

MANUAL FOR FIELD DATA COLLECTION - OFWE

Using the app OpenForis Collect Mobile

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01.07.2021

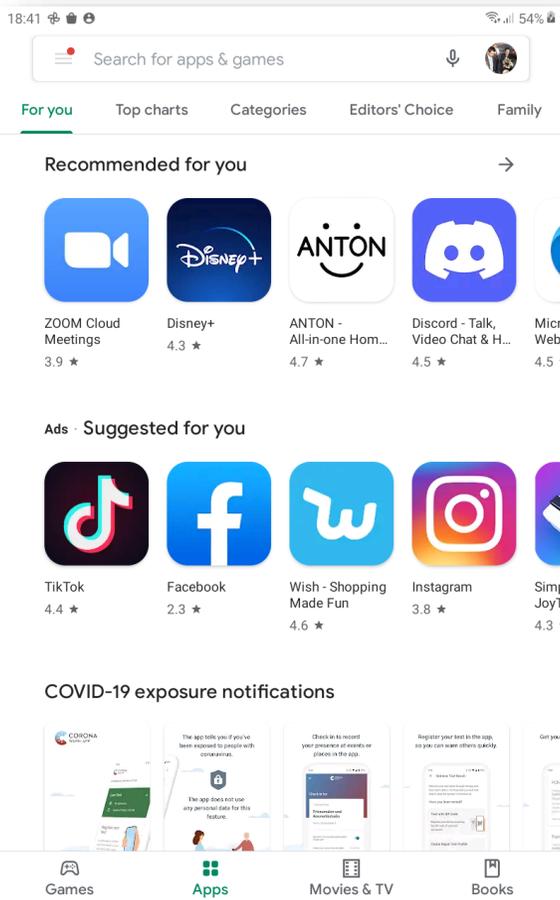
Content

- Installation
- Field form management
- Data entry
 - Recording flow
 - Use cases
- Setting
- Send finished data

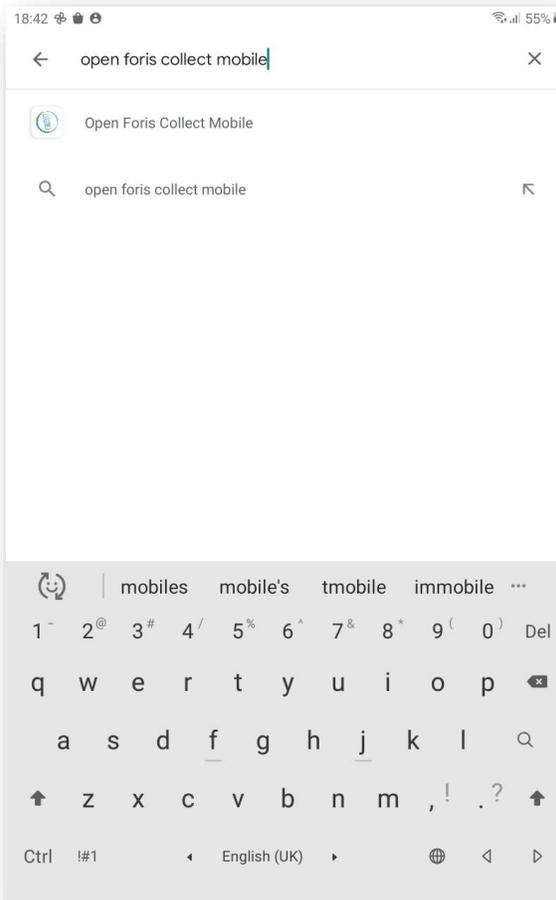
Installation

The App „OpenForis Collect Mobile“ is designed to work on both Android or iOS phones. It is free of charge and can be downloaded for free

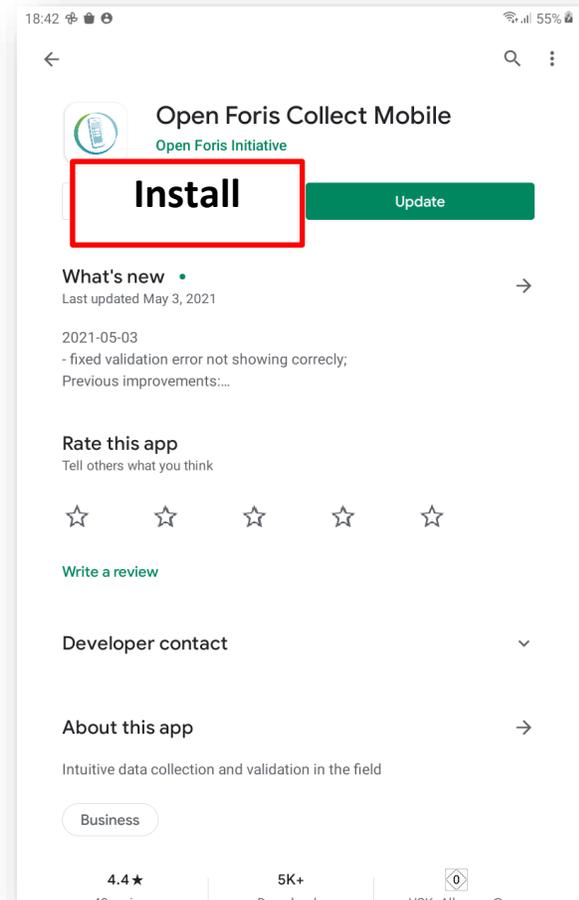
Open the Google Play Store app on Android or App Store on the Apple phone



Type in Open Foris Collect Mobile



Select and the OpenForis collect Mobile and select Install



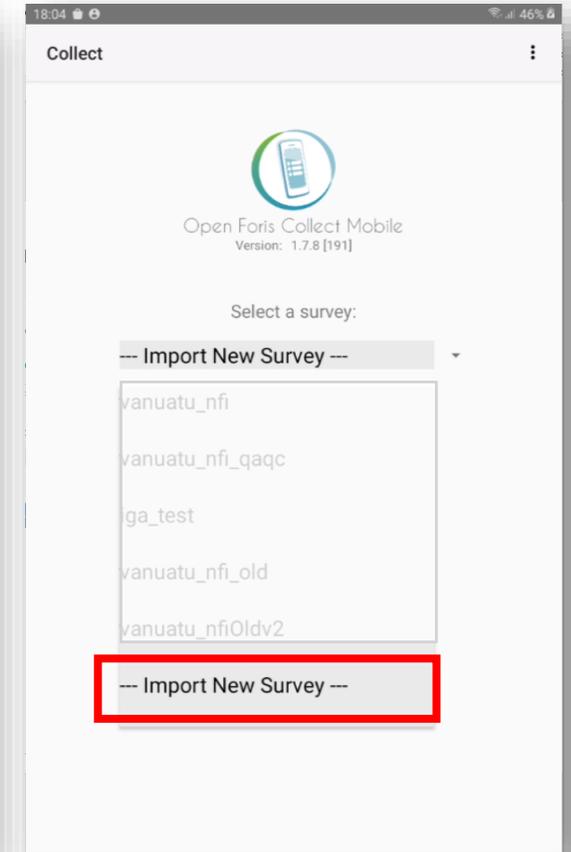
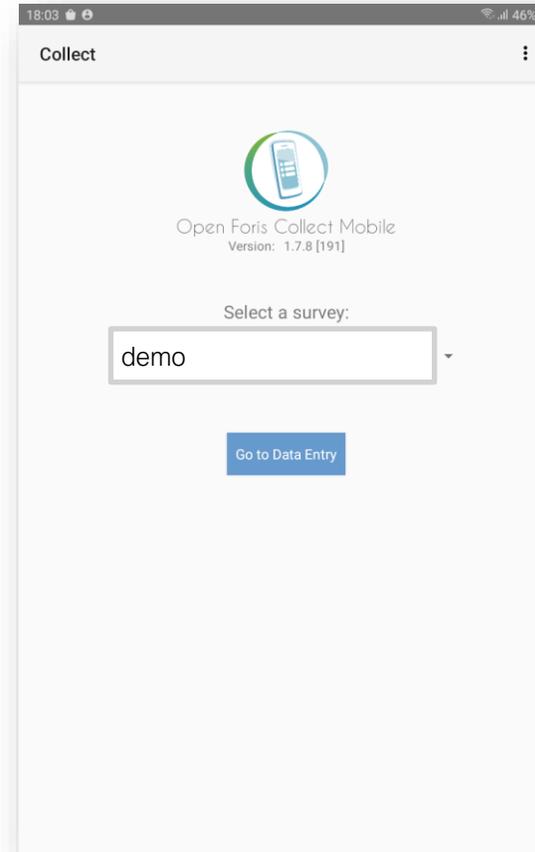
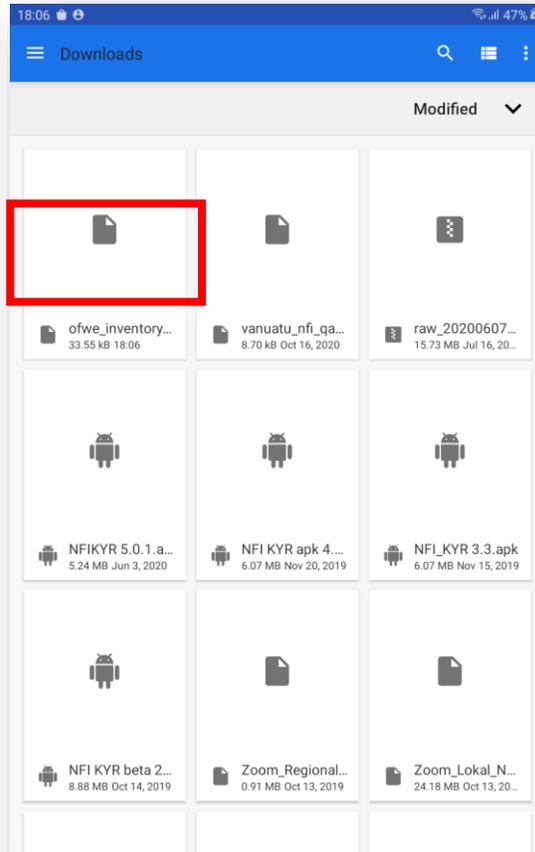
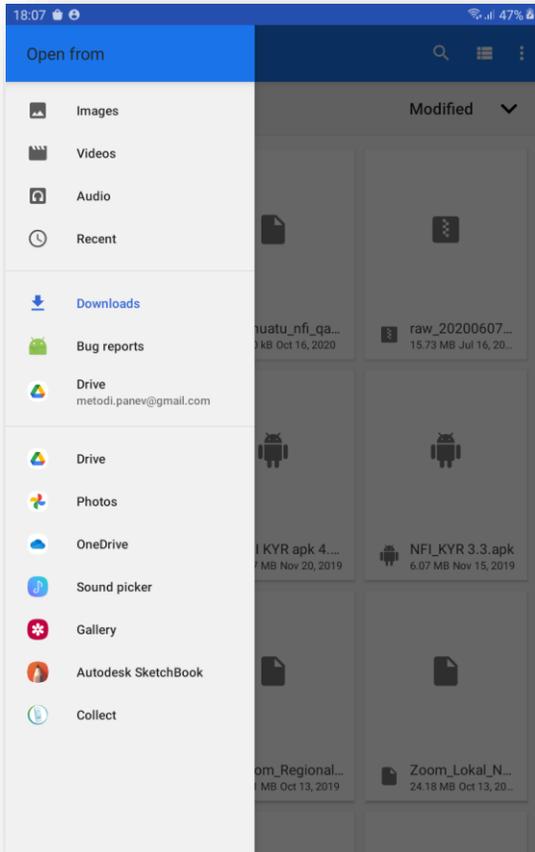
Start of the app and import of field form

1. The file named „ofwe_inventory.collect-mobile“ should be copied to the phone in the download folder. To do this, connect the phone to a PC with cable, or send the file by email or WhatsApp directly to the phone

2. The file is located in the Downloads folder, as illustrated below

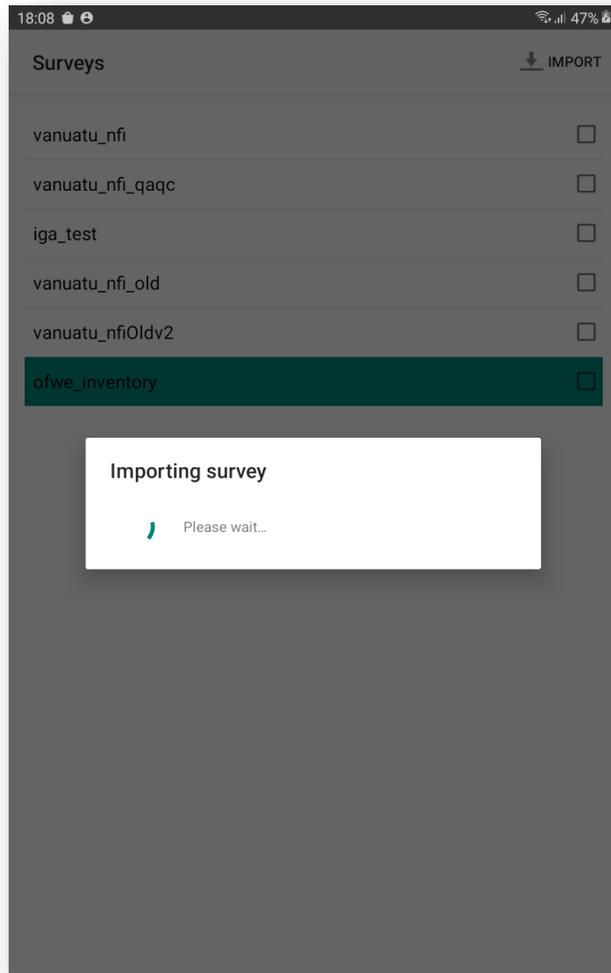
3. Open the app „OpenForis Collect Mobile“. The start screen at first use will have a white screen with a drop down menu.

4. On the dropdown menu, please select „Import New Survey“. This will lead you to an „Open Form“ window (see step 1). Please navigate to the downloads folder, and select the file „ofwe_inventory.collect-mobile“



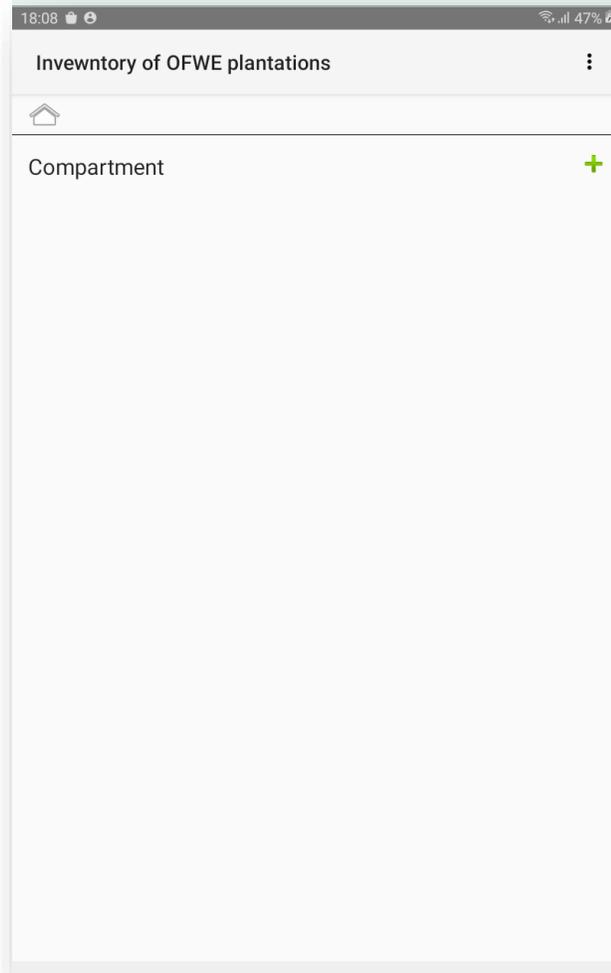
Start of the app and import of field form

5. When the file is selected, it will be imported in the app, and the “Importing survey” will be displayed



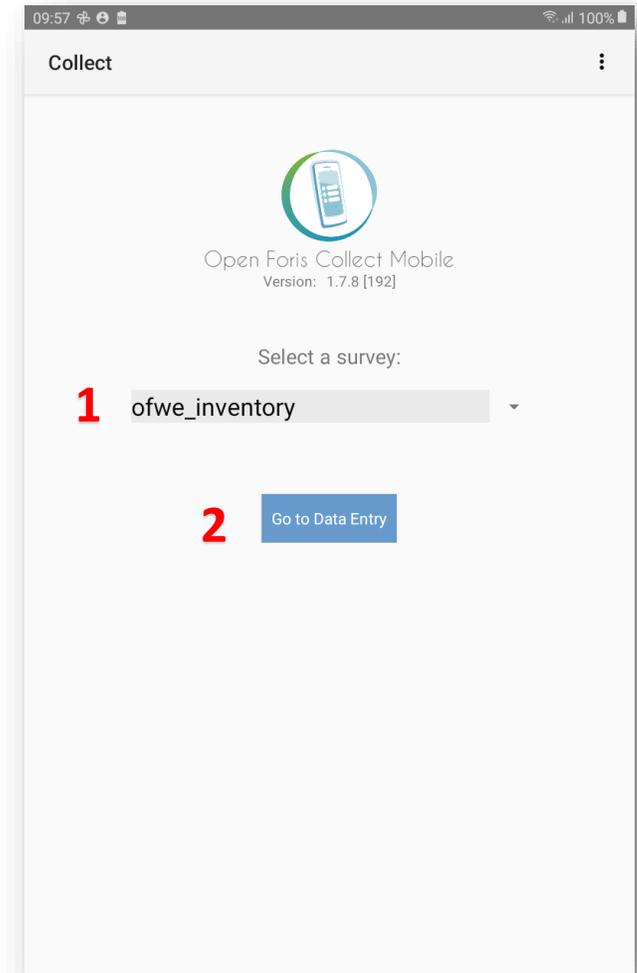
6. Once the import finishes, the field form will directly open on the first input page. And you will see this screen.

Important: the import of the field form should be made only once. It is then imported in the app, and can be used. (see step 7)



7. Once imported, the field form is available in the app. With every further use, it will appear in the drop-down menu at the start screen.

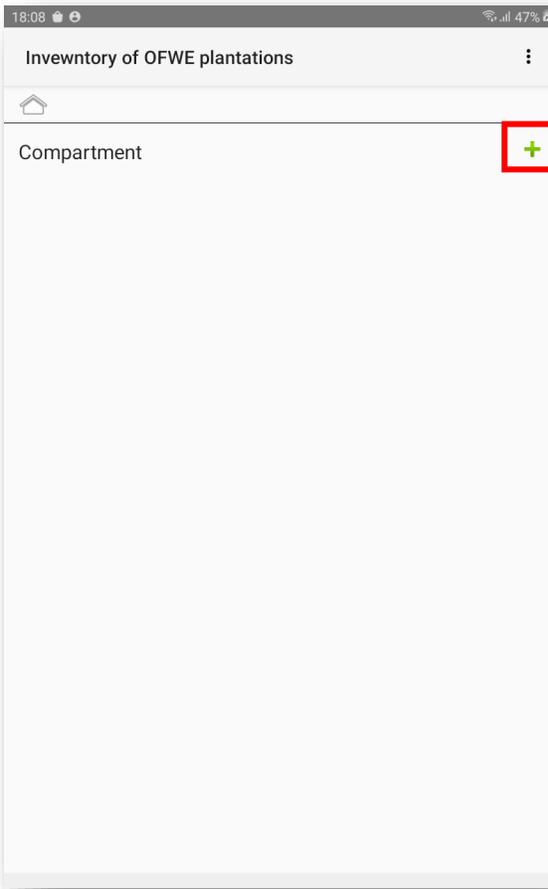
1. Select the “ofwe_inventory”
2. click “Go to Data Entry”



Data Entry

Compartment data (1)

The measurement starts with opening the data entry for one compartment. For this, please select the green + symbol on the screen as illustrated below.

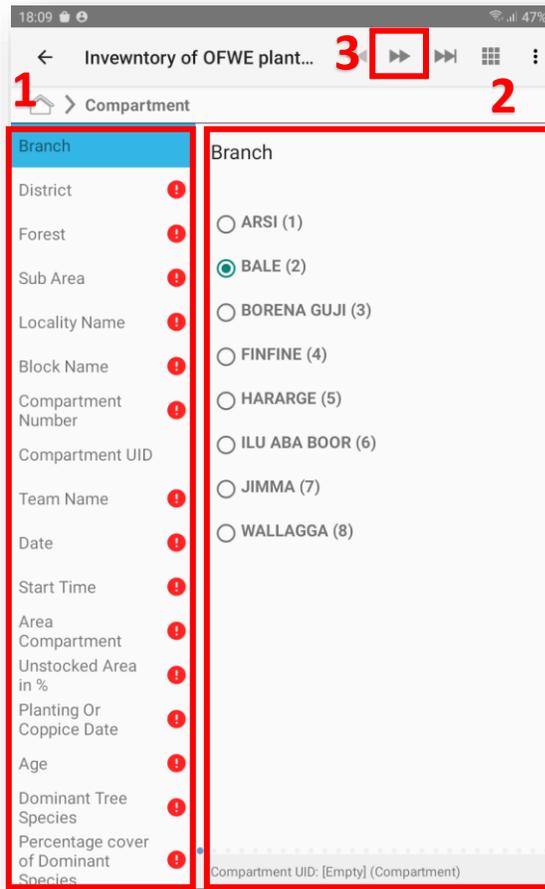


As soon as the data entry for one compartment is open, the user can start entering the descriptive attributes. The screen is then divided in two parts (this is the case for each attribute):

1. the content of the field form, with the current attribute marked in blue
2. The description of the current attribute

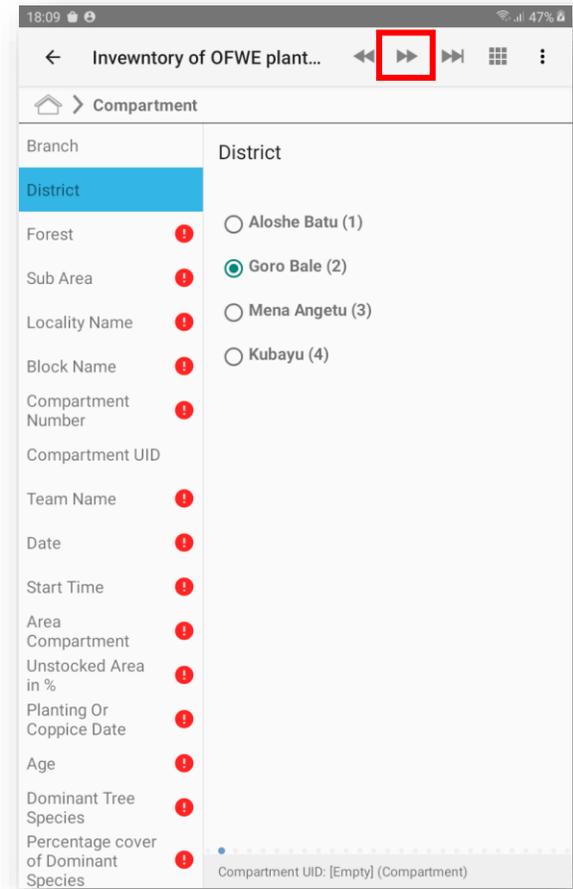
The first information is about the name of the Branch, please select the name from the list.

3. To continue, swipe right on the screen or press the fast forward button



The next screen allows you to enter the information on the District.

Select the district in which the compartment is located and swipe right or select the fast forward button



The data entry is organised in a way, that first the general information on compartment level are entered, including stand description. When this is done, the field teams have the possibility to enter establish the sample plots directly as part of the compartments.

This allows that the process of field measurement is linked with a compartment, when the measurements of one compartment are finished, a second one can be opened. And the list on the start page in the field app, gives information which compartments have been established so far.

Note: it is advisable that the division of work is made according to compartments. Meaning, one team per compartment. This division of work improves responsibility and traceability of information

Data Entry

Compartment data (2)

The next entries are continuing the attributes of the Compartment belonging. The first is the Forest name. Please select the forest name from the list.

Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... 18:10 47%
Compartment
Branch
District
Forest **Goro Bale Fores (1)**
Sub Area **!**
Locality Name **!**
Block Name **!**
Compartment Number **!**
Compartment UID
Team Name **!**
Date **!**
Start Time **!**
Area
Compartment
Unstocked Area in % **!**
Planting Or Coppice Date **!**
Age **!**
Dominant Tree Species **!**
Percentage cover of Dominant Species **!**
Compartment UID: [Empty] (Compartment)

Enter the name of the Sub-Area. It is a free text field, a keyboard will appear below.

Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... 18:10 48%
Compartment
Branch
District
Forest
Sub Area **test**
Locality Name **!**
Block Name **!**
Compartment Number **!**
Compartment UID
Team Name **!**
Date **!**
Compartment UID: [Empty] (Compartment)

Enter the name of the Locality. It is a free text field, a keyboard will appear below.

Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... 18:11 48%
Compartment
Branch
District
Forest
Sub Area
Locality Name **test**
Block Name **!**
Compartment Number **!**
Compartment UID
Team Name **!**
Date **!**
Compartment UID: [Empty] (Compartment)

Enter the name of the Block. It is a free text field, a keyboard will appear below.

Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... 18:11 48%
Compartment
Branch
District
Forest
Sub Area
Locality Name
Block Name **test** **!**
Compartment Number **!**
Compartment UID
Team Name **!**
Date **!**
Compartment UID: [Empty] (Compartment)
This field is required

Data Entry

Compartment data (3)

Enter the number of the compartment.
It is a numeric field, and accepts only full numbers

Afterwards, swipe right or click the fast forward button

18:11 Invenwntory of OFWE plant... 48%

Compartment

Branch

District

Forest

Sub Area

Locality Name

Block Name

Compartment Number

Compartment UID

Team Name

Date

Start Time

1 2 3

4 5 6 Next

7 8 9 -

0

This field is a calculated field, it presents a unique identifier for the compartment, and it built up from the codes of the branch-district-forest-compartment.

The UID is only shown, nothing is entered in this field.

Afterwards, swipe right or click the fast forward button

18:12 Invenwntory of OFWE plant... 48%

Compartment

Branch

District

Forest

Sub Area

Locality Name

Block Name

Compartment Number

Compartment UID

Team Name

Date

Start Time

Area

Compartment Unstocked Area in %

Planting Or Coppice Date

Age

Dominant Tree Species

Percentage cover of Dominant Species

2-2-1-1

Enter the name of the Team:

- For example: Use the last name of the team leader

- Afterwards, swipe right or click the fast forward button

18:12 Invenwntory of OFWE plant... 48%

Compartment

Branch

District

Forest

Sub Area

Locality Name

Block Name

Compartment Number

Compartment UID

Team Name

Date

team 1: last name of team leader

leader leaders leadership leaderboard

1 2 3 4 5 6 7 8 9 0 Del

q w e r t y u i o p

a s d f g h j k l Done

z x c v b n m , ! . ?

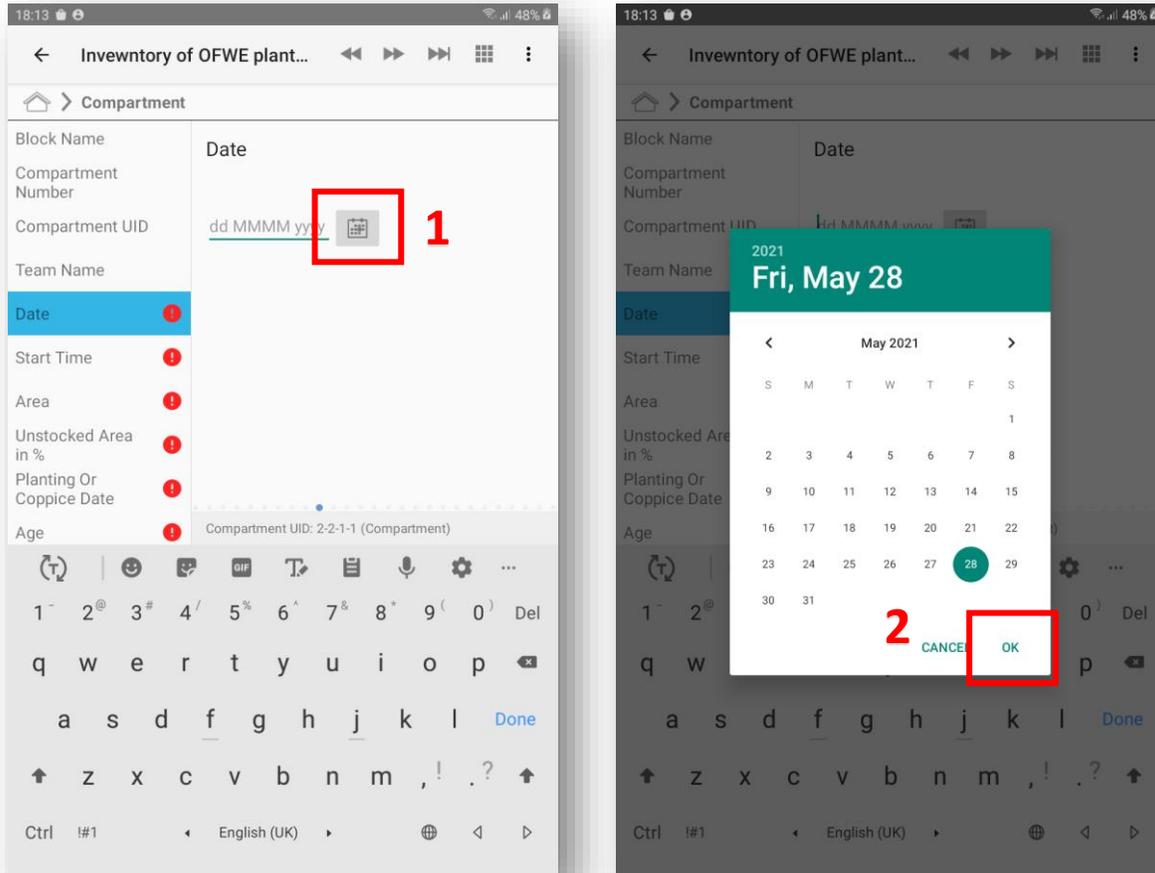
Ctrl #1 English (UK)

Data Entry

Compartment Data (4)

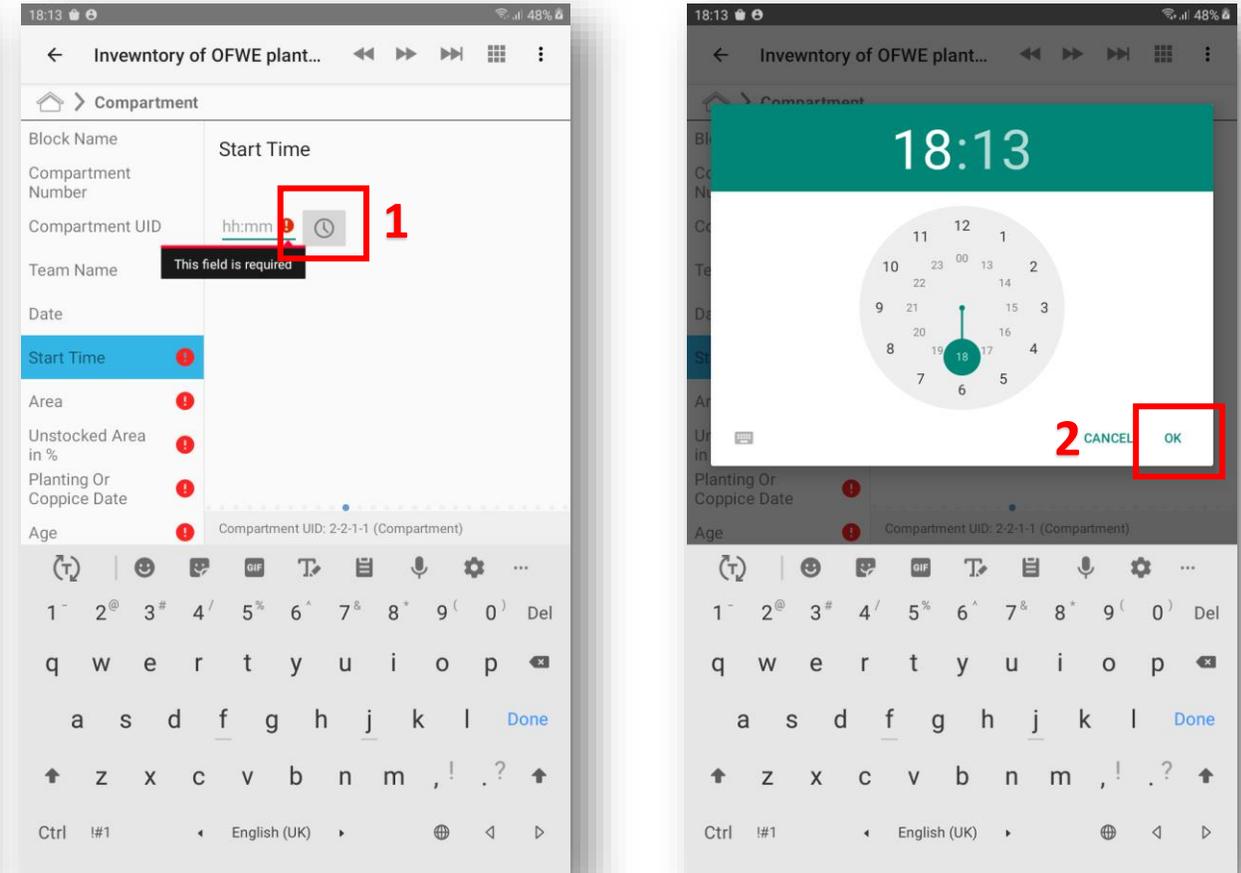
Enter the date of the field work,

1. Select the icon marked in red,
2. A calendar will appear, where you can select and confirm the date. Confirm with the OK button



Enter the start time of the field work,

1. Select the icon marked in red,
2. A calendar will appear, where you can select and confirm the time. Confirm with the OK button



Data Entry

Stand Description (1)

If the stand is planted with only one species (homogenous) please select yes.

If there are more than one species please select no. In this case you will get additional attributes to fill in, such as the name and percentage of secondary tree specie

Enter the name of the dominant tree species. The data entry is done through a selection from a drop-down list. By pressing the space button on the keyboard the species list will appear.

Select the dominant tree species from the list.

Swipe right or click the fast forward button

The option will only show if the stand is not homogenous:

Enter the cover of the compartment with the dominant tree species in percentage.

Afterwards swipe right or click the fast forward button

Enter first the name and than the percentage of the secondary tree species.

This option will show if the stand is not homogenous.

Swipe right or click the fast forward button

The screenshot shows the 'Inventory of OFWE plant...' app. The 'Compartment' form is displayed with the following fields: Sub Area (homogeneous stand), Locality Name (select if the stand is homogeneous (only one species present) leave unselected or select 'no' if the stand is heterogeneous (with more than one species)), Block Name, Compartment Number (Yes selected, No unselected), Compartment UID, Team Name, Date, Start Time, Area Compartment, Unstocked Area in %, Planting Or Coppice Date, Age, homogeneous stand (highlighted), Dominant Tree Species, Stand Type, distance to road, Road Type, and Infrastructure Planning. The bottom status bar shows 'Compartment UID: 1-1-1-1 (Compartment)'.

The screenshot shows the 'Inventory of OFWE plant...' app. The 'Compartment' form is displayed with the following fields: Block Name, Compartment Number, Compartment UID, Team Name, Date, Start Time, Area Compartment, Unstocked Area in %, Planting Or Coppice Date, Age, and Dominant Tree Species. A dropdown menu is open for the 'Dominant Tree Species' field, showing a list of species: Acacia decurrens (14), Acacia species (16), Casuarina equisetifolia (15), Cordia africana (18), and Cupressus lusitanica (2). The bottom status bar shows 'Compartment UID: 2-2-1-1 (Compartment)'.

The screenshot shows the 'Inventory of OFWE plant...' app. The 'Compartment' form is displayed with the following fields: Team Name, Date, Start Time, Area Compartment, Unstocked Area in %, Planting Or Coppice Date, Age, Dominant Tree Species, Percentage cover of Dominant Species (80), Secondary Tree Species, and Percentage cover. A numeric keypad is visible at the bottom, with the number '80' entered. The bottom status bar shows 'Compartment UID: 2-2-1-1 (Compartment)'.

The screenshot shows the 'Inventory of OFWE plant...' app. The 'Compartment' form is displayed with the following fields: Team Name, Date, Start Time, Area Compartment, Unstocked Area in %, Planting Or Coppice Date, Age, Secondary Tree Species, Percentage cover of Secondary Species (50), Dominant Tree Species, and Percentage cover. A dropdown menu is open for the 'Secondary Tree Species' field, showing a list of species: Acacia decurrens (14), Acacia species (16), and Casuarina equisetifolia (15). The bottom status bar shows 'Compartment UID: 2-2-1-1 (Compartment)'.

Data Entry

Stand description (2)

Select the stand type from the list. If the stand type is of mixed types, or not in the list: select other and specify the type in the field.

- Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... << >> >>> ☰ ⋮

Home > Compartment

Start Time

Area Compartment

Unstocked Area in %

Planting Or Coppice Date

Age

Dominant Tree Species

Percentage cover of Dominant Species

Secondary Tree Species

Percentage cover of Secondary Species

Stand Type

First stand (1)

Coppice stand (2)

Reforested (3)

other (4)
please specify for example, in case of mixed types inside one stand

distance to road !

Road Type !

Infrastructure Planning !

+ Previous Silvicultural Activities

+ Management Prescription

Inventory Type !

+ Sample Plot

Compartment UID: 2-2-1-1 (Compartment)

In a free numeric field, enter the distance to the next road in km. The field accepts decimal numbers

- Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... << >> >>> ☰ ⋮

Home > Compartment

Start Time

Area Compartment

Unstocked Area in %

Planting Or Coppice Date

Age

Dominant Tree Species

Percentage cover of Dominant Species

Secondary Tree Species

Percentage cover of Secondary Species

Stand Type

distance to road

3

1 2 3 ✕

4 5 6 Next

7 8 9 .-

0

Compartment UID: 2-2-1-1 (Compartment)

Please select the type of road that goes through the compartment or is the closest to the compartment.

- Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... << >> >>> ☰ ⋮

Home > Compartment

Start Time

Area Compartment

Unstocked Area in %

Planting Or Coppice Date

Age

Dominant Tree Species

Percentage cover of Dominant Species

Secondary Tree Species

Percentage cover of Secondary Species

Stand Type

distance to road

Road Type

All weather road (asphalt or gravel) (1)

Dry weather (2)
accessible only during dry season / weather

access roads (3)

Infrastructure Planning !

+ Previous Silvicultural Activities

+ Management Prescription

Inventory Type !

+ Sample Plot

Compartment UID: 2-2-1-1 (Compartment)

From the list of available attributes, please select the appropriate infrastructure measure. If the measure is not in the list, select other and write the measure in the field.

- Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... << >> >>> ☰ ⋮

Home > Compartment

Start Time

Area Compartment

Unstocked Area in %

Planting Or Coppice Date

Age

Dominant Tree Species

Percentage cover of Dominant Species

Secondary Tree Species

Percentage cover of Secondary Species

Stand Type

distance to road

Road Type

Infrastructure Planning

Road maintenance (1)

New road opening (2)

Fire break construction (3)

Fire break maintenance (4)

Boundary beacon erection (5)

Fence (6)

Other (7)

+ Previous Silvicultural Activities

+ Management Prescription

Inventory Type !

+ Sample Plot

Compartment UID: 2-2-1-1 (Compartment)

Data Entry

Stand description (3)

Select the vitality class of the stand from the list: high, medium or low

- Afterwards, swipe right or click the fast forward button

19:07

← I... ⏪ ⏩ ⏴ ⏵ ☰ ☰ ☰

🏠 > Compartment

Vitality Class

High (1)

Medium (2)

Low (3)

Compartment UID: 2-1-1-1 (Compartment)

Select the stand stability of the stand from the list: stable or unstable

- Afterwards, swipe right or click the fast forward button

19:08

← I... ⏪ ⏩ ⏴ ⏵ ☰ ☰ ☰

🏠 > Compartment

Stand Stability !

This field is required

Stable (1)

Unstable (2)

Compartment UID: 2-1-1-1 (Compartment)

Select if the extension of the rotation for the stand is possible or not:

- Afterwards, swipe right or click the fast forward button

19:08

← I... ⏪ ⏩ ⏴ ⏵ ☰ ☰ ☰

🏠 > Compartment

Extension Of The Rotation !

This field is required

extension possible (1)

extension is not possible (2)

Compartment UID: 2-1-1-1 (Compartment)

Data Entry

Stand description – Previous silvicultural practices

The next segment is dedicated to the description of silvicultural activities that have been carried out in the previous period. This part goes in a loop and the field team can enter information for more than one activity.

1. Select the green + symbol to start with entering the activities.
2. In case no data should be entered, directly go to the next step:
 - Afterwards, swipe right or click the fast forward button

From the list of activities, select the one for which you want to enter data

- Afterwards, swipe right or click the fast forward button

Please specify if this activity has been carried out.

- Afterwards, swipe right or click the fast forward button

18:18

Invevntory of OFWE plant...

COMPARTMENT

Start Time

Area Compartment

Unstocked Area in %

Planting Or Coppice Date

Age

Dominant Tree Species

Percentage cover of Dominant Species

Secondary Tree Species

Percentage cover of Secondary Species

Stand Type

distance to road

Road Type

Infrastructure Planning

+ Previous Silvicultural Activities

+ Management Prescription

Inventory Type

+ Sample Plot

Previous Silvicultural Activities

+

1

Compartment UID: 2-2-1-1 (Compartment)

18:19

Invevntory of OFWE plant...

COMPARTMENT > Previous Silvicultural Activities [1]

Previous Silv Activities

Done

Date of Silvicultural Activity

Comment

Thinning (1)

Pruning (2)

Newly harvested (3)

Coppice reduction (4)

Weeding / slashing (5)

other (6)
please specify

Compartment UID: 2-2-1-1 (Compartment)

18:19

Invevntory of OFWE plant...

COMPARTMENT > Previous Silvicultural Activities [1]

Previous Silv Activities

Done

Date of Silvicultural Activity

Comment

Done

the status of the silvicultural activities, if it is done or not

yes (1)

no (2)

Compartment UID: 2-2-1-1 (Compartment)

Data Entry

Stand Description – Previous silvicultural practices (2)

Select the date when the silvicultural activity has been implemented. Click the icon and select the date through the pop-up calendar.

- Afterwards, swipe right or click the fast forward button

The screenshot shows a mobile application interface for data entry. The title bar reads 'Inventory of OFWE plant...'. Below it, a breadcrumb trail shows 'COMPARTMENT > Previous Silvicultural Activities [1]'. The form has two main sections: 'Date of Silvicultural Activity' and 'Comment'. The 'Date of Silvicultural Activity' field is currently set to '28 May 2021' and has a calendar icon to its right. The 'Comment' field is empty and has a red notification icon. A keyboard is visible at the bottom of the screen.

This is a free text field, where the field teams can enter specifics regarding the silvicultural activity.

- Afterwards, swipe right or click the fast forward button

The screenshot shows the same mobile application interface as the previous one, but now the 'Comment' field is highlighted in blue. The 'Date of Silvicultural Activity' field now contains the text 'test'. The keyboard is still visible at the bottom.

This screen provides an overview of the already entered silvicultural activities.

1. If there are additional silvicultural activities to enter, please select the green + symbol, and enter the information
2. If no further silvicultural activities are to be entered, swipe right or click the fast forward button

The screenshot shows an overview screen for 'Previous Silvicultural Activities'. The title bar reads 'Inventory of OFWE plant...'. Below it, a breadcrumb trail shows 'Compartment'. The screen is divided into two columns. The left column lists various fields: 'Start Time', 'Area Compartment', 'Unstocked Area in %', 'Planting Or Coppice Date', 'Age', 'Dominant Tree Species', 'Percentage cover of Dominant Species', 'Secondary Tree Species', 'Percentage cover of Secondary Species', 'Stand Type', 'distance to road', 'Road Type', 'Infrastructure Planning', '+ Previous Silvicultural Activities', '+ Management Prescription', 'Inventory Type', and '+ Sample Plot'. The right column shows a table of activities. A red '2' is placed above the table, and a red '1+' is placed next to the table title. A keyboard is visible at the bottom.

Previous Silv Activities	Done	Date of Silvicultural	
Thinning (1)	yes (1)	28/05/2021	<input type="checkbox"/>

Data entry

Stand description – Management Prescription

1. Select the green + symbol to start with entering the management.
2. In case no data should be entered, directly go to the next step:
 - Afterwards, swipe right or click the fast forward button

From the list of activities, select the one for which you want to enter data

- Afterwards, swipe right or click the fast forward button

Select the percentage of the area from the compartment where the activity has to be implemented.

- Afterwards, swipe right or click the fast forward button

The next segment is dedicated to the description of management prescription that has to be implemented in the upcoming period. This part goes in a loop and the field team can enter information for more than one activity.

18:21 50%

Inventwory of OFWE plant...

COMPARTMENT

Management Prescription +

Start Time

Area Compartment

Unstocked Area in %

Planting Or Coppice Date

Age

Dominant Tree Species

Percentage cover of Dominant Species

Secondary Tree Species

Percentage cover of Secondary Species

Stand Type

distance to road

Road Type

Infrastructure Planning

+ Previous Silvicultural Activities

+ Management Prescription

Inventory Type

+ Sample Plot

Compartment UID: 2-2-1-1 (Compartment)

18:21 50%

Inventwory of OFWE plant...

COMPARTMENT > Management Prescription [1]

Management Activity

Percentage Area

Priority

Thinning (1)

Pruning (2)

Harvesting (3)

Planting (4)

Coppice management (5)

Weeding / slashing (6)

Spot hoeing (7)

Biting up (8)

Other (9)
Please specify

Compartment UID: 2-2-1-1 (Compartment)

18:21 51%

Inventwory of OFWE plant...

COMPARTMENT > Management Prescription [1]

Management Activity

Percentage Area

percentage of the compartment area where the activity is prescribed in 10% steps

Priority

10% (1)

20% (2)

30% (3)

40% (4)

50% (5)

60% (6)

70% (7)

80% (8)

90% (9)

100% (10)

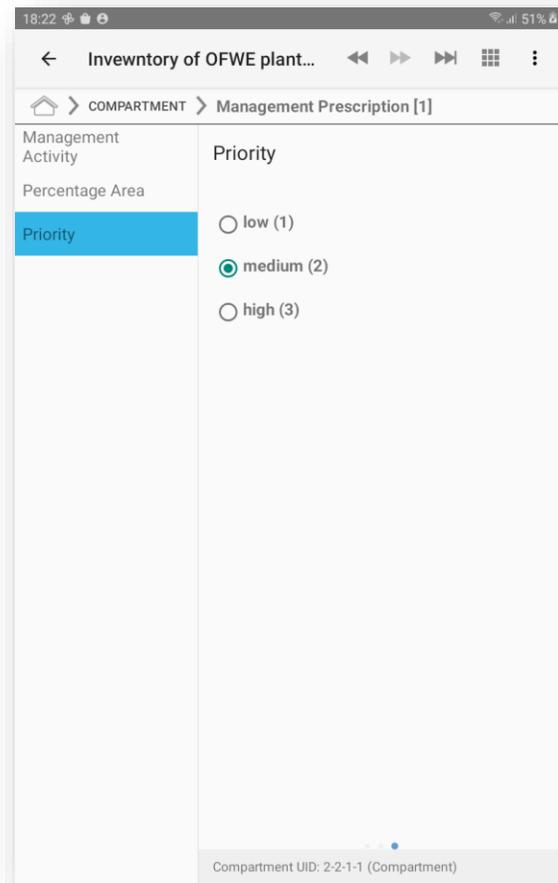
Compartment UID: 2-2-1-1 (Compartment)

Data Entry

Stand description – Management Prescription (2)

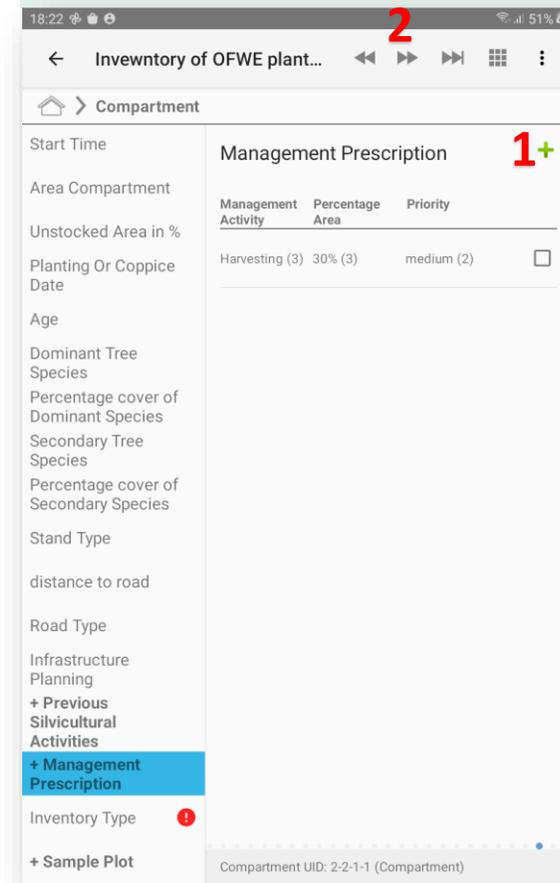
Select the priority of the management activity

- Afterwards, swipe right or click the fast forward button



This screen provides an overview of the already entered management activities.

1. If there are additional management activities to enter, please select the green + symbol, and enter the information
2. If no further management activities are to be entered, swipe right or click the fast forward button



Data entry

Sample plots – Survival count (1)

The next segment is dedicated to the different types of sample plots.

The types of data that are entered are related to the type of the sample, plot. Due to this, the process is explained first for the survival count plots, and afterwards for the temporary / permanent plots.

Select the type of plots to be established.

- Afterwards, swipe right or click the fast forward button

07:22 82%

Inventory of OFWE plant...

Compartment

Team Name Inventory Type

Date

Start Time

Area Compartment

Unstocked Area in %

Planting Or Coppice Date

Age

homogeneous stand

Dominant Tree Species

Stand Type

distance to road

Road Type

Infrastructure Planning

+ Previous Silvicultural Activities

+ Management Prescription

Inventory Type

+ Sample Plot

Compartment UID: 1-1-1-1 (Compartment)

If survival count plots are selected, the options to establish such plots appears.

The entry of the survival plots goes in a loop, and the field teams can establish as many plots in a compartment as necessary.

To establish the sample plot, click the green + button.

18:23 51%

Inventory of OFWE plant...

Compartment

Start Time Survival Count

Area Compartment

Unstocked Area in %

Planting Or Coppice Date

Age

Dominant Tree Species

Percentage cover of Dominant Species

Secondary Tree Species

Percentage cover of Secondary Species

Stand Type

distance to road

Road Type

Infrastructure Planning

+ Previous Silvicultural Activities

+ Management Prescription

Inventory Type

+ Survival Count

Compartment UID: 2-2-1-1 (Compartment)

Sample plot number is an attribute that is automatically entered. It starts from one and increases automatically with every new plot.

- Afterwards, swipe right or click the fast forward button

18:23 51%

Inventory of OFWE plant...

COMPARTMENT > Survival Count [1]

sample plot number sample plot number

Sample Plot Survival Uid please enter manually the sample plot number, starting from 1

Plot Size 1

Coordinate

Tree Species

Count Live Trees

Count Dead Trees

Total Trees

Damage

Sample Pl...ival Uid: 2-2-1-1-1-sc (Survival Count)

Compartment UID: 2-2-1-1 (Compartment)

Data Entry

Sample plots – survival count (2)

This field is a calculated field, it presents a unique identifier for the sample plot, and it is built up from the codes of the branch-district-forest-compartment-sample plot nr. the text “sc” is added, in order to have a clear separation from other sample plots.

The UID is only shown, nothing is entered in this field.

Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... COMPARTMENT > Survival Count [1]

sample plot number	Sample Plot Survival Uid
Sample Plot Survival Uid	2-2-1-1-1sc
Plot Size	!
Coordinate	!
Tree Species	!
Count Live Trees	!
Count Dead Trees	!
Total Trees	!
Damage	!

Sample Pl...ival Uid: 2-2-1-1-1sc (Survival Count)
Compartment UID: 2-2-1-1 (Compartment)

Select the size of the sample plot
Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... COMPARTMENT > Survival Count [1]

sample plot number	Plot Size
Sample Plot Survival Uid	
Plot Size	<input checked="" type="radio"/> 100m2 (1) <input type="radio"/> 200m2 (2) <input type="radio"/> other (3)
Coordinate	!
Tree Species	!
Count Live Trees	!
Count Dead Trees	!
Total Trees	!
Damage	!

Sample Pl...ival Uid: 2-2-1-1-1sc (Survival Count)
Compartment UID: 2-2-1-1 (Compartment)

Enter the coordinate of the center of the plot. In order to do this, please select the button “start GPS”, wait for at least 30sec, and afterwards select “stop GPS”. This will record the coordinates.

Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... COMPARTMENT > Survival Count [1]

sample plot number	Coordinate
Sample Plot Survival Uid	
Plot Size	Spatial Reference System: Lat Lon
Coordinate	X: 7.9255916 Y: 48.0446074 START GPS Accuracy: 20.0m SHOW ON MAP
Tree Species	!
Count Live Trees	!
Count Dead Trees	!
Total Trees	!
Damage	!

Sample Pl...ival Uid: 2-2-1-1-1sc (Survival Count)
Compartment UID: 2-2-1-1 (Compartment)

Enter the tree species from the plot.

The tree species entry is made through a drop down list. Press the space bar in order to get the list.

Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... COMPARTMENT > Survival Count [1]

sample plot number	Tree Species
Sample Plot Survival Uid	
Plot Size	
Coordinate	
Tree Species	Acacia decurrens (14) Acacia decurrens Acacia species (16) Acacia species Casuarina equisetifolia (15) Casuarina equisetifolia Cordia africana (18) Cordia africana Cupressus lusitanica (2)
Count Live Trees	!
Count Dead Trees	!
Total Trees	!
Damage	!

Sample Pl...ival Uid: 2-2-1-1-1sc (Survival Count)
Compartment UID: 2-2-1-1 (Compartment)

Data Entry

Sample plots – survival count

In the next two screens, enter the count of trees:

- Live trees
- Dead trees

In case no entry is possible, for example: no dead trees are present, enter zero

This screen is calculated automatically, it shows the total possible trees on the sample plot.

From the list of the available options, please select if any damage is visible on the sample plot.

Afterwards swipe right or click the fast forward button.

This screen provides an overview of the already entered plot.

1. If there are additional plots to enter, please select the green + symbol, and enter the information
2. If no further plots are to be entered, swipe right or click the fast forward button

Inventory of OFWE plant... COMPARTMENT > Survival Count [1]

sample plot number: 22

Count Live Trees

Inventory of OFWE plant... COMPARTMENT > Survival Count [1]

sample plot number: Total Trees: 34.0

Inventory of OFWE plant... COMPARTMENT > Survival Count [1]

sample plot number: Damage

- no damage (0)
- damage from logging (1)
- damage from fuel wood collection (2)
- Damage from storm: uprooted or broken trees (3)
- Pests / disease (4)
- Animal damage (5)
- Other (6)

Inventory of OFWE plant... COMPARTMENT > Survival Count [1]

sample plot number: 12

Count Dead Trees

Inventory of OFWE plant... COMPARTMENT > Survival Count [1]

sample plot number: Total Trees: 34.0

Damage

Sample Pl...ival Uid: 2-2-1-1-1sc (Survival Count)
Compartment UID: 2-2-1-1 (Compartment)

Inventory of OFWE plant... COMPARTMENT > Survival Count [1]

sample plot number: Total Trees: 34.0

Damage

Sample Pl...ival Uid: 2-2-1-1-1sc (Survival Count)
Compartment UID: 2-2-1-1 (Compartment)

Inventory of OFWE plant... COMPARTMENT

Area Compartment: Survival Count

Unstocked Area in %

Planting Or Coppice Date: 2-2-1-1-1sc

Age

Dominant Tree Species

Percentage cover of Dominant Species

Secondary Tree Species

Percentage cover of Secondary Species

Stand Type

distance to road

Road Type

Infrastructure Planning

+ Previous Silvicultural Activities

+ Management Prescription

Inventory Type

+ Survival Count

+ Sample Plot

Compartment UID: 2-2-1-1 (Compartment)

Data Entry

Sample plots – temporary or permanent plots (1)

This use case scenario explains the data entry options if the sample plot is temporary or permanent, as they are different from the survival count. If one temporary or permanent plots are selected, the option to enter survival plots will not appear.

The entry of the survival plots goes in a loop, and the field teams can establish as many plots in a compartment as necessary.

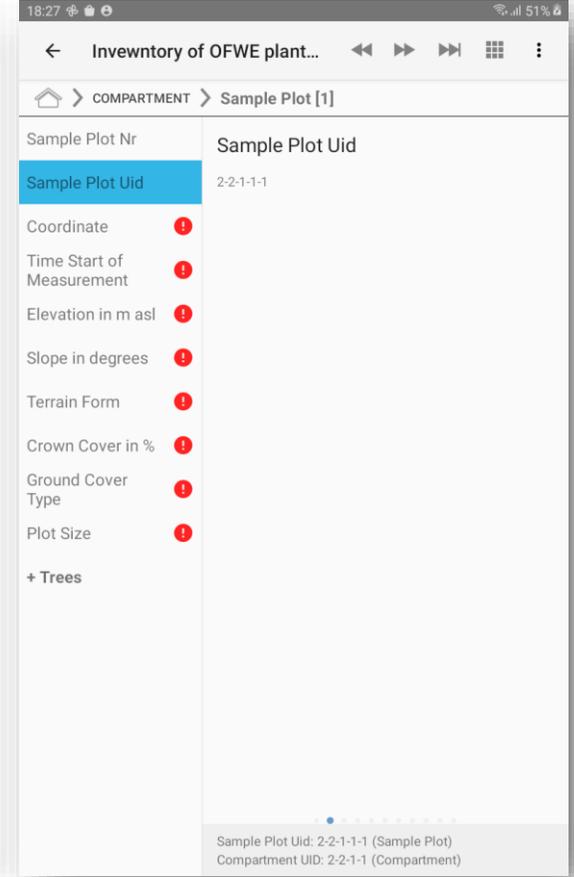
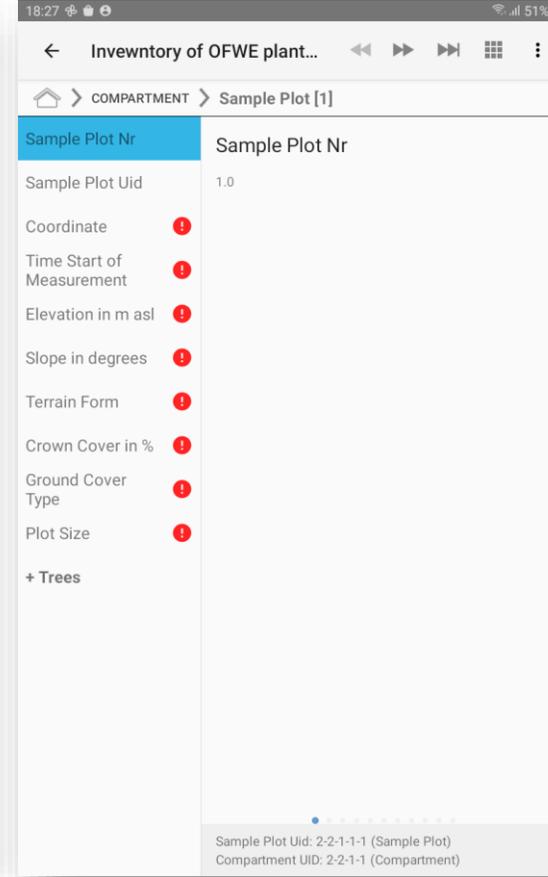
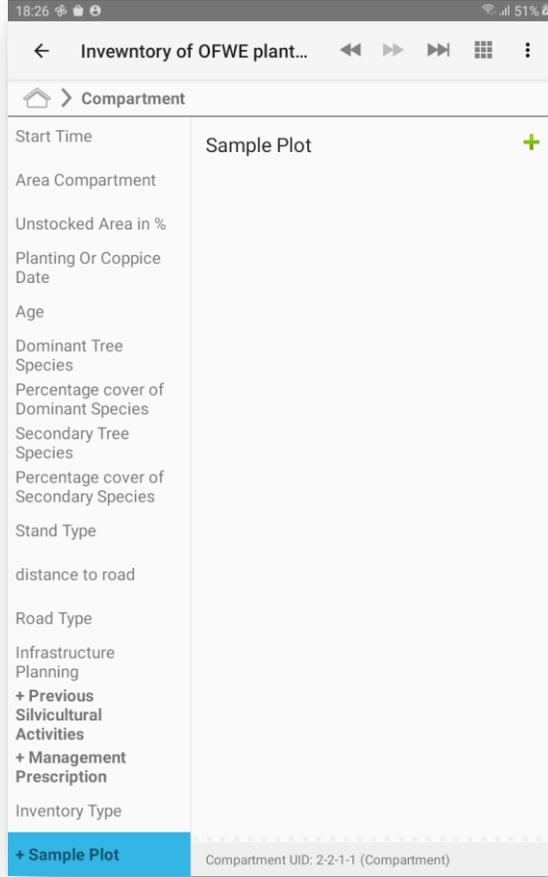
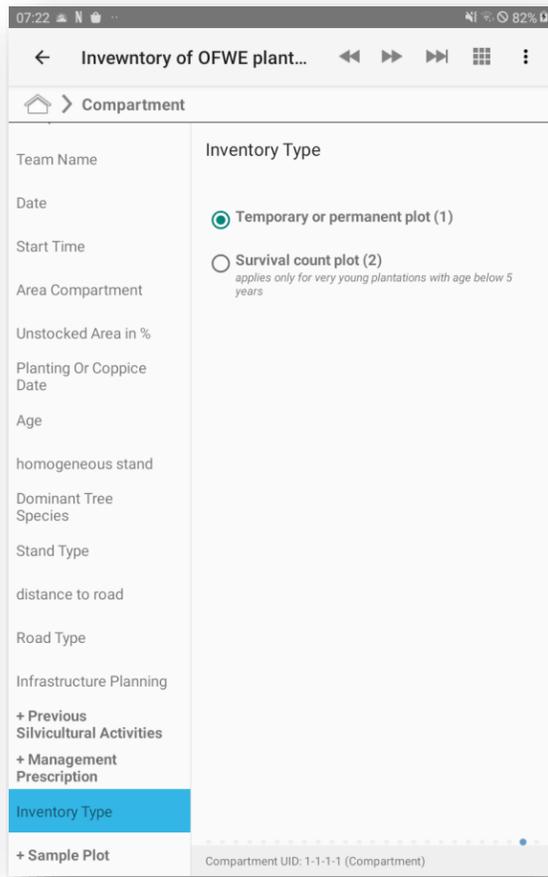
To establish the sample plot, click the green + button.

Sample plot number is an attribute that is automatically entered. It starts from one and increases automatically with every new plot.

- Afterwards, swipe right or click the fast forward button

This field is a calculated field, it presents a unique identifier for the sample plot, and it is built up from the codes of the branch-district-forest-compartment-sample plot nr. The UID is only shown, nothing is entered in this field.

Afterwards, swipe right or click the fast forward button



Data Entry

Sample plots – temporary or permanent plots (2)

Enter the coordinate of the center of the plot. In order to do this, please select the button “start GPS”, wait for at least 30sec, and afterwards select “stop GPS”. This will record the coordinates.

Afterwards, swipe right or click the fast forward button

Enter the time of the start of plot measurement

Afterwards, swipe right or click the fast forward button

If the plot is accessible and the canopy cover is higher than 0% than please select “yes”, in this case you will get the possibility to enter all further attributes.

If the plot is not accessible or located in area with canopy cover = 0%, all further attributes will not be show, and the work on this plot ends.

Enter first the information on elevation and than the slope in degrees.

Optionally, leave this information empty, as it can be updated later from GIS.

Afterwards, swipe right or click the fast forward button

18:27 51%

Inventory of OFWE plant... COMPARTMENT > Sample Plot [1]

Sample Plot Nr

Sample Plot Uid

Coordinate

Spatial Reference System: Lat Lon

x 7.9255916

y 48.0446067

START GPS

Accuracy: 20.0m

SHOW ON MAP

Time Start of Measurement

Elevation in m asl

Slope in degrees

Terrain Form

Crown Cover in %

Ground Cover Type

Plot Size

+ Trees

Sample Plot Uid: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

18:27 51%

Inventory of OFWE plant... COMPARTMENT > Sample Plot [1]

Sample Plot Nr

Sample Plot Uid

Coordinate

Time Start of Measurement

18:27

Elevation in m asl

Slope in degrees

Terrain Form

Crown Cover in %

Ground Cover Type

Plot Size

Sample Plot Uid: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

07:24 83%

Inventory of OFWE plant... COMPARTMENT > Sample Plot [1]

Sample Plot Nr

Sample Plot Uid

Coordinate

Time Start of Measurement

Plot Established

yes (1)

no (2)

Elevation in m asl

Slope in degrees

Terrain Form

Crown Cover in %

Ground Cover Type

Plot Size

Plot Type

+ Trees

Sample Plot Uid: 1-1-1-1-1 (Sample Plot)
Compartment UID: 1-1-1-1 (Compartment)

18:28 51%

Inventory of OFWE plant... COMPARTMENT > Sample Plot [1]

Sample Plot Nr

Sample Plot Uid

Coordinate

Time Start of Measurement

Elevation in m asl

234

Slope in degrees

Terrain Form

Crown Cover in %

Ground Cover

18:28 51%

Inventory of OFWE plant... COMPARTMENT > Sample Plot [1]

Sample Plot Nr

Sample Plot Uid

Coordinate

Time Start of Measurement

Elevation in m asl

Slope in degrees

12

Terrain Form

Crown Cover in %

Data Entry

Sample plots – temporary or permanent plots (3)

Select the dominant terrain form of the plot.

See the manual for description of the terrain forms.

Afterwards, swipe right or click the fast forward button

Estimate the crown cover of the sample plot, in 10% classes.

Afterwards, swipe right or click the fast forward button

Enter the dominant ground cover type of the sample plot.

Afterwards, swipe right or click the fast forward button

Select the average log quality from the trees present on the sample plot:

Afterwards, swipe right or click the fast forward button

Inventory of OFWE plant... COMPARTMENT > Sample Plot [1]

Sample Plot Nr	Terrain Form
Sample Plot Uid	
Coordinate	<input type="radio"/> Flat (1)
Time Start of Measurement	<input type="radio"/> Peak (2)
Elevation in m asl	<input checked="" type="radio"/> Ridge (3)
Slope in degrees	<input type="radio"/> Shoulder (4)
Terrain Form	<input type="radio"/> Spur (5)
Crown Cover in %	<input type="radio"/> Slope (6)
Ground Cover Type	<input type="radio"/> Pit (7)
Plot Size	<input type="radio"/> Valley (8)
+ Trees	<input type="radio"/> Foot slope (9)
	<input type="radio"/> Hollow (10)

Sample Plot Uid: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

Inventory of OFWE plant... COMPARTMENT > Sample Plot [1]

Sample Plot Nr	Crown Cover in %
Sample Plot Uid	
Coordinate	<input type="radio"/> 10% (1)
Time Start of Measurement	<input type="radio"/> 20% (2)
Elevation in m asl	<input type="radio"/> 30% (3)
Slope in degrees	<input type="radio"/> 40% (4)
Terrain Form	<input type="radio"/> 50% (5)
Crown Cover in %	<input type="radio"/> 60% (6)
Ground Cover Type	<input type="radio"/> 70% (7)
Plot Size	<input checked="" type="radio"/> 80% (8)
+ Trees	<input type="radio"/> 90% (9)
	<input type="radio"/> 100% (10)

Sample Plot Uid: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

Inventory of OFWE plant... COMPARTMENT > Sample Plot [1]

Sample Plot Nr	Ground Cover Type
Sample Plot Uid	
Coordinate	<input type="radio"/> Litter (1)
Time Start of Measurement	<input type="radio"/> Stones (2)
Elevation in m asl	<input checked="" type="radio"/> Rocks (3)
Slope in degrees	<input type="radio"/> Grass (including herbs and perennial plants) (4)
Terrain Form	<input type="radio"/> Fern (5)
Crown Cover in %	<input type="radio"/> Bare soil (6)
Ground Cover Type	<input type="radio"/> other (7)
Plot Size	
+ Trees	

Sample Plot Uid: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

19:08 COMPARTMENT > Sample Plot [1]

Log Quality

This field is required

High (1)

Medium (2)

Low (3)

Select the size of the sample plot

Afterwards, swipe right or click the fast forward button

07:27 Inventory of OFWE plant... COMPARTMENT > Sample Plot [1]

Sample Plot Nr	Plot Size
Sample Plot Uid	
Coordinate	<input type="radio"/> 50m2 (1)
Time Start of Measurement	<input checked="" type="radio"/> 100m2 (2)
Plot Established	<input type="radio"/> 200m2 (3)
Elevation in m asl	

Data Entry

Sample plots – tree recording (1)

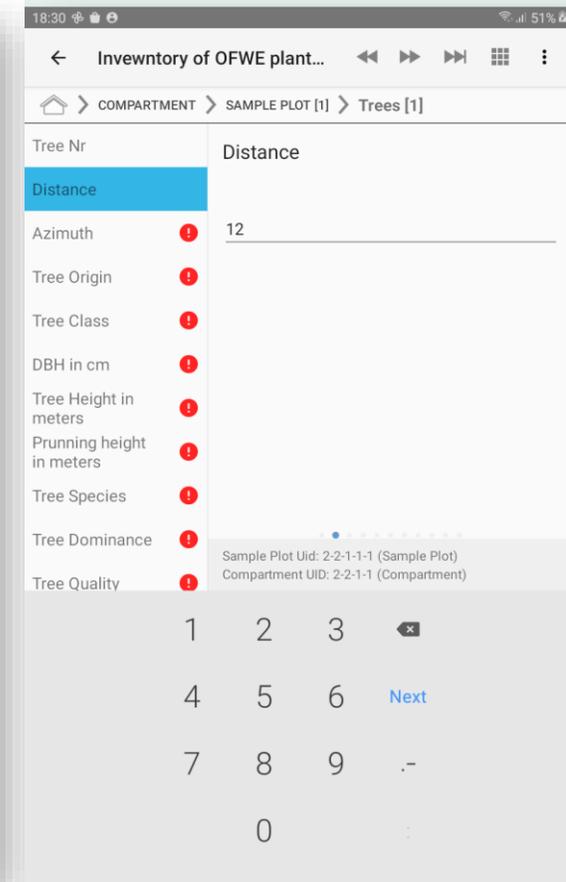
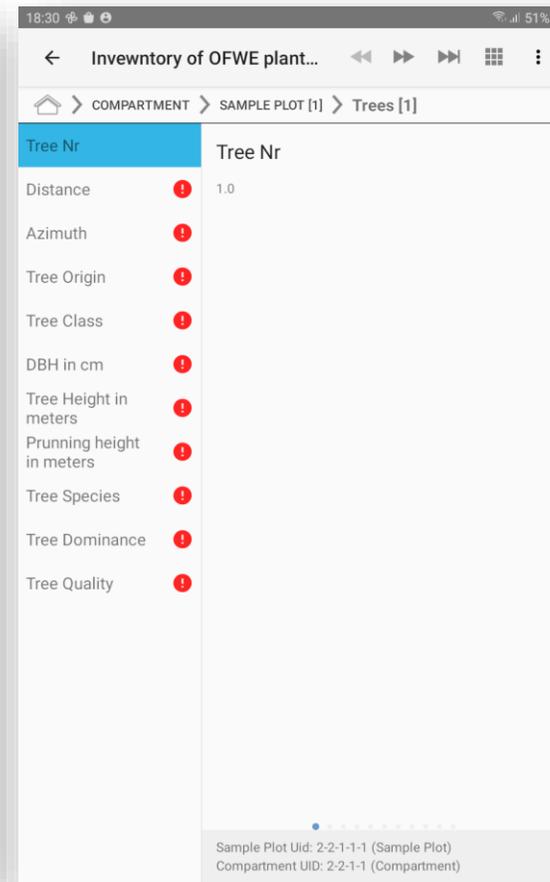
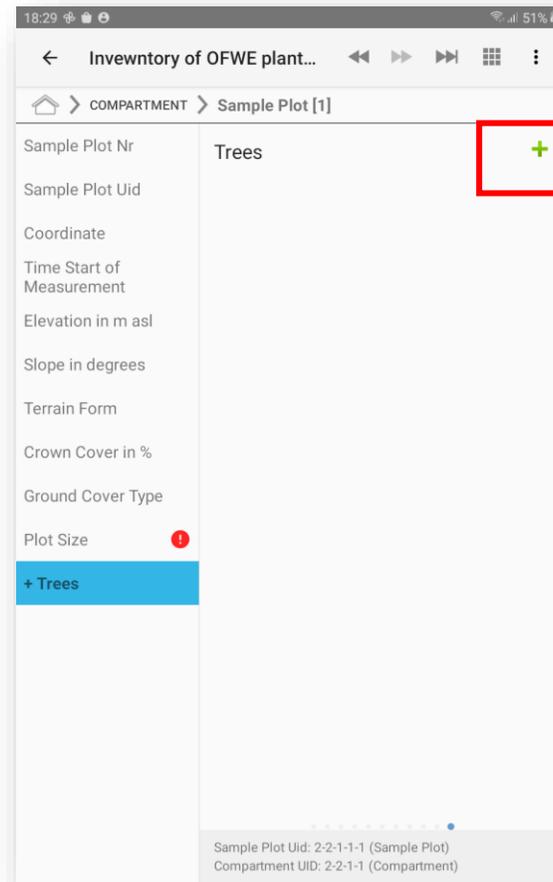
To enter the information on the trees, please select the green + symbol
To establish the sample plot, click the green + button.

The tree number is entered automatically, it starts at 1 and is incremented with each new entry.
Swipe right or click the fast forward button.

The distance to the center of the sample plot of the measured tree is an attribute that appear only if “permanent” sample plot is selected.
Swipe right or click the fast forward button.

The next segment is dedicated to the entry of individual trees at the sample plots.

The entry goes into a loop, and the user can enter as many trees as they are available at the sample plot.



Data Entry

Sample plots – tree recording (2)

The azimuth from the center of the sample plot of the measured tree is an attribute that appears only if “permanent” sample plot is selected.

Swipe right or click the fast forward button.

Select the type of tree that is measured

Swipe right or click the fast forward button.

Select the tree class. This would allow to have an estimation of damaged trees, or already harvested trees.

Swipe right or click the fast forward button.

The measurement of the DBH, in cm is a numeric field and accepts decimal values.

Swipe right or click the fast forward button.

18:30 51%

Inventory of OFWE plant...

COMPARTMENT > SAMPLE PLOT [1] > Trees [1]

Tree Nr	Azimuth
Distance	
Azimuth	12
Tree Origin	!
Tree Class	!
DBH in cm	!
Tree Height in meters	!
Pruning height in meters	!
Tree Species	!
Tree Dominance	!
Tree Quality	!

Sample Plot UID: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

1 2 3

4 5 6 Next

7 8 9 .-

0

18:30 51%

Inventory of OFWE plant...

COMPARTMENT > SAMPLE PLOT [1] > Trees [1]

Tree Nr	Tree Origin
Distance	
Azimuth	<input checked="" type="radio"/> Planted tree (1)
Tree Origin	<input type="radio"/> Coppice (2)
Tree Class	<input type="radio"/> Natural regeneration (3)
DBH in cm	!
Tree Height in meters	!
Pruning height in meters	!
Tree Species	!
Tree Dominance	!
Tree Quality	!

Sample Plot UID: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

18:30 51%

Inventory of OFWE plant...

COMPARTMENT > SAMPLE PLOT [1] > Trees [1]

Tree Nr	Tree Class
Distance	
Azimuth	<input checked="" type="radio"/> Standing live tree (1)
Tree Origin	<input type="radio"/> Standing dead tree - crown present (2)
Tree Class	<input type="radio"/> Standing dead tree - broken, crown not present (3)
DBH in cm	<input type="radio"/> Stump (4)
Tree Height in meters	!
Pruning height in meters	!
Tree Species	!
Tree Dominance	!
Tree Quality	!

Sample Plot UID: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

18:31 51%

Inventory of OFWE plant...

COMPARTMENT > SAMPLE PLOT [1] > Trees [1]

Tree Nr	DBH in cm
Distance	
Azimuth	44
Tree Origin	
Tree Class	
DBH in cm	
Tree Height in meters	!
Pruning height in meters	!
Tree Species	!
Tree Dominance	!
Tree Quality	!

Sample Plot UID: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

1 2 3

4 5 6 Next

7 8 9 .-

0

Data Entry

Sample plots – tree recording (3)

The rule for height measurement is to measure only 20-30% of the trees.

This is a check-box that allows you to control which trees shall be measured for height,

Select “yes” if the height is to be measured, you will than get the following fields presented on this page.

Select “no” if the height is not measured.

07:28 84%

Inventory of OFWE plant...

COMPARTMENT > SAMPLE PLOT [1] > Trees [1]

Tree Nr	Height Measured
Tree Origin	<input checked="" type="radio"/> Yes
Tree Origin level 2	<input type="radio"/> No
Tree Class	
DBH in cm	
Height Measured	
Tree Height in meters	
Prunning height in meters	
Tree Species	
Tree Dominance	
Tree Quality	

Sample Plot UID: 1-1-1-1-1 (Sample Plot)
Compartment UID: 1-1-1-1 (Compartment)

The measurement of the tree height, in meters is a numeric field and accepts decimal values.

Swipe right or click the fast forward button.

18:31 52%

Inventory of OFWE plant...

COMPARTMENT > SAMPLE PLOT [1] > Trees [1]

Tree Nr	Tree Height in meters
Distance	
Azimuth	14
Tree Origin	
Tree Class	
DBH in cm	
Tree Height in meters	
Prunning height in meters	
Tree Species	
Tree Dominance	
Tree Quality	

Sample Plot UID: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

The measurement of the prunning height, in meters is a numeric field and accepts decimal values.

Swipe right or click the fast forward button.

18:31 52%

Inventory of OFWE plant...

COMPARTMENT > SAMPLE PLOT [1] > Trees [1]

Tree Nr	Prunning height in meters
Distance	
Azimuth	11
Tree Origin	
Tree Class	
DBH in cm	
Tree Height in meters	
Prunning height in meters	
Tree Species	
Tree Dominance	
Tree Quality	

Sample Plot UID: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

Enter the name of the tree species. The tree species name is entered through a drop-down list.

Click space button the show the list-

Swipe right or click the fast forward button.

18:31 52%

Inventory of OFWE plant...

COMPARTMENT > SAMPLE PLOT [1] > Trees [1]

Tree Nr	Tree Species
Distance	
Azimuth	Eucalyptus camaldulnesis (3)
Tree Origin	
Tree Class	
DBH in cm	
Tree Height in meters	
Prunning height in meters	
Tree Species	
Tree Dominance	

Sample Plot UID: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

Eucalyptus

1 2 3 4 5 6 7 8 9 0 Del

q w e r t y u i o p

a s d f g h j k l Next

↑ z x c v b n m , ! . ? ↑

Ctrl #1 English (UK)

Data Entry

Sample plots – tree recording (4)

Select the dominance of the tree.

For the description of the dominance, check the field manual.

Swipe right or click the fast forward button.

18:32 52%

Inventory of OFWE plant...

COMPARTMENT > SAMPLE PLOT [1] > Trees [1]

Tree Nr

Distance

Azimuth

Tree Origin

Tree Class

DBH in cm

Tree Height in meters

Pruning height in meters

Tree Species

Tree Dominance

Tree Quality

Tree Dominance

Dominant (1)

Co-dominant (2)

Suppressed (3)

individual or isolated tree; trees outside forest (4)

Sample Plot UID: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

Select the tree quality from the available list.

Swipe right or click the fast forward button.

18:32 52%

Inventory of OFWE plant...

COMPARTMENT > SAMPLE PLOT [1] > Trees [1]

Tree Nr

Distance

Azimuth

Tree Origin

Tree Class

DBH in cm

Tree Height in meters

Pruning height in meters

Tree Species

Tree Dominance

Tree Quality

Tree Quality

Veneer (1)

Construction wood (2)

Wood poles (3)

Logs (4)

Fuel wood (5)

Transmission pole (6)

other (7)
Please specify which other use

Sample Plot UID: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

This screen provides an overview of the already trees.

1. If there are additional trees to enter, please select the green + symbol, and enter the information
2. If no further trees are to be entered, swipe right or click the fast forward button

18:32 52%

Inventory of OFWE plant...

COMPARTMENT > Sample Plot [1]

Sample Plot Nr

Sample Plot Uid

Coordinate

Time Start of Measurement

Elevation in m asl

Slope in degrees

Terrain Form

Crown Cover in %

Ground Cover Type

Plot Size

+ Trees

Tree Nr	Distance	Azimuth
1.0	12.0	12.0

Sample Plot UID: 2-2-1-1-1 (Sample Plot)
Compartment UID: 2-2-1-1 (Compartment)

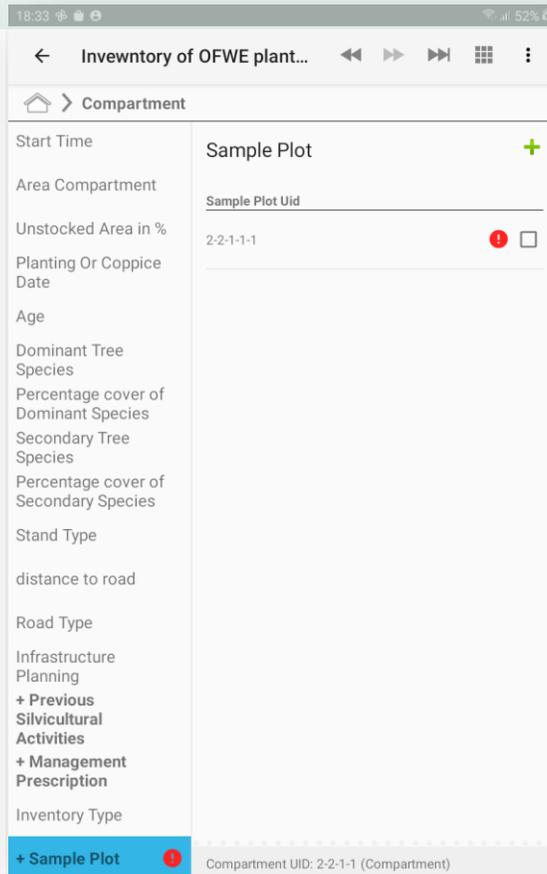
Data Entry

Sample plots

With entering the data for all trees in one plot, the next screen leads you to the overview of sample plots.

Here you can either establish a new sample plot, or move forward.

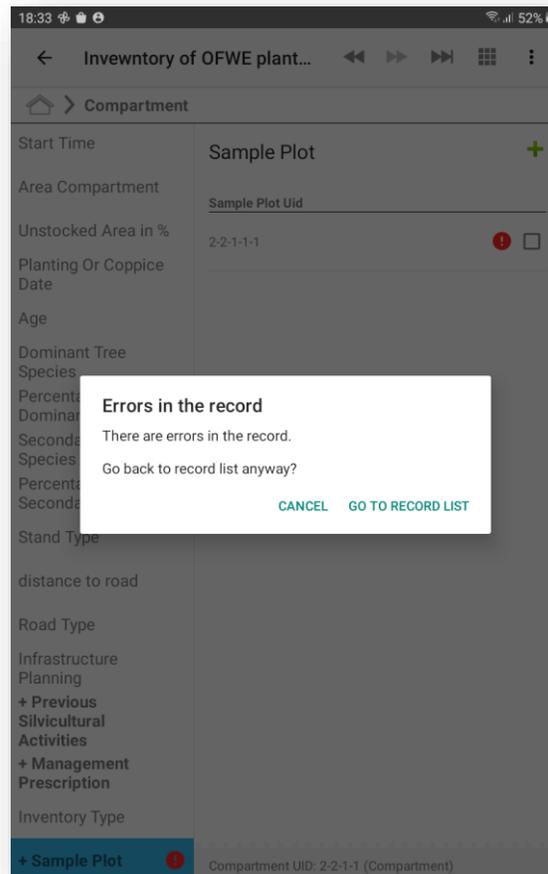
1. If there are additional plot to enter, please select the green + symbol, and enter the information
2. If no further plots are to be entered, swipe right or click the fast forward button



If the team has finished entering the data for all the plots, and has chosen the fast forward button in the previous step.

The app will lead you to the start screen. If there are any errors or empty field in the record, it will show you the following message.

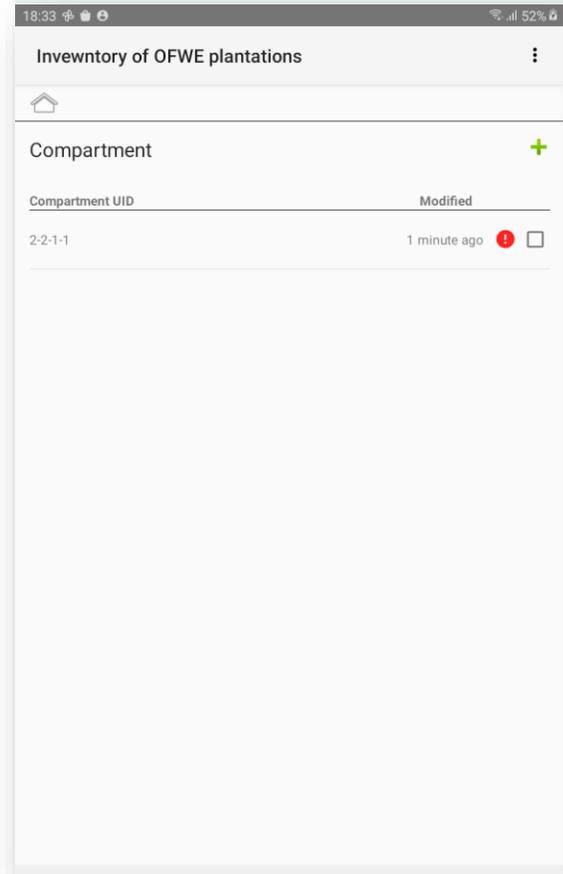
Note that the records can be edited or adjusted at a later time as well.



When finished with entering the data for all sample plots in one compartment, the app will lead you to the starting page as shown below.

To initiate the work in a new compartment, please click the green + symbol.

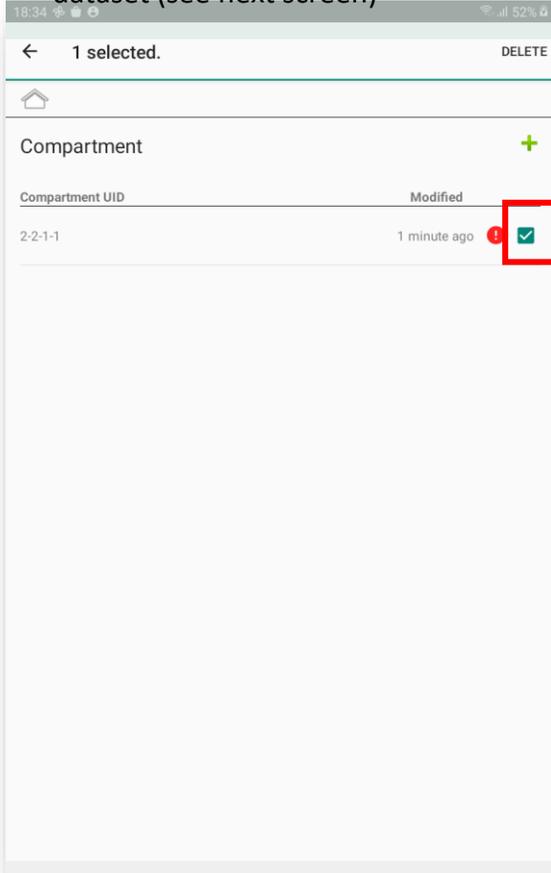
If you want to edit some of the data that has been entered, select the compartment accordingly.



Data Management

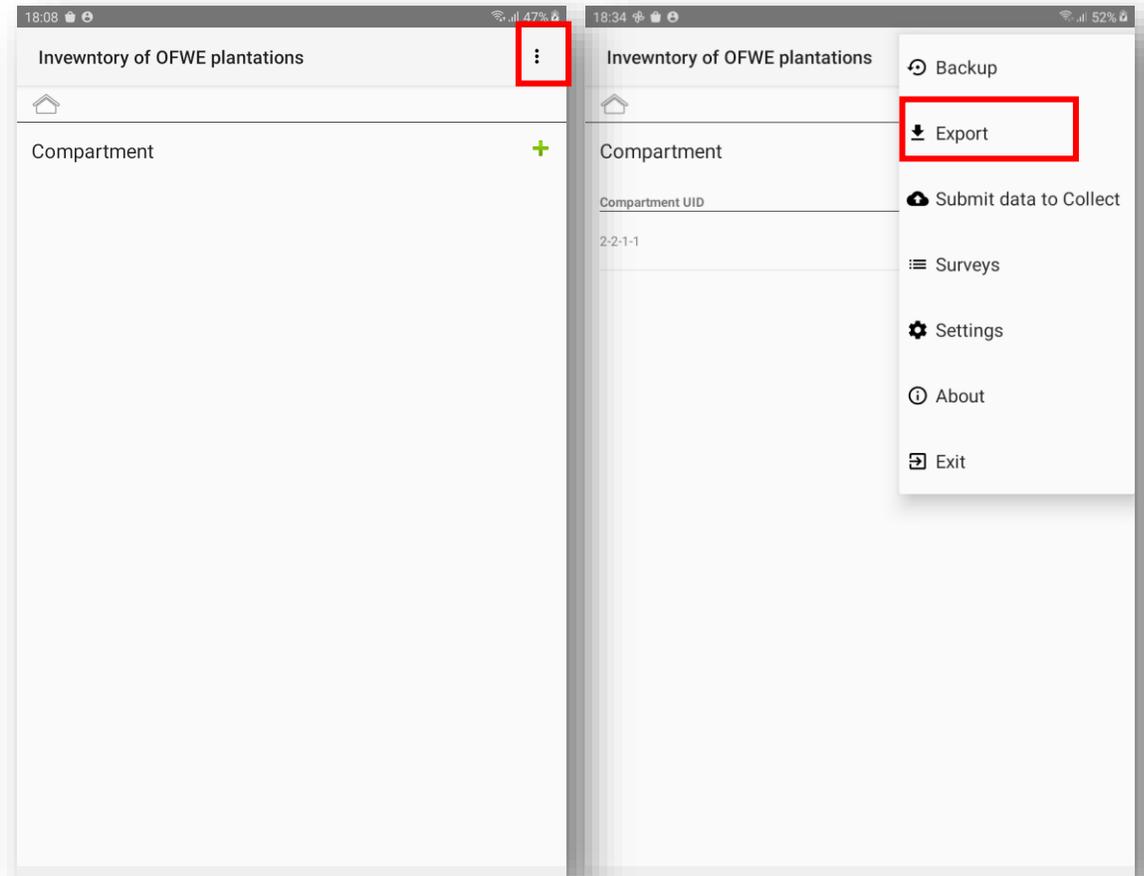
In case you have entered data by error, and you want to delete the compartment:

- Select the compartment ticking the box on the right.
- When selected you get the option “delete” on the top of the screen.
- Before deleting anything, please make sure to export a copy of the dataset (see next screen)



To export the data, and share it with the office follow this instruction.

1. Click the three dots at the top right of the screen
2. The menu with several options will appear
3. From the menu, select “export”



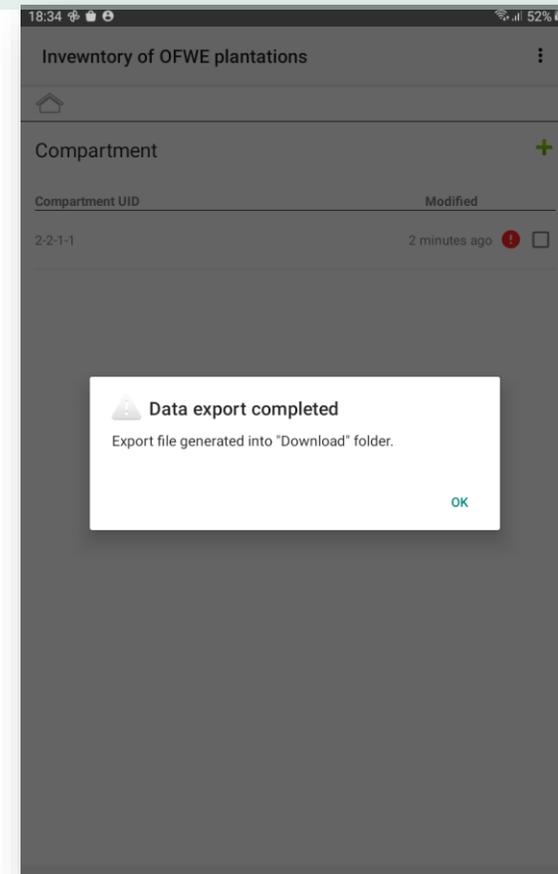
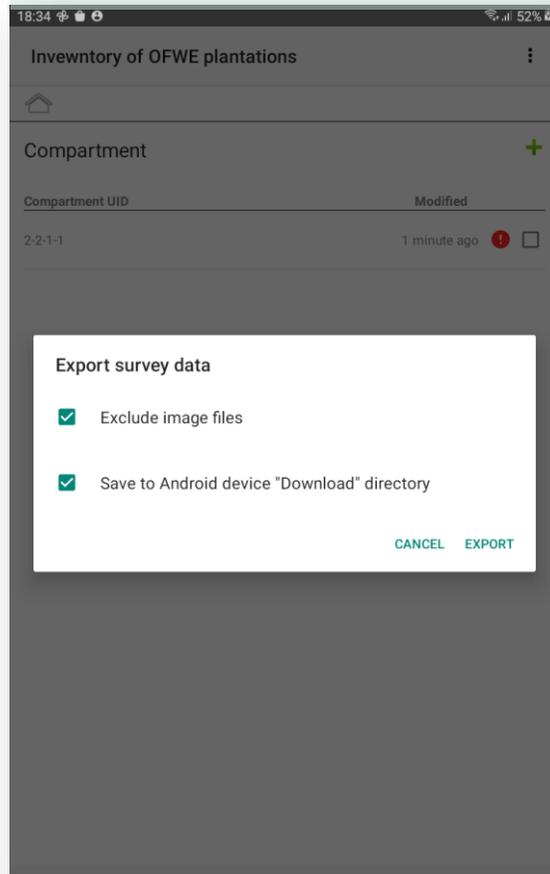
Data Management (2)

To export the data, and share it with the office follow this instructions:

4. On the pop-up window, tick both boxes
5. Click export
6. You will get a message that the file is exported to the “download” folder. Click “ok” to confirm

With this, the data is exported and can be sent to the OFWE central.

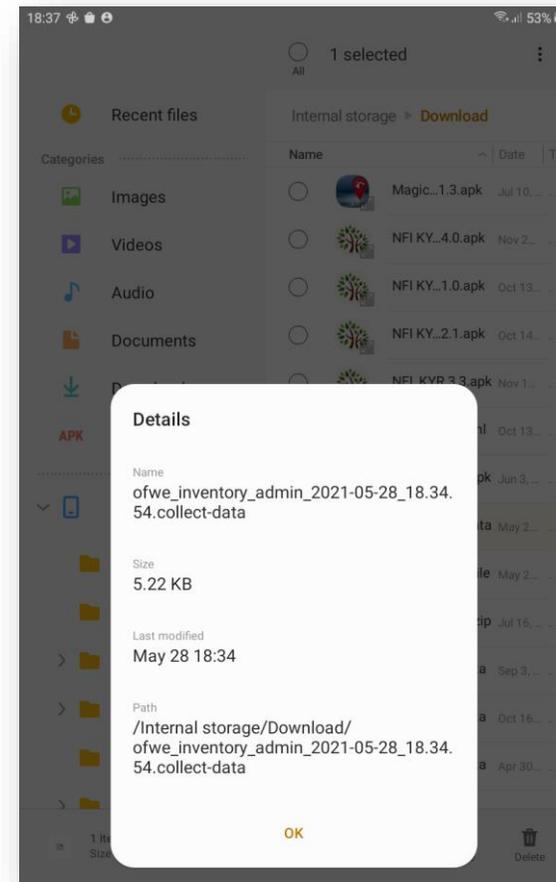
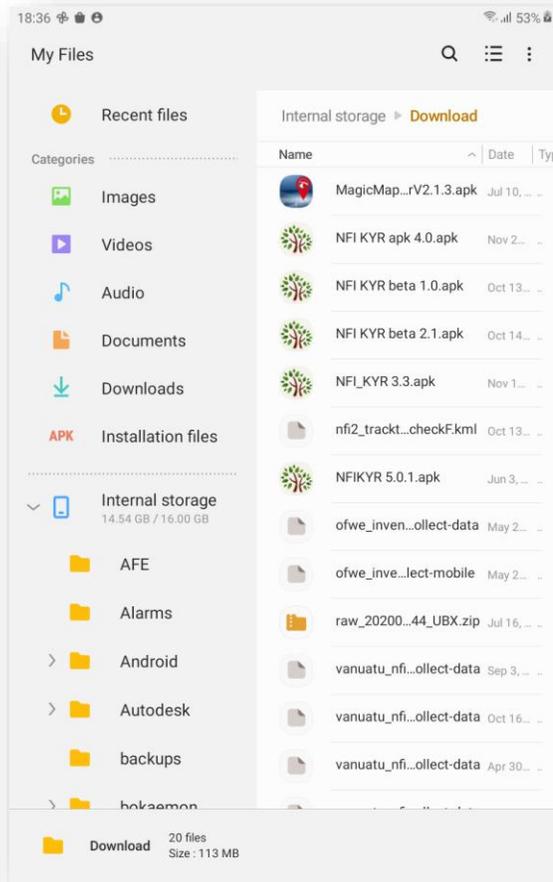
Please note: export the data daily, in order to avoid any data loss



Data Management (3)

To exported file is located in the download folder of the phone / tablet.

1. Navigate to the download folder.
2. Locate the file, it should have the following name “ofwe_inventory_admin_XXXXXXXXXXXX.collect-data”
XXXXXXXXXX stands for the date and hour when the export has been done. So if you export the file daily, it is easy to recognize the version of the file.
3. The file can be now sent to the OFWE central either by email or WhatsApp.



Additional Information

- Web Site Open Foris: www.openforis.org
- Manual for general use:
http://www.openforis.org/fileadmin/docs/collectMobile/OF_Collect_Mobile_MANUAL_20180315.pdf



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