

Google Earth

Delineate Field Boundaries

Introduction

Knowing the exact size of your fields cannot only help you to apply the right amount of seed and fertiliser, but also to insure the correct area, for example. Depending on the size, it can be almost impossible to measure by hand. This short tutorial is designed to help you do this quickly and easily on your smartphone. The aim is to measure your own field using the Google Earth app.

What do you need for that?

- Smartphone (Android / IOS)
- Internet connection (for the installation)

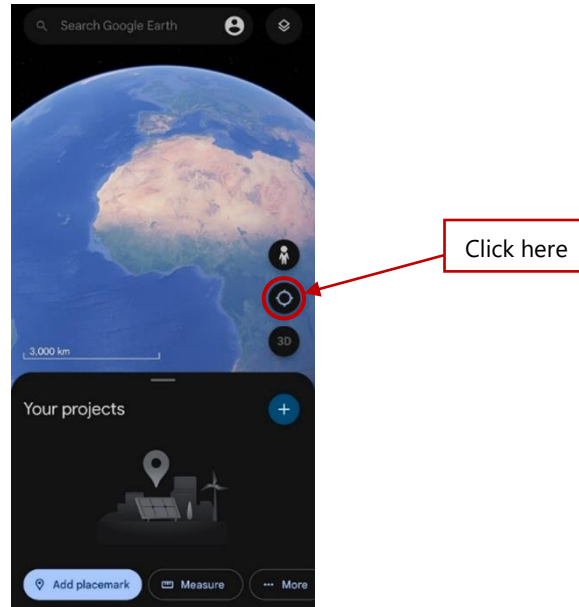
Preparation

1. Open the Google Play Store /  Apple App Store ,  search for Google Earth and  download the app.
2. Activate the GPS on your smartphone.

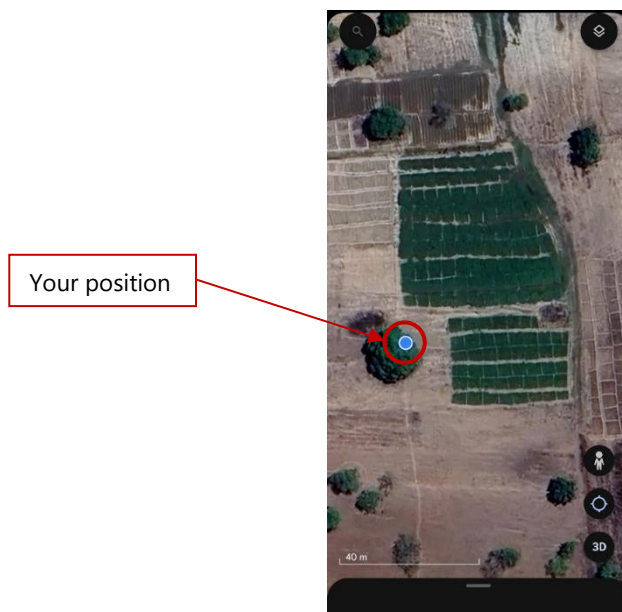


The Google Earth App

1. Open the Google Earth app on your smartphone.
2. Click on the GPS symbol on the  right side.
Then you zoom immediately to your current position.



3. The blue dot shows where you are.
If not try to locate your field with scrolling around the map.

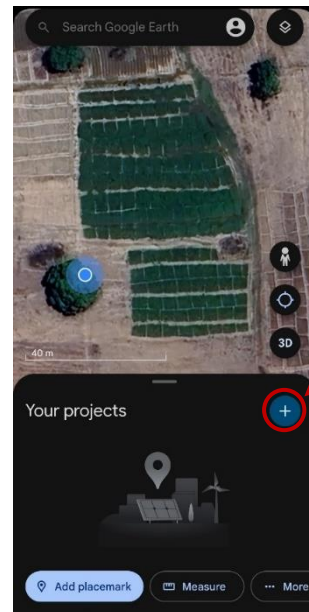


4. Swipe left and right to see the surroundings of the field.
Try to navigate through the app or explore the surrounding on the map.

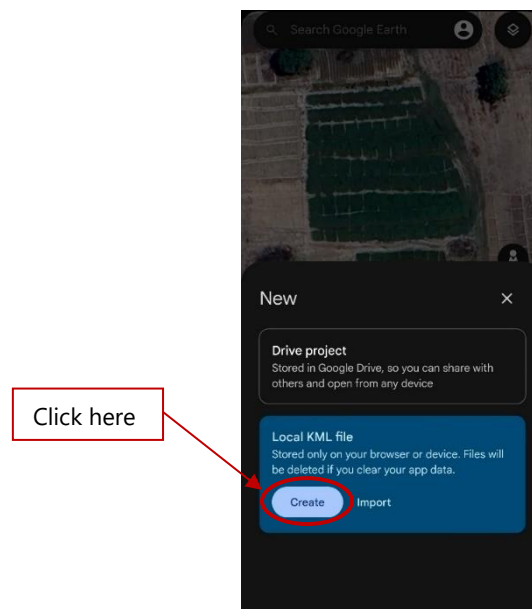


Delineate field boundaries

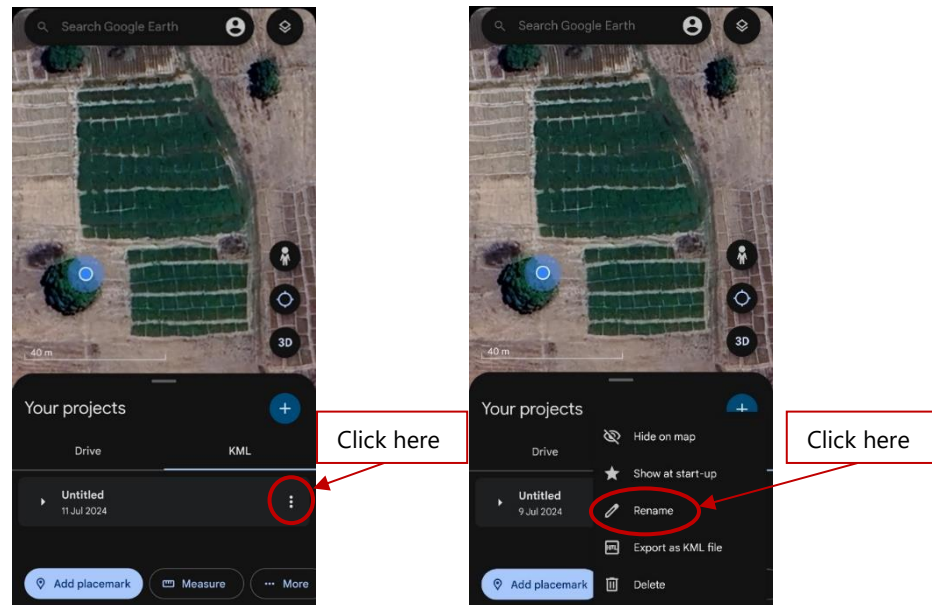
1. Start by swiping up the bottom menu marked through the small grey bar and click on the blue circular button .



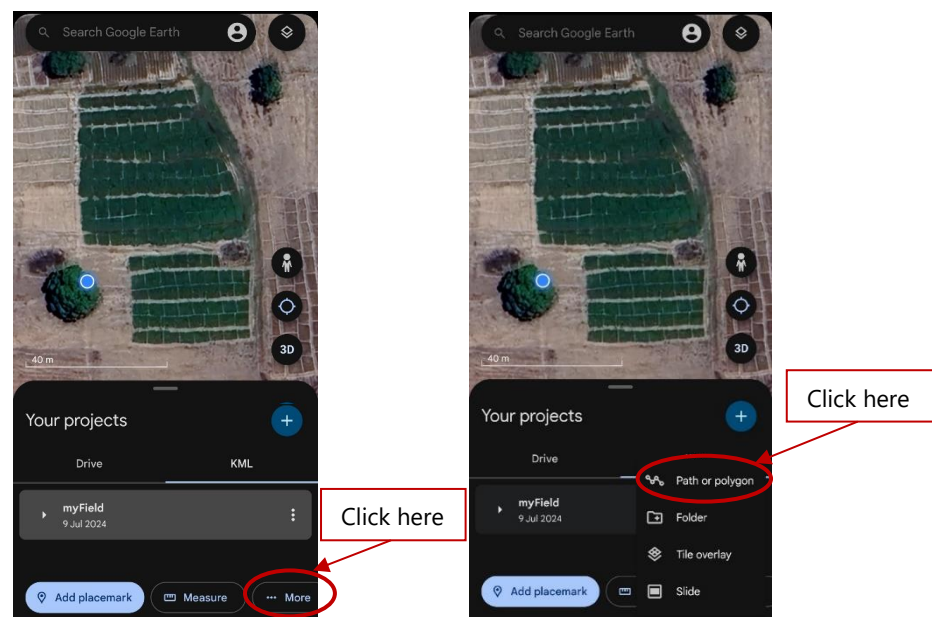
2. Now we can create a new project. As we don't want to depend on an internet connection, choose "Local KML file" and click on .



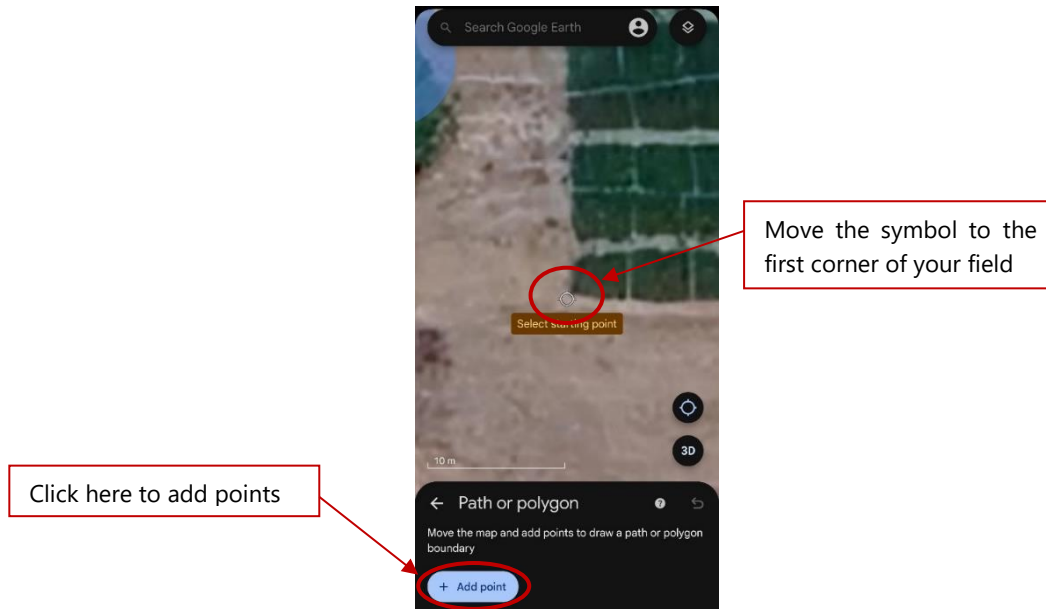
3. To give our project a unique name, click on the three dots  to the right of the name and then on  **Rename** . In this example we will name it "myField".



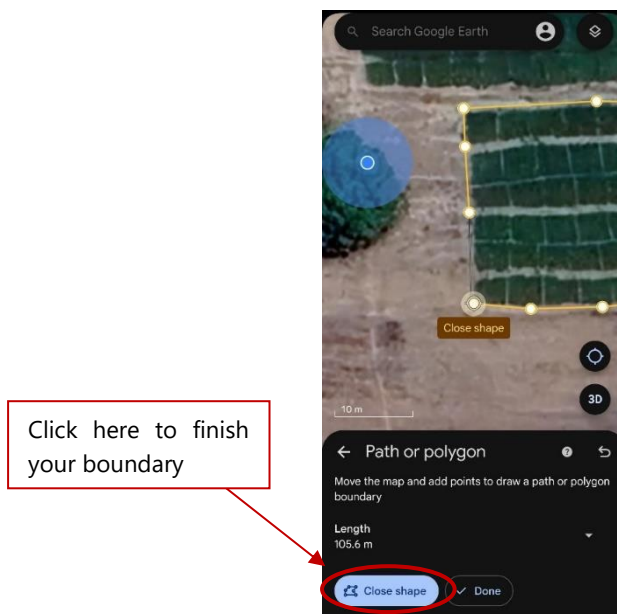
4. Next, we click on the button named  **More** and then on  **Path or polygon** .



5. With the symbol that now appears, we can define the boundary of the fields. Use this symbol to navigate to a corner of the field and click on in **+ Add point** the lower menu. Now navigate around your field and add as many points as you need to digitise the boundary of your field.

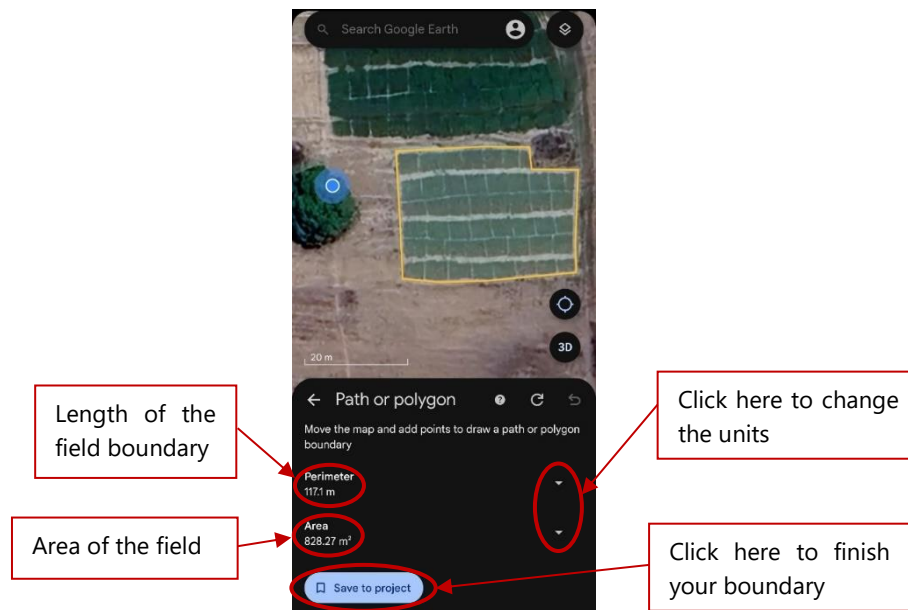


6. After all points are added to surround the field, you can hover over the first point. Now the button changes to **Close shape** and after clicking it, the field is digitalised.

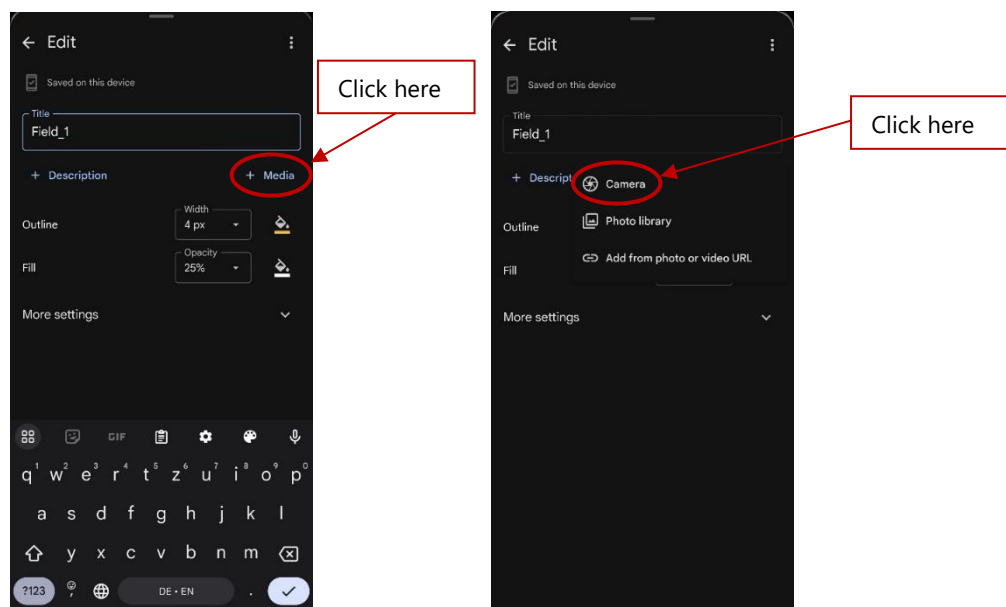


7. At the bottom you can examine the total length of the boundary (Perimeter) as well as the area of your field. If you want to see the area or length in another unit, you can change it by clicking on the small white arrow on the right side.

To save the polygon click on **Save to project** and give it a name (e.g. Field_1).

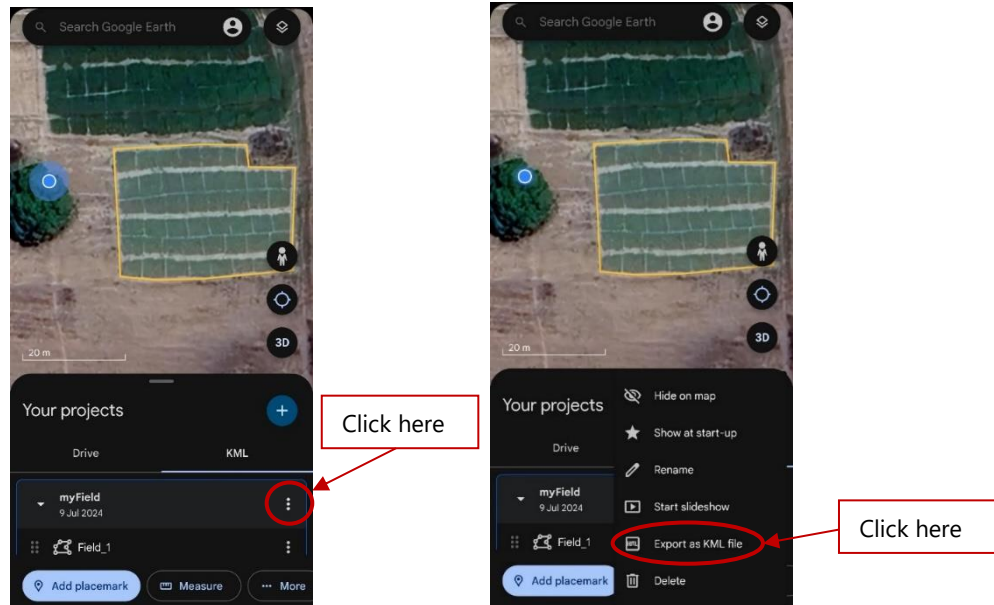


8. If you are standing next to your field, you can add a photo to the polygon by clicking on **+ Media** further on camera. This might help others to get a better image of your field when you share it. After you have added a picture to the shape you can go back to main menu by clicking on the arrow on the top left corner **← Edit**.

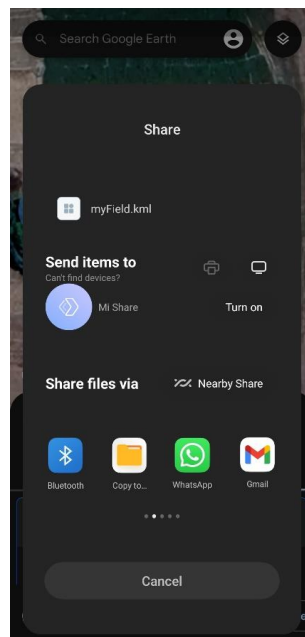


9. The shape is now finished and the boundary is displayed on the map. Sometimes it can be very helpful not only to know the exact size of the field for yourself, but also to be able to show the exact boundaries to friends, neighbours, insurance companies or authorities, for example.

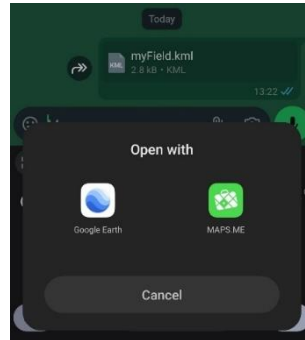
To share the boundary of the fields within our project, click on the three dots  again and further on  Export as KML file.



10. Depending on your smartphone, a menu should pop up with different sharing options. For instance, you can share at via WhatsApp or Mail, or send it even without internet via Bluetooth.



11. You can not only export the data and send your project to others, but also import it from others. If you receive another KML file, click on it and open it with Google Earth.



Please note!

The field sizes shown here may differ from the official values and are therefore given as a guide only.

Conclusion

With this small Module, you've learned:

- How to orientate and use Google Earth on your Smartphone.
- Create a shape (KML-file) of your field.
- Export and import the data.

Disclaimer

This material was developed throughout the project "Co-developing innovations for sustainable land management in West African smallholder farming systems" (COINS). COINS is funded by the German Federal Ministry of Education and Research (BMBF) under the funding code 01LL2204E from 2022-2026.