screens of the module studied, and with which functions?

Firstly List all potential sources of information for the Module / Template / Screen

Make assumption on where the system will be centralized at national level. Here it is assumed that DVS will take this leading role.

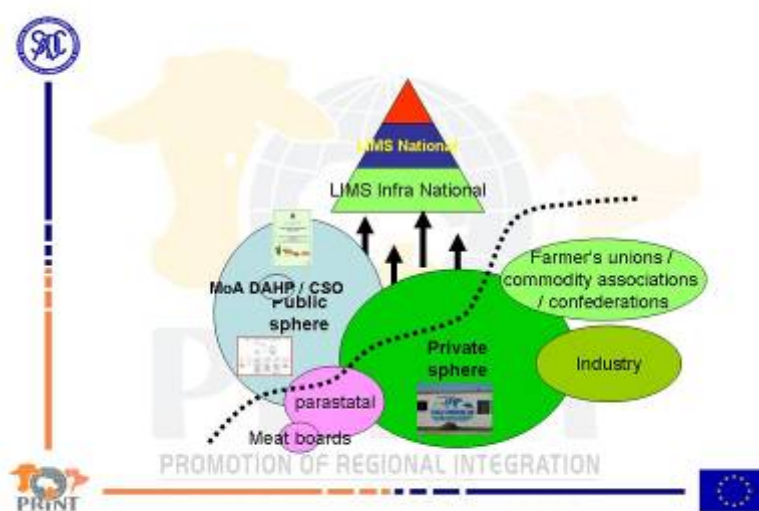
List them: e.g. hierarchical role of DVS from HQ to region, districts, and elaborate on Partnership / Functional role of other institutions (Meat Dairy Boards, CSO's, Agric Stats...)

e.g. Hierarchical role: how the information will flow from fields to HQ DVS

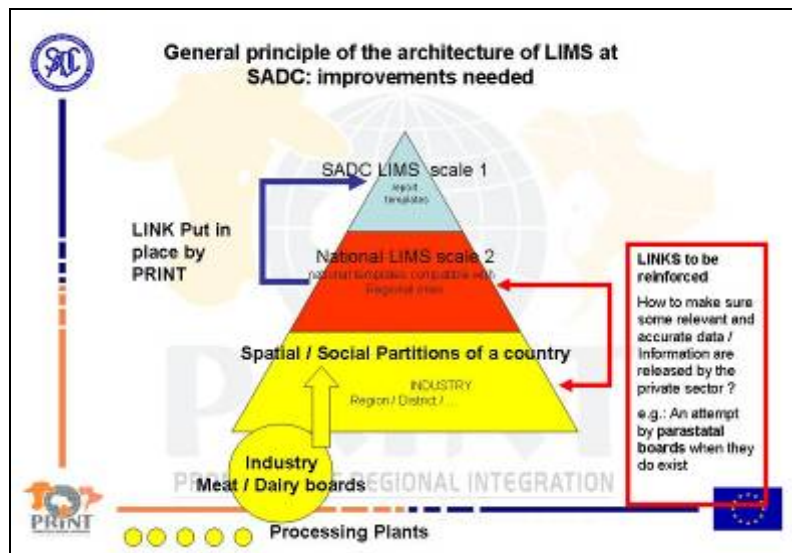


LIMS Module 3 / Template - Screen Dairy ###

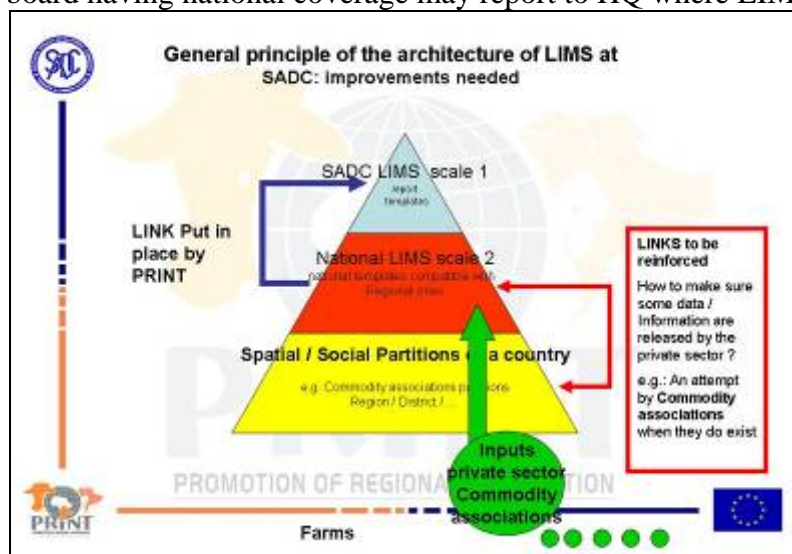
e.g. Functional role: Which institutions outside DVS could take a role , or have a function regarding this template? Do they cover the entire territory or not (partial coverage of a commodity association for instance)? Therefore, should they report to intermediate levels like to regions / province / district offices or to HQ? etc..



Link such institutions to the hierarchical system at the appropriate level to start drafting the organisational chart for running the LIMS system (here for a selection of templates or modules)



e.g. a dairy board having national coverage may report to HQ where LIMS is installed



e.g. a commodity association having provincial coverage may report to HQ or to the province where LIMS is installed

Selection of sources: after having listed them now rank the “players”, make the selection for the best bet (and also keep some alternatives, therefore the ranks 2 and 3)

a/ Major Role for the template / module to be distributed to:

- 1/
- 2/
- 3/

b/ **Describe role** and responsibility of selected sources / methods they use / frequency of their reports

- 1/
- 2/
- 3/

Part 4: Elaborate a Diagram with Boxes (institutions) and Flows (relationship between institutions) for SoP / i.e. an Organisational chart for the template / module

i.e. take an image of what you have drafted on a flip chart with the flow of data between partners, type of transfer, i.e. who does what? Each flow can be given attributes like in this small table attached to the flow

| Source involved directly into LIMS which will contribute to the system | Parent partner? (primary source) if any one | Child partner to receive data |
|--|---|-------------------------------|
| What is transferred | | |
| How is it transferred | | |
| Who is transferring | | |
| When is it done | | |
| Where: From Where to Where ? | | |
| Etc.. | | |
| | | |

Functions to be achieved: Stage 1: collection and capture of data**What?**

- Collection with paper report?
- Collation into Excel templates (and compile report by printing in hard copy when needed)
- Direct Data capture into LIMS screens?
- **Who is responsible for filling** the paper report / template / **capturing** data into LIMS excel sheets or application' screens (can be private / public sector)
- Name of stakeholder(s) and **Institution(s) of reference at national level**
 - (email of contact person)
- **Name of Institution(s) of reference at regional/provincial level**
- Name of Institution(s) of reference at **district level**

Functions to be achieved: Stage 2: Supervision and submission

Data transfer is **controlled** by a supervisor / Data **submission** to upper scales / levels (the data collected will flow to "child partners": HQ? province etc..? and eventually to SADC

Who is responsible for coordinating & controlling data quality for this module? = Who is responsible for **coordinating the completion** on time, and **submission to SADC** for this set / component / module?

- Name of stakeholder(s) and **Institution(s) of reference at national level**
 - (email of contact person)
- **Name of Institution(s) of reference at regional/provincial level**
- Name of Institution(s) of reference at **district level**

How to formulate responsibility in the SoP

e.g. LIST of players



ORGANIZE FLOW of DATA between players



Diagram of REPORT USING TEMPLATES or ELECTRONIC FILE + DIRECT input into LIMS Screen



Part 5: Rank the difficulty of this module / screen / template in terms of contents and organisation of data flow

- Easy to fill with little effort: ☐ Y/N ☐
- Relatively Easy to fill with significant effort: ☐ Y/N ☐
- To gradually o fill with strong effort: ☐ Y/N ☐

Part 6: Can this Module/ Template be integrated in another IS and methodologies of surveys that co exists at national level (by CSO etc.):

e.g. DEVinfo, VACinfo, M and E systems of Programs, CSO surveys etc..

if yes then this module could be adopted as one component of a larger survey initiative

Part 7: In conclusion Decision Table (to be consolidated for all modules)

5 W : What to do / when? where? who is in charge, why?

After having elaborated the diagram, try to fill in a summary table a bit like this one:

| What | Who | When | Where | Why | How |
|---|---|---------------------------------|-------------------------|-----|--|
| Module Number Screen / template number | | | | | |
| e.g. supervising M10 / S2 / T2 | Name of the Institution and name of a person and his functions: | Frequency will be monthly | At National level HQ | | LIMS application Or TEMPLATES in EXCEL |
| | | | | | |
| | | | | | |
| | | | | | |

Note:

When various sources coexist in an information chain, put them by order and indicate the one used to input data into LIMS

- Primary source: Institution & Person in charge for the template in Module
- Secondary source: Institution & Person in charge for the template in Module

e.g. Institution that will enter data into LIMS

e.g. Institution who will submit data from LIMS to SADC: Frequency of submission

**Part 8: How to gradually implement the LIMS in the entire territory with its hierarchy
/Comments on Hierarchical partition**

Hierarchical partition

Provinces / Regions:

Districts

Try to indicate in which Partitions you should start implementing the LIMS system with:

a/ **LIMS application** installed on computers or/and

b/ **Paper Report + Excel sheet (template)**

| | |
|-----------------------------|---|
| Country: | Namibia |
| Representativity: | January 2000 |
| Source of the data: | Directorate of Survey and mapping |
| Source of the codes: | SALB project, Copyright © United Nations 2003. All rights reserved |
| Comments: | Because of a misunderstanding with the National Mapping Agency, we had to remove the constituency of Mukwe (NAM001006) in Caprivi region. |

| 1st administrative level names | 2nd administrative level names | Priority and first mode of implementation a or b |
|--------------------------------|--------------------------------|---|
| Caprivi | Kabe | |
| Caprivi | Katima Muliro Rural | |
| Caprivi | Katima Muliro Urban | |
| Caprivi | Kongola | |
| Caprivi | Linyandi | |
| Caprivi | Sibinda | |
| Erongo | Arandis | |
| Erongo | Daures | |
| Erongo | Karibib | |
| Erongo | Omaruru | |
| Erongo | Swakopmund | |
| Erongo | Walvisbay Rural | |
| Erongo | Walvisbay Urban | |
| Hardap | Gibeon | |
| Hardap | Mariental Rural | |
| Hardap | Mariental Urban | |
| Hardap | Rehoboth East | |
| Hardap | Rehoboth Rural | |
| Hardap | Rehoboth West | |
| Karas | Berseba | |
| Karas | Karas | |
| Karas | Keetmanshoop Rural | |
| Karas | Keetmanshoop Urban | |
| Karas | Luderitz | |
| Karas | Oranjemund | |
| Kavango | Kahenge | |
| Kavango | Kapako | |
| Kavango | Mashare | |
| Kavango | Mpungu | |
| Kavango | Mukwe | |
| Kavango | Ndiyona | |

| | | |
|-----------|------------------|--|
| Kavango | Rundu Rural | |
| Kavango | Rundu Urban | |
| Khomas | Hakahana | |
| Khomas | Katutura Central | |
| Khomas | Katutura East | |
| Khomas | Khomasdal North | |
| Khomas | Soweto | |
| Khomas | Wanaheda | |
| Khomas | Windhoek East | |
| Khomas | Windhoek Rural | |
| Khomas | Windhoek West | |
| Kunene | Epupa | |
| Kunene | Kamanjab | |
| Kunene | Khorixas | |
| Kunene | Opuwo | |
| Kunene | Outjo | |
| Kunene | Sesfontein | |
| Ohangwena | Eenhana | |
| Ohangwena | Endola | |
| Ohangwena | Engela | |
| Ohangwena | Epembe | |
| Ohangwena | Ohangwena | |
| Ohangwena | Okongo | |
| Ohangwena | Omundaungilo | |
| Ohangwena | Ondombe | |
| Ohangwena | Ongenga | |
| Ohangwena | Oshikango | |
| Omaheke | Aminius | |
| Omaheke | Gobabis | |
| Omaheke | Kalahari | |
| Omaheke | Otjinene | |
| Omaheke | Otjombinde | |
| Omaheke | Steinhausen | |
| Omusati | Anamulenge | |
| Omusati | Elim | |
| Omusati | Etyai | |
| Omusati | Ogongo | |
| Omusati | Okahao | |
| Omusati | Okalongo | |
| Omusati | Onesi | |
| Omusati | Oshikuku | |
| Omusati | Outapi | |
| Omusati | Ruacana | |
| Omusati | Tsandi | |
| Oshana | Okaku | |
| Oshana | Okatana | |
| Oshana | Okatyali | |
| Oshana | Ompundja | |
| Oshana | Ondangwa | |
| Oshana | Ongwediva | |
| Oshana | Oshakati East | |
| Oshana | Oshakati West | |
| Oshana | Uukwiyu | |
| Oshana | Uuvudhiya | |

| | | |
|-----------------|------------------|--|
| Oshikoto | Engodi | |
| Oshikoto | Guinas | |
| Oshikoto | Okankolo | |
| Oshikoto | Olukonda | |
| Oshikoto | Omuntele | |
| Oshikoto | Omuthiyagwipundi | |
| Oshikoto | Onayena | |
| Oshikoto | Oniipa | |
| Oshikoto | Onyaanya | |
| Oshikoto | Tsumeb | |
| Otjozondjupa | Grootfontein | |
| Otjozondjupa | Okahandja | |
| Otjozondjupa | Okakarara | |
| Otjozondjupa | Omatako | |
| Otjozondjupa | Otavi | |
| Otjozondjupa | Otjiwarongo | |
| Otjozondjupa | Tsumkwe | |
| 13 units | 102 units | |

Map of 13 regions

NCF and SCF : vet cordon fence demarcating two half of Namibia



ANNEX V – Comment sheets (a/ bugs & b/ templates/screens)

a/ Bug records table

List of errors detected in LIMS application and suggested corrections

Name of reporter _____ Position _____ Date errors detected _____

Any report should be reported firstly to PRINT: BBedane@sadc.int

CC to Livestock Unit BHulman@sadc.int

CC to the developer: INFORMATIX INDUSTRY SERVICES Pty Ltd / Thulagano Segokgo
tsegokgo@gmail.com

CC to the external tester: Xavier Juanes Xavier.Juanes@cirad.fr

| No. | Component | Module | Tab page | Error detected | Suggested correction |
|-----|-----------|--------|----------|----------------|----------------------|
| | | | | | |
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Comment sheet on LIMS Modules (to complement the SoP sheet)

Country: Namibia

- Headers
- Module 1 Numbers & Composition of Herds
 - 1. Nr by species
 - 2. Nr by economics
 - 3. Nr by breeds
 - 4. Nr by herd structure
- Module 2 Human Households & Population in Livestock farming
 - 1. Human Population
- Module 3 Production Parameters
 - 1. Slaughter
 - 2. Milk
 - 3. Dairy products
 - 4. Eggs
 - 5. Hides, skins
- Module 4 Livestock & Products Price
 - 1. Live animals
 - 2. Meat products
 - 3. Milk products
 - 4. Eggs
 - 5. Hides & skins
 - 6. Fiber & feathers
- Module 5 Livestock & Products trade: import/export
 - 1. Live Animals
 - 2. L.stock Products
 - 3. L.stock Inputs
- Module 6 LS Infrastructures
 - Agreg.
 - 3. Dipping
 - 4. Pens
 - 5. Vet clinics
 - 6. Govt Offices
 - 7. Mun Abattoirs & slabs
 - 8. Milk Collection
 - 9. Livestock Markets
 - 10. Storage Products
 - Generic Partitions
 - 1. Admin
 - 2. Technical
 - Detailed
 - 1. Vet Diagnostic Labs
 - 2. Vet Vaccine Labs
 - 3. Industrial Abattoirs
 - 4. Dairy Processing Plants
 - 5. Secondary Markets, etc
 - 6. Port of Entry & Exit
- Module 7 Meat Inspection / Food safety
 - 1. Ante-mortem
 - 2. Post-mortem

- Module 8 Livestock Associations and Service Providers
 - 1.Umbrella org & assoc
 - 2.Private companies
 - 3.Government
- Module 9 LS related Laws, Regulation and Acts, policy docs
 - 1.National Docs
 - 2.International Docs
- Module 10 Disease Outbreak notification
 - Outbreaks
- Module 11 Vaccinations (e.g. TAD's)
 - 1.Vaccination

Comments sheet and reports to be sent to

PRINT: BBedane@sadc.int

CC to Livestock Unit BHulman@sadc.int

If bugs reports: CC to the developer: INFORMATIX INDUSTRY SERVICES Pty Ltd / Thulagano Segokgo tsegokgo@gmail.com

If bugs reports: CC to the external tester: Xavier Juanes Xavier.Juanes@cirad.fr

Part 1: Header

Comments on which Template Number & Screen number: (code : **Component - Module - and Template Number / Screen number** from left to right when possible to account like this)

Date:

Name of stakeholder(s) commenting & Institution(s) of reference
(email of contact person for the modification requested):

Part 2: images (when needed)

e.g. Module 3, Screen 4 (with header accounted for)

Template

| 4. Processed Dairy Products (from all species) | | | | | | | | | | | | |
|--|-------------------------------|--------------------------|----------------|----------------------|--|----------------|--------------|-------------|-------------------|--------------------|--------------------|--------------------|
| Partition 1, e.g. Region/Province | Partition 2, e.g. District | Pasteurized milk Lt** | UHT milk Lt | Fermented milk Lt | Yoghurt Lt | Cheese Kg** | Butter Kg | Cream Lt | Powder milk Kg | Other* products | Other* products | Other* products |
| Reg/prov 1..... | Dist 1..... | | | | | | | | | | | |
| | Dist 2..... | | | | | | | | | | | |
| | Dist 3..... | | | | | | | | | | | |
| Reg/prov 2..... | Dist 1..... | | | | | | | | | | | |
| | Dist 2..... | | | | | | | | | | | |
| | Dist 3..... | | | | | | | | | | | |
| etc | | | | | | | | | | | | |
| * Specify which product | | | | | | | | | | | | |
| ** Lt= Litres, Kg= Kilograms | | | | | | | | | | | | |
| | | | | | LIMS gives option for cattle and goat = wrong | | | | | | | |
| | | | | | LIMS: take out option "milk" | | | | | | | |
| | | | | | Not in LIMS: fermented milk, cream, other products | | | | | | | |
| | | | | | LIMS: Yoghurt/fermented products together | | | | | | | |

Corresponding Screen

LIMS - [frmLiveStockProductsMain]

Administration Livestock Development Animal Health Animal Production Livestock Trade and Marketing

Tapez une question

Livestock Products

Country: Malawi Year: 2005
Period: January Date Of Report: 22/06/2008
Officer: Chirambo Date of Submission :

Country Year Period
Malawi 2005 January

Report Header Animal Slaughtered & Meat Produced Milk production & Milk processed Dairy Products processed Eggs Hides, Skins, Fibre & Feathers

Records Selection

Partition Type Partition Level Partition Name Product Category Species

| Partition Type | Partition Level | Partition Name | Species | Product |
|----------------|-----------------|----------------|---------|------------------------|
| Administrative | 1 | Central | Cattle | Fermented Milk/Yoghurt |
| Administrative | 1 | Central | Cattle | Cheese (Hard) |
| Administrative | 1 | Central | Cattle | Butter |
| Administrative | 1 | Central | Cattle | Powder Milk |
| Administrative | 1 | Central | Goats | UHT Milk |

| Partition Level | Partition Name | Quantity | Unit of Measure | Equivalent Milk Liters | Date Created | Created By | Date Modified | Modified By |
|-----------------|----------------|----------|-----------------|------------------------|--------------|------------|---------------|-------------|
|-----------------|----------------|----------|-----------------|------------------------|--------------|------------|---------------|-------------|

Mode Formulaire

FILT NUM

Part 3: Comments on the template

Part 4: Comments on the screen

Part 5: Modifications / Adjustments suggested / requested by categories (referring to the application screen, and template)

e.g. Contents, functionalities (export etc..) , categories / parameters etc..

Part 6: Comments on the **Queries / Reports** implemented in LIMS screen / Module
e.g. Request for Modifications / Addition of some queries, to provide tables as input to other external info. System e.g. to export to CSO (CSO surveys, Agric. Stats...)

Part 7: Comments on **specific contents** that would be useful in **national manuals** used during a LIMS training (on line or classic training)
LIMS Manuals: Manual for Data Clerk (reporting manual) / Manual for trainers (these manuals are pending and will be posted on line and send to the group)
e.g. special “convention” or definitions for proper interpretation of some categories implemented into the screens and templates (e.g. Grading system, follow up of an outbreak, names of category for small stock)

Part 8: Bugs identified (please use the form attached): *Error detection sheet2.doc*
and send the table to:
Any bug report should be reported to PRINT: BBedane@sadc.int

CC to Livestock Unit BHulman@sadc.int

CC to the developer: INFORMATIX INDUSTRY SERVICES Pty Ltd / Thulagano Segokgo
tsegokgo@gmail.com

CC to the external tester: Xavier Juanes Xavier.Juanes@cirad.fr

Part 9: Validation of ADMIN and TECHNICAL partitions

Partition list as implemented into LIMS => is missing the constituencies / districts

| CountryCode | PartitionLevel | PartitionType | PartitionName | ParentPartitionName |
|-------------|----------------|----------------|---------------|---------------------|
| NA | 1 | Administrative | Ohangwena | |
| NA | 1 | Administrative | Otjozondjupa | |
| NA | 1 | Administrative | Oshikoto | |
| NA | 1 | Administrative | Oshana | |
| NA | 1 | Administrative | Okavango | |
| NA | 1 | Administrative | Omaheke | |
| NA | 1 | Administrative | Khomas | |
| NA | 1 | Administrative | Karas | |
| NA | 1 | Administrative | Hardap | |
| NA | 1 | Administrative | Erongo | |
| NA | 1 | Administrative | Caprivi | |
| NA | 1 | Administrative | Omusati | |
| NA | 1 | Administrative | Kunene | |
| NA | 2 | Administrative | Oshikoto | Oshikoto |
| NA | 2 | Administrative | Otjozondjupa | Otjozondjupa |
| NA | 2 | Administrative | Oshana | Oshana |
| NA | 2 | Administrative | Omusati | Omusati |
| NA | 2 | Administrative | Omaheke | Omaheke |
| NA | 2 | Administrative | Okavango | Okavango |
| NA | 2 | Administrative | Kunene | Kunene |
| NA | 2 | Administrative | Khomas | Khomas |
| NA | 2 | Administrative | Karas | Karas |
| NA | 2 | Administrative | Hardap | Hardap |
| NA | 2 | Administrative | Erongo | Erongo |
| NA | 2 | Administrative | Caprivi | Caprivi |
| NA | 2 | Administrative | Ohangwena | Ohangwena |

ADMIN type, Level 1 and 2, Region / Province and District names

Edited Version of Partitions agreed on during the mission **to be implemented into LIMS**

In **red** result of proof reading of original data provided (i.e. editing)

Could we check this ?

RRSU GIS ADMIN Namibia

- | | |
|----|--------------|
| ID | PRIMARY |
| 1 | Kunene |
| 2 | Omusati |
| 3 | Ohangwena |
| 4 | Kavango |
| 5 | Caprivi |
| 6 | Oshana |
| 7 | Oshikoto |
| 8 | Otjozondjupa |
| 9 | Omaheke |
| 10 | Erongo |

- 11 Khomas
- 12 Hardap
- 13 Karas
- 14 Karas 1
- 15 Karas 2
- 16 Karas 3
- 17 Karas 4
- 18 Karas 5
- 19 Karas 6

Official list of regions and constituencies

These districts (102) are named **constituencies** in Namibia

These regions are named **Regional government areas** in Namibia

TECHNICAL Type

Technical partitions to be implemented into LIMS: Status of our discussions

Cf. excel file in a CD folder

Vet districts and sub districts used at DVS level with suggestion from meeting

| <i>Vet technical partition source DVS</i> | |
|---|---------------------|
| <i>Vet Sub District</i> | <i>Vet District</i> |
| EAST CAPRIVI | EAST CAPRIVI |
| OSHANA REGION | ONDANGWA |
| OMUSATI REGION | OUTAPI |
| OHANGWENA REGION | EENHANA |
| OSHIKOTO REGION | OSHIKOTO |
| TOTAL | |
| KAVANGO | RUNDU |
| OMEGA | RUNDU |
| TOTAL | |
| OPUWO | OPUWO |
| ETANGA | OPUWO |
| OKANGWATI | OPUWO |
| OMBOMBO | OPUWO |
| SESFONTEIN | OPUWO |
| TOTAL | |
| OTAVI | OTAVI |
| TSUMEB | OTAVI |
| MANGETTI WEST | OTAVI |
| TOTAL | |
| GROOTFONTEIN | GROOTFONTEIN |
| TSUMKWE | GROOTFONTEIN |
| MANGETTI EAST | GROOTFONTEIN |
| TOTAL | |
| OKAHANDJA | OKAHANDJA |
| OVITOTO | OKAHANDJA |

| | |
|-------------------------|--------------|
| TOTAL | |
| OUTJO | OUTJO |
| KHORIXAS & KUNENE SOUTH | OUTJO |
| TOTAL | |
| OTJIWARONGO | OTJIWARONGO |
| OKAKARARA | OTJIWARONGO |
| TOTAL | |
| GOBABIS | GOBABIS |
| OTJINENE | OTJINENE |
| EPUKIRO | GOBABIS |
| RIETFontein | GOBABIS |
| EISEB | GOBABIS |
| GAM | GOBABIS |
| AMINUIS | GOBABIS |
| TOTAL | |
| OMARURU | OMARURU |
| KARIBIB | OMARURU |
| OTJIMBINGWE | OMARURU |
| OTJIHORONGO | OMARURU |
| OKOMBAHE | OMARURU |
| TOTAL | |
| AREA - DEC 2004 | |
| WALVISBAY | WALVISBAY |
| SWAKOPMUND | WALVISBAY |
| TOTAL | |
| WINDHOEK | WINDHOEK |
| REHOBOTH windhoek | WINDHOEK |
| TOTAL | |
| MARIENTAL + MALTAHOHE | MARIENTAL |
| GIBEON | MARIENTAL |
| HOACHANAS | MARIENTAL |
| HARDAP PLOTS | MARIENTAL |
| REHOBOTH / mariental | MARIENTAL |
| TOTAL | |
| KEETMANSHOOP | KEETMANSHOOP |
| LUDERITZ | KEETMANSHOOP |
| BONDELSWART | KEETMANSHOOP |
| NAMALAND SOROMAAS | KEETMANSHOOP |
| KARASBURG | KEETMANSHOOP |
| MALTAHOHE | KEETMANSHOOP |
| BETHANIE | KEETMANSHOOP |

Vet districts and sub districts as implemented into the LIMS e.g. what is in the LIMS about Technical partitions

| CountryCode | PartitionLevel | PartitionType | PartitionName | ParentPartitionName |
|-------------|----------------|---------------|---------------|---------------------|
| NA | 1 | Technical | Gobabis | |
| NA | 1 | Technical | Grootfontein | |
| NA | 1 | Technical | Keetmanshoop | |
| NA | 1 | Technical | Mariental | |
| NA | 1 | Technical | Okahadja | |
| NA | 1 | Technical | Omaruru | |

| | | | | |
|----|---|-----------|-------------------------|-------------------------|
| NA | 1 | Technical | Ondangwa (East Caprivi) | |
| NA | 1 | Technical | Opuwo | |
| NA | 1 | Technical | Otavi | |
| NA | 1 | Technical | Otjiwarongo | |
| NA | 1 | Technical | Outjo | |
| NA | 1 | Technical | Rundu | |
| NA | 1 | Technical | Walvisbay | |
| NA | 1 | Technical | Windhoek | |
| NA | 2 | Technical | Aminuis | Gobabis |
| NA | 2 | Technical | Bethanie | Keetmanshoop |
| NA | 2 | Technical | Bondelswart | Keetmanshoop |
| NA | 2 | Technical | Eiseb | Gobabis |
| NA | 2 | Technical | Epukiro | Gobabis |
| NA | 2 | Technical | Etanga | Opuwo |
| NA | 2 | Technical | Gam | Gobabis |
| NA | 2 | Technical | Gibeon | Mariental |
| NA | 2 | Technical | Gobabis | Gobabis |
| NA | 2 | Technical | Grootfentein | Grootfontein |
| NA | 2 | Technical | Hardap Plots | Mariental |
| NA | 2 | Technical | Hoachanas | Mariental |
| NA | 2 | Technical | Karasburg/Warmbad | Keetmanshoop |
| NA | 2 | Technical | Karibib | Omaruru |
| NA | 2 | Technical | Kavango | Rundu |
| NA | 2 | Technical | Keetmanshoop | Keetmanshoop |
| NA | 2 | Technical | Khorixas & Kunene South | Outjo |
| NA | 2 | Technical | Luderitz | Keetmanshoop |
| NA | 2 | Technical | Maltahohe | Keetmanshoop |
| NA | 2 | Technical | Mangetti East | Grootfontein |
| NA | 2 | Technical | Mangetti West | Otavi |
| NA | 2 | Technical | Mariental + Maltahohe | Mariental |
| NA | 2 | Technical | Namaland Soromaas | Keetmanshoop |
| NA | 2 | Technical | Ohangwena | Ondangwa (East Caprivi) |
| NA | 2 | Technical | Okahandja | Okahandja |
| NA | 2 | Technical | Okakarara | Otjiwarongo |
| NA | 2 | Technical | Okangwati | Opuwo |
| NA | 2 | Technical | Okombahe | Omaruru |
| NA | 2 | Technical | Omaruru | Omaruru |
| NA | 2 | Technical | Omega | Rundu |
| NA | 2 | Technical | Omusati | Ondangwa (East Caprivi) |
| NA | 2 | Technical | Opuwo | Opuwo |
| NA | 2 | Technical | Oruvandjei / Etoto | Opuwo |
| NA | 2 | Technical | Oshana | Ondangwa (East Caprivi) |
| NA | 2 | Technical | Oshikoto | Ondangwa (East Caprivi) |

| | | | | |
|----|---|-----------|-------------|--------------|
| NA | 2 | Technical | Otavi | Otavi |
| NA | 2 | Technical | Otjihorongo | Omaruru |
| NA | 2 | Technical | Otjimbingwe | Omaruru |
| NA | 2 | Technical | Otjinene | Gobabis |
| NA | 2 | Technical | Otjiwarongo | Otjiwarongo |
| NA | 2 | Technical | Outjo | Outjo |
| NA | 2 | Technical | Ovitoto | Okahadja |
| NA | 2 | Technical | Rehoboth | Mariental |
| NA | 2 | Technical | Rietfontein | Gobabis |
| NA | 2 | Technical | Sesfontein | Opuwo |
| NA | 2 | Technical | Swakopmund | Walvisbay |
| NA | 2 | Technical | Tsumeb | Otavi |
| NA | 2 | Technical | Tsumkwe | Grootfontein |
| NA | 2 | Technical | Walvisbay | Walvisbay |
| NA | 2 | Technical | Windhoek | Windhoek |

Can we say this is

50 Vet districts from LIMS database ver 105

| CountryCode | PartitionLevel | PartitionType | PartitionName | ParentPartitionName | renaming |
|-------------|----------------|---------------|-------------------|---------------------|--------------|
| NA | 2 | Technical | Aminuis | Gobabis | Vet district |
| NA | 2 | Technical | Eiseb | Gobabis | Vet district |
| NA | 2 | Technical | Epukiro | Gobabis | Vet district |
| NA | 2 | Technical | Gam | Gobabis | Vet district |
| NA | 2 | Technical | Gobabis | Gobabis | Vet district |
| NA | 2 | Technical | Otjinene | Gobabis | Vet district |
| NA | 2 | Technical | Rietfontein | Gobabis | Vet district |
| NA | 2 | Technical | Grootfentein | Grootfontein | Vet district |
| NA | 2 | Technical | Mangetti East | Grootfontein | Vet district |
| NA | 2 | Technical | Tsumkwe | Grootfontein | Vet district |
| NA | 2 | Technical | Bethanie | Keetmanshoop | Vet district |
| NA | 2 | Technical | Bondelswart | Keetmanshoop | Vet district |
| NA | 2 | Technical | Karasburg/Warmbad | Keetmanshoop | Vet district |
| NA | 2 | Technical | Keetmanshoop | Keetmanshoop | Vet district |
| NA | 2 | Technical | Luderitz | Keetmanshoop | Vet district |
| NA | 2 | Technical | Maltahohe | Keetmanshoop | Vet district |
| NA | 2 | Technical | Namaland Soromaas | Keetmanshoop | Vet district |
| NA | 2 | Technical | Gibeon | Mariental | Vet district |
| NA | 2 | Technical | Hardap Plots | Mariental | Vet district |

| | | | | | |
|----|---|-----------|-------------------------|-------------------------|--------------|
| NA | 2 | Technical | Hoachanas | Mariental | Vet district |
| NA | 2 | Technical | Mariental + Maltahohe | Mariental | Vet district |
| NA | 2 | Technical | Rehoboth | Mariental | Vet district |
| NA | 2 | Technical | Okahandja | Okahadja | Vet district |
| NA | 2 | Technical | Ovitoto | Okahadja | Vet district |
| NA | 2 | Technical | Karibib | Omaruru | Vet district |
| NA | 2 | Technical | Okombahe | Omaruru | Vet district |
| NA | 2 | Technical | Omaruru | Omaruru | Vet district |
| NA | 2 | Technical | Otjihorongo | Omaruru | Vet district |
| NA | 2 | Technical | Otjimbingwe | Omaruru | Vet district |
| NA | 2 | Technical | Ohangwena | Ondangwa (East Caprivi) | Vet district |
| NA | 2 | Technical | Omusati | Ondangwa (East Caprivi) | Vet district |
| NA | 2 | Technical | Oshana | Ondangwa (East Caprivi) | Vet district |
| NA | 2 | Technical | Oshikoto | Ondangwa (East Caprivi) | Vet district |
| NA | 2 | Technical | Etanga | Opuwo | Vet district |
| NA | 2 | Technical | Okangwati | Opuwo | Vet district |
| NA | 2 | Technical | Opuwo | Opuwo | Vet district |
| NA | 2 | Technical | Oruvandjei / Etoto | Opuwo | Vet district |
| NA | 2 | Technical | Sesfontein | Opuwo | Vet district |
| NA | 2 | Technical | Mangetti West | Otavi | Vet district |
| NA | 2 | Technical | Otavi | Otavi | Vet district |
| NA | 2 | Technical | Tsumeb | Otavi | Vet district |
| NA | 2 | Technical | Okakarara | Otjiwarongo | Vet district |
| NA | 2 | Technical | Otjiwarongo | Otjiwarongo | Vet district |
| NA | 2 | Technical | Khorixas & Kunene South | Outjo | Vet district |
| NA | 2 | Technical | Outjo | Outjo | Vet district |
| NA | 2 | Technical | Kavango | Rundu | Vet district |
| NA | 2 | Technical | Omega | Rundu | Vet district |
| NA | 2 | Technical | Swakopmund | Walvisbay | Vet district |
| NA | 2 | Technical | Walvisbay | Walvisbay | Vet district |

| | | | | | |
|----|---|-----------|----------|----------|--------------|
| NA | 2 | Technical | Windhoek | Windhoek | Vet district |
|----|---|-----------|----------|----------|--------------|

.. and Vet regions

| CountryCode | PartitionLevel | PartitionType | PartitionName | ParentPartitionName | renaming |
|-------------|----------------|---------------|-------------------------|---------------------|------------|
| NA | 1 | Technical | Gobabis | | Vet region |
| NA | 1 | Technical | Grootfontein | | Vet region |
| NA | 1 | Technical | Keetmanshoop | | Vet region |
| NA | 1 | Technical | Mariental | | Vet region |
| NA | 1 | Technical | Okahadja | | Vet region |
| NA | 1 | Technical | Omaruru | | Vet region |
| NA | 1 | Technical | Ondangwa (East Caprivi) | | Vet region |
| NA | 1 | Technical | Opuwo | | Vet region |
| NA | 1 | Technical | Otavi | | Vet region |
| NA | 1 | Technical | Otjiwarongo | | Vet region |
| NA | 1 | Technical | Outjo | | Vet region |
| NA | 1 | Technical | Rundu | | Vet region |
| NA | 1 | Technical | Walvisbay | | Vet region |
| NA | 1 | Technical | Windhoek | | Vet region |

Meat board technical partitions

Secondary sources = Meat board from DVS primary source

| NATIONAL LIVESTOCK CENSUS | | | | | |
|--|------------------|------------------|------------------|------------------|------------------|
| Some other technical zone / partitions | | | | | |
| Stock | 2001 | 2002 | 2003 | 2004 | 2005 |
| Cattle | 2,508,570 | 2,329,553 | 2,336,094 | 2,349,700 | 2,219,330 |
| Commercial | 912,315 | 862,480 | 947,377 | 892,347 | 792,897 |
| Communal SCA | 319,665 | 336,231 | 343,045 | 278,845 | 363,576 |
| Communal NCA | 1,276,590 | 1,130,842 | 1,045,672 | 1,178,508 | 1,062,857 |
| Sheep and goats | 4,138,864 | 4,874,345 | 5,042,266 | 4,616,535 | 4,707,274 |
| Commercial | 2,702,879 | 3,153,794 | 3,266,515 | 2,935,688 | 2,985,634 |
| Communal SCA | 675,170 | 723,519 | 718,790 | 721,323 | 729,665 |
| Communal NCA | 760,815 | 997,032 | 1,056,961 | 959,524 | 991,975 |
| Sheep | 2,369,809 | 2,764,253 | 2,955,454 | 2,619,363 | 2,663,795 |

| | | | | | |
|--------------|------------------|------------------|------------------|------------------|------------------|
| Commercial | 2,104,397 | 2,498,956 | 2,671,148 | 2,373,195 | 2,407,639 |
| Communal SCA | 182,609 | 173,529 | 192,248 | 192,249 | 193,230 |
| Communal NCA | 82,803 | 91,768 | 92,058 | 53,919 | 62,926 |
| | | | | | |
| Goats | 1,769,055 | 2,110,092 | 2,086,812 | 1,997,172 | 2,043,479 |
| Commercial | 598,482 | 654,838 | 595,367 | 562,493 | 577,995 |
| Communal SCA | 492,561 | 549,990 | 526,542 | 529,074 | 536,435 |
| Communal NCA | 678,012 | 905,264 | 964,903 | 905,605 | 929,049 |
| | | | | | |

Other partitions we can think of

e.g. Local government areas (source GeoNetwork, Atlas of Namibia)

5.19 LOCAL GOVERNMENT AREAS

Data ID

| | |
|---|--|
| Description: | Townland boundaries for municipalities, towns, villages, declared settlements, surveyed settlements and identified settlements |
| Chapter: | 5 Land and History |
| File name: | townlands |
| File type: | ArcView shapefile |
| Notes on data, analysis and compilation: | These are areas declared as towns, villages or settlement areas in 2001 from a list supplied by Louis Esterhuizen. Survey Diagrams were obtained from the Surveyor General and co-ordinates were used to create the townland boundaries. In a very few cases, the farm map (see Fig 5.32) was used to extract the relevant boundaries. The Ministry of Regional and Local Government and Housing should be contacted to get up-to-date information on the status of each urban area. |

Data quality and organisation

Positional Accuracy: Very accurate where only survey diagrams have been used. As accurate as the farm shapefile (1:100 000 scale, 50 - 250 m positional accuracy) where these boundaries were used.

Vector/Raster: Vector

Spatial reference

Projection: Geographic

Fields

| Field name | Field description |
|-------------------|---|
| NAME | Name of the town, village, settlement |
| CATEGORY | municipality, town, settlement etc. |
| REGION | region in which the townland is located |
| SOURCE | how the townland was created e.g. survey diagram, farm map etc. |

Source/Distribution

| | |
|--------------------------------|---|
| Data Source: | Survey Diagrams |
| Contact: | Office of the Surveyor General |
| Online/Offline Address: | Robert Mugabe Avenue P/Bag 13182 Windhoek |
| Distribution notes: | Unrestricted |

| NAME | CATEGORY | REGION | SOURCE |
|----------------|--------------------------|-----------|----------------|
| Wlotzkasbaken | Declared Settlement Area | Erongo | Survey Diagram |
| Aus | Declared Settlement Area | Karas | Survey Diagram |
| Grunau | Declared Settlement Area | Karas | Survey Diagram |
| Noordoewer | Declared Settlement Area | Karas | Survey Diagram |
| Warmbad | Declared Settlement Area | Karas | Survey Diagram |
| Helao Nafidi | Declared Settlement Area | Ohangwena | Survey Diagram |
| Nafidi Portion | Declared Settlement Area | Ohangwena | Survey Diagram |
| Summerdown | Declared Settlement Area | Omaheke | Survey Diagram |
| Okahao | Declared Settlement Area | Omusati | Survey Diagram |
| Okalongo | Declared Settlement Area | Omusati | Survey Diagram |
| Oshikuku | Declared Settlement Area | Omusati | Survey Diagram |
| Tsandi | Declared Settlement Area | Omusati | Survey Diagram |
| Onayena | Declared Settlement Area | Oshikoto | Survey Diagram |

| | | | |
|-----------------|----------------------------|--------------|---|
| Onayena Portion | Declared Settlement Area | Oshikoto | Survey Diagram |
| Omatjette | Identified Settlement Area | Erongo | Survey Diagram |
| Duineveld | Identified Settlement Area | Hardap | Survey Diagram |
| Klein Aub | Identified Settlement Area | Hardap | Survey Diagram |
| Rietoog | Identified Settlement Area | Hardap | Survey Diagram |
| Dordabis | Identified Settlement Area | Khomas | Survey Diagram |
| Groot Aub | Identified Settlement Area | Khomas | Survey Diagram |
| Henties Bay | Municipality | Erongo | Survey Diagram |
| Karibib | Municipality | Erongo | Portion B survey Diagram, A & C Farm map |
| Omaruru | Municipality | Erongo | Survey Diagram |
| Swakopmund | Municipality | Erongo | Survey Diagram portion B, 250 k map portion A |
| Usakos | Municipality | Erongo | Farm map |
| Walvis Bay | Municipality | Erongo | Survey Diagram; strip to langstrand from 250k map |
| Mariental | Municipality | Hardap | Farm map using diagram provided by Mariental Mun |
| Karasburg | Municipality | Karas | Farm map |
| Keetmanshoop | Municipality | Karas | Constituencies shapefile |
| Windhoek | Municipality | Khomas | Municipality of Windhoek |
| Outjo | Municipality | Kunene | Survey Diagram |
| Gobabis | Municipality | Omaheke | Farm map using diagram provided by Gobabis Mun |
| Oshakati | Municipality | Oshana | Survey Diagram |
| Tsumeb | Municipality | Oshikoto | Survey Diagram |
| Grootfontein | Municipality | Otjozondjupa | Farm map |
| Okahandja | Municipality | Otjozondjupa | Farm map |
| Otavi | Municipality | Otjozondjupa | Farm map using diagram provided by Otavi Mun |
| Otjiwarongo | Municipality | Otjozondjupa | Farm map using diagram provided by Stubenrauch PC |
| Okongo | Surveyed Settlement Area | Ohangwena | Survey Diagram |
| Omungwelumbe | Surveyed Settlement Area | Ohangwena | Survey Diagram |
| Ongenga | Surveyed Settlement Area | Ohangwena | Survey Diagram |
| Talismanis | Surveyed Settlement Area | Omaheke | Survey Diagram |
| Ogongo | Surveyed Settlement Area | Omusati | Survey Diagram |
| Onesi | Surveyed Settlement Area | Omusati | Survey Diagram |
| Okamatipati | Surveyed Settlement Area | Otjozondjupa | Survey Diagram |
| Katima Mulilo | Town | Caprivi | Survey Diagram |
| Arandis | Town | Erongo | Survey Diagram |
| Rehoboth | Town | Hardap | Survey Diagram |
| Luderitz | Town | Karas | Survey Diagram |
| Rundu | Town | Kavango | JM |
| Khorixas | Town | Kunene | Survey Diagram |
| Opuwo | Town | Kunene | Survey Diagram |
| Eenhana Portion | Town | Ohangwena | Survey Diagram |
| Uutapi | Town | Omusati | Survey Diagram |
| Ondangwa | Town | Oshana | Survey Diagram |
| Ongwediva | Town | Oshana | Survey Diagram |
| Okakarara | Town | Otjozondjupa | Survey Diagram |
| Uis | Village | Erongo | Survey Diagram |
| Aranos | Village | Hardap | Survey Diagram |
| Gibeon | Village | Hardap | Farm map |
| Gochas West | Village | Hardap | Farm map |
| Kalkrand | Village | Hardap | Survey Diagram |
| Koes | Village | Hardap | Survey Diagram |
| Maltahohe | Village | Hardap | Survey Diagram |
| Stampriet | Village | Hardap | Survey Diagram |
| Aroab | Village | Karas | Survey Diagram |
| Berseba | Village | Karas | Survey Diagram |
| Bethanie | Village | Karas | Survey Diagram |
| Tses | Village | Karas | Survey Diagram |
| Kamanjab | Village | Kunene | Farm map |

e.g. DT etc..

| Province | District | Crush Pens / Dip Tanks | Long | Lat | Category |
|----------|----------|------------------------|------|-----|----------|
|----------|----------|------------------------|------|-----|----------|

Extra comments

Part 10: Comments on the **Functionalities of AIMS portal** (cf. portal) and LIMS portal (web mapping so far) on the web that you would like:

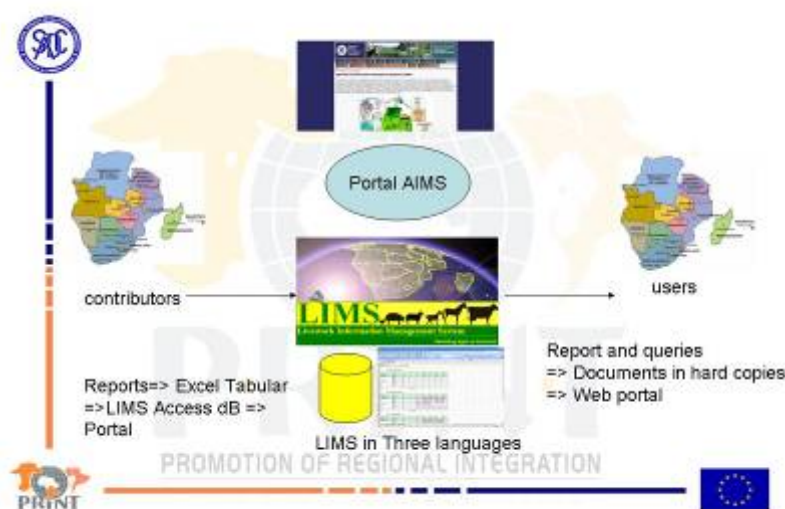
<http://aims.sadc.int/> / <http://lims.sadc.int>

Reminder: objectives of functionalities:

- To present spatial and non-spatial information
- To develop directories of institutions (and experts) – information exchange standards
- To carry out customised search for projects, technologies, people, institutions, publications
- To establish electronic networks- thematic & national, with associated tools (discussion forums, collaborative, dissemination)
- To devolve content generation to level of information producer
- To aggregate national news/events at regional level
- To host Learning tools and materials
- ...

Facilities to use / Facilities to contribute to:

- Web pages: create new contents and Web pages (e.g. national LS pages)
- Web mapping
- Post News and use News list (events list) and their aggregation (i.e. of most recent news, through « syndication » of news and RSS feeds)
- Use Search engine (custom search with specific engine)
- Use and contribute to a Non spatial library: documents of interest
- Wiki : contribute to an encyclopedia of LS sector in SADC
- Use D-groups (discussion) soon link to SMS
- Build contents for a Distance learning and Training on line – (Moodle platform), e.g. training on LIMS adapted for the National context
- Use links to important Information sites thanks to E-Frame (web frame of other sites into AIMS)
- Use RSS feeds
-



e.g. I would like a web page to get the updated versions of LIMS and of the manual

I would like a FAQ page
I would like a D-Group for discussing agric. stats in a forum

Most feature to be used:

Most feature to contributed to:

Signatures

LIMS PRINT officer

Stakeholders

ANNEX VI – List of Modules into LIMS

Module per component (see LIMS structure : individual sheet per module so that we can update one individually)

Modules et écrans correspondants au système LIMS / *Modulos e ecrã do LIMS* / Modules and screens (templates) of LIMS

- Headers / Timbre / Entête
- Module 1 *Numbers & Composition of Herds* / Effectivos animais do rebanho nacional / Effectifs nationaux – recensement animal
 - 1. *Nr by species* / efectivos animais por espécies / Nombre par espèce
 - 2. *Nr by economics* / efectivos animais por função económica / Nombre par fonction économique
 - 3. *Nr by breeds* / Effectivos animais por raça / Nombre par race
 - 4. *Nr by herd structure* / Effectivos animais por idade e sexo / Nombre par âge et sexe (démographie)
- Module 2 *Human Households & Population in Livestock farming* / Agregados familiares criadores / Ménage engagés dans l'agriculture et l'élevage
 - 1. *Human Population* / Agregados familiares / Ménages et population humaine
- Module 3 *Production Parameters* / Produção animal / Production animale
 - 1. *Slaughter* / Abate (carne) / Abattages
 - 2. *Milk* / Leite / Lait
 - 3. *Dairy products* / Lacticínios / Produits laitiers
 - 4. *Eggs* / Ovos / Oeufs
 - 5. *Hides, skins* / Curos e Peles / Cuirs et peaux
- Module 4 *Livestock & Products Price* / Preços dos productos animais / Prix des produits d'élevage et animaux vivants
 - 1. *Live animals* / Animal vivo / Animaux vivants
 - 2. *Meat products* / Producto de carne / Produits carnés
 - 3. *Milk products* / Leite e Lacticínios / Produits laitiers
 - 4. *Eggs* / Ovos / Oeufs
 - 5. *Hides & skins* / Curos e Peles / Cuirs et peaux
 - 6. *Fiber & feathers* / Fibras e plumas / Fibres animales et plumes
- Module 5 *Livestock & Products trade: import/export* / Importação e Exportação / Import et Export
 - 1. *Live Animals* / Animal vivo / Animaux vivants
 - 2. *L. stock Products* / Producto animais / Produits d'élevage
 - 3. *L. stock Inputs* / Inputs / Intrants de l'élevage
- Module 6 *LS Infrastructures* / Infra-Estructuras / Infrastructures
 - *Generic Partitions* / Divisões do país / Divisions du pays
 - 1. *Administrative* / Administrativa / Administratives
 - 2. *Technical* / Técnico / Techniques
 - *Infrastructures Agreg.* / Infra-Estructuras Agregados / Infrastructures description agrégées
 - 3. *Dipping* / Tanque banheiros / Bain détenteur
 - 4. *Pens* / currais / Enclos de vaccination
 - 5. *Vet clinics* / Clinicas vet. / Cliniques vétérinaires
 - 6. *Govt Offices* / Offícios do governo / Bureaux de l'état
 - 7. *Mun Abattoirs & slabs* / Matadouros municipais e locais e casas de matança / Abattoirs locaux et tueries
 - 8. *Milk Collection* / Recolha de leite / Récolte de lait liquide
 - 9. *Livestock Markets* / Mercados / Marchés
 - 10. *Storage Products* / Armazens / Entrepôts et Stocks
 - *Infrastructures Detailed* / Infra-Estructuras detalhados / Infrastructures détaillées

- 1. *Vet Diagnostic Labs* / Laboratorios / Laboratoires de diagnostic
 - 2. *Vet Vaccine Labs* / Productores de Vacinas / Producteurs de vaccins
 - 3. *Industrial Abattoirs* / Matadouros industriais / Abattoirs industriels
 - 4. *Dairy Processing Plants* / Usina de transformação de leite / Unité de transformation laitière
 - 5. *Secondary Markets*, / Mercados secundarios / Marchés secondaires
 - 6. *Port of Entry & Exit* / Portos de entrada e saída / Postes d'inspection en frontière PIF
- Module 7 *Meat Inspection / Food safety* / Segurança Sanitaria dos alimentos / Sécurité sanitaire des aliments
 - 1. Ante-mortem / Inspeção ante mortem / Inspection ante mortem en abattoir
 - 2. Post-mortem / Inspeção post mortem / Inspection post mortem en abattoir
- Module 8 *Livestock Associations and Service Providers* / Associações de criadores e fornecedores de serviços / Association d'éleveurs et fournisseurs de services
 - 1. *Umbrella org & assoc* / Associações / Associations et Confédérations
 - 2. *Private companies* / Privado / Secteur privé
 - 3. *Government* / Publico / Secteur public
- Module 9 *LS related Laws, Regulation and Acts, policy docs* / Legislação e políticas agro pecuária / Législation et documents et politique sur le secteur élevage
 - 1. *National Docs* / Nivel nacional / niveau national
 - 2. *International Docs* / Níveis internacional e regional (SADC) / Niveau international ou sous régional (SADC)
- Module 10 *Disease Outbreak notification* / Notificação dos surtos de doenças / Information sanitaire notification d'épidémies animales
 - *Outbreaks* / Epidemias focos / Foyers d'Epizooties animales
- Module 11 *Vaccinations* (e.g. TAD's) / Vacinação / Vaccinations
 - 1. *Vaccination* / vacinações efectuadas / Vaccinations effectuées (prophylactique et de contrôle)

LIMS training Procedures with VISTA

There are two security features into VISTA: UAC User Account Control & W.R.P / Windows Ressource Protection, put in place to protect systeme partition & register base

We will change the UAC: User Account Control: this introduce a first grading system for allowing some rights to administrators, users, guests etc..

Any report should be reported to PRINT: BBedane@sadc.int

CC to Livestock Unit BHulman@sadc.int

CC to the developer: INFORMATIX INDUSTRY SERVICES Pty Ltd / Thulagano Segokgo
tsegokgo@gmail.com

CC to the external tester: Xavier Juanes Xavier.Juanes@cirad.fr

- **Stage 1:**

Start with Turning User account control UAC off

Control panel / user account

Turn User account control on or off / off UAC

Then restart your computer to apply the rules

Enter as a user

Example users in Zambia

Users (Terminal2NZILA\users)

When you will exit your LIMS “session” we suggest you turn it on again for security reasons

- **Stage 2**

Install LIMS

Go to the folder

- **Stage 3**

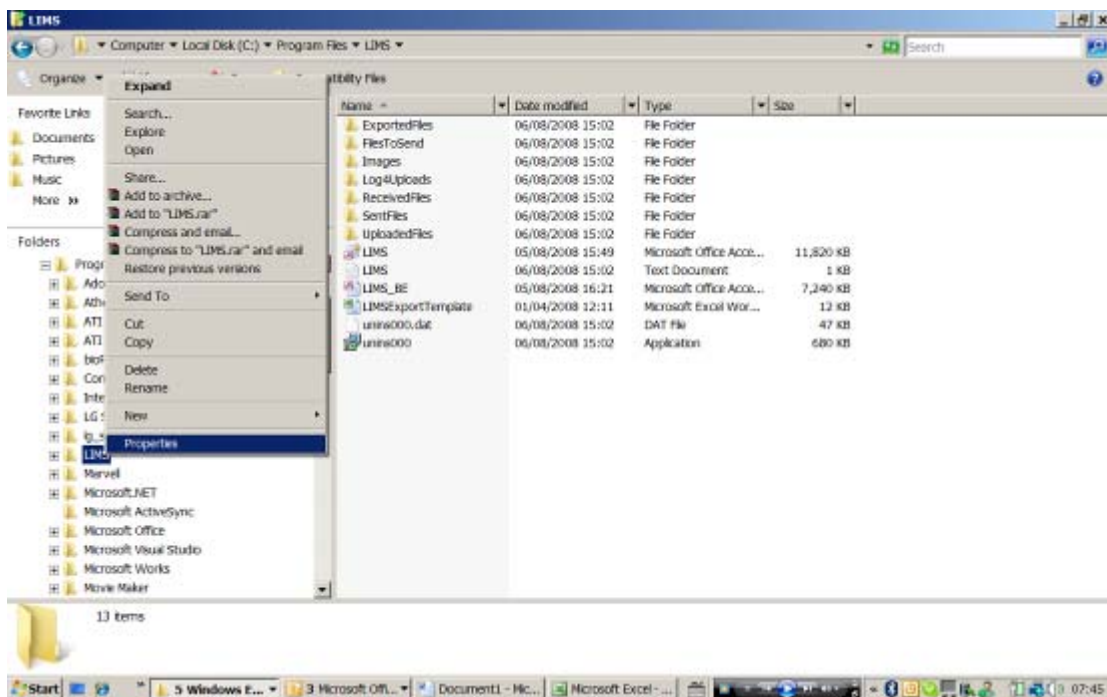
Secondly allow all privileges to users for the LIMS folder properties

Way one to “allow” all privileges to users

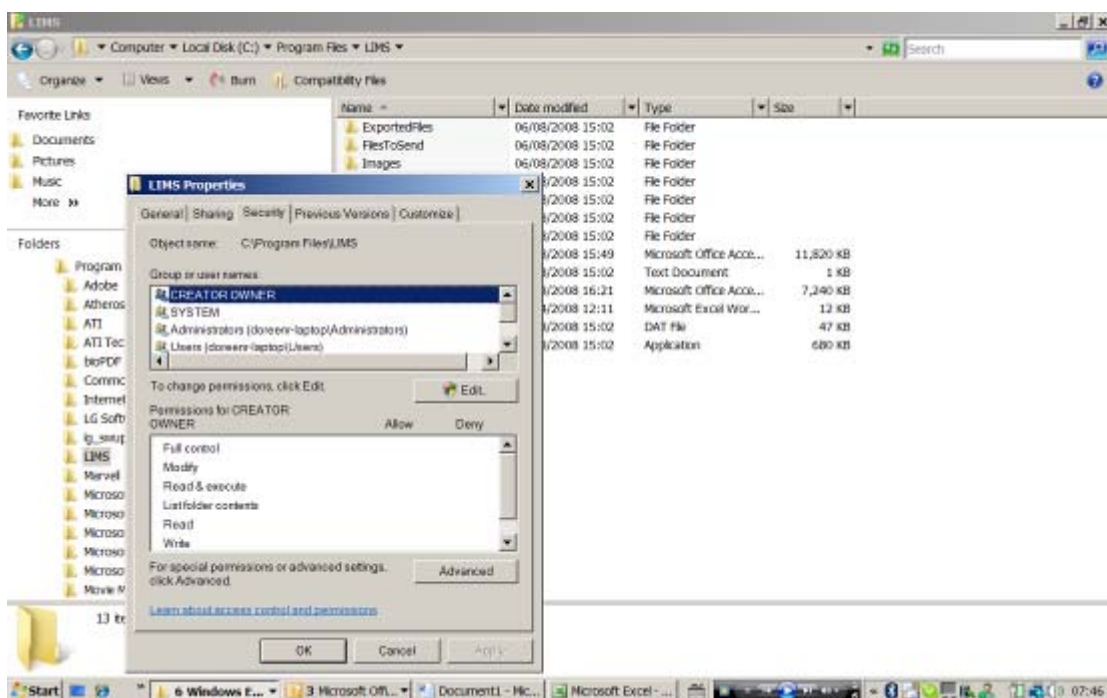
Step 1

Go the LIMS folder under Program Files (where generally LIMS is installed)

Right click on the “LIMS” folder and select properties



Step 2



You may have in fact no creator owner but users only, do it on users

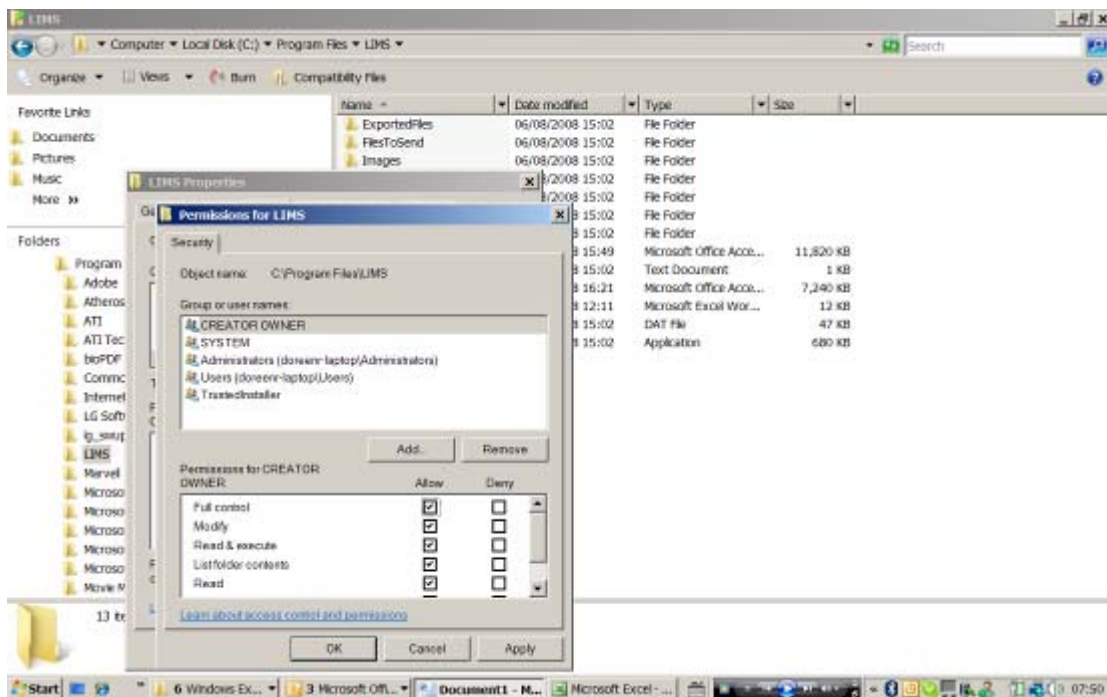
Step 3

Click Edit button and Click on continue if prompted

You may have to enter the windows by clicking advanced etc..

Step 4

Click Full control for “CREATOR OWNER” or USERS (better as VISTA generally does not allow changes on creator owner) or select the “Modify”, “Read & Execute”, ... permission. The permission settings should rather be modified for “Users”.



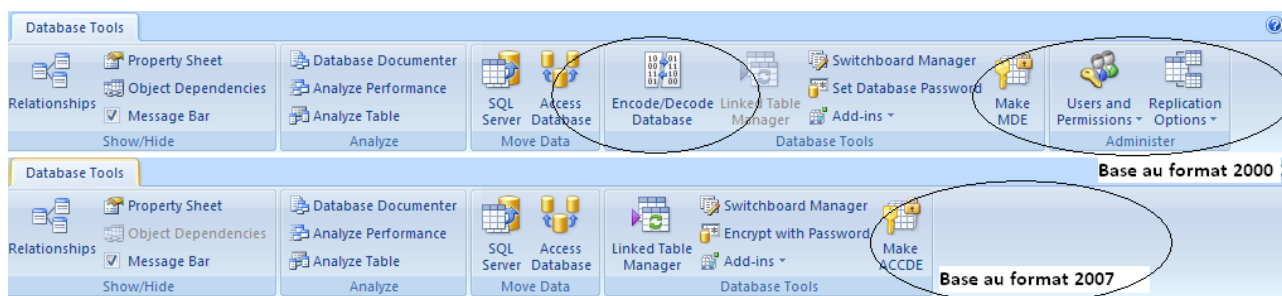
Step 5 – Click Ok

OS (Vista or XP) and versions of Access 2003 2007

Under Access 2007 (what ever the OS Vista or XP)

The header under Access 2007 will change according to the type of database application we are dealing with

LIMS is based on Access 2003 and should appear as the top header in your computer



You may face problems but every time you record and report bugs please do indicate under which platform OS and version of Access you got these bugs

The four possible configurations you will have to mention

| | Access 2003 | Access 2007 |
|----------|-------------|-------------|
| OS XP | 1 | 2 |
| OS Vista | 3 | 4 |

EPIDEMIOLOGY AND INFORMATICS SUBCOMMITTEE MEETING

MAURITIUS 15 – 17 APRIL 2008

LIMS Web GIS – Introduction

The SADC Livestock Information Management System (LIMS) is a tool for collection, collation and analysis of livestock related data and sharing of information for decision making and planning. The System relies on the network of livestock professionals in the SADC Member States for data provision and operates a database for the storage and analysis of data and a portal and hardcopy publication for the dissemination of information. The PRINT Livestock Project is in charge of the establishment and running of LIMS on behalf of the Livestock Sector Unit under the Food Agriculture and Natural Resources (FANR) Directorate of the SADC Secretariat. The types of information LIMS covers include Animal Production, Animal Health and Livestock Marketing and Trade.

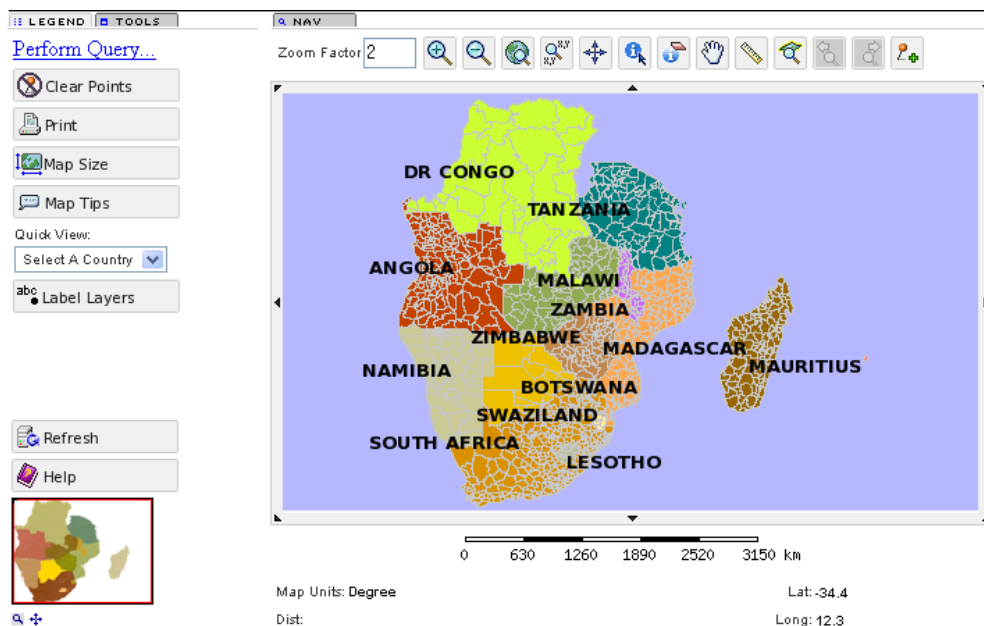
The LIMS Web GIS is a portal for interactive query and display of livestock information for the SADC region. The system is composed of a simple and user friendly query building and a basic mapping facility for searching animal diseases based on different criteria as well as the number of livestock by species at different administrative level in each Member State. The next target of LIMS Web GIS is expanding the interactive queries to other topics of livestock information.

This introduction highlights some of the basic functionalities that are available within the system so as to help users understand the functionality and effectively use the system for searching livestock-related information. The following section summarizes the functionality and the operation of the application.

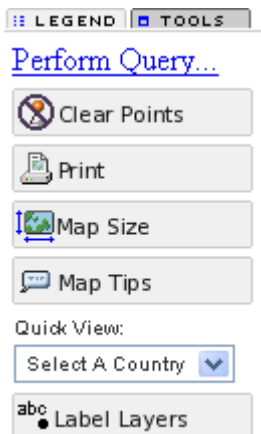
Using LIMS Web GIS

The Web GIS application interface has four main areas summarized below.

A) The Map & Navigation Tools

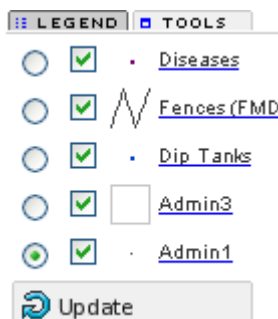


B) The Tools Tab



The tools tab shown on the left has a critical functionality for the user. The *Perform Query* function is the most important and is summarized in the following sections. The *Print option* is for printing maps and query results. There is a wizard which guides the user in customizing the map to be printed out. The *Map Size* option allows the user to change the size of the map display area. The *Map Tips* option allows the user to display a selected feature attribute on the map. The *Label Layer* option allows the user to label a selected layer with an attribute on the map. Users can zoom to any particular country by using the *Quick View* option.

C) The Legend Tab



The *Legend* tab displays all the map data layers. The user can select or switch off any map layer. The *Update* button regenerates the map and displays a new map after switching on or off map layers.

D) The Query Page

The **Perform Query** option on the Tools Tab opens the query page shown on the next page. Users can query all the map layers. The most important queries are on livestock diseases (Diseases) and Livestock numbers (Census) or the location of a specific administrative layer (e.g. district – Admin 3). Querying diseases and livestock numbers can be done using four criteria, namely Disease, Species, any administrative layer (spatial) and Month and Year (temporal). This implies that the user can combine various criteria e.g. disease type, species, district, and year at the same time. The user has up to 35 different queries he can perform for different criteria combinations.

Search for ...

Select Layer

1. **DISEASE** : is equal to

2. **SPECIES** : is equal to

3. **ADMIN1** : is equal to

4. **DISEASE** : is equal to

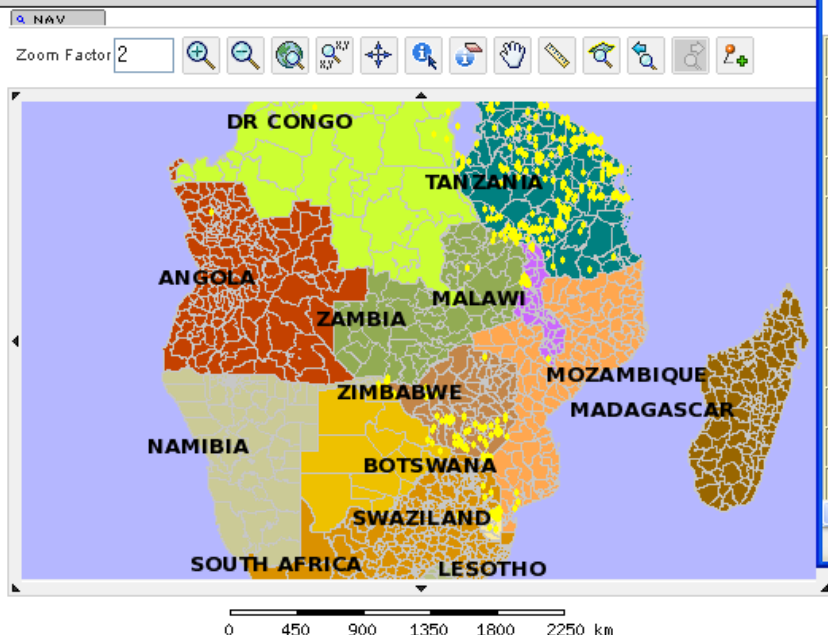
Find

E) Query results

The query results are automatically displayed (as shown below) both in a table and on the map. The user can zoom to the query results using the map navigation tools.



Physical Information System (GIS) component of the SADC Livestock Information Management System developed by the SADC Secretariat. It can query and visualise disease distribution and livestock numbers at different spatial scales in the SADC Region.



http://192.168.1.10:8080 - Search Results - Moz

File Edit View History Bookmarks Tools Help

Search results (463 found) for 'Diseases' that meet the following criteria: {DISEASE is equal to 'fmd'}

| ID | DISEASE | SPECIES | ADMIN3 |
|----------------------|------------|---------|----------------|
| 2517 | FMD | Bov | MHALA DISTRICT |
| 2898 | FMD | Bov | MATSILOJE |
| 2899 | FMD | Bov | RAKOP |
| 3472 | FMD - SAT2 | Bov | Kasane |
| 3473 | FMD | Bov | PANDAMATENGA |
| 3915 | FMD | Bov | Selibe Phikwe |
| 4045 | FMD | Bov | Kasane |
| 4046 | FMD | Bov | Kasane |
| 4047 | FMD | Bov | Kasane |
| 4408 | FMD | Bov | KILIBA ONDS |

Done

Users can further query each distribution point (location of disease outbreak) to get additional information. This can be achieved using the button (information) and clicking on individual points (the yellow points in the example above). The table like the one shown below will be displayed. Depending on the number of points selected or the distance between each of them, one or many rows of information will be displayed. The zoom-in function can be used to select the specific point of interest.

http://192.168.1.10:8080 - Query Results - Mozilla Firefox

EN English (United Kingdom) Microphone Tools

Query Results

| ADMIN1 | ADMIN2 | ADMIN3 | SHAPE_INDEX | TILE_INDEX |
|----------|--------------------|------------------|-------------|------------|
| Zimbabwe | Midlands | Gweru Rural | 980 | -1 |
| Zimbabwe | Midlands | Shurugwi | 987 | -1 |
| Zimbabwe | Matabeleland South | Insiza | 988 | -1 |
| Zimbabwe | Midlands | Zvishavane Rural | 993 | -1 |
| Zimbabwe | Masvingo | Chivi | 995 | -1 |

Queryresult

| ID | MONTH | YEAR | DISEASE | SPECIES | NO_FOCI | LATITUDE | LONGITUDE | LOCALITY | ADMIN3 | ADMIN2 | ADMIN1 | SHAPE_INDEX |
|-------|-------|------|---------|---------|---------|-----------|-----------|----------|-----------|--------|----------|-------------|
| 46945 | Oct | 2004 | FMD | Bov | 1 | -19.89000 | 29.84000 | | ZVISHAVAN | | Zimbabwe | 448 |
| 46946 | Oct | 2004 | FMD | Bov | 1 | -19.89000 | 29.84000 | | SHAVAN | | Zimbabwe | 449 |
| 47028 | Sep | 2004 | FMD | Bov | 1 | -19.97000 | 29.78000 | | MABIKA | | Zimbabwe | 450 |
| 47029 | Sep | 2004 | FMD | Bov | 1 | -19.97000 | 29.78000 | | MABIKA | | Zimbabwe | 451 |

Done

Select A Country

abc Label Layers

Refresh

Help

Map Units: Degree

Lat: -14.25

Long: 46.97

start

Inbox - Microso...

Symantec AntiV...

LIMS Web GIS...

Module 12

untitled - Paint

3 Firefox

14:59

ANNEX IX – Some preamble before embarking on LIMS training

It is recommended to check for some language and numerical references (decimal issues) before starting with LIMS

Check visually the version of a keyboard you are using (external or integrated)

- QWERTY
- AZERTY
- QWERTY Portuguese etc..

1/ Do you have configured the equivalent on your laptop? If not do it

Example: This is for an AZERTY keyboard (French language in SADC)



2/ Regional parameters for numerical data

LIMS works with English UK parameter where decimal is a dot

Check on control panel and set the regional parameters accordingly

We will then have to use a dot for a decimal (in general, a space is also provided for separation of thousands)

