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# Knowledge base representation

## Part 6

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Making topics, topic hierarchies and  
incorporating pictures

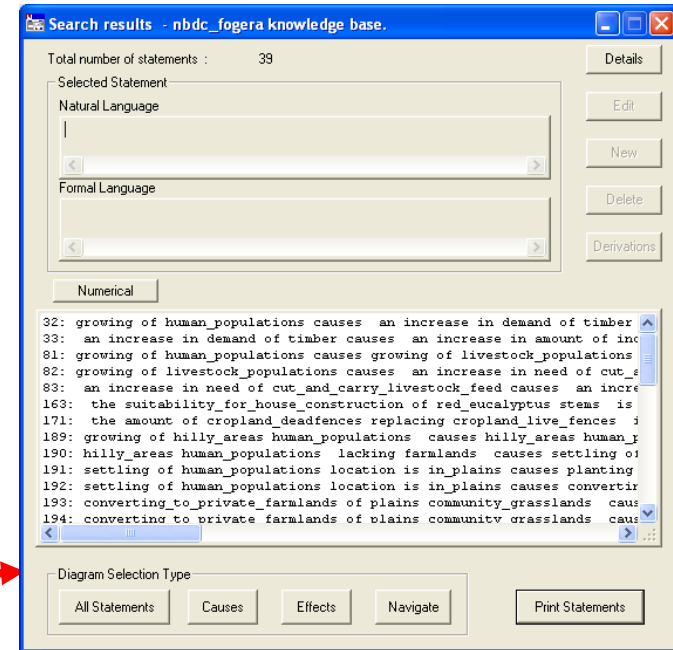
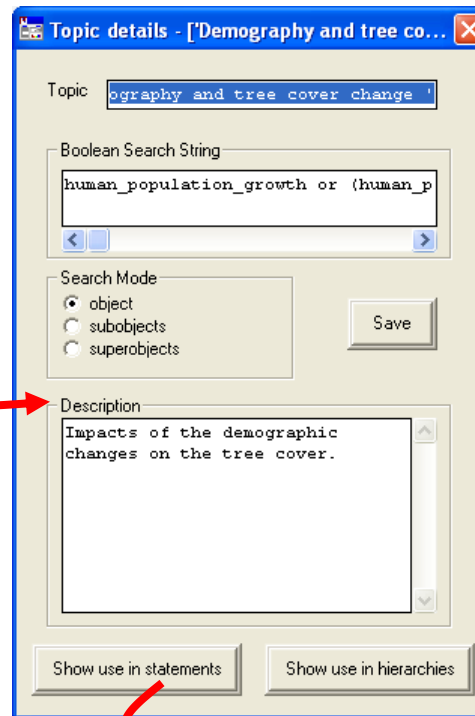
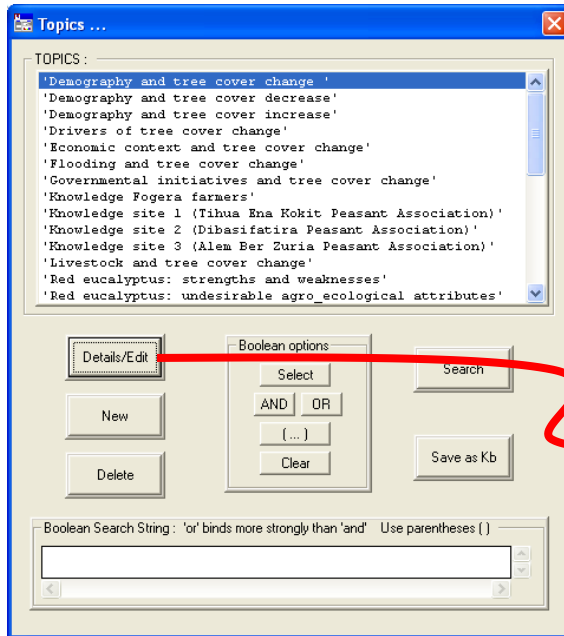
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# Topics

- Topics are used to organise statements around a particular topic in the knowledge base
  - They are particularly useful when someone other than the knowledge base creator is looking at the knowledge base
  - It is a way of organising your knowledge base according to the strata you are working with (e.g. a topic of 'tree pruners' knowledge and a topic of 'tree harvesters' knowledge)
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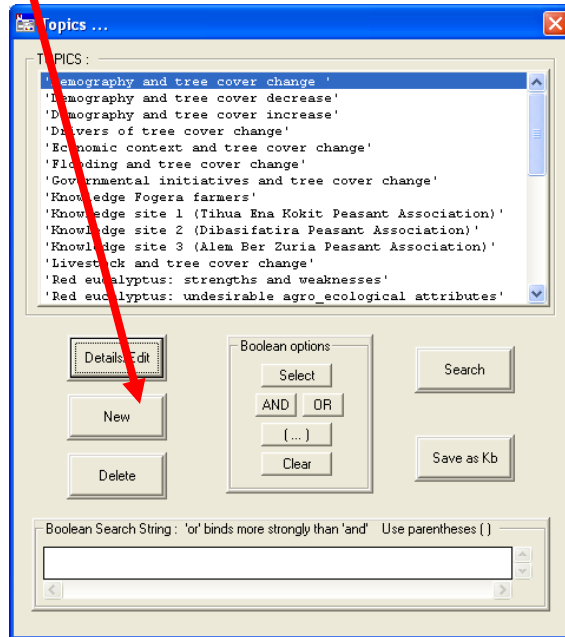
# Topics

- A topic is created by a Boolean Search String that generates a set of statements

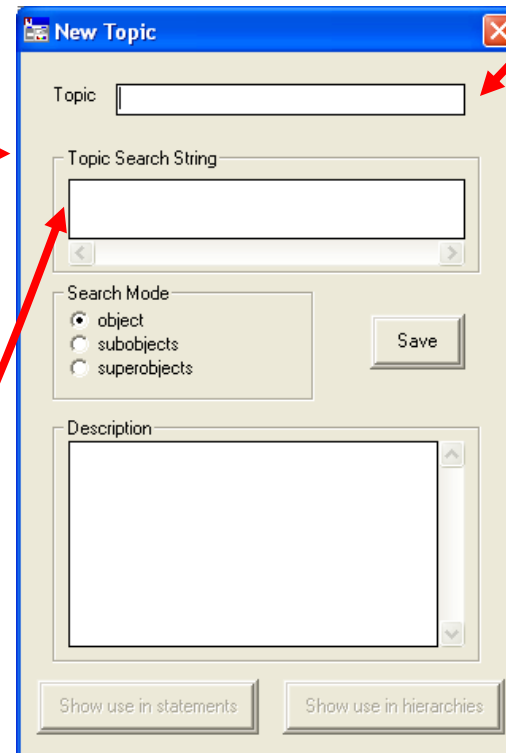


# To create a new topic (1)...

After clicking on 'New' to make a new topic you will be taken to the New Topic details box



Specify the new name for your topic here.  
Warning: **you cannot have the same name for a topic and a formal term** e.g. if you have a formal term: soils, you cannot have a topic: soils. However you can have 'Knowledge about soil'.

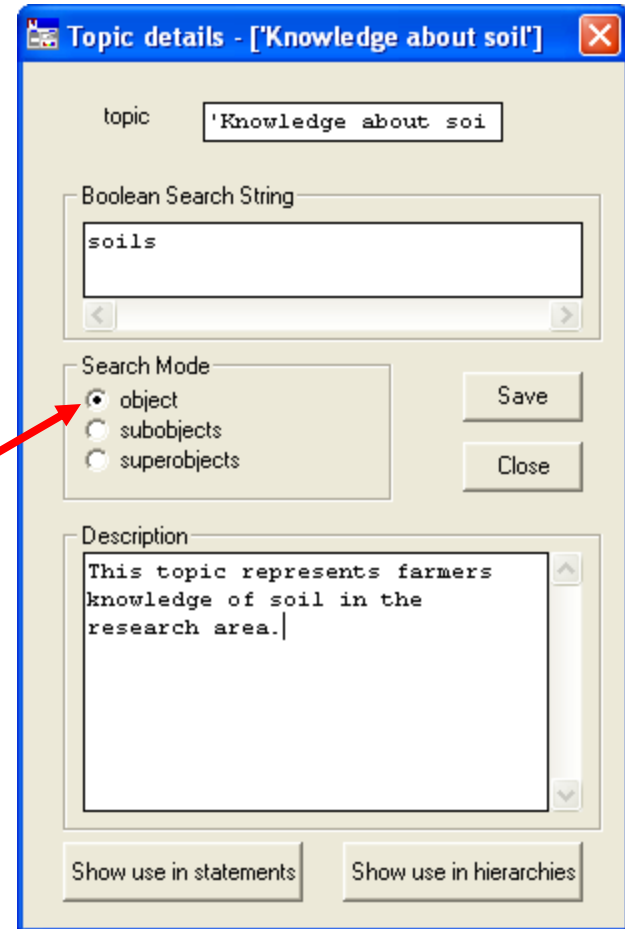


Copy and paste your Boolean search string here, then 'Save' the topic

## To create a new topic (2)...

Provide a description of the New Topic, then click on 'Save'.

'Search Mode' refers to the search options for the formal terms in your Topic.



The screenshot shows a dialog box titled "Topic details - ['Knowledge about soil']". It contains the following fields and controls:

- topic:** A text box containing the text "'Knowledge about soil'".
- Boolean Search String:** A text box containing the text "soils".
- Search Mode:** A group box containing three radio buttons: "object" (selected), "subobjects", and "superobjects".
- Description:** A text area containing the text "This topic represents farmers knowledge of soil in the research area.".
- Buttons:** "Save", "Close", "Show use in statements", and "Show use in hierarchies".

A red arrow points from the "Search Mode" group box to the "object" radio button.

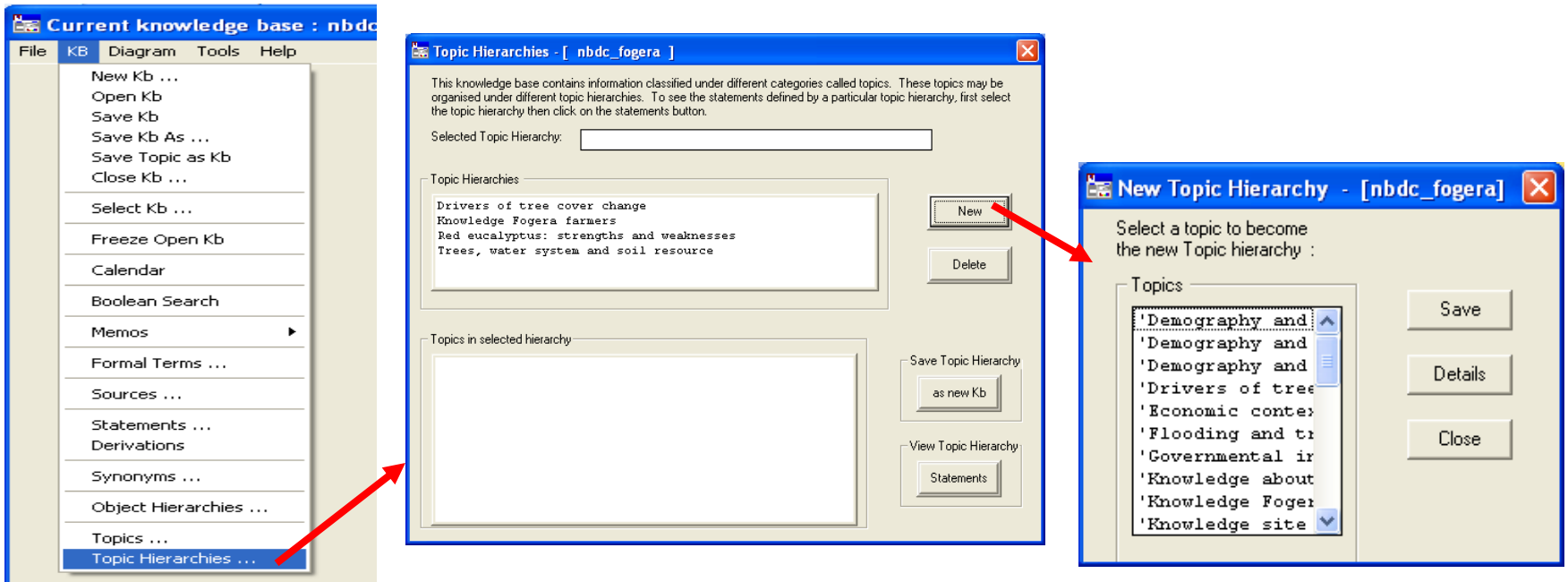
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# Topic hierarchies

- Topics can be arranged into hierarchies in just the same way that objects are arranged into hierarchies
  - A topic such as ‘knowledge about soil’ could be a topic on its own but it could also be a topic in a ‘topic hierarchy’ such as ‘Farmers knowledge about soil and water resources in Study Site 1’
    - When a topic is selected to be at the top of a topic hierarchy sub-topics are appended to it just like in object hierarchies
    - Topics like ‘knowledge of soil’ can also be given further sub-topics with specific knowledge of different soils
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# To create a topic hierarchy...

- To create a topic hierarchy go to 'Topic hierarchies' in the KB menu.
- Creating a topic hierarchy is just the same as creating an object hierarchy.



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## Points to remember about topics and topic hierarchies

- Topics are ways of *organising collections of statements* in the knowledge base. They should not be confused with object hierarchies which are ways of organising *object terms*.
  - All the formal terms that are part of your subtopics must also be part of your supertopic
    - E.g. all the search terms for a topic should be present in the search term list of its supertopic.
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# Incorporating pictures

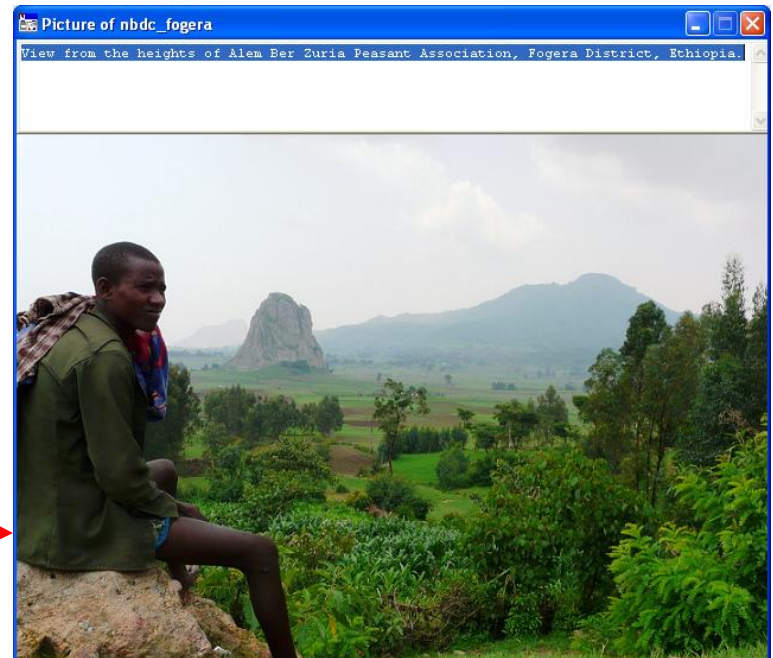
- Pictures can be integrated with a knowledge base in 3 places:
    1. On the welcome memo page
    2. Under the 'pictures/diagrams' section of the 'further details' page
    3. With any formal term
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# On the Welcome Memo page:



The picture appears as a thumbnail

By double clicking on the picture you can enlarge it and see the description.



# Under Pictures/Diagrams:

Welcome to the nbdc\_fogera knowledge base.

Title of the knowledge base  
Tree cover change, natural resource conservation and rural

What is the knowledge base about  
The role of agroforestry systems in contributing to ensuring a sustainable and efficient management of the natural resource base at a farm and landscape level, and subsequently to improving rural livelihoods.

Understanding the drivers of tree cover change (both in terms quantitative and qualitative) at a farm and landscape level in the area of interest, as well as the consequences of the observed

Author of knowledge base  
Fabien Balaguer

Acknowledgements  
Thanks to ICRAF Nairobi, IWMI/ILRI Addis Abeba and Bahir Dar

Associated Documentation  
Balaguer, F., Lamond, C. and Sinclair, F.L. (2012). Local

Study Area  
Fogera District, Amhara

Methods  
Semi-structured interviews

Timing  
from 26/06/2011 to 01/08/2011

Pictures / Diagrams    Topics    Knowledge Categories

Pictures/diagrams for the nbdc\_...

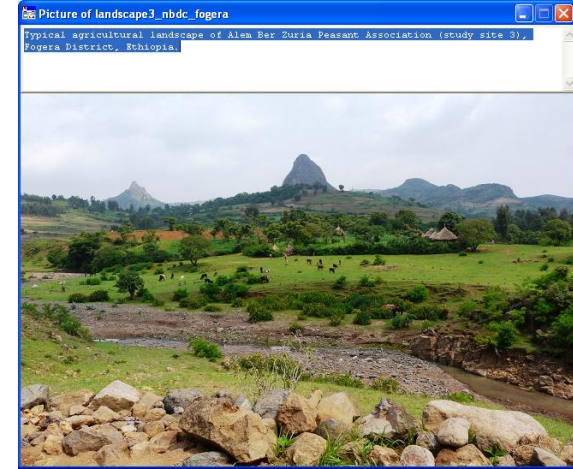
Note about pictures :

There are pictures to show the landscape in the three research sites and a landuse and livelihood diagram drawn up to show the typical tasks that men, women and children are involved in.

Select item to display picture :

- nbdc\_fogera
- landscape1\_nbdc\_fogera
- landscape2\_nbdc\_fogera
- landscape3\_nbdc\_fogera
- LIV diagram\_nbdc\_fogera

Save



The pictures are listed here.

To view a picture and its description, highlight it and click on select.

# With any formal term:

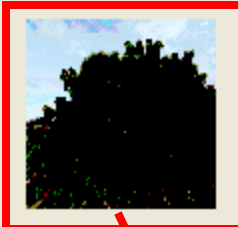
Formal Term Details - [nbdc\_fogera]

Formal Term:  Type:

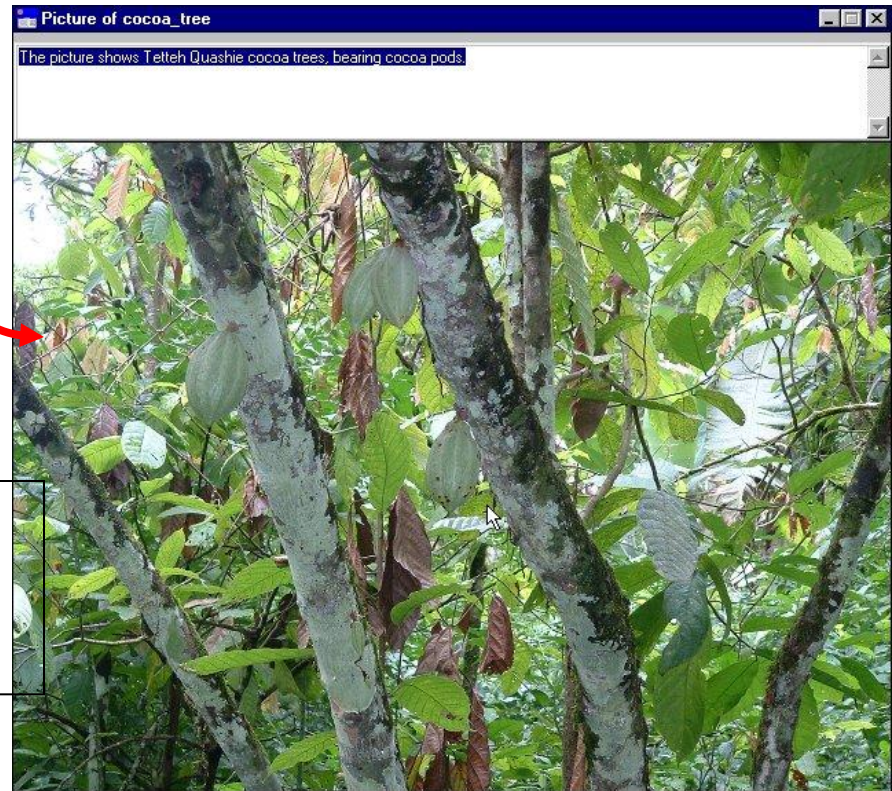
Part of:  Parts:

Definition:

Synonym(s):



The picture appears as a thumbnail in the Formal Term Details box.



Double clicking on the picture enlarges it and shows the description.

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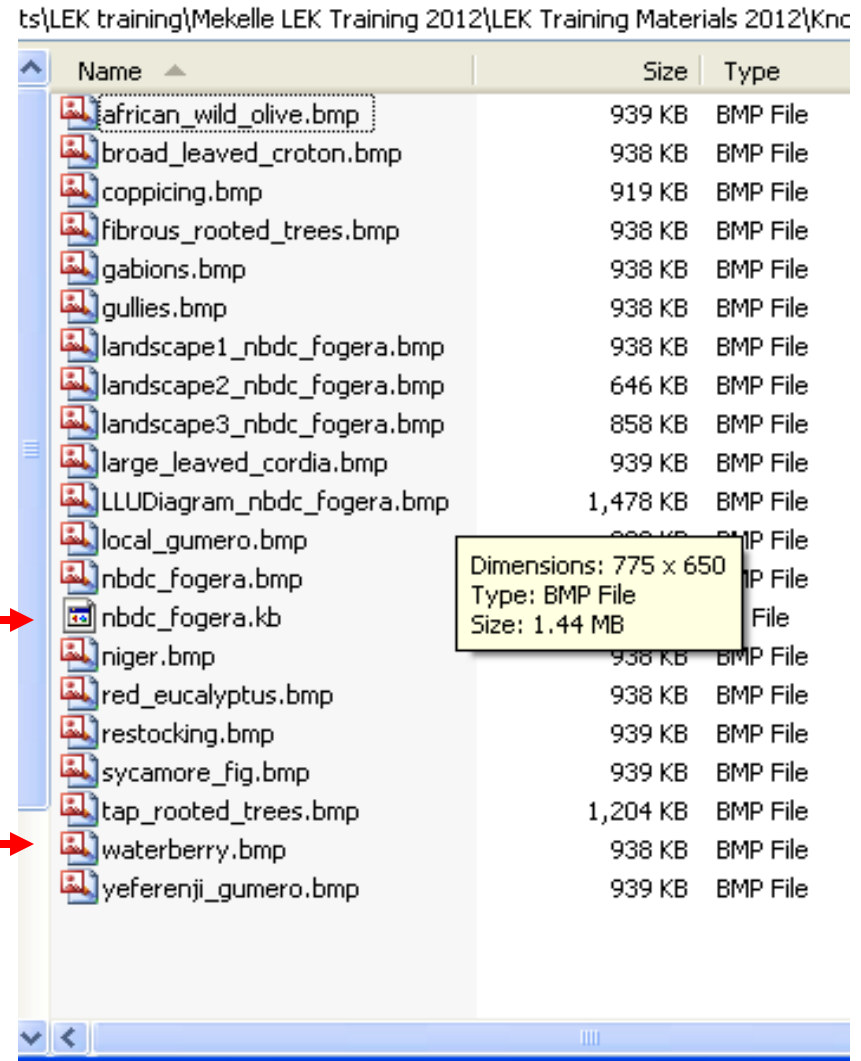
## General rules for incorporating pictures

- Pictures are not integrated into the kb file. They are stored separately as bitmap files (bmp).
  - Bitmaps **must** be stored in the same folder as the kb file.
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# For example:

This is the  
nbdc\_fogera  
knowledge base.

These are the KB  
pictures. They **must**  
all be in the same  
folder with the KB.

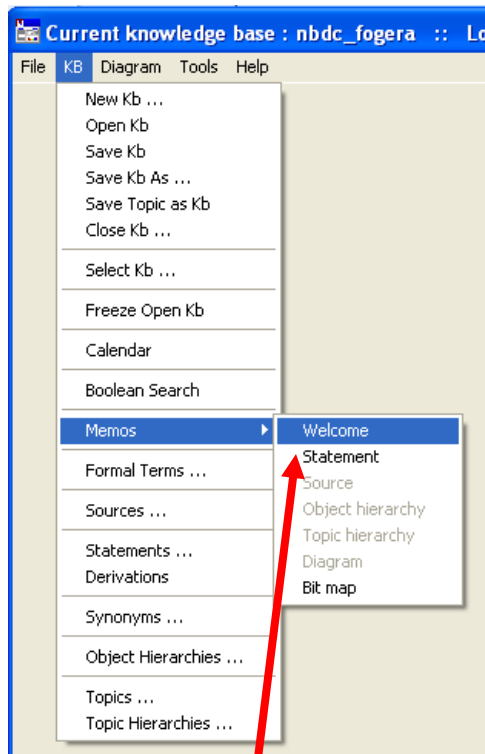


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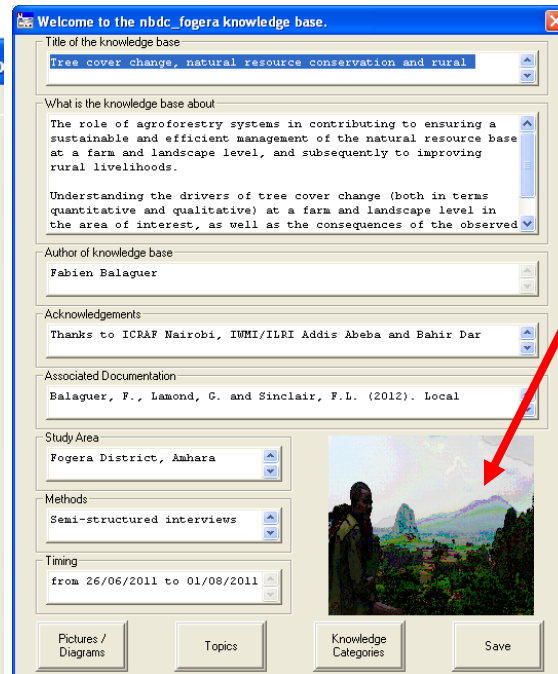
## Rules for the picture on the Welcome Memo page:

- The name of the bmp file **must be the same as the name of the knowledge base.**
  - E.g. nbdc\_fogera.kb and nbdc\_fogera.bmp
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# To edit the text above the picture:

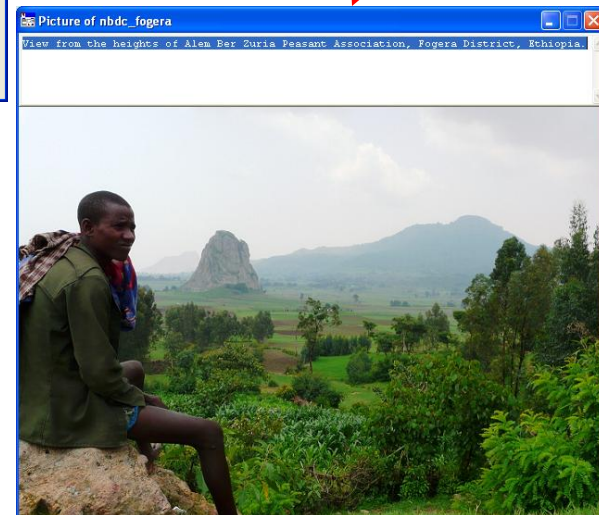


1. Go to the main menu and select Welcome Memo (so that you can see the 'Save' button is functioning).



2. Double click on the picture.

3. Type in the box above it. When you have finished editing, close the window and your changes will be saved.





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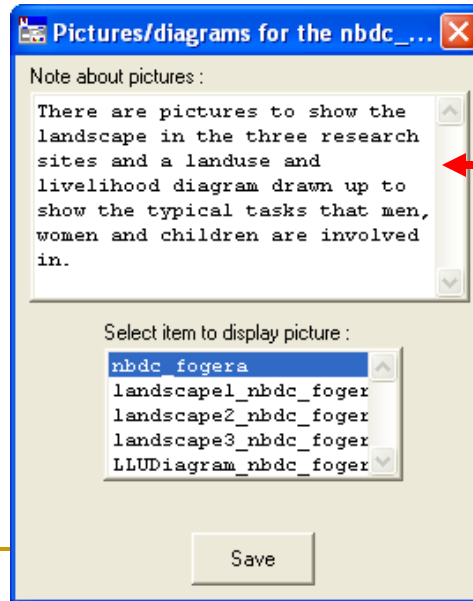
## Rules for pictures under ‘pictures/diagrams’:

- All the pictures that appear here **must** contain the name of the knowledge base.
  - E.g. for the nbdc\_fogera.kb, associated picture files are:
    - nbdc\_fogera.bmp
    - landscape1\_nbdc\_fogera.bmp
    - landscape2\_nbdc\_fogera.bmp
    - landscape3\_nbdc\_fogera.bmp
    - LLUDiagram\_nbdc\_fogera.bmp
-

# To edit the text above the picture:



The rules are the same as for the 'Welcome Memo' picture, i.e. make sure that the 'Save' button on the 'Welcome Memo' is functioning – this indicates that it is editable.



You can also add text here. When you have finished editing, Save your changes.

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## Rules for pictures of formal terms:

- When the 'Details' of a formal term are brought up on the screen, the bmp with the same name as the formal term will be displayed as a thumbnail.
    - E.g. 'Details' for the formal term `broad_leaved_croton` will display `broad_leaved_croton.bmp`
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# The formal term `broad_leaved_croton`

Formal Term Details - [nbdc\_fogera]

Formal Term: `broad_leaved_croton` Type: `object`

Part of:  Parts:  Save

Definition: `Tree species commonly found in the study area in a range of different contexts.`

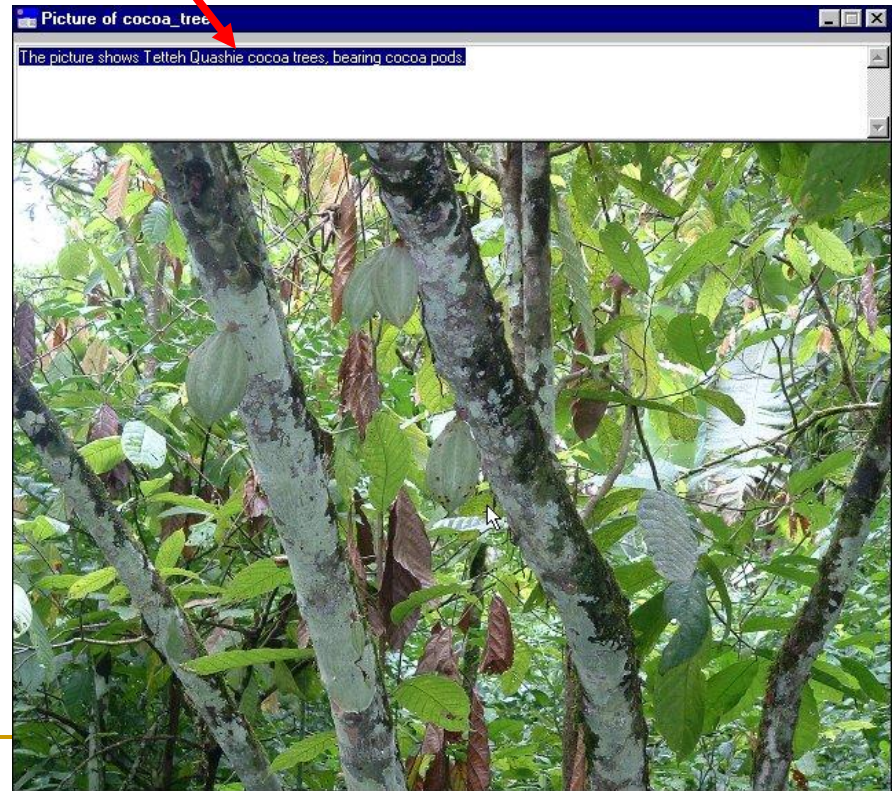
Synonym(s):

- 1. `bisana`
- 2. `Croton macrostachyus`
- 3.

up add  
down Delete

Show use in statements Show use in hierarchies

The text above the picture is the same as the text in the Definition.



This is `broad_leaved_croton.bmp`