

Crop-Climate Diary (CCD) Manual

A. Main screen

- i. Once the initialization is completed, go to the main screen.

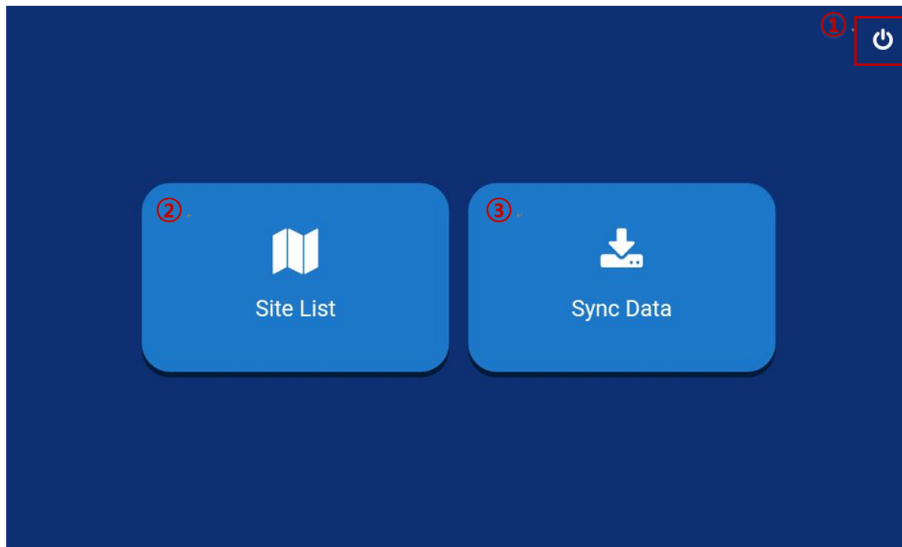


Figure 1. Main screen

- ① Click this to log out. A logout will delete all the data stored in the application database. The deleted data cannot be restored.
- ② Click this to go to site list.
- ③ Click this to sync data.

B. Site Information – Site List

- i. Once the initialization is completed, go to the main screen.

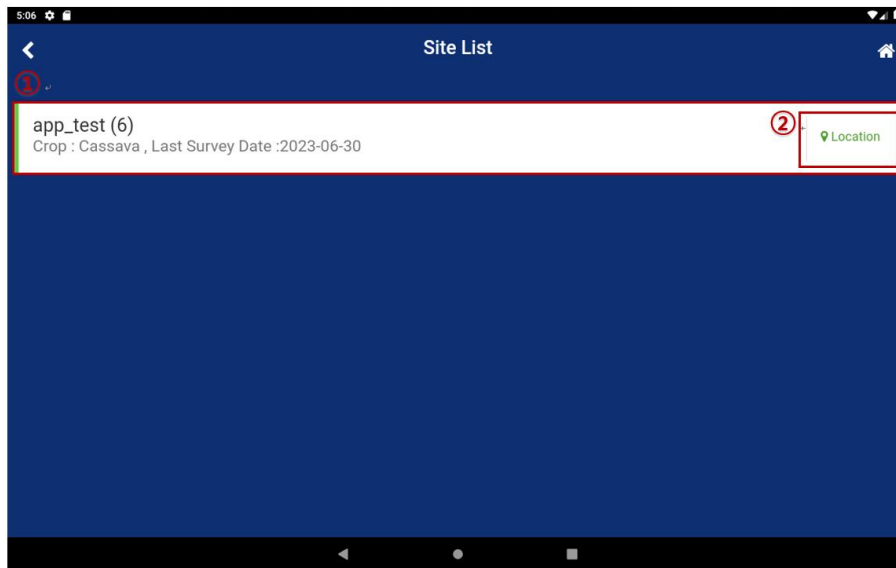


Figure 2. Site list

- ① Click this to go to the survey list of the site.
- ② Click this to go to the map screen.

C. Site Information – Location

- i. This is the map screen when the device is online. This screen shows the location of farm on online Google map.



Figure 3. Site list – Location – Online map

- ① Click this to place the site on the center of the map.
- ② Click this to display the user's current location on the map. To use this function, the access to location information must be granted.
- ③ This shows the location of the site.
- ④ This adjusts the zoom level of the map.
- ⑤ Click this to move to a different island.

ii. This is the map screen when the device is offline. The map data stored on a SD card is read to show the location of farm.



Figure 4. Site list – Location – Offline map

- ① Detailed information on the site is offered separately, as the zoom-in scope of offline map is more limited than that of online map.
- ② In offline mode, GPS signals are received from a satellite. Therefore, the reception might be reduced due to the reasons below.
 - 1) Signals are affected by the surrounding structures including the inside of a building, underground, a gap between tall buildings, or the inside of a tunnel.
 - 2) Signals are affected by other devices and equipment, including wireless equipment that disrupts the reception of GPS.
 - 3) Signals are affected by weather or climate conditions such as cloudy weather.

If a GPS signal is not detected, move your device in the shape below.

Timeout Error

※GPS satellite available outdoors. If you don't catch the signal, Try the following.



D. Survey management – Survey List

i. The list of site surveys appears.



Figure 5. Survey list

- ① This is the name of a site.
- ② Click the text or + icon to move to the screen for writing a survey.
- ③ A survey written on the application is activated in green. Click the survey name or icon to move to the screen for editing survey.

- ④ A survey written on the website is shown in grey. Click the survey name or icon to move to the screen for viewing the survey. A survey written on the website can be searched only and cannot be edited or deleted.

E. Survey management – View Survey

- i. You can view the survey data downloaded from the website.

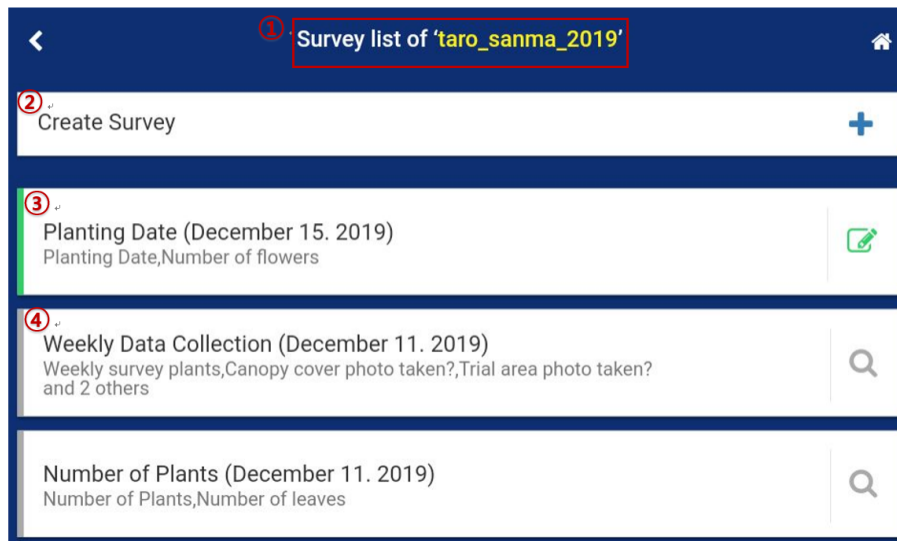


Figure 6. View detail survey

- ① This is the name of a site.
- ② Click the text or + icon to move to the screen for writing a survey.
- ③ A survey written on the application is activated in green. Click the survey name or icon to move to the screen for editing survey.
- ④ A survey written on the website is shown in grey. Click the survey name or icon to move to the screen for viewing the survey. A survey written on the website can be searched only and cannot be edited or deleted.

F. Survey management – Create Survey

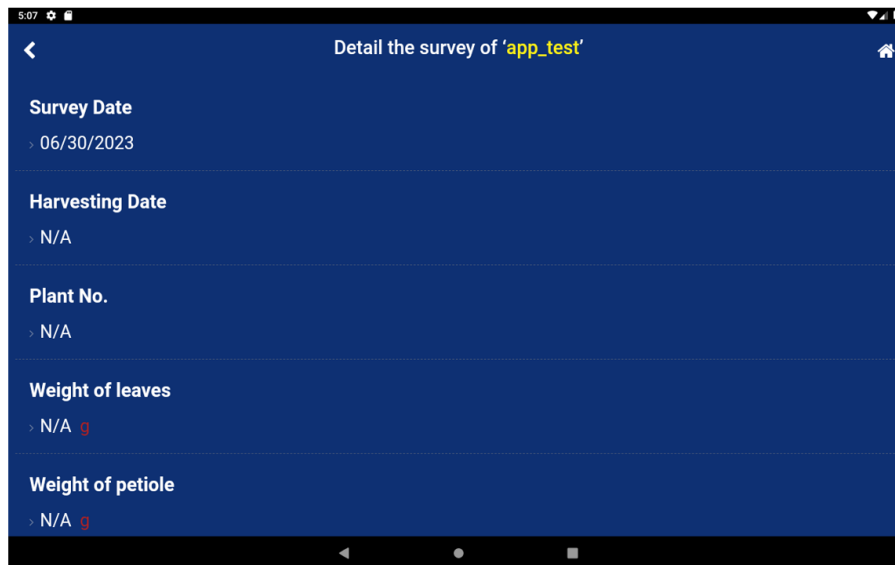


Figure 7. View detail survey

G. Survey management – Create Survey

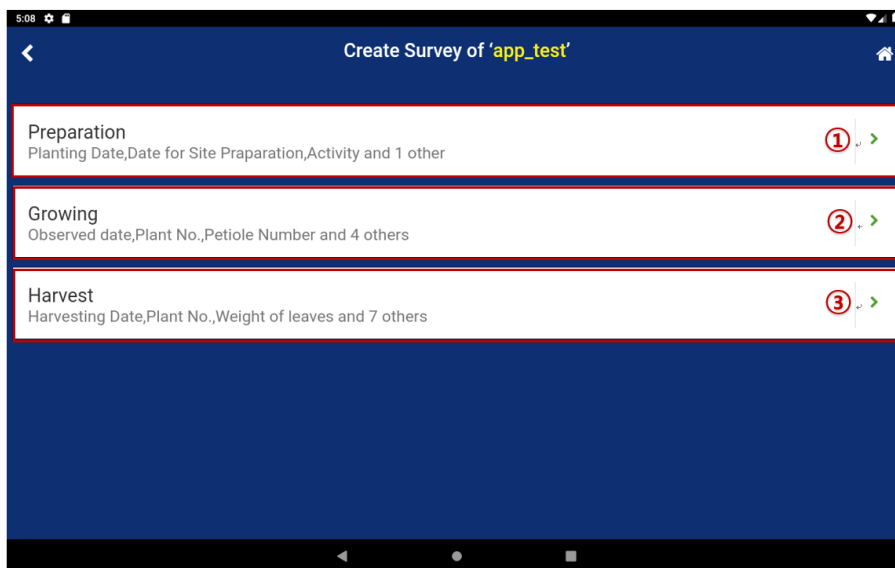


Figure 8. Create survey

- ① Click the text or icon to move to the screen for creating a preparation survey.
- ② Click the text or icon to move to the screen for creating a growth survey.
- ③ Click the text or icon to move to the screen for creating a harvest survey.

H. Survey management – Preparation

5:09

Enter the survey of 'app_test'

① Photo Add/Delete

② Crop Weight Calculation Add/Delete

Survey Date ③
07/03/2023

Planting Date ④

Date for Site Preparation ⑤

Activity ⑥

NOTE ⑦

⑧ Submit

Figure 9. Preparation - Add

- ① You can add or delete a photo.
- ② You can add or delete a photo for calculating crop weight.
- ③ You can register the date of surveys.
- ④ You can register the date of sowing.
- ⑤ You can register the date of site registration.
- ⑥ You can register the date of activities.
- ⑦ You can register a note.
- ⑧ Click this to register all contents.

On this preparation screen, you can add or delete a photo.

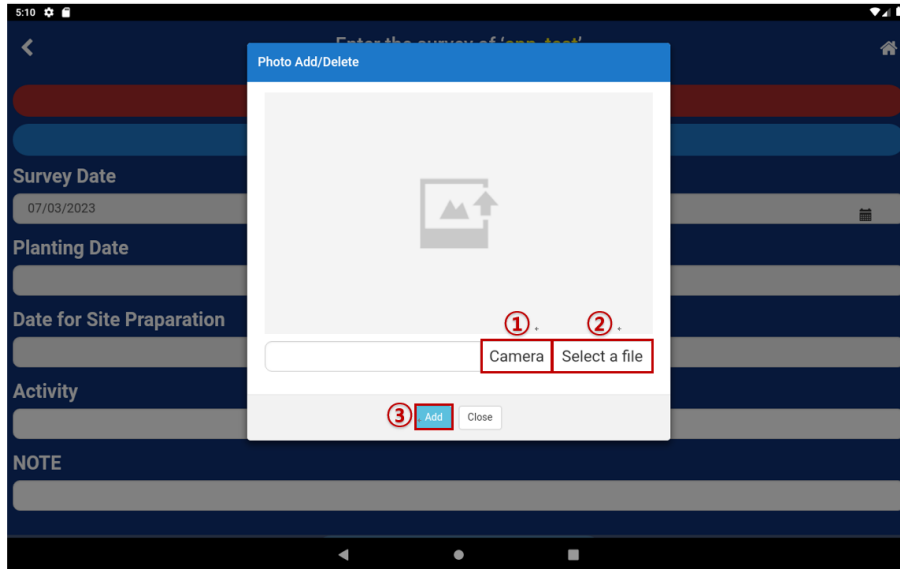


Figure 10. Preparation – Add

- ① Move to camera and take a photo to add it.
- ② You can add a saved photo.
- ③ Add a photo and click this to register it

On this preparation screen, you can add or delete a photo for calculating crop weight.

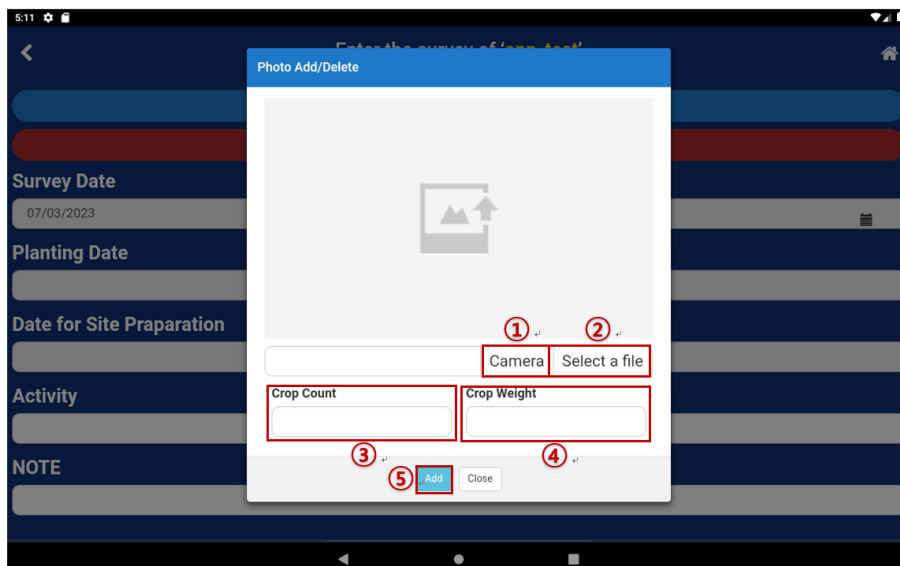


Figure 11. Preparation – Crop Weight Calculation Photo Add

- ① Move to camera and take a photo to add it.

- ② You can add a saved photo.
- ③ Adding a photo will automatically increase the crop count.
- ④ Adding a photo will automatically increase the crop weight.
- ⑤ Add a photo and click this to register it.

I. Survey management – Growing

Figure 12. Growing – Add

- ① You can add or delete a photo.
- ② You can add or delete a photo to calculate crop weight.
- ③ You can register the date of surveys.
- ④ You can register the date of observation.
- ⑤ You can register a plant number.

- ⑥ You can register a petiole number.
- ⑦ You can register leaf number.
- ⑧ You can register the amount of irrigation.
- ⑨ You can register the amount of fertilizer.
- ⑩ You can register a note.
- ⑪ Click this to register all contents.

On this growth screen, you can add or delete a photo.

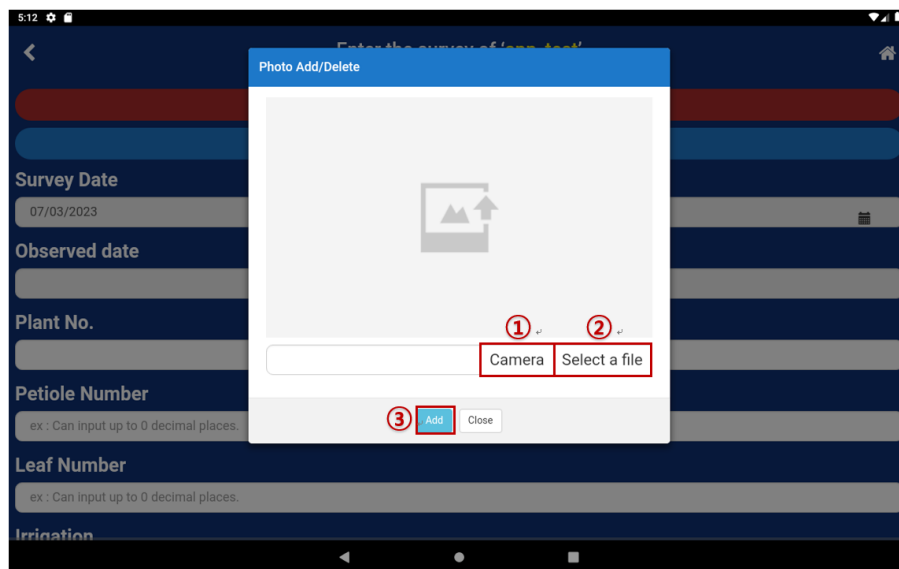


Figure 13. Growing – Photo Add

- ① Move to camera and take a photo to add it.
- ② You can add a saved photo.
- ③ Add a photo and click this to register it.

On this growth screen, you can add or delete a photo to calculate crop weight.

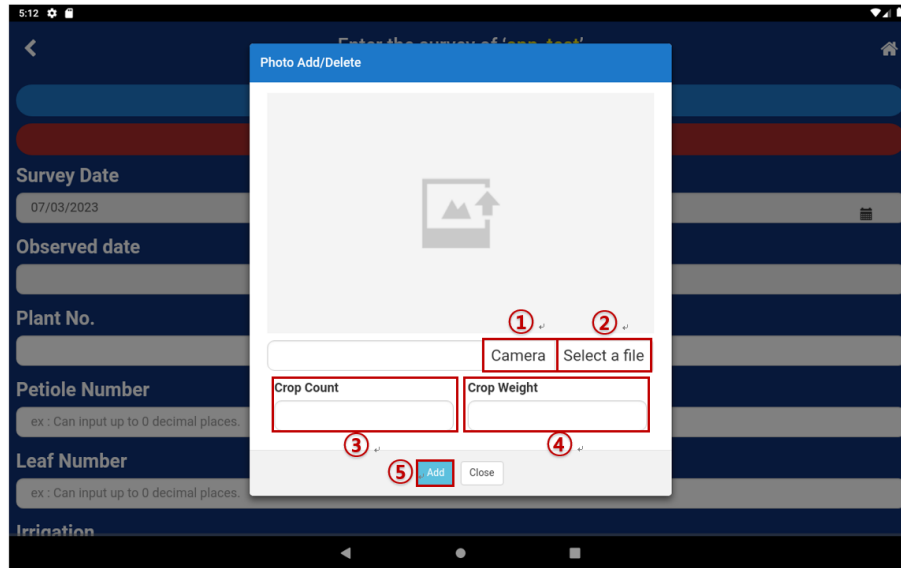


Figure 14. Growing – Crop Weight Calculation Photo Add

- ① Move to camera and take a photo to add it.
- ② You can add a saved photo.
- ③ Adding a photo will automatically increase the crop count.
- ④ Adding a photo will automatically increase the crop weight.
- ⑤ Add a photo and click this to register it.

J. Survey management – Harvest

The figure consists of two screenshots of a mobile application interface for entering survey data. The top screenshot shows the following fields and features:

- 1. Photo Add/Delete button
- 2. Crop Weight Calculation Add/Delete button
- 3. Survey Date field (with example date 07/03/2023)
- 4. Harvesting Date field
- 5. Plant No. field
- 6. Weight of leaves field (with example text: ex: Can input up to 0 decimal places. and unit g)
- 7. Weight of petiole field (with example text: ex: Can input up to 0 decimal places. and unit g)

The bottom screenshot shows the following fields and features:

- 8. Weight of stem field (with example text: ex: Can input up to 0 decimal places. and unit g)
- 9. Weight of roots field (with example text: ex: Can input up to 0 decimal places. and unit g)
- 10. Weight of tubers field (with example text: ex: Can input up to 0 decimal places. and unit g)
- 11. Crop Count field (with example text: ex: Can input up to 0 decimal places. and unit ea)
- 12. Crop Fresh Weight field (with example text: ex: Can input up to 1 decimal places. and unit kg)
- 13. NOTE field

Figure 15. Growing – Add

- ① You can add or delete a photo.
- ② You can add or delete a photo to calculate crop weight.
- ③ You can register the survey date.
- ④ You can register the date of harvest.
- ⑤ You can register plant number.
- ⑥ Registering a photo will automatically enter the weight of leaves.
- ⑦ Registering a photo will automatically enter the weight of petiole.
- ⑧ Registering a photo will automatically enter the weight of stems.

- ⑨ Registering a photo will automatically enter the weight of roots.
- ⑩ Registering a photo will automatically enter the weight of tubers.
- ⑪ Registering a photo will automatically enter the weight of crop count.
- ⑫ Registering a photo will automatically enter the crop fresh weight.
- ⑬ You can register a note.

On this harvest screen, you can add or delete a photo.

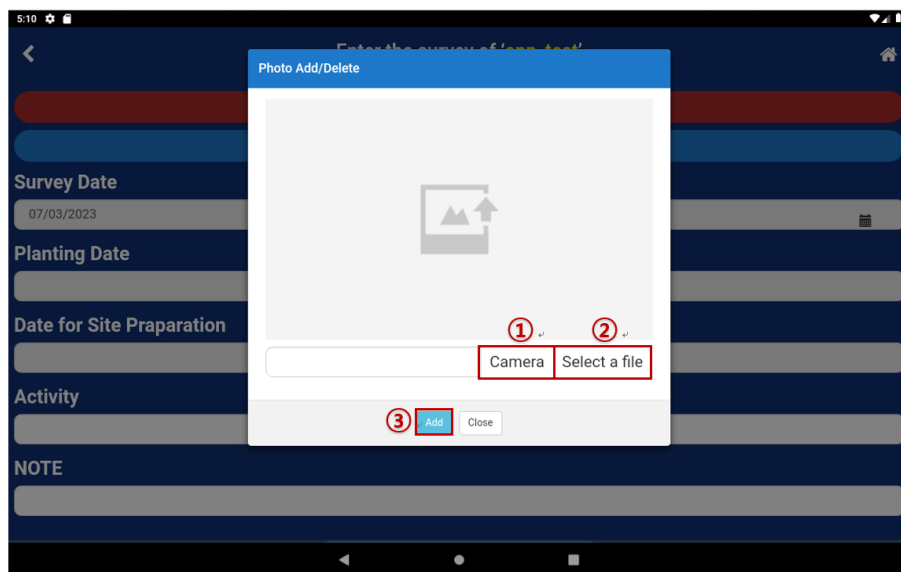


Figure 16. Harvest – Photo Add

- ① Move to camera and take a photo to add it.
- ② You can add a saved photo.
- ③ Add a photo and click this to register it.

On this harvest screen, you can add or delete a photo to calculate crop weight.



Figure 17. Harvest – Crop Weight Calculation Photo Add

- ① Move to camera and take a photo to add it.
- ② You can add a saved photo.
- ③ Adding a photo will automatically increase the crop count.
- ④ Adding a photo will automatically increase the crop weight.
- ⑤ Add a photo and click this to register it.

K. Synchronization

- i. The data entered on the application is uploaded on the website, and then the updated data is downloaded. Internet connection is required for synchronization, and the internet speed or data size (the number of surveys or the size of the number of image files) may affect the speed of synchronization.

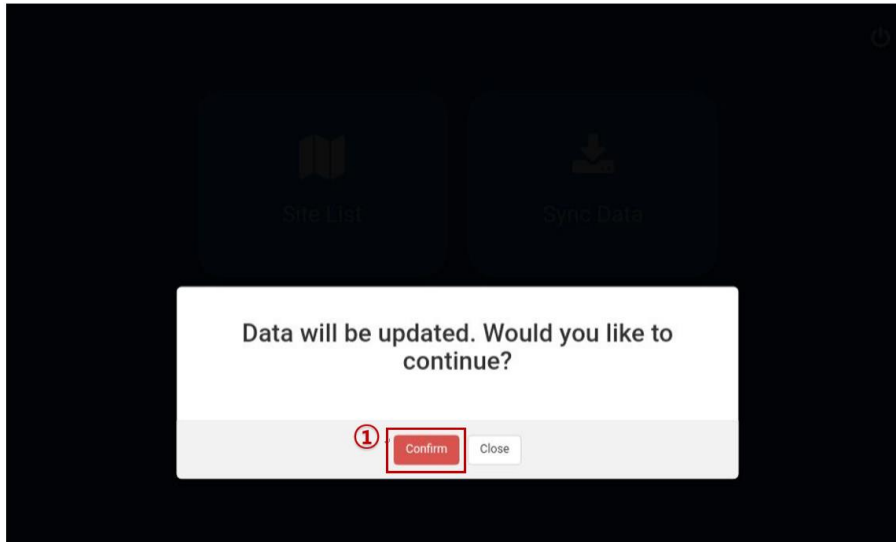
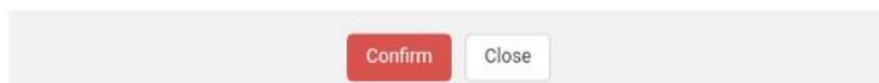


Figure 18. Application synchronization - Confirm

① Clicking the Confirm button will start synchronization. If an activity is deleted on the website at the time of synchronization, the contents entered by the activity will be deleted in the upload.

* If any activity has been deleted on the website, clicking Close button of the notification will cancel synchronization and go back to the main screen.

'NOTE' is(are) deleted from server. Data will be updated except for this item(s). Would you like to continue?



A progress in synchronization is shown.

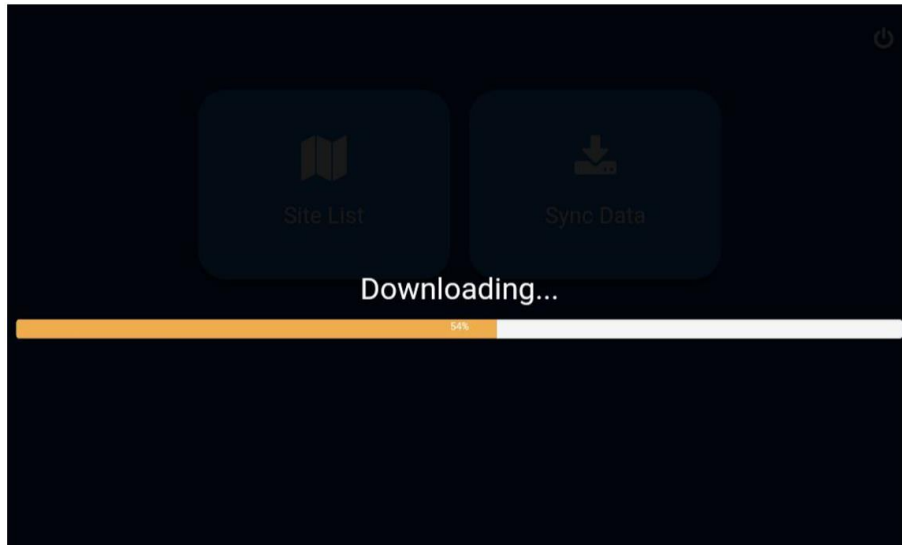


Figure 19. Application synchronization – Progress

The End