Zenvus Boundary Mobile Application User Manual

zenvus

Zenvus Boundary maps farm, land or house perimeter boundaries, calculates the areas and populates the data onto Google Earth. From Zenvus portal, the surveys can be downloaded or printed.

It supports cooperatives, governments and individual farmers, enabling these entities to have survey reports at a fraction of the typical cost of surveys.

This manual describes the Zenvus Boundary Android app which relies on Android tablets or smartphones with GPS feature.

Any person that uses smartphone or tablet can easily use this app to map a farm, land or house perimeter in any location.

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1) INTRODUCTION

- This is Zenvus Boundary Mobile App (Android). It takes GPS coordinates of properties (farms, lands, homes) and populates same on Zenvus Boundary web app. It uses the mobile GPS of the current location to scan and record the property boundaries.
- **We would use "Farmer" here to represent Property Owner including landlord, landowner, etc. Also, Farm here represents farm, farmland, land or home location. The mapped result has Property Owner and Property even though the manual could have Farmer and Farm respectively.**
- Download and install the App on your Android tablet or phone from the Google Play store here https://play.google.com/store/apps/developer?id=Fasmicro . You can also search "Zenvus Boundary" and install from the Google Play store.
- This manual supports two roles in Zenvus Boundary:
  - **Individual Farmer**: The individual farmers can print or download their reports by themselves from Zenvus portal. They do not need a code during data transfer (more on that in the manual)
  - **Enterprise**: This supports cooperatives or agents (franchises) managing many farmers and farms under one account. The Enterprise account serves like an administrator of a collection of accounts. For a cooperative, a logo can be included in the Zenvus portal so that the surveys show the logo. To use the Enterprise account, the cooperative or agent must first contact Zenvus admin at zenvus@fasmicro.com for a unique code to be used during Data Transfer. Enterprise account makes it possible to capture many farms at once before data transfer.
- **You do not need internet access to use this app to map a farm, land or house**. **But you would need Internet access (via Wifi, GSM, LAN, business center, etc) to register/create your account and also to transfer collected data to Zenvus web portal after mapping**. In other words, you can do the mapping in the farm where there is no internet [while in the farm, you can do as many farms as you want]. Then, when you come back to the city or village where there is internet access, you can transfer the data to our portal for printing and downloading.
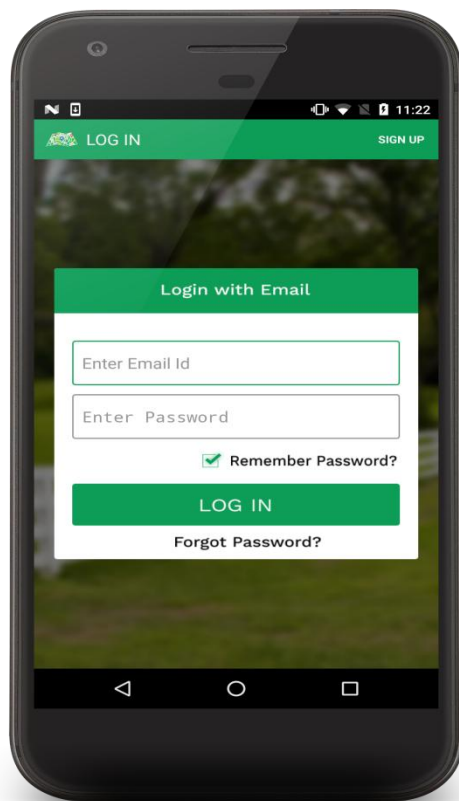
Note:

- The Zenvus Boundary Mobile App works with the Zenvus Boundary Web App (a website portal). After the mapping has been done using the Zenvus Boundary Android app, the boundary reports are printed or downloaded through the Zenvus Boundary web app (a website portal). Please use Google Chrome to access the website for best experience.

- Each farmer is automatically created an account at the point of populating the app data to the web app. Also, where the farms are in cooperatives or in groups, the administrator of the group can print all the boundary reports from an Enterprise account which is created for that enterprise.
- The URL for accessing both the farmer and the enterprise websites is thus: http://boundary.zenvus.com/#/access/login
- [Optional: Note For Farmers with Zenvus Sensors] After mapping and a farmer acquires Zenvus sensors, the analytics will use this boundary data to know areas that belong to the farmer so that our algorithm will focus on the specific areas as it relays insights about the farm health. The farmer dashboard will be changed once sensor is activated making it possible to track soil data, vegetation health etc focusing on the specific regions on the farm map [This is only for farmers with Zenvus sensors. At this time, we do not sell sensors retail; only governments and cooperatives can acquire them].
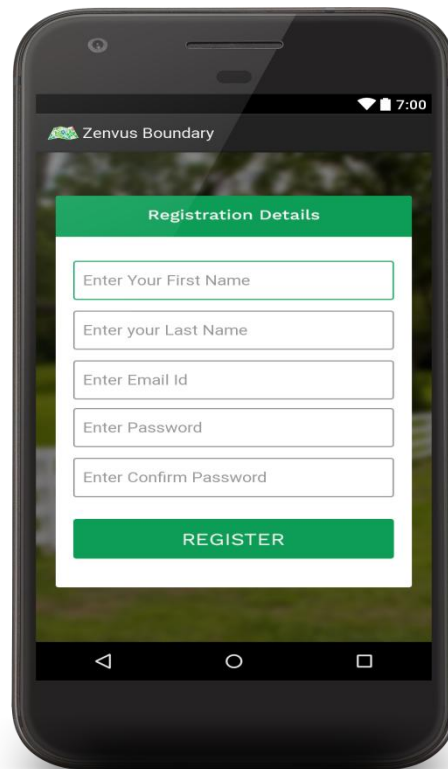
2) HOW APPLICATION WORKS

Login Screen

- Install 'Zenvus Boundary' App and Open from the Google Play store
  https://play.google.com/store/apps/developer?id=Fasmicro
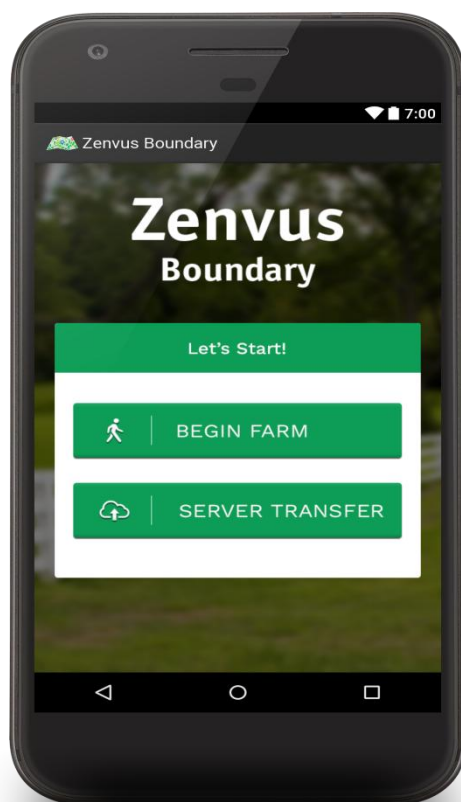

- This is Login Screen; farmer must have Login Credentials to scan farm's boundaries.

- Login with **Email ID** and **Password** or if there is no account then **Sign Up** [top right] to register.

- There is 'Remember Password'. You can check it to remember your login credentials so that it directly goes to dashboard when you open the application next time [Please note the email and password; both would be required in the website for report printing].

- Farmer can also use 'Forgot Password' from login screen if password is forgotten.
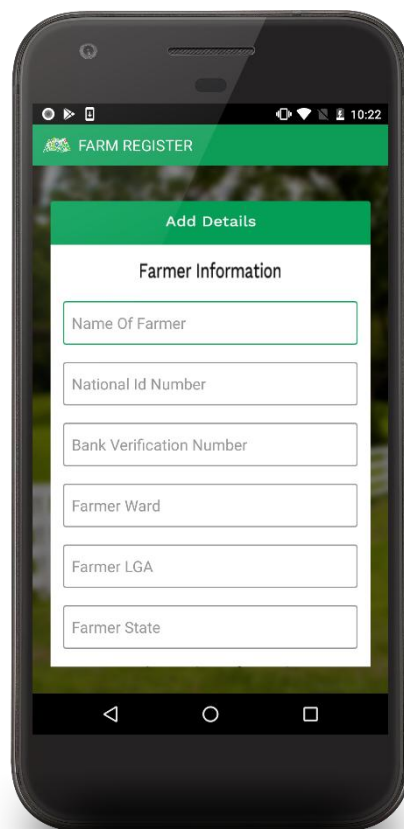
Sign Up Screen

- This is **Sign Up** Screen to be register on Zenvus Boundary.

- Enter User First Name, Last Name, email ID, Password and confirm Password [Please note the email and password; both would be required in the website for report printing].

Dashboard Screen

- Dashboard Screen will be shown by Zenvus Boundary Application as Farmer is Logged into Application.

- Now, there are two options: 'Begin Farm' and 'Server Transfer'

- 'Begin Farm' should be chosen by a Farmer if he wants to Scan Farm boundaries.

- Another option is 'Server Transfer' which transfers all the details of Farmer and boundaries of Farm to the Zenvus Server where the survey data can be downloaded or printed.

- After 'Server Transfer', the boundary area and Farmer details will be available in the Zenvus portal (continue the process, there is an accompanying manual, **Zenvus Boundary Web Application User Manual**, for instructions). From there, the farmer or the Enterprise in charge of the group can print or download the reports
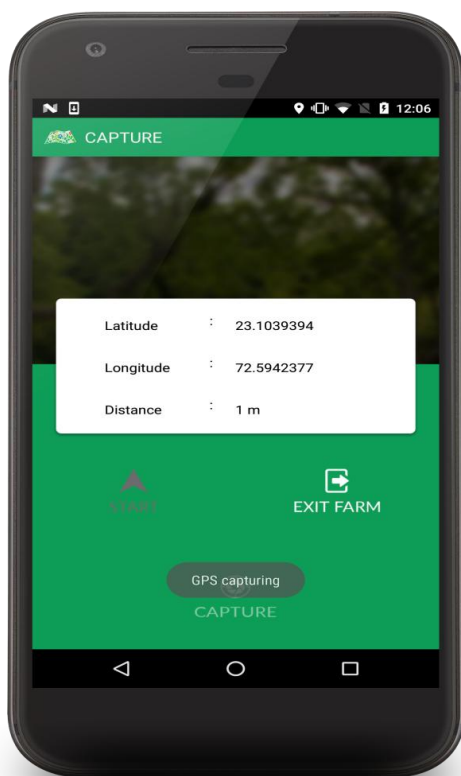
Farmer Details

- This is Farmer Details Screen which will be filled when Farmer clicks on 'Begin Farm'.

- Now, Farmer must have to fill all the details which are mentioned in Farmer Details Page such as NIN (National Identity Number, from NIMC), BVN (Bank Verification Number), Farmer LGA, Farmer Ward, etc [You can use placeholders if you do not have these details. The NIN will be required for the farmer to login (for farmers who are part of any Enterprise/agent) the first time, in the web app. You can make up any number if none is available. Same goes for BVN. The information can be updated later in the Zenvus portal].

- Click on Submit after completing the fields. This takes to Scanning mode.
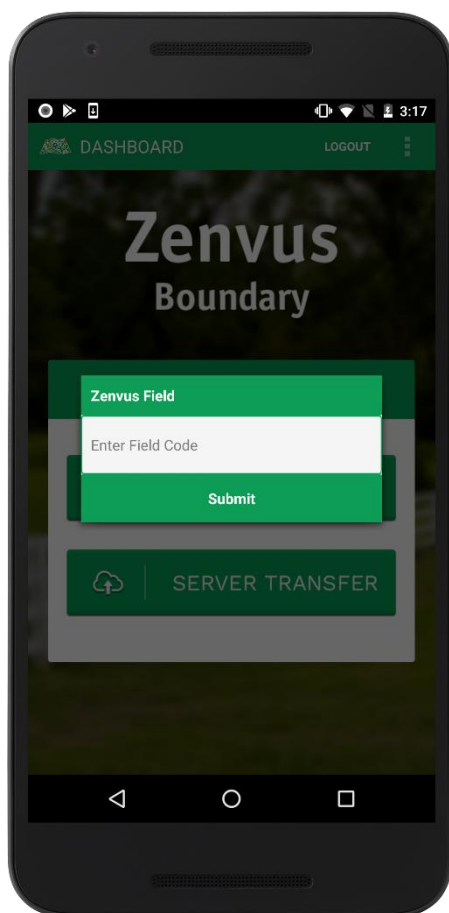
Scan Boundary Screen

- This is Scan Boundary Screen from which Farmer can capture boundary Locations.

- First of all, Farmer must click '**Start**' scanning [must be within the farm boundary and about to start capturing the farm boundary] from a particular location at the boundary of the farm. Then the farmer has to walk along the boundary and after few meters, must click on '**Capture**' button to get new data. After walking for some few meters, click the **Capture** button again to get new GPS data. Make sure the device is not obstructed by anything from the sky. We want it to have the capacity to pick the GPS data from satellites. [Note, the more data collected, the higher the density of the data points which is always better. But every 20 normal footsteps will be ideal]

- Continue this scanning process for boundary data, following the boundary of the farm. When the Farmer returns to the original location, after going round the boundary and capturing data, click on '**Exit**' button to finish boundary scanning for that particular farm.

- This will exit the particular farm boundary phase, and return the screen to the Dashboard. That completes the specific farm boundary mapping.

- [For Enterprises or Agents doing multiple farms] Repeat the same sequence for other farms by clicking **BEGIN FARM** after you have gone to that new farm. Put the new farmer details, **START** scan for the farm boundary data, and when done **EXIT FARM.**

- Farmer can make 'Server Transfer' at any time when Internet is available. A farmer can take boundaries of hundreds of farm data before this Server Transfer [see Next Section below]. It can also transfer only one farm data.
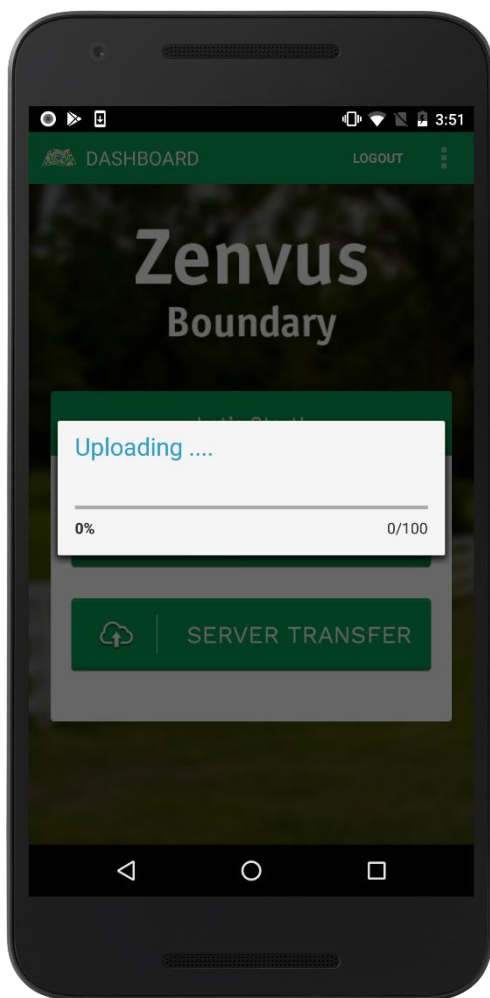
Server Transfer

- Before starting Server Transfer, ensure there is Internet access on the device.

- On the Dashboard, when a Farmer clicks on 'Server Transfer', Zenvus Boundary Application will ask for Unique Field Code which is either **'0000'** if Farmer is Individual or enterprise provided code (ex. '**OJKEXUW'**). When code is entered, click to Submit.
- For **Enterprises or Agents**, we will give you a unique code to use. Enter this unique code when mobile app asks about this unique code. [It makes it possible for different farms data collected to be managed within one Enterprise/Agent web app in our portal for all the farmers in your network].
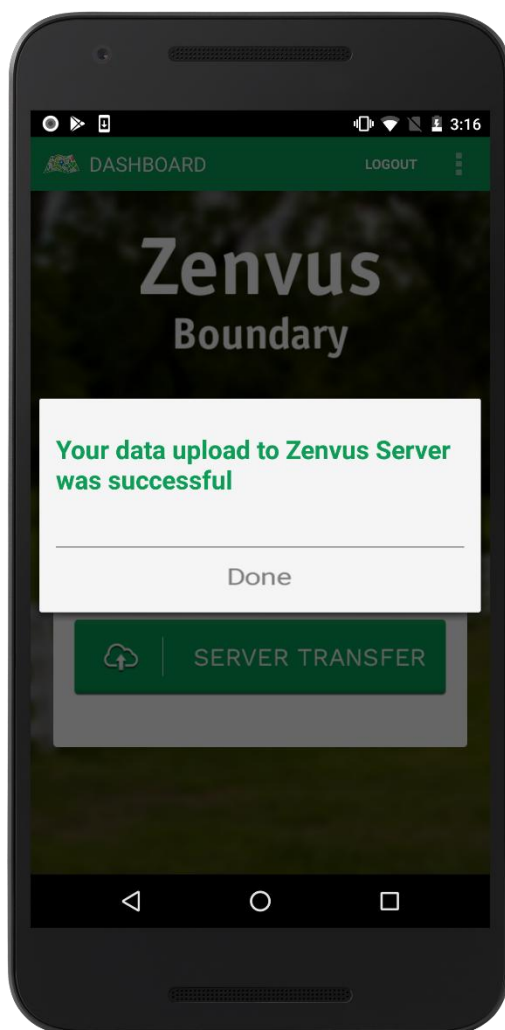
- Application will not proceed further if 'Field Code' is incorrect. It will show an error message that 'field code does not match'.

Upload Farmer Details

- After entering correct Field code, Zenvus Boundary Application will start uploading Farmer's Details and Farm's Details to the Zenvus Admin Serve

Upload Successful

- Finally, Upload Successful dialog will be displayed by Zenvus Boundary Application after all Farmers' Details and Farm's Details are transferred. Consequently, all data will be removed from local phone memory
- Now click on **Done** button to finish.
- Visit the Zenvus Boundary Web App to access the website to download and print the reports http://boundary.zenvus.com/#/access/login
- The title of the manual for the web app is **Zenvus Boundary Web Application User Manual**. The link is here https://www.zenvus.com/products/boundary/