

Africa Tree Finder

User Guide



Initial Setup

Step 1: Installation

Go to the Google Play Store and search for “Africa Tree Finder”. After you have found the application press install.

Note: The “Africa Tree Finder” application is currently only available to android devices.

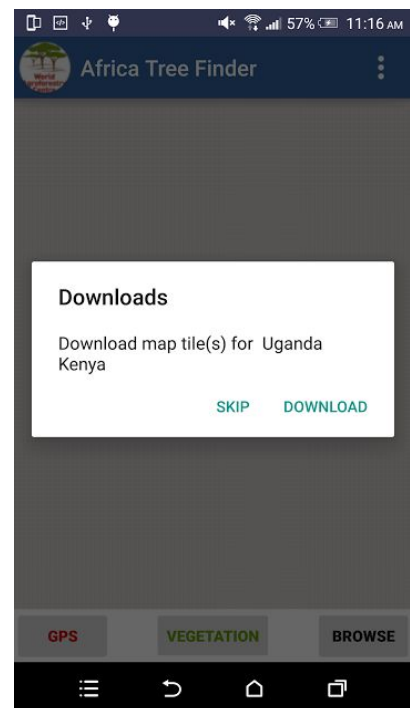
Step 2: Allow Permissions on Device

Ensure that you have allowed the Africa Tree Finder application to use your GPS location, camera and storage.

To do this go to > Settings > Application Manager > Africa Tree Finder > Allow Permission

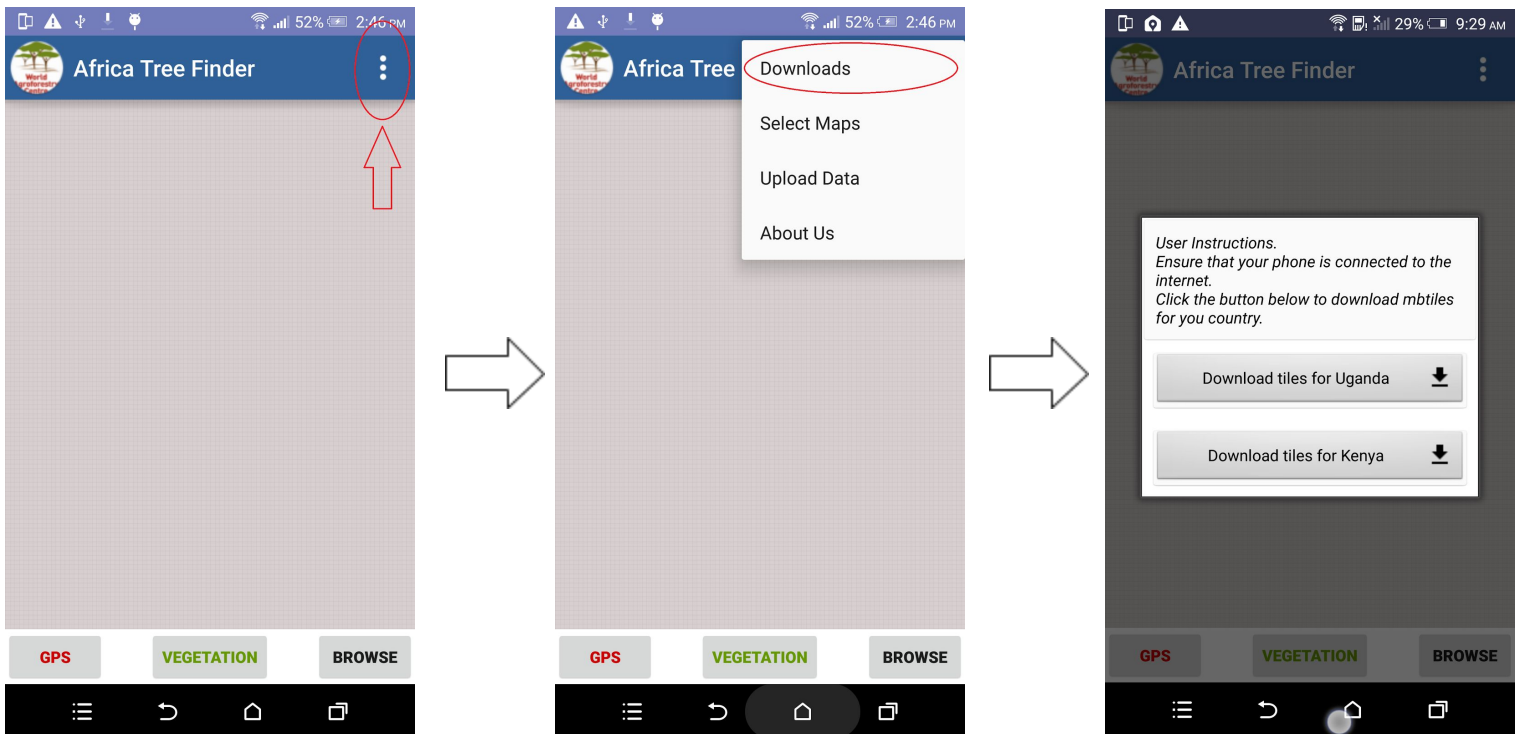
Step 3: Open Application

Tap on the application on your device to open it. Once it has been opened a screen will appear like the following.



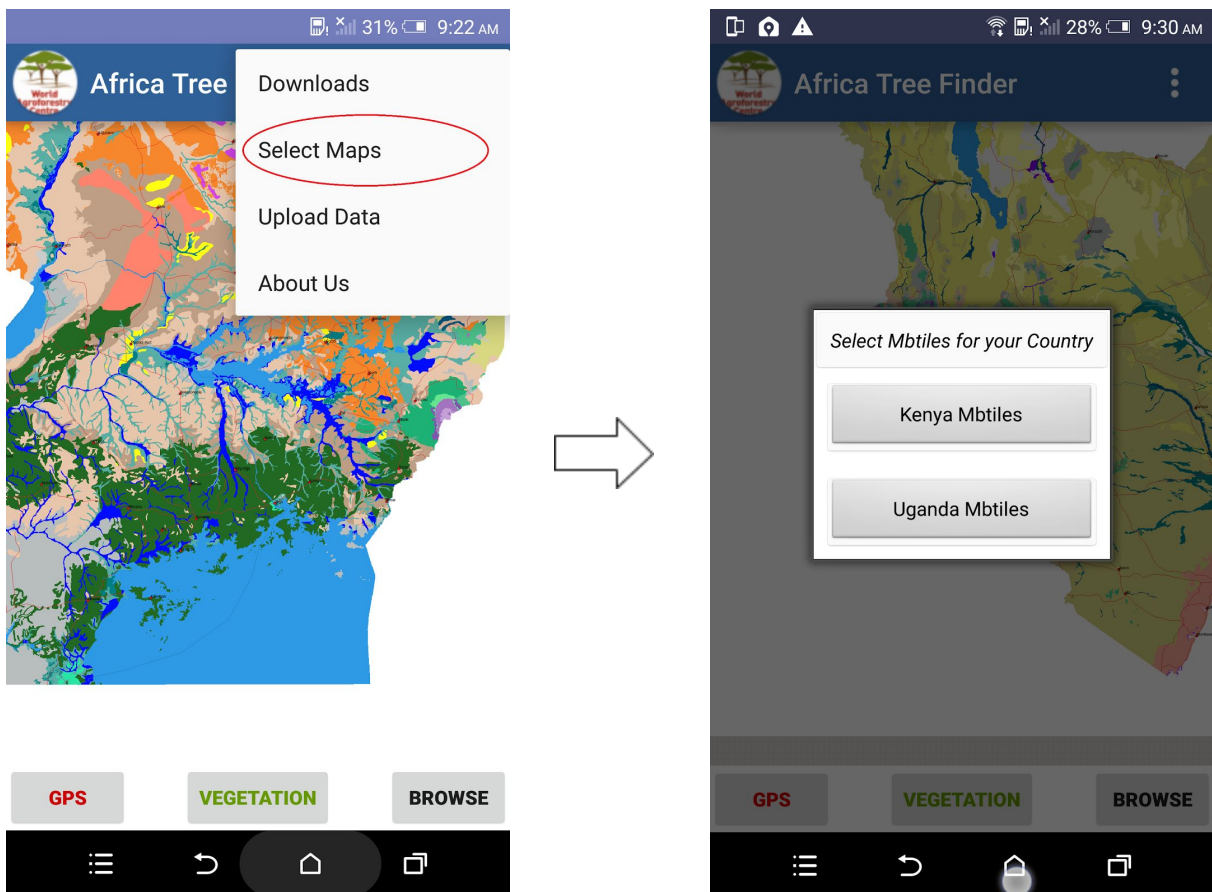
Step 4: Downloading Maps

At first the Tree Finder App will open without any map (which is available as a MBtiles file). To install tiles either tap on the “Download” button available in the map downloads option that opens automatically with the application. Or you can tap the menu on the top right corner of the screen, then tap on the “Downloads” button, after which you will receive the option to download either the Kenya map tiles or the Uganda map tiles. You can choose to download either MBtiles file by tapping on the “Download Tiles” button.



Step 5: Selecting Maps

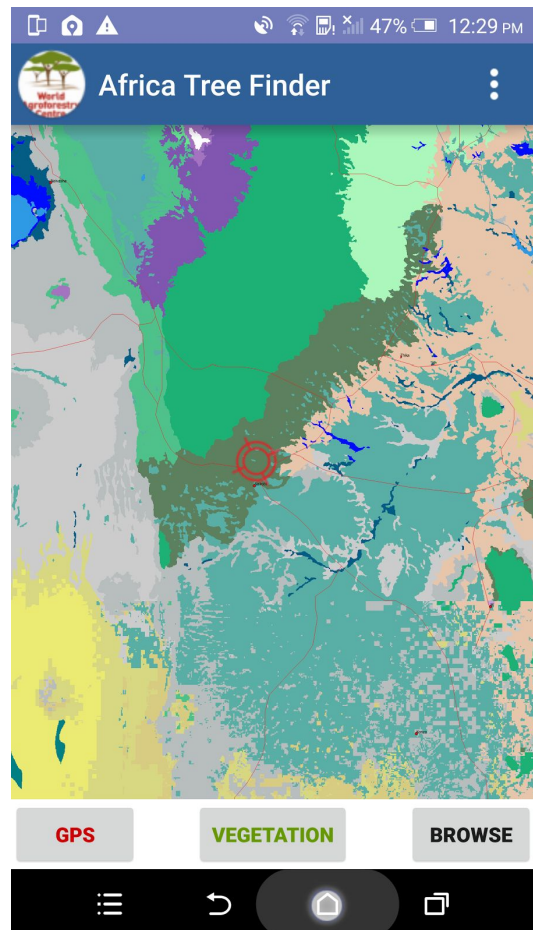
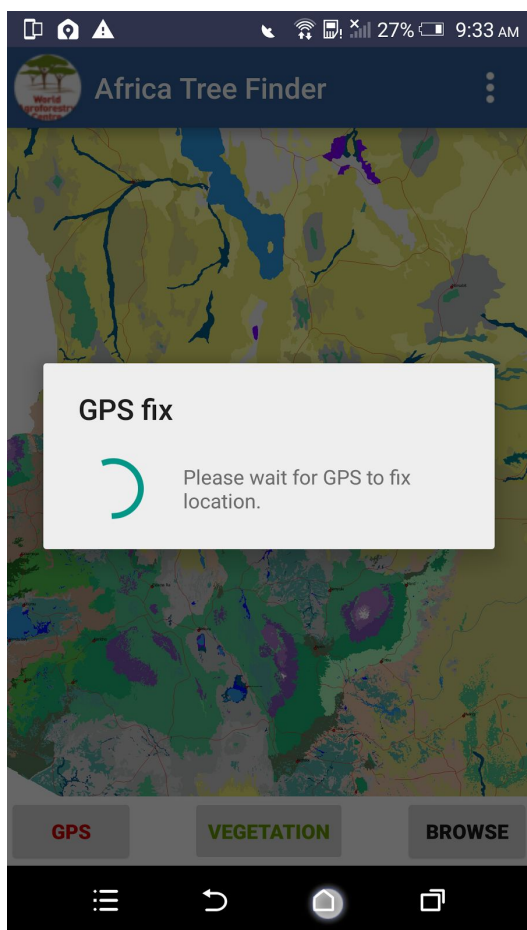
Once you have downloaded your desired map(s), you may proceed to open your map by once again tapping the menu on the top right corner, and then tapping the “Select Maps” option. Once you tap on “Select Maps” you will have the option to open any map which you have downloaded.



Step 6: Applying GPS (Optional)

Now that you have your desired map installed, you can hook up your GPS to see where you are located on the map.

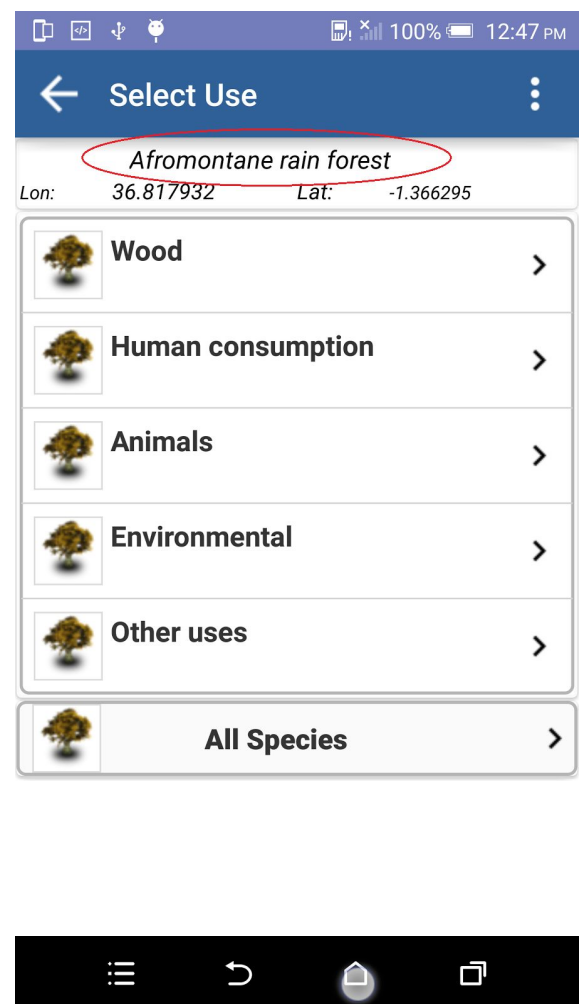
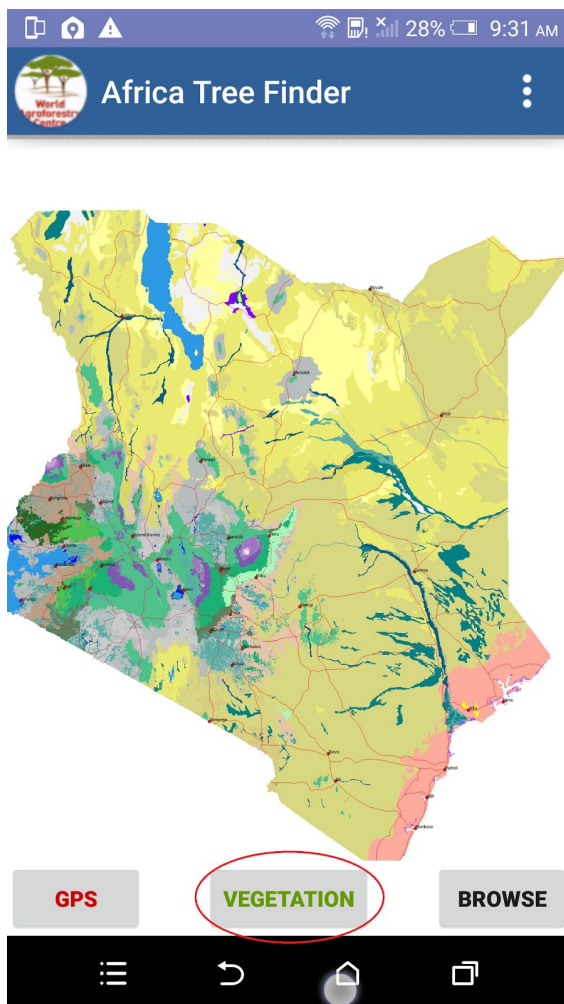
Make sure you have your cellphone GPS on. Once it is in place you may tap on the “GPS” button on the bottom left corner of the screen. After which the application will begin to find your location. Once the application has detected your location it will be marked by a red circular marker on the map.



Finding Vegetation and Species

Step 1: Selecting an Area

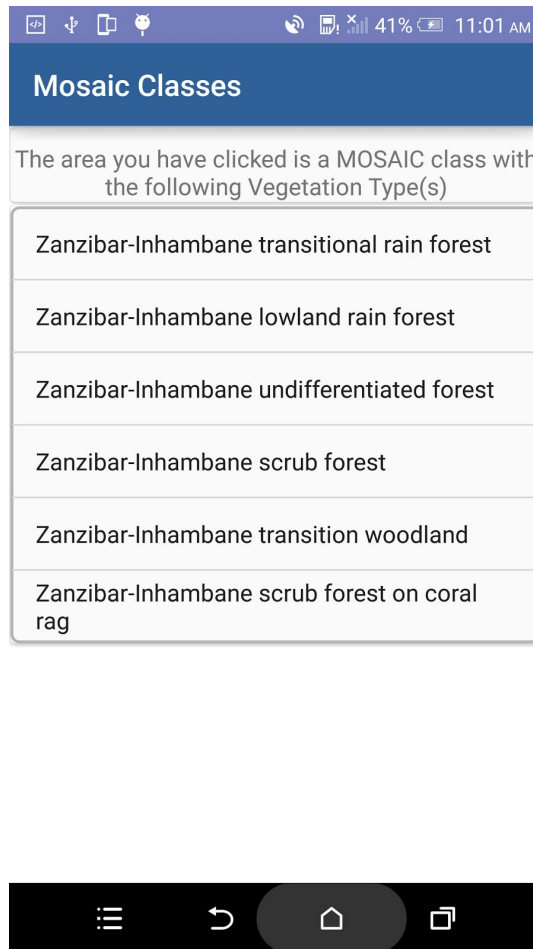
Each vegetation area is distinguished by different colors on the map. There are two ways of choosing which area to discover vegetation in. The first way is by first setting up your GPS location, and once your location has been determined tapping on the “Vegetation” button on the bottom middle of the screen. This will direct you to the vegetation in your specified area. The second method is by tapping on the desired area on the map, and then once again tapping on “Vegetation” in the bottom of the screen, this will take you to a screen where you can select a use.



In this example the vegetation area chosen is called “Afromontane rain forest”, which can be seen on the top of the screen, along with the corresponding coordinates.

Note:

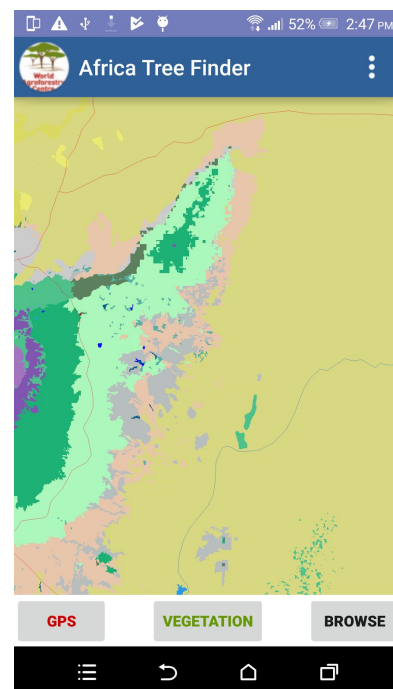
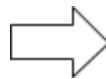
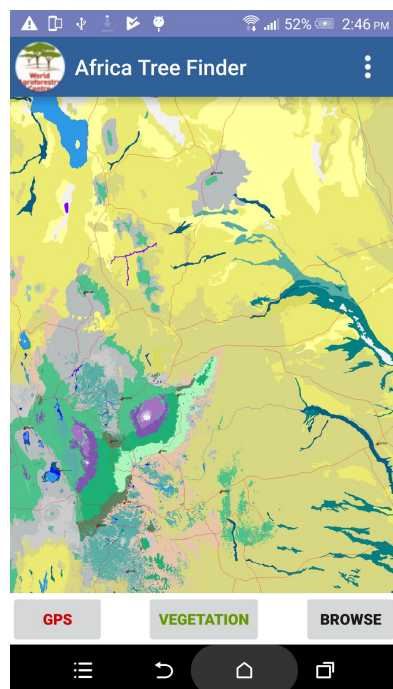
Some areas are distinguished as Mosaic Class areas, which are composed of multiple vegetation area classes. If you tap on this class of area you will be shown to a screen of all the Vegetation type(s) for that area. From there you can simply tap on any vegetation type area you wish to discover the contents of.



Zoom

You can zoom in or out of the map by using the “pinch-to-zoom” feature on your device. You can do this by first placing your thumb and your index finger on the screen a small distance apart from each other, then gradually moving them apart and creating a larger space between them to zoom into the screen. You can do the opposite to zoom out; by first having your index finger and thumb farther apart then moving them closer together, making the space between them smaller.

As an alternative you can also zoom by “double-tapping” on the screen; which simply means tapping the screen twice in quick succession.

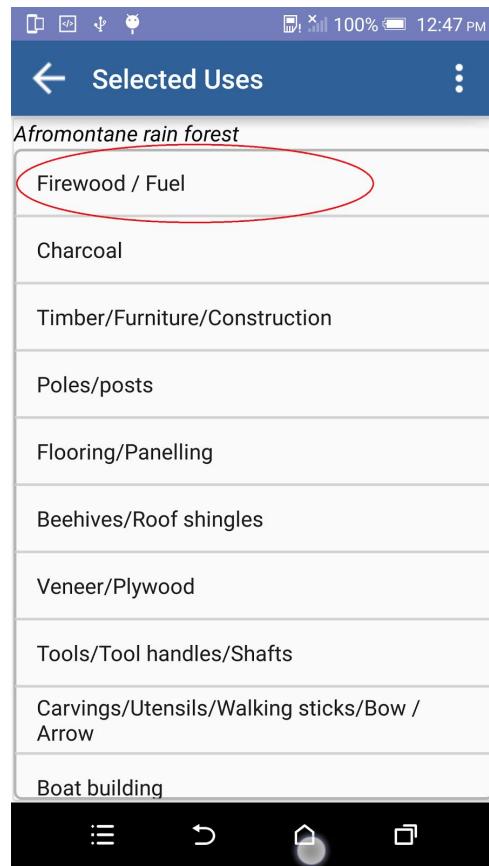
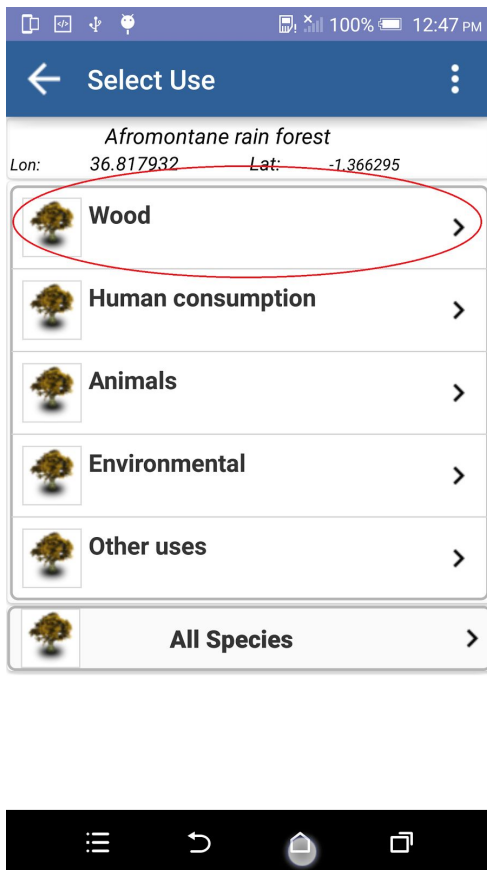


Step 2: Finding a Useful Tree Species

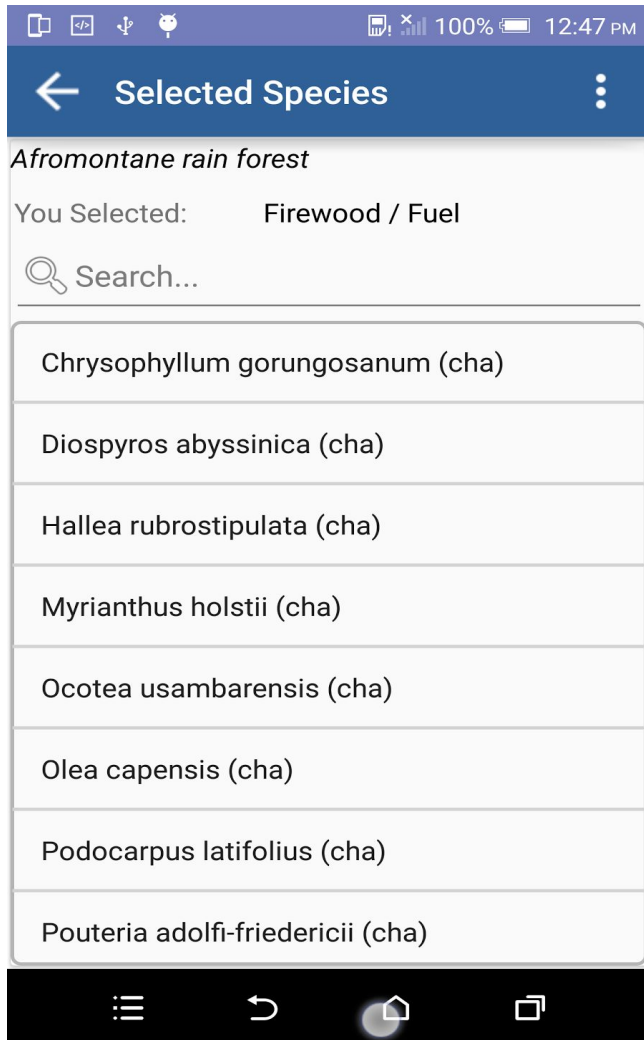
After you have chosen the area in which you would like to discover potentially useful vegetation, you can begin to search for specific species of trees.

Example: Discovering trees useful for firewood/ fuel

If for example you are looking for a tree species which could be used for firewood or fuel, you can first tap on the “Wood” use option. After this you will be directed to a page which lists all the possible uses for wood that you may need, tap on the “firewood/ fuel” option to find species specifically geared toward this, and that may also thrive in the chosen vegetation area.



Once you tap on your desired use (in this case firewood/fuel) you will be directed to a page which lists all the species of trees which can be used specifically for firewood and/or fuel in your specific area.



Species are listed first in order of type (dom, cha, pre, mar) and then alphabetically.

These species type abbreviations stand for the following:

(cha): Characteristic

(dom): Dominant

(pre): Present

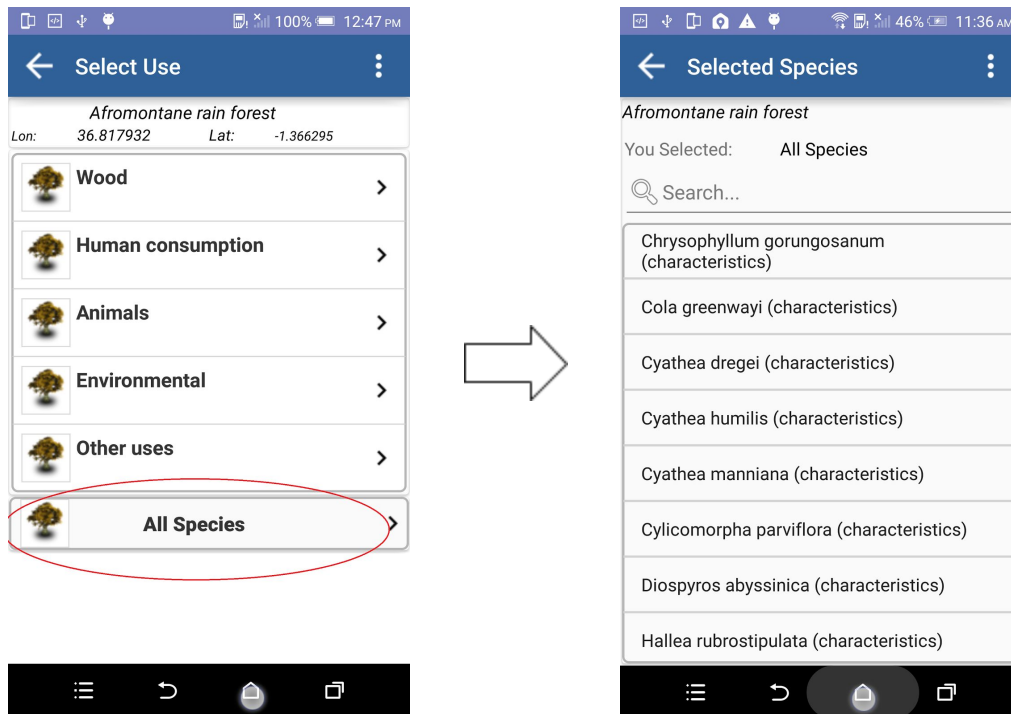
(mar): Marginal

These categories were determined for each vegetation type based on their description.

For more information see; maps.vegetationmap4africa.org/doc.html

Note:

If you do not need to find a tree species for a specific use and would rather search from all species of plant life within that area that are stored in the database, you can simply tap on “All Species” at the bottom of the vegetation area screen.



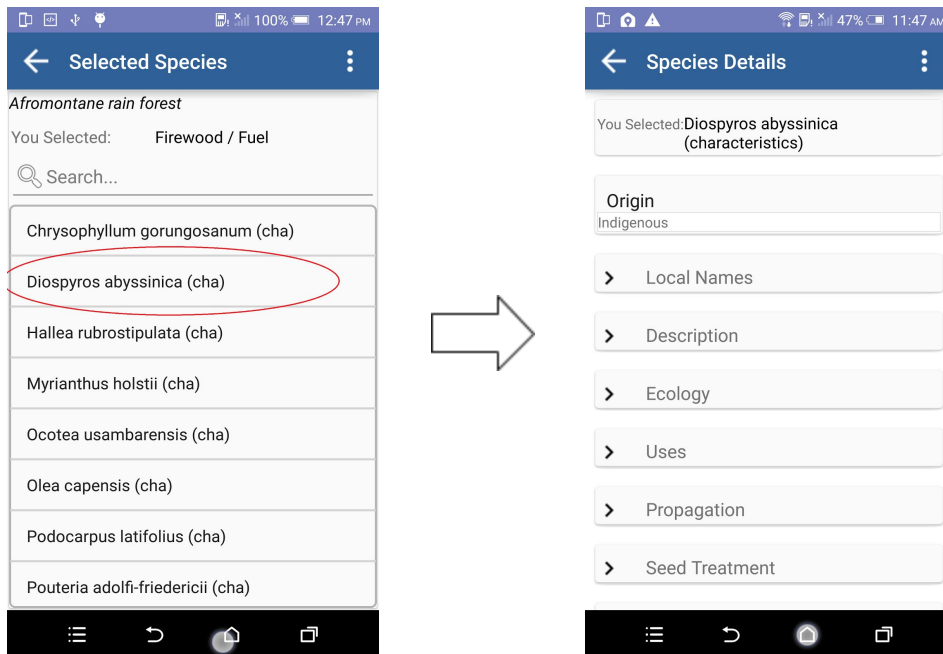
From here you may search for any species you like by using the “Search” tool at the top, or by scrolling through the available species.

Step 3: Specific Information About a Tree Species

If you would like to find specific information about a tree species, then all you need to do is tap on the desired species of trees (either from the “All Species” page or one from a specific use).

Example: *Diospyros abyssinica* (From Firewood/Fuel use)

All you need to do is to tap on the desired species (in this case *Diospyros abyssinica*). This will direct you to a page which details information about the species; description, usage, ecology, seed description, origin etc.

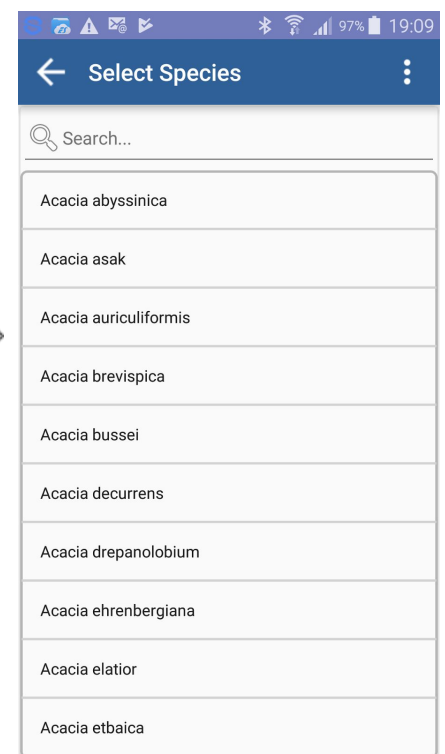
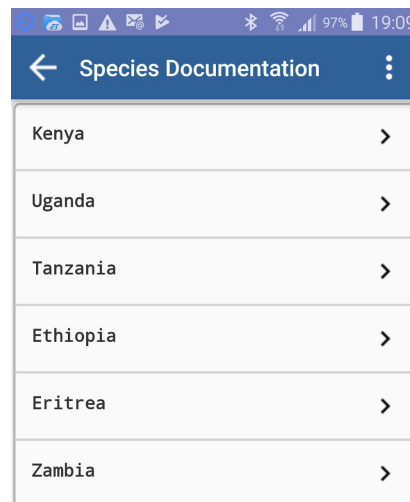
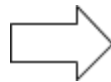
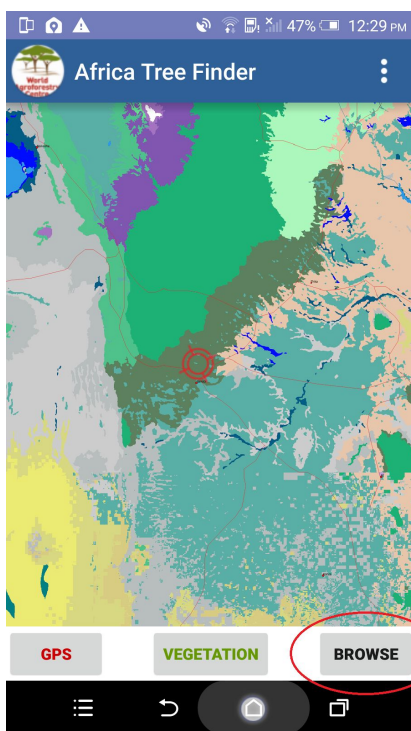


Note:

Depending on which map you are using (either Kenya MBtiles or Uganda MBtiles), the useful tree species will differ. The information is sourced from the World Agroforestry Centre's "Useful Tree Species" tool. So when using the Kenya map the information will be retrieved from useful tree species for Kenya, and for the Uganda map the information will be retrieved from the useful tree species for Uganda.

Step 4: Browse Option

If you would like to browse for species from the databases of any country, tap on the “Browse” button on the bottom right corner of the screen. Then tap on whichever countries database of species you would like to search from, this will take you to a list of all species saved for that country.

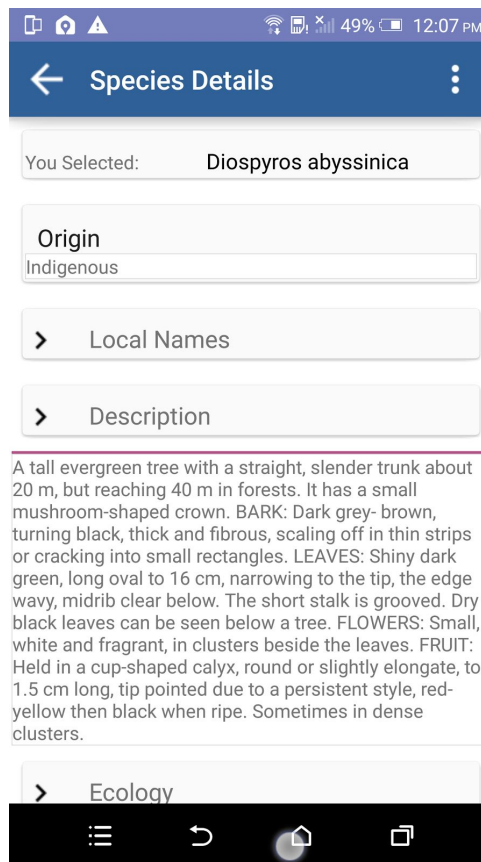


Uploading a Photo

Step 1: Selecting a Tree Species

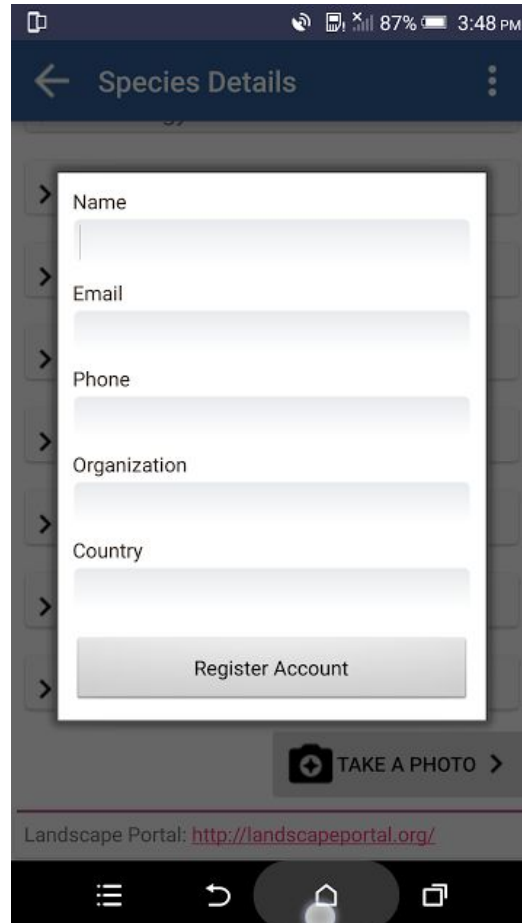
Select the tree species you have found via the list of species (either from the “All species” list, or from a specific use). As an alternative, you can choose the “Browse” option from the main menu, to search for any species.

Example: *Diospyros abyssinica*



Step 2: Registration

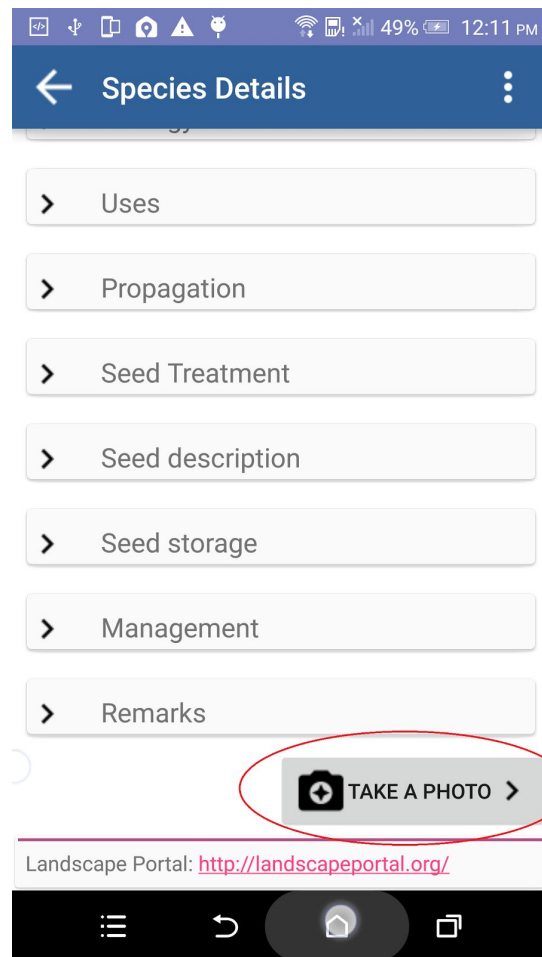
As a prerequisite you will need to register an account before you can capture a photo. An automated registration screen will open up when you first attempt to take a photo. Fill in the required information, after which you may proceed to capturing your photo.



The screenshot shows a mobile application interface. At the top, the status bar displays signal strength, Wi-Fi, cellular data, 87% battery, and 3:48 PM. Below the status bar is a dark blue header with a back arrow and the text "Species Details". A white registration form is overlaid on the screen, containing the following fields: "Name", "Email", "Phone", "Organization", and "Country". Each field has a right-pointing chevron icon to its left. At the bottom of the form is a grey button labeled "Register Account". Below the form, there is a dark blue button with a camera icon and the text "TAKE A PHOTO >". At the very bottom of the screen, there is a footer with the text "Landscape Portal: <http://landscapeportal.org/>". The Android navigation bar is visible at the bottom of the screen.

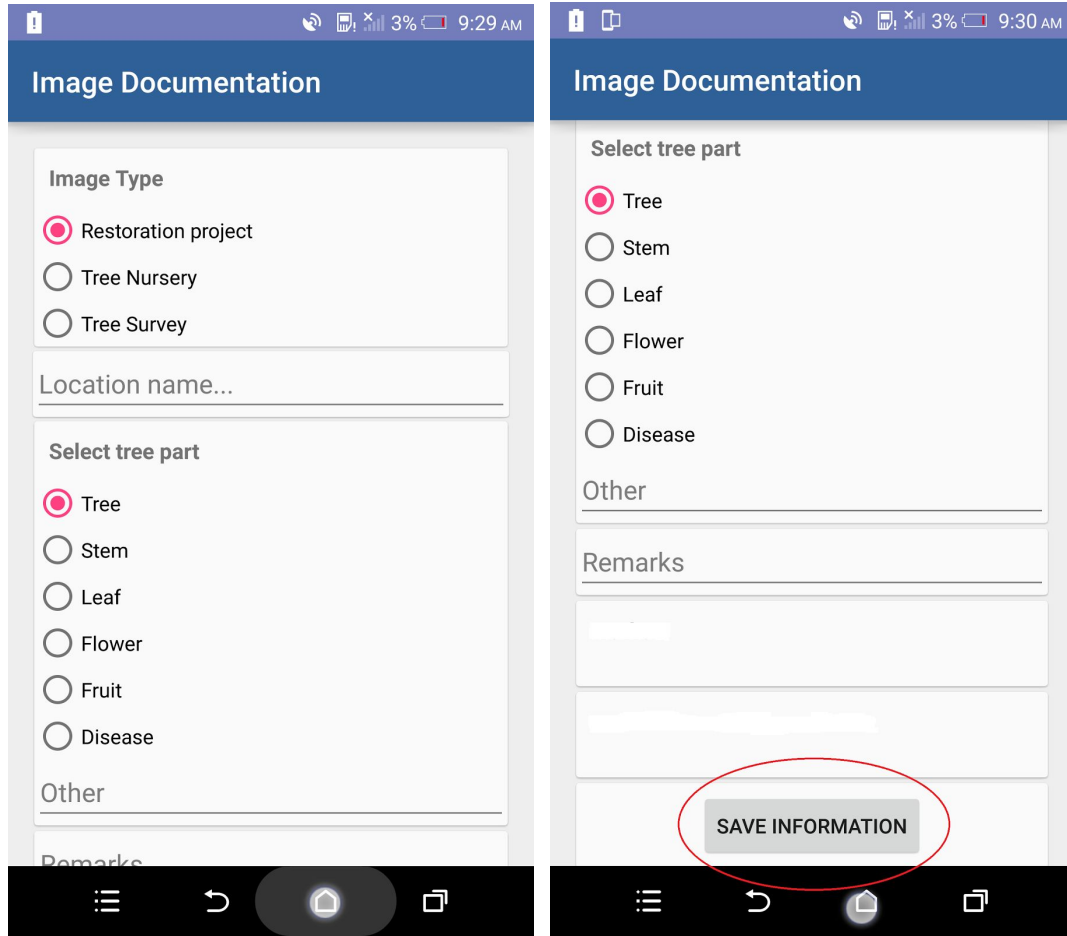
Step 3: Capturing a Photo

If the tree you have found matches the description you can capture a photo by scrolling all the way down on the “Species Details” page. Here you will find a “TAKE A PHOTO” option on the bottom right corner, which you can tap when you want to capture the image.



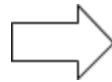
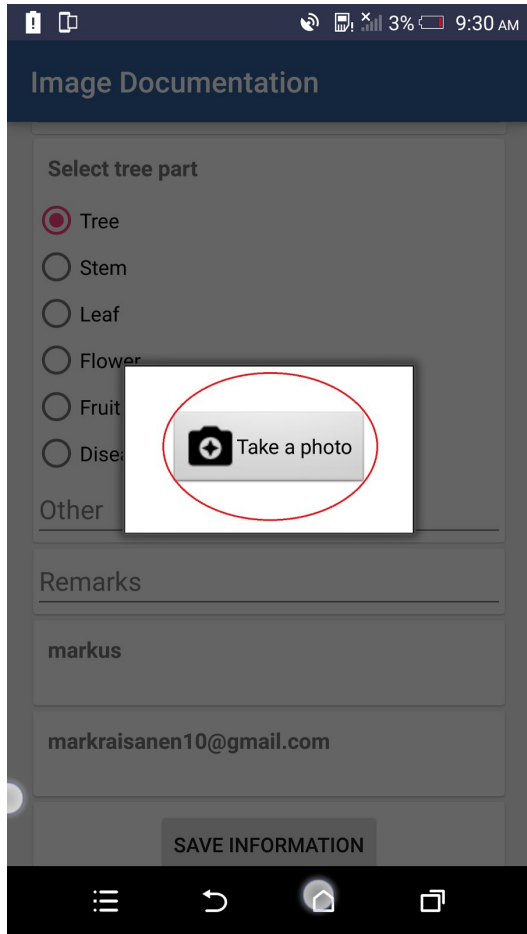
(Note: For this feature you will need have your GPS fixed, if it is not already fixed the application will automatically fix your GPS location)

Once you tap on the “TAKE A PHOTO” button you will be directed to the following page where you will be able to give image documentation information, such as; image type, tree part and other remarks you may want to give relating to the photo.



Once you have given all the necessary information on your image you can proceed by tapping on the “SAVE INFORMATION” button on the bottom of the page.

Your information will then be saved and you will be able to tap on the “Take a photo” button. Once you tap on it you will be taken to a camera from where you can take a photo of the tree.

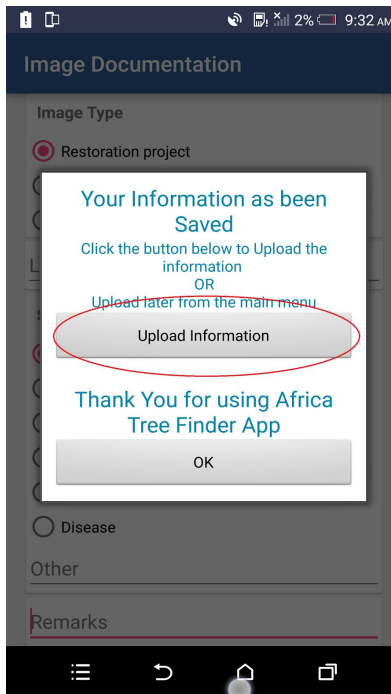


Step 4: Uploading Information (Internet Required)

Once you have captured your photo(s) you can choose to upload them in two ways. Either you upload the information right after you have captured the photo, or upload them later through the main menu.

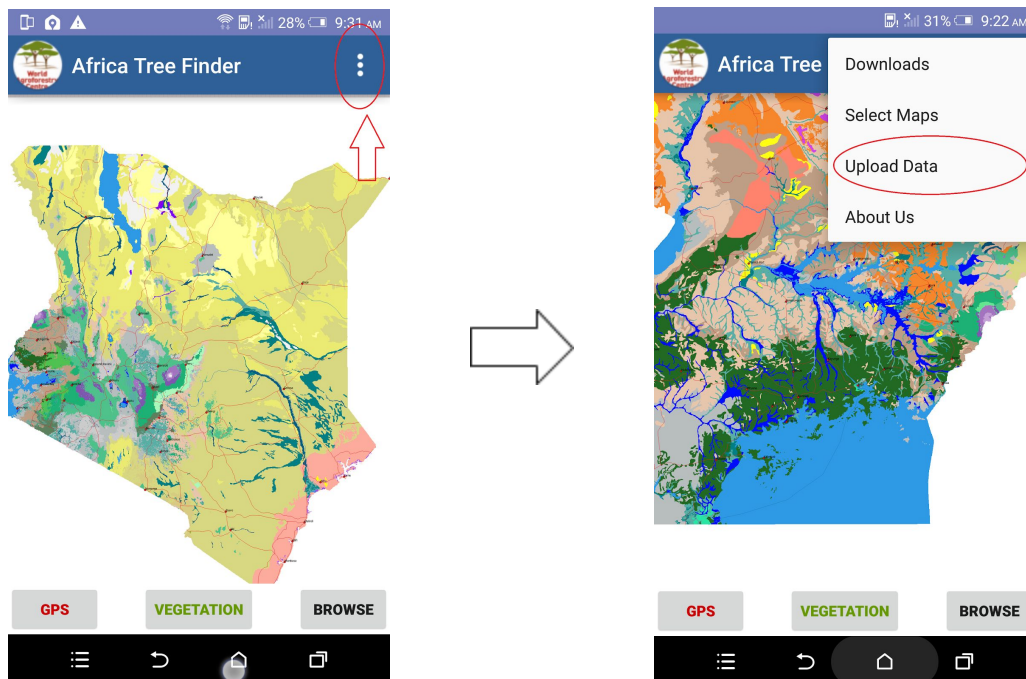
First Option: Uploading right after taking the photo

Once you take the photo of the tree your information will be automatically saved and you will be asked if you would like to upload the information right away. Tap on the “Upload Information” button and the photo along with the information will be uploaded.



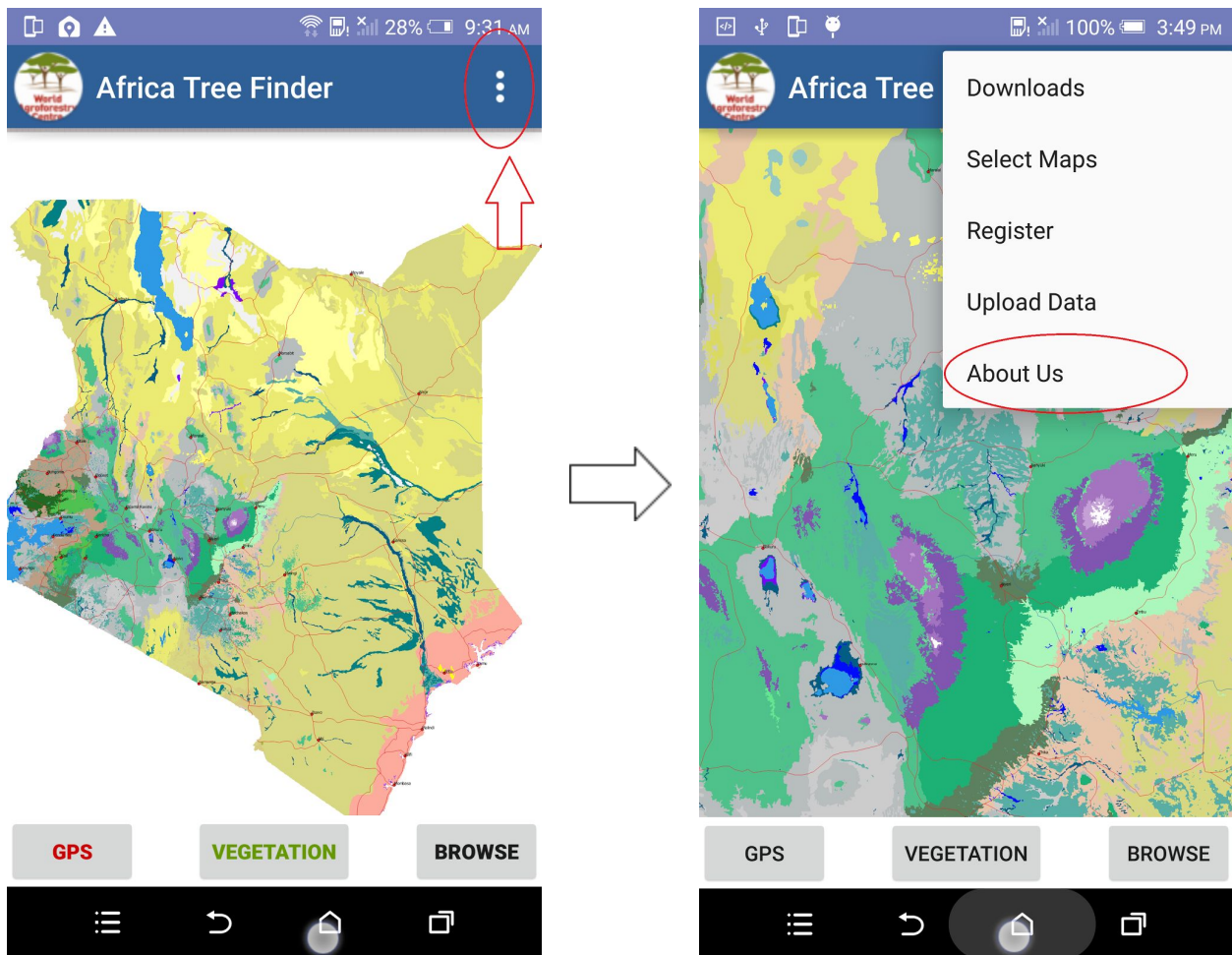
Second Option: Uploading through the main menu

To upload through the main menu simply tap on the top right menu button and then tap the “Upload Data” option.



Learn More

If you want to learn more about the development and usage of this application you can find out more by first tapping on the menu button and then tapping on the “About us” option.



Application Usage Requirements

- Enough Storage space to download the application as well as the map(s) you wish to use.
- GPS (Optional), if you would like to find out the species in your area you will need to hook up to the GPS on your cellphone device.
- WIFI if you want to register and upload information and images

This guide was created by Markus Kibet Räisänen