The Glossary Module

5.   The Glossary Module

Instructions on the use of the Glossary Module, i.e. how to adjust and improve the glossary, how to define a data entry filter, how to repair files, and how to backup and restore data and glossary files.

5.1   How to Start the Glossary Module

You can start the Glossary Module in two ways:
- By selecting **Glossary** from the main menu of The Land Use Database (*Section 4.1*).
- By pressing **F2** at any moment when working in the Data Entry Module.

After this, the main menu of the Glossary Module is displayed:
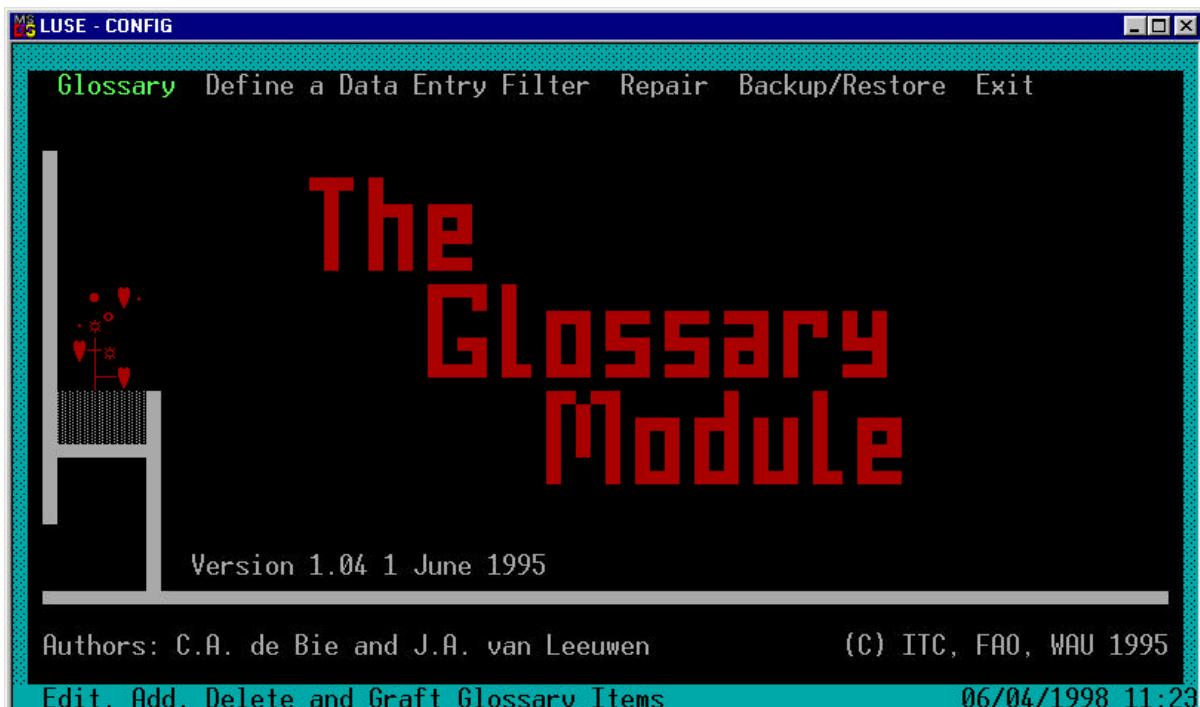
Highlight an option by using the ↑ or ↓ key to select one of the five options from the main menu of the Glossary Module and press **Enter**. The options are explained briefly below with reference to the Sections in which they are discussed:

Glossary

With this option you can, amongst others:
- add new items to the glossary, and
- edit existing glossary items.

For explanation and instructions: Section 5.2

Define a Data Entry Filter

With this option you can:
- define a data entry filter, i.e. make a selection of parameters and of parameter values that are used during the data entry procedure, and
- edit existing data entry filters.

For explanation and instructions: Section 5.3

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Repair

With this option you can:
- generate index files for glossary files,
- generate index files for data files, and
- reset counters of glossary items.

For explanation and instructions: **Section 5.4**

Backup/Restore

With this option you can:
- make a backup of glossary files, data files (Land Use Data and Land Use Classes), the data entry filters file, and the query file, and
- restore files, i.e. retrieve a backup.

For explanation and instructions: **Section 5.5**

Exit

Exit the Glossary Module (or press **Esc**). You will return to the main menu of The Land Use Database (*Section 4.1*).

Note: The Land Use Database can be used without the Glossary Module. This may be useful if only the survey manager must have the possibility to edit the glossary. Deleting the CONFIG.EXE file from the C:\LUSE directory can block access to the Glossary Module.

5.2 Glossary

In The Land Use Database, various aspects of land use are described by selecting items from a glossary. The use of a glossary secures consistent description and storage of land use information. The glossary of The Land Use Database is flexible in the sense that it may be shaped according to the needs of the user, i.e. items (terms) can be added, edited, moved, deleted and documented.

The glossary consists of 23 glossary "trees". In each of these trees glossary items are hierarchically structured, ranging from general to specific. An example of the hierarchical structure of the glossary tree Products/Benefits/Materials is shown below:

Products/Benefits/Materials
- None
- **Plant Produce**
  - **Vegetative parts**
    - **Stover/Fodder**
    - **Stalks/Stems**
    - **Straw**
    - ...
  - **Flowers/Fruits**
  - **Juice**
  - ...
  - ...
  - ...
- **Animal Produce**
- ...
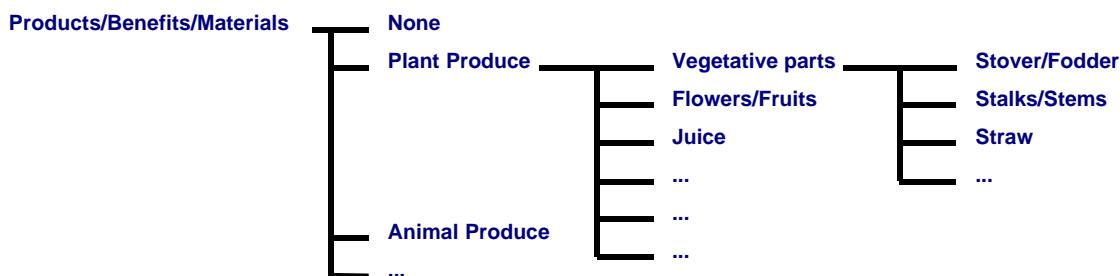
The glossary of The Land Use Database already contains a large number of items. It could be a starting point for the establishment of a world-wide Land Use Glossary. The glossary of The Land Use Database is not complete: some aspects of land use descriptions are quite well covered, other subjects are hardly included. In order to update the glossary to the objectives and requirements of your survey, glossary items can be added, edited, moved, documented and deleted. When adding items to the glossary, certain 'rules' must be taken into account. Items at one level of a glossary tree must be mutually exclusive, i.e. they must not overlap. For example, the item "plant produce" and "seeds" must not be at the same

level. The second rule is that the contents of different glossary trees must be mutually independent.

Updating the glossary to make it suitable for your survey is essential. The data entry procedure is greatly facilitated when an up-to-date glossary is used.

At each level in a glossary tree, 240 items can be specified. In most of the glossary trees, up to 10 levels of items can be specified (i.e. 240^{10} items per tree). The glossary trees Data Units and Info Sources have a maximum of 3 levels, the Projects tree has two levels.

5.2.1   Glossary Trees

After selecting Edit Glossary from the main menu of the Glossary Module, the next picklist is displayed, containing the names of the 23 glossary trees.

```
┌«Glossary Trees»──────────────┐
│Administrative Areas        »?│
│Classifiers: Context        »?│
│Classifiers: Oper.Sequence  »?│
│Data Units                  »?│
│Gender & Age Classes        »?│
│Implement Origins           »?│
│Implements                  »?│
│Info Sources                »?│
│Infrastructures             »?│
│Labour Origins              »?│
│Material Input Origins      »?│
│Material Inputs             »?│
│Material Relocations        »?│
│Observation Names           »?│
│Operation Names             »?│
│Power Sources               »?│
│Product Destinations        »?│
│Products/Benefits/Materials »?│
│Projects                    »?│
│Quality Classes             »?│
│Skills                      »?│
│Species/Services            »?│
│Tenancy Arrangements        »?│
└─────────────────────«23»─────┘
```

The content of each of the 23 glossary trees is briefly discussed in *Section 5.2.2*.

Highlight a glossary tree in the above picklist and choose one of the following options:
- To **select** a glossary tree and branch to the first level of glossary items press **Enter** (*Section 5.2.3*).
- To **obtain specific information** on the contents of the current glossary tree press **F1**. A help screen with information on the selected glossary tree is displayed (*Section 4.3.1*).
- To **print** *all* items in a glossary tree (with their help texts) press **F3** (*Sections 4.3.2 and 5.2.12*).

5.2.2   The 23 Glossary Trees Explained

The general contents of each of the 23 glossary trees are briefly discussed below, together with its context and use.

Administrative Areas

Contains names of continents, countries, regions, etc. They provide one of the many options to geo-reference information of a dataset, e.g. Midlands (of Zimbabwe), or The Netherlands.

Classifiers: Context

Contains diagnostic criteria describing the land use context, which can be used to define *a-priori* land use classes, e.g. tenancy arrangement or capital intensity (*Section 2.3.2*).

Classifiers: Operation Sequence

Contains diagnostic criteria describing the operation sequence or individual operations, which can be used to define *a-priori* land use classes, e.g. cultivation factor, cropping system, inputs used.

Data Units

Contains scales of measurements. These are required to specify the unit of measure belonging to quantitative data, e.g. hectares or kilograms.

Gender & Age Classes

Contains classes by age for males and females that are used to specify the labour inputs as used during an operation, e.g. male adult (16-59 years) or child (<9 years).

Implement Origins

Contains sources from where (and how) the implements used to carry out operations and observations were obtained, e.g. rented, borrowed or owned.

Implements

Contains names of machines, tools and instruments, equipment and utensils, which are used to carry out an operation or observation. By definition, implements can be used more than once, in contrast to material inputs. The term implement does not refer to site-specific fixtures such as infrastructure. Examples of implements are hand tools and mechanical tools.

Info Sources

Contains sources from where (and how) quantitative information was obtained, e.g by interviewing the land user or from secondary data sources. Information on the reliability of the information source can also be included.

Infrastructures

Contains names of permanent installations constructed to assist economic activity, such as roads, irrigation or drainage works, buildings and communication systems. These installations may support the performance of a land use system (*Section 2.2.4*).

Labour Origins

Contains the types and sources from where (and how) the labour used to carry out an operation, was obtained, e.g. land user's family.

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Material Input Origins

Contains sources from where (and how) a material input used for an operation, was obtained, e.g. purchased from outside the holding, produce of another plot.

Material Inputs

Contains names of materials that may be used as input for an operation, e.g. seeds, organic manure, biocides. By definition, material inputs cannot be recovered after their use, whereas implements can leave the land use system after use.

Material Relocations

Contains sources and destinations (and relevant additional information) of materials that are added to or removed from the land use system, e.g. added to a stream, input by wind. Material relocations are related to observations on a land use system, not to land use operations.

Observation Names

Contains names of descriptions/measurements of a condition that may influence the performance of a land use system, that states its impact on the environment, or that reflects the indigenous knowledge of the land user about the land use system. Examples of observations are the Leaf Area Index (LAI) of the crop, or the occurrence of a grasshopper pest.

Operation Names

Contains names of distinct and intended management actions carried out by humans on land, e.g. harvesting, planting, collecting.

Power Sources

Contains sources of energy used to perform a land use operation, e.g. animal traction, solar energy.

Product Destination

Contains destinations (and relevant additional information) of products obtained from a land use system, e.g. sold to a trader, for own consumption.

Products/Benefits/Materials

Contains descriptions of products, benefits and materials that may be obtained from a land use system, e.g. grains, fodder, minerals.

Projects

Contains names or codes of projects responsible for the collection of a dataset, e.g. BOT/91/001. This glossary tree has only two levels, i.e. one for names of organisations and one for names (codes) of projects within organisations.

Quality Classes

Contains classes to describe the quality of used implements, material inputs, products and benefits. Currently, this glossary tree does not contain well-defined classes, since these are often market-specific.

Skills

Contains levels of experience and expertise of labourers who carry out an operation, e.g. trainee, illiterate or experienced.

Species/services

Contains extensive lists of plants grown or animals held in a land use system, and functions of the land use system from which benefits are obtained, e.g. buckwheat, sheep, or recreation.

Tenancy Arrangements

Contains information on rights or arrangements under which the holder uses a parcel, e.g. owned, rented or traditional tenure.

5.2.3   Within Glossary Trees

Within a glossary tree, i.e. at the first and lower levels of the tree, glossary items can be added, edited, documented, grafted (moved) or deleted.

When you select a glossary tree in the Glossary Trees picklist, or a glossary item within a glossary tree, a new picklist is invoked. This picklist may either be empty or contain already specified glossary items:

- The picklist is empty, for example:

```
┌«Glossary Trees»──────────────────┐
A│«Gender & Age Classes»─────────────────────────────────────────┐
C│  ┌«Child < 9 years»──────────────────────────────────────────┐│
C│  │                                                        «0»││
D│ 10   Youth              10-15 years                      1  »│
G│ 15   Adult              16-59 years                      7  »│
I│ 20   Elder              > 59 years                       0  »│
I│ 21   Elder              > 60 years                       0  »│
I│  └──────────────────────────────────────────────────────«6»┘│
│Infrastructures              ?»▓
```

No items are stored at this level of the glossary tree. There are two options:
- To **exit** the current picklist press **Esc**. If you are in the first level of a glossary tree, you will return to the Glossary Trees picklist (*Section 5.2.1*). If not, you will return to the previous level of the glossary tree.
- To **add** a glossary item press **Ins** (*Section 5.2.3*).

- The picklist contains one or more items, for example:

```
┌«Glossary Trees»──────────────────┐
C│«Operations»───────────────────────────────────────────────────┐
D│  1   All Operations Aggregated                            2?   │
G│  5   Site Improvements / Repairs                          0?»  │
I│ 10   Site Preparation/Clearing                            1?»  │
I│ 15   Tillage                                              1  »  │
I│ 20   Primary Production Related                           0  »  │
I│ 22   Fallow Grazing                                     168     │
L│ 25   Secondary Prod. Related                              0  »  │
M│ 30   Post-Production Activities                           0  »  │
M│ 35   Transportation                                       0  »  │
M│ 40   Fallowing (no Operations)                           51     │
O│ 45   Digging / Holing                                    16     │
O│ 50   Supervision                                          0     │
P│ 55   Information Acquisition                              0  »  │
P│                                                        «13»┘
│Products/Benefits            ▓
```

One or more items are stored at this level of the glossary tree. The picklist contains two elements in addition to regular picklists:

- Number at left margin: **(1, 5, 10, 15, 20, ...)**
  This is the code that uniquely identifies this glossary item. When selecting glossary items information is entered, this code is actually stored instead of the complete names of the glossary items. The items in a glossary picklist not sorted alphabetically, but according to the code.
- Number at right margin: **(2, 0, 1, 1, 0, 168, ...)**
  This is the so-called "counter". It counts the number of times the glossary item is used to specify information in the Land Use Data and Land Use Classes database files.

Several options are available in this picklist. Choose one of the following options:

- To **select** the highlighted item press **Enter**.
  If a **>>** sign is shown right of the item name, the picklist that is invoked will contain items. If not, an empty picklist appears.
- To **exit** the current glossary picklist press **Esc**.
  If you are in the first level of a glossary tree, you will return to the Glossary Trees picklist (*Section 5.2.1*). If not, you will return to the previous level of the glossary tree.
- To **add** a glossary item press **Ins** (*Section 5.2.4*).
- To **edit** the highlighted item press **F10** (*Section 5.2.4*).
- To **obtain specific information** on the highlighted item press **F1**.
  An item-specific help screen can only be invoked if a **?** is displayed right of the item name. If not, a more general help screen will be shown.
- To **search** for a specific text in one or all glossary trees press **F4** (*Section 4.3.4*).
- To **print** glossary items press **F3** (*Section 5.2.12*).
- To **graft**, i.e. move the highlighted item from one to another level within the glossary tree press **F8** (*Section 5.2.13*).
- To **delete** the highlighted item press **Del** (*Section 5.2.14*).

5.2.4   Add or Edit a Glossary Item

After you pressed **Ins** or **F10** in a glossary tree picklist, you can specify a new glossary item or edit an existing one in an edit screen. This edit screen always contains the three fields that are shown and explained below. For 4 glossary trees, information can be specified in additional fields. These glossary trees are listed below with a reference to the Section in which further explanation is given:

Administrative Areas:	*Section 5.2.5*
Data Units:	*Section 5.2.7*
Implements:	*Section 5.2.8*
Material Inputs:	*Section 5.2.9*
Species/Services:	*Section 5.2.10*

The two glossary trees containing classifiers also require extra explanation:

Classifiers: Operation Sequence:	*Section 5.2.6*
Classifiers: Context:	*Section 5.2.6*

The standard edit screen in which to enter a new or edit an existing glossary item, contains the following three fields:

```
┌«Add item for Tillage»──────────────────────────────────
│  Code              :   0
│  Name              :
│  Help              : –
└
```

Code

This refers to the number that uniquely identifies this item, and that determines the position of this item in the complete picklist. There are three possibilities:

- If you specify a new item type **a number**.
  The code number has to be unique for the current level of the glossary tree; it may range from 1 to 240. It is useful to give codes with increments of 5, e.g. 1, 5, 10, etc., in order to facilitate later insertion of new items.
- If you edit an existing glossary item that is **not** used in the Land Use Data or Land Use Classes data files, you can change the code by typing **a number**. The new code must be unique for the current level of the glossary tree.
- If you edit an existing glossary item that is used in the Land Use Data or Land Use Classes data files, you can **not** change the code. In this case the message (**Item is used**) is shown right of the code. However, by using the graft option, the fixed code can still be changed (*Section 5.2.13*).

Name

This refers to the name of the glossary item. It must be unique in the current level of the glossary tree. The item name must also be clear and unambiguous. This is essential, since the meaning of the item must also be clear to you at a later date, and also to other persons using the program. Type **a name**.

Help

This refers to the specific information about the glossary item, which can be displayed as an item-specific help screen (by pressing **F1** when highlighting the item in a glossary picklist). It is very important to document glossary items, in order to assure that all users are aware of the meaning or definition of this glossary item. For more information on documenting glossary items, see *Section 5.2.11*. Exhaustive information can be entered in a free text window in order to document the glossary item. To invoke the free text windows, start **typing** or press **Enter** (*Section 4.2.5*)

After entering or editing information in the fields, save and exit the edit screen or exit without saving. See *Section 4.2.4* for general information about using edit screens.

5.2.5   Add or Edit an Administrative Area

For items in the Administrative Area glossary tree, coordinates of the corners of the rectangle enclosing the administrative area can be specified. This offers the possibility to verify automatically if the coordinates for plots and holdings specified during data entry procedures fall within this rectangle.

The edit screen in which to specify Administrative Areas items contains two additional fields (the standard fields **Code**, **Name** and **Help**, are explained in *Section 5.2.4*):

```
┌«Edit item for Administrative Areas»──────────────────────────────────────┐
│ Code                  :   5  (Item is used)                              │
│ Name                  : Africa                                           │
│ Lower Left Coord.     :      South  45° 0' 0       West  30° 0' 0" [Degrees]│
│ Upper Right Coord.    :      North  38° 0' 0       East  60° 0' 0" [Degrees]│
│ Help                  : ─                                                 │
└──────────────────────────────────────────────────────────────────────────┘
```

Lower Left Coord.

This is the lower left coordinate of the rectangle that encloses the current administrative area. First the hemisphere and coordinate of the latitude are specified, subsequently those of the longitude. There are two ways to specify the North-South hemisphere:

- To invoke a picklist from which to select North or South press **Enter**.
- To directly enter the hemisphere type **N** (for North) or **S** (for South) and press **Enter**.

After this, you will go to the field in which to enter the coordinate. The format in which the coordinates are entered (either in minutes and seconds, or in decimals) is determined in the settings screen of the Data Entry Module (*Section 6.2.1*). To enter the coordinate type **a number** and press **Enter**. After the latitude, the longitude must be entered. Follow the same procedure as for the latitude, but replace "North" with "East" and "South" with "West".

Upper Right Coord.

This is the upper right coordinate of the rectangle that encloses the current administrative area. Follow the procedure as under Lower Left Coordinate.

5.2.6   Add or Edit an Operation Sequence or Context Classifier

The two glossary trees Classifiers: Operation Sequence and Classifiers: Context contain classifiers used to define *a-priori* land use classes. When defining new classifiers, some rules must be taken into account. In addition to the rules for building a hierarchical structure of glossary items stated in *Section 5.2*, there is a classifiers-specific rule:

> The first level of each classifiers tree is considered as a wholly independent tree when defining a class. From each independent 'branch' one classifier can be selected to define an a-priori land use class. In fact, items at the first level are treated as parameters when defining a class. For example, the classifier 'Agricultural production' will become a parameter with values 'Yes', 'No' at the second level, and with related items at lower levels of the 'Yes' item, e.g. 'Multiple cropping', 'Sequential cropping', etc.

The glossary tree Classifiers: Operation Sequence currently contains 5 classifiers at the first level that consider the complete operation sequence (listed below), and additional classifiers about specific aspects of operations, material inputs, etc. (marked with *).

Crop Production	* Cultivation Factor	* Irrigation Structures
Livestock Production	* Power Source for Tillage	* Water Applied
Extraction/Collection/Grazing	* Weeding	* Quality of Water Applied
Conservation	* Control of Pests	* Chemical Fertilizers Applied
Settlement and Related Uses	* Control of Diseases	* Organic Manures Applied
Recreation and Tourism	* Erosion Control Structures	* Herbicides Applied
* Labour Intensity	* Drainage Structures	* Mulch Applied

An example of a land use class, as defined by a selection of the above classifiers is shown below (see *Section 6.8.4* for instructions on defining *a-priori* land use classes:

```
┌«Add/Edit an A-Priori Land Use Class»─────────────────────────────────┐
│ Code                :   1  (Item is used)                            ↑
│ A-Priori LU Class   : Single Cropping of Cereals                     │
│                                                                      │
│ ──Land Use Purpose Classifiers───────────────────────────────────────
│ - Species/Service   : Plants, Cereals, » -                          │
│   Product/Benefit   : Flowers/Fruits/Seeds, Grain (Cereals), » -     │
│                                                                      │
│ ──Operation Sequence Classifiers─────────────────────────────────────
│ - 1:   Crop Production, Yes, Temporary (arable) Cropping, » -        │
│                                                                      │
│ ──Context Classifiers────────────────────────────────────────────────
│ - 1:   Tenancy Arrangement, Owner                                   │
│ - 5:   Goals of Holder, Cash Supply Insurance                       ↓
└──────────────────────────────────────────────────────────────────────┘
```

5.2.7   Add or Edit a Data Unit

The glossary tree Data Units contains scales of units that are used to specify the unit of measure belonging to quantitative information. Quantitative data can be expressed in different units, e.g. an area can be specified in hectares or acres. Data units stored in this glossary tree are grouped by type of unit, e.g. areas, volumes, weights, and rates. To compare quantitative data expressed in different units, a conversion factor can be specified. The conversion factor is always relative to an international standard unit (SI unit) for that type of data, e.g. a standard unit of 1 meter for linear measures. If you specify a new data unit the conversion factor of this unit to the standard data unit for that type of data must be calculated and entered. The standard data units for each type of data are listed below:

No Dimension		1 piece
Lenghts		1 meter
Areas		1 square Meter (m2)
Volumes		1 cubic Meter (m3)
Weight		1 kg
Time		1 day
Rates; Yield	(Weight/Area)	1 kg/m2
Rates; Yield	(Volume/Area)	1 kg/m3
Rates; Flow	(Volume/Time)	1 litre/minute
Rates; Density	(Weight/Volume)	1 kg/m3
Rates; Growth	(Length/Time)	1 m/day
Currency		1 US$

The edit screen in which to specify Data Units items contains one additional field (the standard fields **Code**, **Name** and **Help**, are explained in *Section 5.2.4*):

```
┌«Add Item for India/Pakistan Systems»─────────────────────────────────┐
│ Code              :   0                                              │
│ Name              :                                                  │
│ Conversion Factor :        0.000000000                              │
│ Help              : -                                                │
└──────────────────────────────────────────────────────────────────────┘
```

Conversion factor

> For an existing glossary item, this can only be edited when the data unit item is not used in the Land Use Data or Land Use Classes data files type **the value**. If necessary, use the calculator (by pressing **F8**) to calculate the conversion factor (*Section 4.2.7*).

5.2.8   Add or Edit an Implement

The glossary tree Implements names of machines, tools, etc. that are used to carry out an operation or observation. If the implement was derived from a species, it may be useful to specify this plant or animal species further. For example, if an animal was used for traction, you may want to specify which animal; similarly, you may wish to enter the plant species from which the planting stick was derived. This implies that, during data entry procedure, the species from which the implement was derived can also be entered. This requires a link between the Implements glossary tree and the Species/Service glossary tree.

In the additional field of the following edit screen, you can specify this link (the standard fields **Code**, **Name** and **Help**, are explained in *Section 5.2.4*):

```
┌«Edit item for Implements»─────────────────────────────────┐
│ Code                :                                      │
│ Name                :                                      │
│ Species/Service     :                                      │
│ Help                :                                      │
│                                                            │
└────────────────────────────────────────────────────────────┘
```

Species/Service

>   For an existing glossary item, this field can only be edited when the data unit item is not used in the Land Use Data or Land Use Classes data files press **Enter**. A picklist appears from which to select an item:
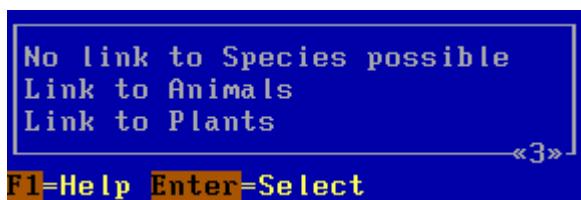
```
┌──────────────────────────────┐
│ No link to Species possible  │
│ Link to Animals              │
│ Link to Plants               │
│                        «3»   │
├──────────────────────────────┤
│ F1=Help  Enter=Select        │
└──────────────────────────────┘
```

>   **No link to Species possible**
>
>   >   The selection of a species or service is not relevant to this implement, e.g. if the implement is a tractor.
>
>   **Link to Animals**
>
>   >   The implement is an animal or uses an animal, e.g. if animals are used as power source. If this option is selected, no glossary items can be specified at lower levels, since these would be further specifications of the types of animals.
>
>   **Link to Plants**
>
>   >   The implement is a plant produce, e.g. a planting stick. If this option is selected, no glossary items can be specified at lower levels, since these would be further specifications of the types of plants.

5.2.9   Add or Edit a Material Input

The glossary tree Material Inputs contains names of materials that may be used as input during an operation. For selected material inputs, it may be useful to specify from which species it was derived. For example, if manure of animal origin is used as fertilizer, you may want to specify the animal species from which the manure was obtained. Similarly, if seeds are used as planting material, it may be desirable to specify the plant species from which the

seeds were used. In this case, you may also wish to limit the species specification to the crop that is grown in the described land use system, e.g. if maize is grown, the material input "seeds" must be maize seeds. This implies that it must be possible to specify species for certain material inputs during the entry of land use data. This requires a link between the Material Inputs glossary tree and the Species/Service glossary tree. In the additional field of the below edit screen, you can specify this link (the standard fields **Code**, **Name** and **Help**, are explained in *Section 5.2.4*):

```
┌«Edit Item for Material Inputs»────────────────────────────────
│ Code              :
│ Name              :
│ Species/Service   :
│ Help              :
│
```

Species/Service

Press **Enter** and a picklist appears from which to select an item:

```
No link to Species possible
Link to Animals
Link to Plants
Link to Animals and Plants
Link to Species specified for the LUS
                                        «5»
F1=Help Enter=Select
```
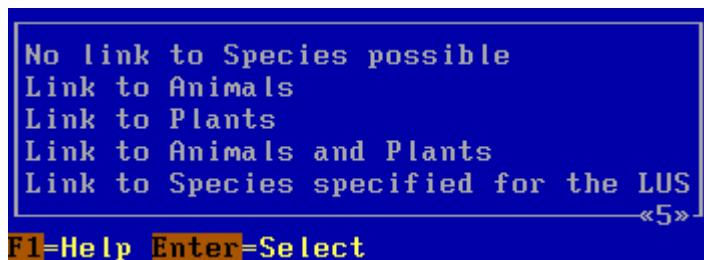
No link to Species possible
The selection of a species is not relevant for this material input, e.g. for chemical pesticides.

Link to Animals
The material input is animal produce, e.g. animal dung.

Link to Plants
The material input is plant produce, e.g. for wooden building materials.

Link to Animals and Plants
The material input may be plant or animal produce, e.g. manures.

Link to Species specified for the LUS
The material input is produce from any species as specified for the LUS.

5.2.10 Add or Edit a Species/Services Item

The glossary tree Species/Services contains extensive lists of crops and animals that may be grown or kept in a land use system, or services that may be rendered by the system. Plant and animal species within the Species/Service glossary tree are grouped in functional classes, e.g. vegetables, edible fruits, pulses. Within these functional groups, species are structured according to taxonomic criteria: family, genus, and species. To facilitate searching of species with taxonomic criteria, the family and the Latin name can be specified for items in the second and further level of this glossary tree. The family name of the highlighted item is shown in the information bar, when picklists with species are displayed (in all three Modules).

The edit screen in which to specify Species/Services items contains one additional field, the standard field Name is now presented as New Name (the standard fields **Code** and **Help** are explained in *Section 5.2.4*):

```
┌«Edit Item for Cereals »──────────────────────────────────┐
│  Code                 : 110  (Item is used)               │
│  Common Name          : Maize / Corn                      │
│  Latin Name           : Zea mays L.                       │
│  Family               : Gramineae                         │
│  Comments             : –                                 │
│                                                           │
└───────────────────────────────────────────────────────────┘
```

Common name

The common name of the species, e.g. the local name of a species. Type **a name**.

Latin name

The Latin name of the species, consisting of a genus name, a species name, the name or abbreviation of the taxonomist who named the species, and the variety (if applicable). Type **a name**

Family

The Latin name of the family to which the species belongs. The family name will be shown in the information bar when a picklist with species is displayed.

5.2.11 Documenting Glossary Items

Different users must use glossary items in the same way, and the definition of items must thus be made clear. A complete and understandable documentation of a glossary item will avoid confusion regarding the use of the item. Each glossary item can be documented in an item-specific help screen that may be invoked in data entry procedures (by pressing **F1**). The documentation of a glossary item may contain a definition of the glossary item, an explanation of an item, and/or the source of information.

For the above reasons, you are requested to further document existing glossary items, if necessary, and to completely document new glossary items. Documentation texts are stored as help screens, specific to a glossary item. How to enter new texts or edit existing texts in item specific help screens is explained in *Section 5.2.4*.

Different types of documentation may be required for items from different glossary trees. Some examples: help screens of glossary items in the Project glossary tree must contain information on the objectives of the project, the used methodology, the secondary information used (maps, other studies), the institutes involved, etc. Documentation of items in the Infrastructure glossary tree must contain definitions and explanations on the possible purposes of the infrastructure described.

A help screen containing documentation of an operation sequence classifier is shown below:

```
┌«Cultivation Factor, Shifting Cultivation; R<33%»──────────────┐
│ Def.: Ruthenberg (1980): Agricultural systems which involve an alternation
│ between (i) cropping for a few years on selected and cleared plots and (ii) a
│ lengthy period when the soil is rested.  The land is cultivated for less than
│ 33% of the years.
│
│ F1=Help F3=Print Esc=Exit
└───────────────────────────────────────────────────────────────┘
```

5.2.12 Print Glossary Items

Names and documentation of glossary items may be printed to a file, to the computer screen, or to a printer, at any time when a picklist with glossary items is displayed, i.e. also in other Modules. After pressing **F3** in a glossary picklist at the second or further level, the next picklist appears from which to select what information must be printed:

```
┌«Administrative Areas»──────────────────────────┐
│All Items without related Information at lower Levels
│Highlighted Item and related Information at lower Levels
│All Items of all Levels of this Glossary Tree
│                                              «3»┘
F1=Help
```

All Items without related Information at lower Levels
    Names, codes and documentation in help screens of all items in the current picklist will be printed, without information on related glossary items at higher or lower levels.

Highlighted Item and related Information at lower Levels
    Names, codes and documentation in help screens of the highlighted item and all related items at lower levels are printed.

All Items of all Levels of this Glossary Tree
    Names, codes and documentation in help screens of all items belonging to the current glossary tree are printed.

After selection of an item, a picklist with output devices appears in which to specify where to print the selected information. For more information on printing see *Section 4.3.2*.

Note   The print output generated when in the Data Entry or Query Module does not include documentation (help texts).

5.2.13 Graft Glossary Items

In some cases you may wish to move glossary items from one level of the glossary tree to another. For example, one item of a picklist in the glossary tree Tenancy Arrangement is called "Tribal/Traditional Tenures" and another "Other forms of Tenure". It may be useful to move "Tribal/Traditional Tenures" to the next level: "Other forms of Tenure". This example is used below to explain the grafting procedure.

The graft option allows you to move a glossary item from one to another level of one glossary tree. Also, glossary items that are already used in the Land Use Data or Land Use Classes data files may be grafted. The relevant codes of the data in these data files will then be changed into the new codes.

Example

Before grafting, the Tenancy Arrangements picklist contains the following items:

```
┌«Glossary Trees»──────────────────┐
C┌«Tenancy Arrangements»─────────────────────────────────────────────────┐
D│   5   Owned or Owner-Like Possession                                0?»│
G│  10   Rented from Others                                            0?»│
I│  15   Operated on a Squatter Basis                                  0? │
I│  20   Tribal/Traditional Tenures                                    0? │
I│  25   Other forms of Tenures                                       0?» │
I└                                                                    «5»─┘
 Labour Origins                    ▒
                        ─«23»─┘
F1=Help F3=Print F4=Search F8=Graft F10=Edit Ins=Add Del=Delete Enter=Select
```

To start the grafting procedure highlight the item to be grafted and press **F8**. The following warning appears:

```
 If during the grafting procedure a power failure occurs, your datafiles will
 be permanently corrupted. ALL your data files will thus be lost. (Sorry!)

 Please make first a COMPLETE BACKUP; use the "Backup/Restore" option in the
 Main Menu of the Glossary Module.
                                                          «Press <Enter>»
```

To exit the warning screen press **Enter**. There are two possibilities:
- If you did **not** make a backup of all glossary and data files, you must do this first before grafting any glossary item. To return to the main menu press **Esc** several times and select **Backup/Restore** from the main menu (*Section 5.3*).
- If you did make a backup of all glossary and data files, continue with the grafting procedure, as explained below.

The glossary item to be grafted is marked with a **G:**. This item and related items at lower levels of the item, can now be moved to another level of the current glossary tree:

```
┌«Tenancy Arrangements»──────────────────────────────────────────────────┐
│   5   Owned or Owner-Like Possession                                0?»│
│  10   Rented from Others                                            0?»│
│  15   Operated on a Squatter Basis                                  0? │
│  20G:Tribal/Traditional Tenures                                    0? │
│  25   Other forms of Tenures                                       0?» │
└                                                                    «5»─┘
F1=Help F8=New place
```

The item **Tribal/Traditional Tenures** must be moved to the level **Other Forms of Tenures**. Select **Other Forms of Tenures** and the following picklist appears:

```
┌«Tenancy Arrangements»──────────────────────────────────────────────────┐
│┌«Other forms of Tenures»──────────────────────────────────────────────┐│
││   5   Transitory Tenure Forms                                     0 »││
││  10   Collective Land for Indiv. Use                              0  ││
││  15   Land under Inheritance Proc.                                0  ││
│└                                                                  «3»─┘│
└                                                                   «5»─┘
F1=Help F8=New place
```

To confirm to place the grafted item in the current picklist press **F8**. An edit screen appears in which to enter the new code of the grafted item in the new level of the glossary tree:

```
Graft "Tribal/Traditional Tenures" as sub-division of "Other forms of
Tenures"

 Old Code_ID        : 020;
 New Code_ID        : 025;  0
```

New Code_ID

> This will be the code of the item at this level of the glossary tree. The number must be unique (the program will automatically check this). Type **a number** and conclude the graft procedure by pressing **F10**.

The grafted item is now moved to the new position. In the example, the item **Tribal/Traditional Tenures** appears as the last item in the picklist **Other Forms of Tenures**, as it has the highest code value:

```
┌«Glossary Trees»──────────────┐
C├«Tenancy Arrangements»─────────
D│  ┌«Other forms of Tenures»───────────────────────
G│  │   5  Transitory Tenure Forms                    0 »
I│  │  10  Collective Land for Indiv. Use             0
I│  │  15  Land under Inheritance Proc.               0
I│  │  20  Tribal/Traditional Tenures                 0?
I│  │                                                «4»
Labour Origins
                «23»
F1=Help F3=Print F4=Search F8=Graft F10=Edit Ins=Add Del=Delete Enter=Select
```

Notes

- Grafting of glossary items has consequences for the previously stored query conditions (*Section 7.2.2*). In case stored query conditions contain grafted glossary items as values, these must be edited.
- After grafting, when returning to the main menu of The Glossary Module, data files are updated; this may take some time.

5.2.14 Delete Glossary Items

Although deletion of glossary items is not recommended, it may be necessary in some cases. After you pressed **Del** in a glossary tree a message or a picklist appears:

- The next message appears:

```
Code is used in this or subsequent Level
Deletion not allowed
                                        «Press <Enter>»
```

> The highlighted glossary item and/or one or more related items at lower levels of the glossary tree are used in the Land Use Data or Land Use Classes database files. Deletion of the item is not allowed.

- When deletion is allowed, the next picklist appears:
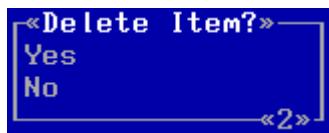
The highlighted glossary item, and all related items at lower levels, are not used in the Land Use Data or Land Use Classes database files.

No   The item will not be deleted. You will return to the previous picklist.
Yes   The item and all related items at lower levels (if any) are deleted permanently.

5.3   Define a Data Entry Filter

The Land Use Database offers the possibility to store information for a large number of parameters related to land use. However, most land use studies require the collection of information for only a limited number of parameters. For example, if you wish to conduct a survey on labour aspects of land use, you are only moderately interested in material inputs used (e.g. fertilizers). To shape the data entry procedure to the requirements and objectives of your study, a data entry filter can be defined (see also *Section 1.3.1*), in which two selections are made:

Selection of parameters
Parameters that are required for data entry procedures of land use data as well as definitions of *a-priori* classes are selected. If a parameter is selected in the filter, it is included in the data entry screens, so information may be entered for this parameter. For example, if you carry out a study that focuses on the purpose of the land use, you will need to specify parameters related to products and benefits of the land use, but probably not parameters related to infrastructure. In the data entry filter, you will therefore select the parameters that relate to the land use purpose and not those concerning infrastructure.

Pre-selection of values (glossary items) for selected parameters
One or more values of the selected parameters of actual land use data as well as definitions of *a-priori* classes are pre-selected. During the data entry procedure, only one of the pre-selected glossary items may be chosen. Pre-selection of values is only possible for those fields that are linked to a glossary tree. Pre-selection of a glossary item implies that also related items at lower levels of that glossary item are pre-selected. Several glossary items from different parts of the same glossary tree may be pre-selected. For example, if a survey is carried out in several districts, the related glossary items may be pre-selected. As a result, only these item, or related items at lower levels (e.g. communities within those districts), may be specified as administrative area during data entry. Another example, if you want to make sure that "plot size" is expressed in area units during data entry, you can pre-select "areas" as value for the parameter "data unit" that belongs to the plot size.

There are several advantages of defining data entry filters. It facilitates data entry procedures, because only the parameters for which you wish to specify the value are shown in the screens of the data entry procedure. The data entry procedure is also facilitated by the pre-selection of values. Furthermore, the definition of a data entry filter force you to consider which parameters must be obtained in the study, and, even more important, which parameters must not be included.

The Land Use Database already contains three standard data entry filters (see Appendix 5), as well as a filter belonging to the example data sets.

5.3.1 Data Entry Filters

After selecting **Define Data Entry Filter** from the main menu of the Glossary Module, a picklist with all defined data entry filters is shown. In this picklist, a new data entry filter can be added or an existing one can be edited. Note that a data entry filter cannot be **selected** in this picklist; this is done in the settings option in the Data Entry Module (*Section 6.2.2*).

Three standard data entry filters and an example filter are supplied with the software. These are shown in the picklist below. For an overview of the contents of the **Maximum Filter** and the **Minimum Filter**, see Appendix 5.

```
┌«Data Entry Filters»─────────────
│Maximum Filter
│Minimum Filter
│Min. Filter+Periods
│FAO/ITC Trainings Course│
└─────────────────«4»─
F1=Help F3=Print F5=Copy F10=Edit Ins=Add Del=Delete
```

Choose one of the following options:
- To **add** a new data entry filter press **Ins** (*Section 5.3.2*).
- To **edit** the highlighted data entry filter press **F10** or **Enter** (*Section 5.3.2*).
- To **print** the highlighted data entry filter press **F3** (*Section 5.3.3*).
- To **copy** the highlighted data entry filter press **F5** (*Section 5.3.4*).
- To **delete** the highlighted data entry filter press **Del** (*Section 4.3.3*).

5.3.2 Add/Edit a Data Entry Filter

Each type of study requires a different data entry filter. Accordingly, a new data entry filter must be defined or an existing one edited. After pressing **Ins** or **F10** when in the **Data Entry Filters** picklist, an edit screen is invoked in which a new filter can be defined or an existing one can be edited. A part of the **Edit Data Entry Filter** screen is displayed below:

```
┌«Edit Data Entry Filter»────────────────────────────
│Name                    FAO/ITC Trainings Course     ↑
│
│Fix  =  Compulsory Field
│
│══A-PRIORI LAND USE CLASSES════════════════════════
│
│Oper.Seq.Classifiers  Yes  Crop Production, » -
│                           Extraction/Collection/Grazing, » -
│Context Classif.      No   »
│
│══LAND USE DATA════════════════════════════════════
│
│──1.DATASET IDENTIFICATIONS────────────────────────
│Administrative Area   Fix  Africa, Swaziland, » -
│                           Africa, Zimbabwe, » -
│                           Africa, Botswana, » -
│                           Africa, Mozambique, » -
│Project               Fix  FAO, » -
│Enumeration Date      Yes
│Enumerator's Name     Yes  Display Previous Entry: Yes
│Respondent's Name     No                             ↓
└──────────────────────────────────────────«156»─
```

In this edit screen, the left column contains the names of almost all fields in which information can be entered during data entry procedures (the fields excluded from the filter are always present in the data entry screens). The fields are displayed in the order as they appear in data entry screens during the data entry procedures. Field names of both the **Land Use Data** and the **Land Use Classes** data files are included. The Land Use Data fields are subdivided according to the 4 data entry levels (*Section 6.3*).

The middle column contains information on whether a field is selected or not (**Yes/No**), or if it is compulsory (**Fix**). The third column contains the pre-selected glossary items for the fields (e.g. **Africa, Swaziland, -**), the option to display the last entry of the field (**Display Previous Entry: Yes**), or comments (marked between <...>). For information on options to select fields and pre-select glossary items of all fields, see complete list of fields in Appendix 3.

Several types of fields can be distinguished in the **Edit Data Entry Filter** screen:

a. **Name** field
b. **Fix** fields   1.   Without glossary items or a **>>** sign in the third column
                              2.   With glossary items or a **>>** sign in the third column
c. **Yes/No** fields   1.   Without glossary items or a **>>** sign in the third column
                              2.   With glossary items or a **>>** sign in the third column

Some fields are linked to each other and can only be reached when another field is selected, e.g. the info source fields for quantitative information can only be selected when the field to which it belongs is selected.

Explanations on the use of the listed types of fields is given below:

a. Name field.
    The first line in the **Edit Data Entry Filter** screen is the name of the filter. To invoke an edit screen in which to enter the name of the data entry filter press **Enter**.

```
«The Name of the Data Entry Filter»
  Name                    :
```

    Type **a name**. The name must be unique for all data entry filters.

b1. Fix fields; without glossary items or a **>>** sign in the third column
    These fields are automatically included in the data entry screens, and for these fields no glossary items can be pre-selected. They therefore cannot be edited, but are shown since they contain comments (between **<>**) in the third column.

b2. Fix fields, with glossary items or a **>>** sign in the third column
    These fields are automatically included in the data entry screens, but glossary items can be pre-selected for these fields. There are two possibilities:

- One or more glossary items were already selected. These are shown in the third column of the screen. To change the pre-selected glossary items press **Enter**. A picklist is invoked showing the pre-selected glossary items:

```
┌«Administrative Areas»┐
│Africa, » -           │
│Europe, » -           │
│              «2»     │
└──────────────────────┘
F1=Help F10=Save Enter=Edit Ins=Add Del=Delete
```
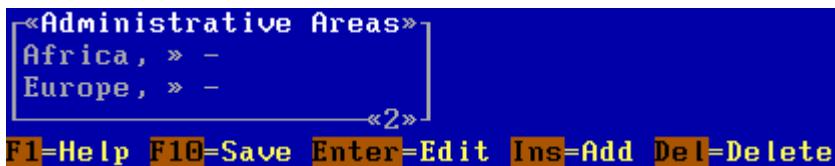
There are several options:

- To **add** a pre-selected glossary item for this field press **Ins**. A picklist containing the items of the first level of the glossary tree related to this field is shown. You can select an item from this glossary picklist, or from picklists at lower levels.
- To **change** the highlighted glossary item press **Enter**. You will branch to the glossary item that was selected. You can then select another item.
- To **delete** the highlighted glossary item press **Del**. You will **not** be asked to confirm the deletion.
- To **save** the picklist with pre-selected glossary items press **F10**. The pre-selected glossary items will be saved. You will return to the **Edit Data Entry Filter** screen.

- No glossary item was selected. In the third column of the screen, a **>>** sign is shown. To pre-select glossary items press **Enter**. An empty picklist is invoked:

```
┌«Administrative Areas»┐
│              «[]»    │
└──────────────────────┘
F1=Help F10=Save Ins=Add
```
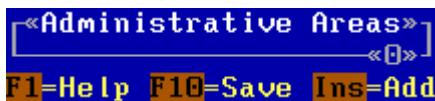
- To **add** a pre-selected glossary item to this list press **Ins**. The picklist at the first level of the glossary tree related to this field is shown. You can select an item from this glossary picklist, or from picklists at lower levels.
- To **save** the picklist after adding glossary items press **F10**. The pre-selected glossary items will be saved. You will return to the **Edit Data Entry Filter** screen.

c1. Yes/No fields; without glossary items or a   sign in the third column
These fields may be selected, but no glossary items may be pre-selected for these fields.

To change **Yes** (field is selected) into **No** (field is not selected) or vice versa press **Enter**.

For some of these fields, it is possible to specify if the previous entry of that field must be displayed during data entry procedures. This may be useful when long names are entered repeatedly, e.g. the enumerator's name. Only if the field is selected, this option is shown: **Display Previous Entry: Yes/No**. For these, press **Enter** to determine whether previous entries must be displayed.

By pressing **Enter** repeatedly, the following sequence of options is obtained (example for the field Enumerator's Name):

Enumerator's Name   **No**
Enumerator's Name   **Yes   Display Previous Entry: No**
Enumerator's Name   **Yes   Display Previous Entry: Yes**
Enumerator's Name   **No**

c2. **Yes/No** fields, with glossary items or a **>>** sign in the third column
These fields may be selected, and for these fields, glossary items may be pre-selected as well. To select the field and pre-select glossary items press **Enter**. An edit screen is invoked. The selection of the field and pre-selection of glossary items can be specified in this edit screen.

```
«│  Labour Origin       »
   Select Parameter    : Yes
   No.of Items Selected:   0
```

Select Parameter
States whether the parameter (field) is selected (**Yes**) or not (**No**). To change this press **Enter**. A **Yes/No** picklist is invoked in which to determine to select the field.

No.of Items Selected
The number of glossary items that are pre-selected is displayed here. To add, change or delete glossary items press **Enter**. A picklist is invoked containing the selected glossary items. This picklist may either be empty or contain one or more items. For instructions on adding, changing and deleting glossary items in this picklists, see under **b2**.

After finishing the selection of fields and the pre-selection of glossary items, save the **Edit Data Entry Filter** screen by pressing **F10**. The data entry filter is saved. You will return to the **Data Entry Filters** picklist (*Section 5.3.1*).

5.3.3 Print a Data Entry Filter

The data entry filters can be printed to a file, to a printer and to the screen, which is useful to get an overview of the selected fields and pre-selected values. After pressing **F3** in the **Data Entry Filter** picklist, a picklist appears in which the output device must be selected (see *Section 4.3.2* for explanation of picklist items). After selection of the output device, the data entry filter is printed. An example of part of the print output of a data entry file is shown below:

```
DATA ENTRY FILTER  Date: 17/11/1995 Time: 11:44:56      Fix = Compulsory Field
                   Name: FAO/ITC Trainings Course        Yes = Selected Field
                                                         < > = Comments
                                                         >>  = Not Specified
                                                         >>- = Not Further Specified

┌─A-PRIORI LAND USE CLASSES ═══════════════════════════════════════

  Oper.Seq.Classifiers   Yes        Crop Production, -
                                    Extraction/Collection/Grazing, -
┌─LAND USE DATA ═══════════════════════════════════════════════════

┌─1.DATASET IDENTIFICATIONS ═══════════════════════════════════════

  Administrative Area    Fix        Africa, Swaziland, -
                                    Africa, Zimbabwe, -
                                    Africa, Botswana, -
                                    Africa, Mozambique, -
  Project                Fix        FAO, -
  Enumeration Date       Yes
  Enumerator's Name      Yes        Display Previous Entry: Yes
  Holder's Name          Yes        Display Previous Entry: No
  Comments               Yes


┌─2.SITE IDENTIFICATIONS ══════════════════════════════════════════

┌─3.LAND USE SYSTEM DESCRIPTIONS ══════════════════════════════════
  Plot Lat-Long          Yes
  Plot Size              Yes
  - Unit                 Yes        Areas (Square Measures), Metric System, Hectare (ha)
                                    Areas (Square Measures), Metric System, Square Meter (m2)
                                    Areas (Square Measures), UK/US Systems, Acre
```

5.3.4 Copy a Data Entry Filter

Data entry filters can be copied, which is useful if you want to define a new filter similar to an existing one. After pressing **F5** in the **Data Entry Filter** picklist, an edit screen appears in which the name of the new data entry filter needs to be specified:

```
«Copy Data Entry Filter Definition»
 From:
 Name               : Project-II
 To:
 Name               :
```

To Name:
    Enter the new name for the Data entry filter

To start copying press **F10**. The new (copied) data entry filter is the last item in the **Data Entry Filter** picklist that appears after copying.

5.4 Repair

In exceptional cases, e.g. during power cuts, glossary or database files may be damaged. This can be noticed if the program does not function properly. If the damage is severe, you **will have to restore your backup** of the database files (*Section 5.5.2*). In case only index files are damaged, new index files can be generated using the reindex options of the repair utility.

Additionally, the repair utility offers the option to reconstruct the counter values of glossary items. The counters indicate the number of times a glossary item is used in the Land Use Data and Land Use Classes data files. In case you did not install the data files, but did install the glossary files, the counters must be reset because their value was based on the information of the example data files.

After selecting **Repair** from the main menu of the Glossary Module, a picklist with options of the repair utility is shown:

```
«Repair»
Reindex Glossary
Reindex Data Files
Reset Counters
All of the Above
               «4»
F1=Help Enter=Select
```

Reindex Glossary
    This option:
- generates new index files for the glossary, and
- optimizes use of disk space by item-specific help texts of glossary items.

Reindex Data Files
    This option:
- generates new index files for the data files, and
- optimizes use of disk space by comment texts on stored land use information.

Reset Counters

This option reconstructs counter values of glossary items.

All of the above

This option performs all of the above procedures in sequence.

All above procedures are time-consuming. During execution, the information bar will indicate the status of the procedures.

5.5   Backup/Restore

After you entered land use information in The Land Use Database, it is recommended to make a backup of both the glossary files, the data files (Land Use Data and Land Use Classes), and query files. A backup secures the possibility to recover data when files are damaged. Made backups can be retrieved by using the restore option.

After you selected **Backup/Restore** from the main menu of the Glossary Module, the following picklist appears:

```
«Backup/Restore»
Backup Files
Restore Files
          «2»
F1=Help Enter=Select
```
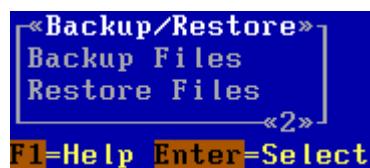
Backup Files

To make a backup of the settings file in the **C:\LUSE** directory, all files (data and query files) in the **C:\LUSE\DATA** directory and all files in the **C:\LUSE\GLOSSARY** directory. To make a backup press **Enter** (*Section 5.5.1*).

Restore Files

To retrieve a made backup of the settings file to the **C:\LUSE** directory, of the data and query files to the **C:\LUSE\DATA** directory and the glossary files to the **C:\LUSE\GLOSSARY** directory. To retrieve a backup press **Enter** (*Section 5.5.2*).

5.5.1   Backup Files

After selecting **Backup Files** from the **Backup/Restore** picklist, the next edit screen is invoked in which you can specify to which drive and directory the backup must be written:

```
«Backup Files»
 Settings        from: C:\LUSE\
                   to: A:\LUSE
 Data Files      from: \LUSE\DATA\
                   to: A:\LUSE\DATA
 Glossary        from: \LUSE\GLOSSARY\
                   to: A:\LUSE\GLOSSARY
```

Settings to:

Enter the drive and directory to which the backup of the settings file must be written. A default path is given.

Data Files to:

Enter the drive and directory to which the backup of the data files and query files must be written. A default path is given.

Glossary to:

Enter the drive and directory to which the backup of the glossary files must be written. A default path is given.

After specifying the paths (drive and directory), start the backup procedure by pressing **F10**. If a specified path is not empty, you will be asked whether existing files can be replaced. The files are compressed using the **ARJ.EXE** program. The status of the file compression is shown on the screen.

5.5.2   Restore Files

After selecting **Restore Files** from the **Backup/Restore** picklist, the next edit screen is invoked in which you can specify from which path (drive and directory) the backup must be restored:

```
«Restore Files»
 Settings         from: A:\LUSE
                    to: C:\LUSE\
 Data Files       from: A:\LUSE\DATA
                    to: C:\LUSE\DATA\
 Glossary         from: A:\LUSE\GLOSSARY
                    to: C:\LUSE\GLOSSARY\
```

Settings from:

Enter the drive and directory from the backup of the settings file must be restored. A default path is given.

Data Files from:

Enter the drive and directory from the backup of the data files must be restored. A default path is given.

Glossary from:

Enter the drive and directory from the backup of the glossary files must be restored. A default path is given.

After specifying the paths, start the restore procedure by pressing **F10**. If a specified path is not empty, you will be asked whether existing files can be replaced. The files are de-compressed using the **ARJ.EXE** program. The status of the file de-compression is shown on the screen.