

# DETAILED INSTRUCTIONS ON HOW TO USE THE INTERACTIVE MAPS



## COMPETE

Competence Platform on Energy Crop and Agroforestry  
Systems for Arid and Semi-arid Ecosystems - Africa

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## Introduction

This work has been conducted within work package 1 on “Current land use” in the framework of the project COMPETE (Competence Platform on Energy Crop and Agroforestry Systems for Arid and Semi-arid Ecosystems – Africa), co-funded by the European Commission in the 6<sup>th</sup> framework Programme – Specific Measures in Support of International Cooperation (Contract No. INCO-CT-2006-032448).

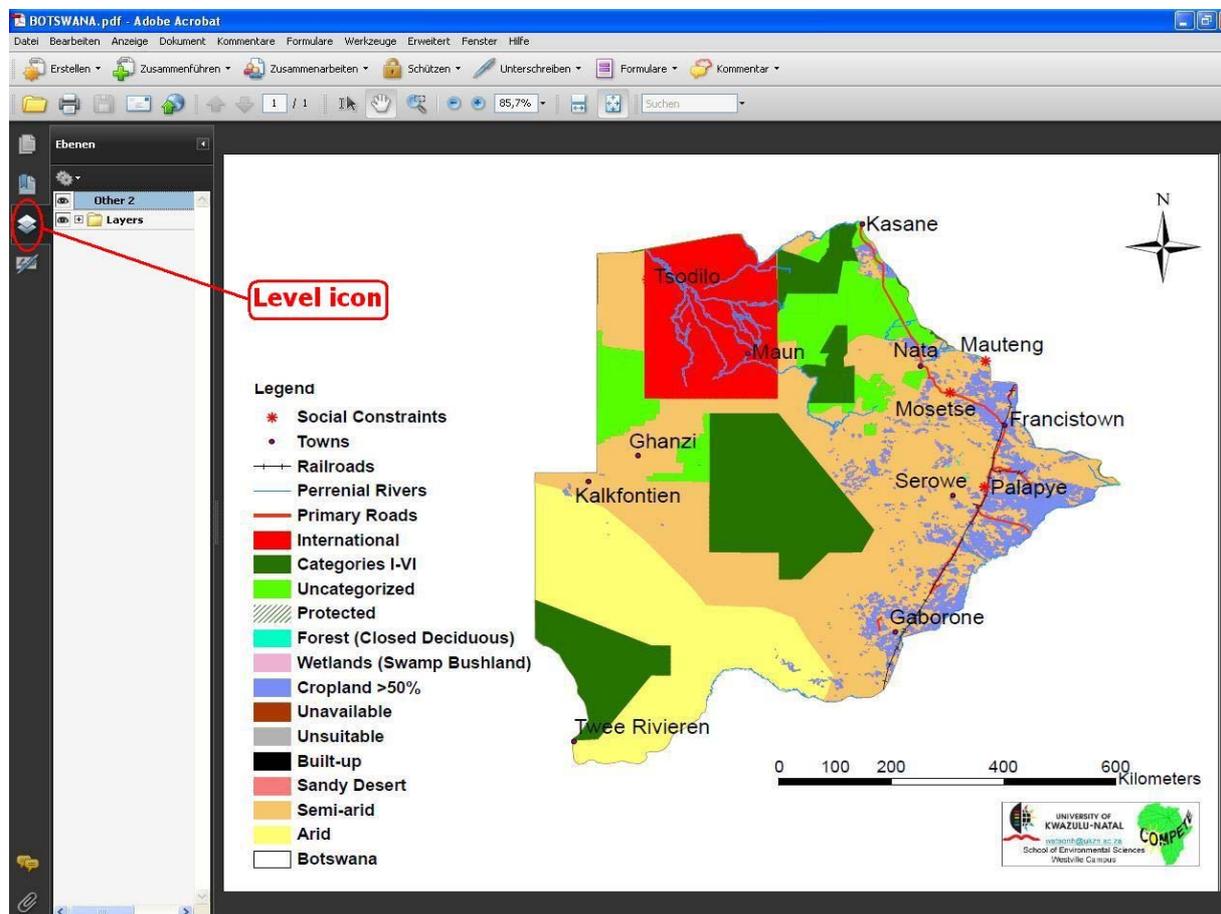
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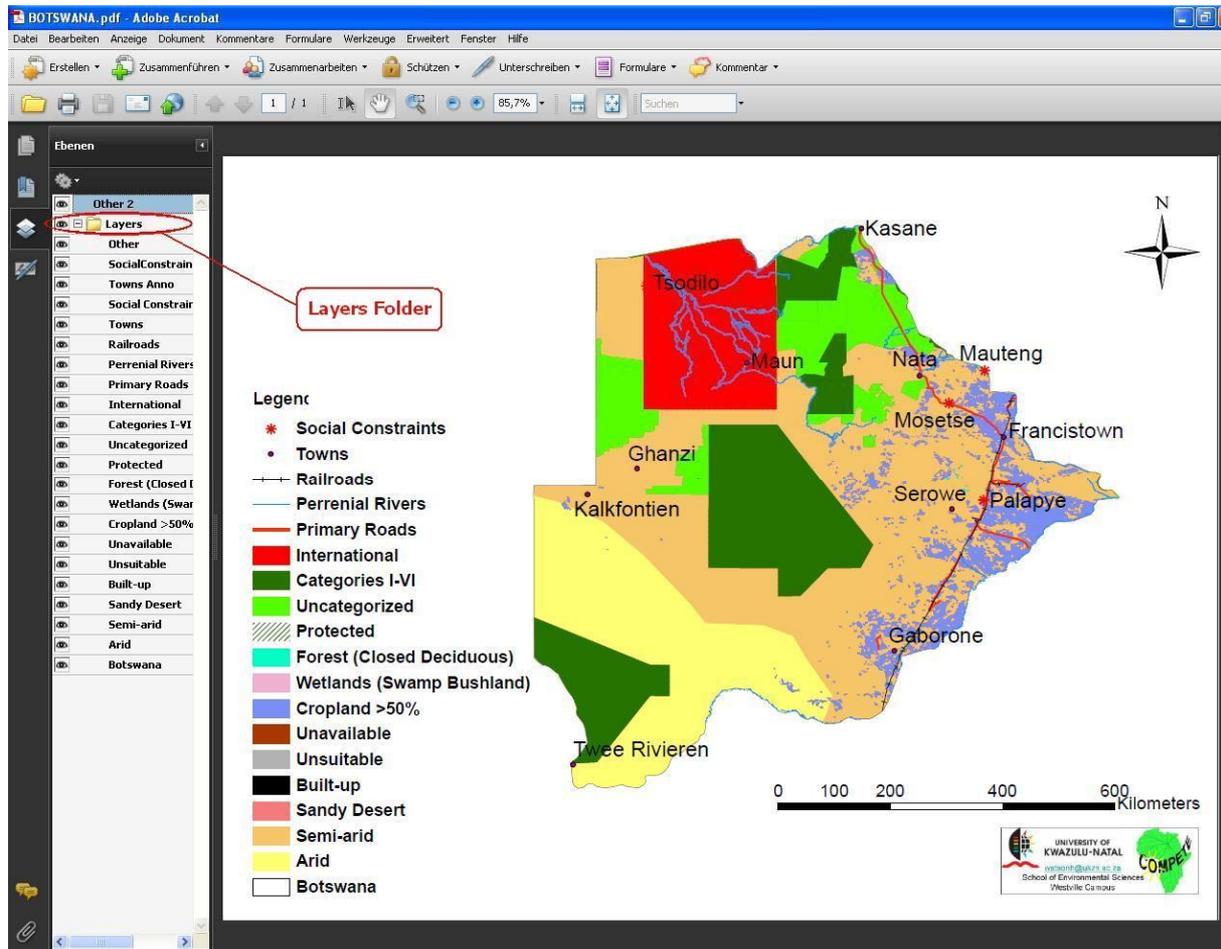
## How to use the maps:

The interactive maps are pdf files in which different map layers were included, each layer corresponding to a criterion or sub-criterion. In order to access and work with the different layers, please follow these steps:

1. Click on the “Level” icon in the left toolbar. If the “Level” icon does not appear in the toolbar: place the arrow of your mouse on the left toolbar and click on the right button of your mouse. Then, select the “Level” icon.



2. Open the “Layers” folder by clicking on the  button next to it.



 You may have to download the latest version of Adobe Reader in order to be able to access the “layers” folder. 

In order to make a layer appear and disappear, double click on the criterion/sub-criterion related to it or simply click on the eye next to it. For example, if you double click on the “perennial rivers” criterion, all the perennial rivers will disappear from the map. Double click on the criterion again and the perennial rivers will reappear.

Some criteria were divided into sub-criteria. For example, the “Forest” criterion is divided into 3 sub-criteria:

- Closed deciduous
- Closed evergreen
- Montane

In each country profile, the relevant sub-criteria are listed under the criteria to which they are related.

This system enables you to easily analyse the land use. For example, if you want to analyse the different types of forests:

- First, make all the sub-criteria related to this criterion disappear.
- Then, make the sub-criteria reappear one by one, and the location of the different types of forest will be shown.

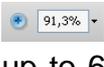
### Two useful examples:

- If you want to see where the land is **available** and **suitable** in the arid area, just make the arid layer disappear. The available and suitable land colour will switch from yellow to white.
- If you want to analyse why the land is unavailable, make all the criteria and sub-criteria related to the unavailability disappear. Then, make the criteria reappear one by one, and the reason why the land is unavailable will be shown.

Some criteria/sub-criteria may be less dominant on the map because the areas that they cover are rather small. If this is the case, an explanatory note is available in the remarks at the country webpage.

### Zoom in and Zoom out:

It is possible to zoom in and zoom out the map. This function is useful in order to locate small areas.

To zoom in, you can either use the  button or click on the  button. The percentage indicates how much you zoom in. You can zoom in up to 6400%! Once you have selected the  option, you will be able to zoom in on a particular area of the map by clicking on it.



To zoom out, click on the  button. You can also directly go back to the original size of the map by clicking on the  button.



## **List of criteria and related sub-criteria:**

### **Unavailable land:**

- Protected:
  - International
  - Categories I-VI
  - Uncategorised
- Crops:
  - Cropland > 50%
  - Cropland woody
  - Irrigated crops
- Wetlands:
  - Swamp bushland
  - Mangroves
- Forest:
  - Closed deciduous
  - Closed evergreen
  - Montane

### **Unsuitable land:**

- Built-up
- Barerocks
- Stony desert
- Sandy desert

After the removal/filtering out of all the above criteria and sub-criteria, it only remains the suitable and available land, which consists of:

- Closed or sparse grassland,
- Open grassland with sparse shrubs,
- Open deciduous shrubland,
- Deciduous shrubland with sparse trees,
- Deciduous woodland,
- Mosaic forest/cropland,
- Mosaic forest/savanna.

## **Glossary:**

- **Protected:** this criterion covers the 3 following types of protected areas.
  - **International:** Areas indentified as protected by the World Database on Protected Areas Consortium in their World Database on Protected Areas, 2006 (<http://www.wdpa.org/>).
  - **Categories I-VI:** This classification of protected areas corresponds to the six protected area management categories defined by the International Union for Conservation of Nature (IUCN). ([http://www.unep-wcmc.org/protected\\_areas/categories/index.html](http://www.unep-wcmc.org/protected_areas/categories/index.html))
  - **Uncategorised:** National protected areas that can not be classified under the categories I-VI.

- **Crops:** Areas that are dedicated to crop cultivation for current uses. The maps are based on the Global Land Cover (GLC) database of the European Commission's Joint Research Centre.
  - **Cropland > 50%:** Areas where crops cover more than half the surface.
  - **Cropland woody:** Areas where croplands occur within a matrix of open woody vegetation
  - **Irrigated crops:** Areas where irrigated crops predominate.
- **Wetlands:** "Areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres" (Ramsar Convention on Wetlands). The maps are based on the Global Land Cover (GLC) database of the European Commission's Joint Research Centre.
  - **Swamp bushland:** Areas where swamp bushland predominate.
  - **Mangroves:** Areas where mangroves predominate. Mangroves are woody trees or shrubs that grow in mangrove habitats or mangal (Hogarth, 1999).
- **Forest:** Areas where forest predominates. The maps are based on the Global Land Cover (GLC) database of the European Commission's Joint Research Centre.
- **Closed forest:** Forest with a tree canopy coverage higher than 60%.
  - **Closed deciduous:** This sub-criterion covers areas where closed deciduous forest predominates. Plants are defined as deciduous when their foliage/leaves fall at the end of the growing season.
  - **Closed evergreen:** This sub-criterion covers areas where closed evergreen forest predominates. Plants are defined as evergreen when their foliage/leaves do not fall and remain green throughout the year.
  - **Montane:** This sub-criterion covers the lower vegetation belts on mountains.
- **Built-up:** Areas where most of the 1 km<sup>2</sup> pixels within the area have a spectral signature corresponding to that emitted by concrete, tar, tiles. Built-up areas are largely comprised of dust roads and mud houses such as those found in Mali and are therefore likely to be underestimated.