Presentation On Bhuvan FASAL Ground Truth Application
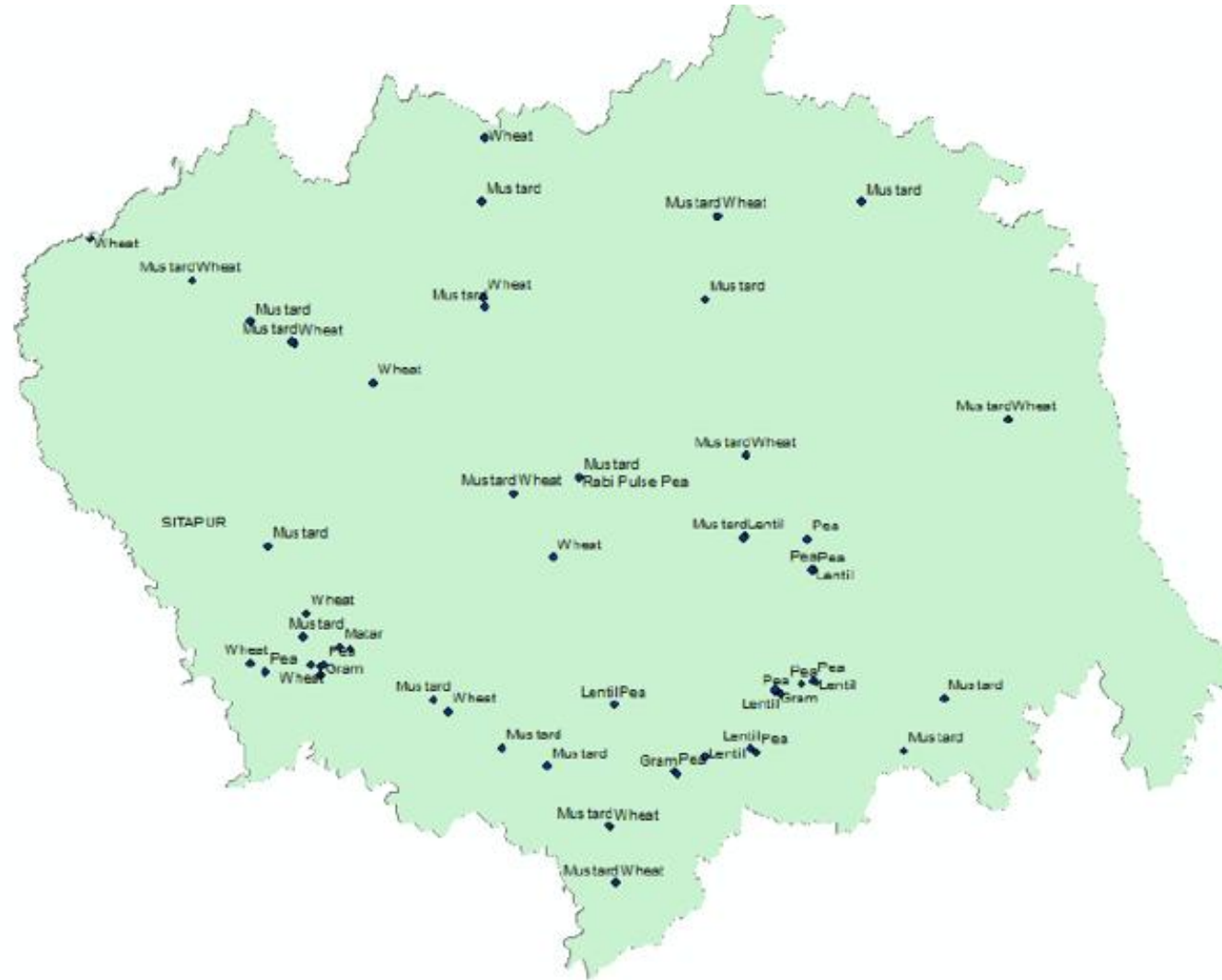

Mahalanobis National Crop Forecast Centre (MNCFC)
Dept. of Agriculture, Cooperation & Farmers' Welfare
Ministry of Agriculture & Farmers' Welfare
Govt. of India

Some important instruction for Ground Truth Collection

1. Don't collect Ground truth near building or electricity wire.

2. Minimum size of field 50x50m.

3. Ground truth (GT) should be well distributed.

4. Need to collect GT near or inside the field as possible as.

5. Need to collect other crop GT during collection of Ground truth for particular crop.

6. There is no upper limit of Ground truth collection for a particular crop.

7. Need to collect GT of all type of crop condition like Good , average and poor crop .

8. Upload GT collection daily on server.

Example of Well distributed GT collection in a district

Bhuvan FASAL Version 1.3 app download

Bhuvan FASAL application installation process

Smartphone Apps

Home → Downloads → Smartphone Apps

Ground Truth Application

This Android based application, developed by National Remote Sensing Centre, ISRO, is useful for field data collection for crop assessment using satellite data under FASAL project of Mahalanobis National Crop Forecast Centre (MNCFC), Ministry of Agriculture. The application can be used for collecting Field Photographs (640x480 resolution), GPS coordinates and Field information, such as crop type, condition, sowing date, soil type, etc. One can also upload pictures taken through their mobile devices depicting status of the crops, varieties and soil as crowd sourcing. This information is extremely useful in creating a national geospatial database of crops. The information can be sent in real-time, or later on using the Send Later option. All data received though this application reaches at ISRO's Bhuvan Server.

Crop Cutting Experiment Application

This Android based application, developed by National Remote Sensing Centre, ISRO, is useful for collection of Crop Cutting Experiment (CCE) Data for the FASAL project of Mahalanobis National Crop Forecast Centre (MNCFC), Ministry of Agriculture. It collects photographs (640x480 resolution), GPS coordinates and CCE information. After installing the application on an Android based device (Smartphone/Tab), one can first update Individual information and then collect the data for CCE. The information can be sent in real-time, or later on using the Send Later option. All data received though this application reaches at ISRO's Bhuvan Server
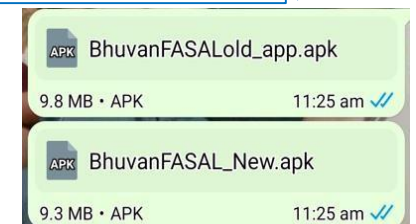
Click on this and download application

GTA (2).rar

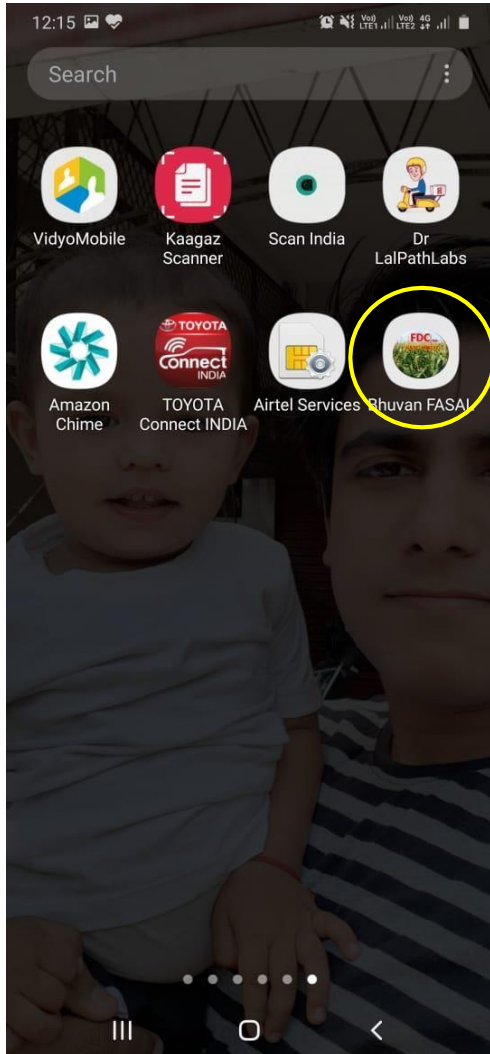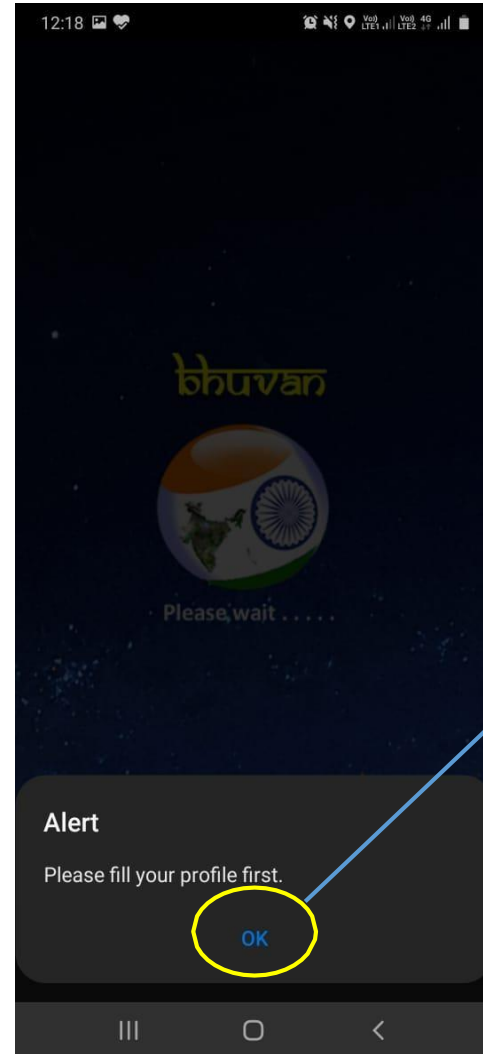Download using any of these software to extract downloaded applications
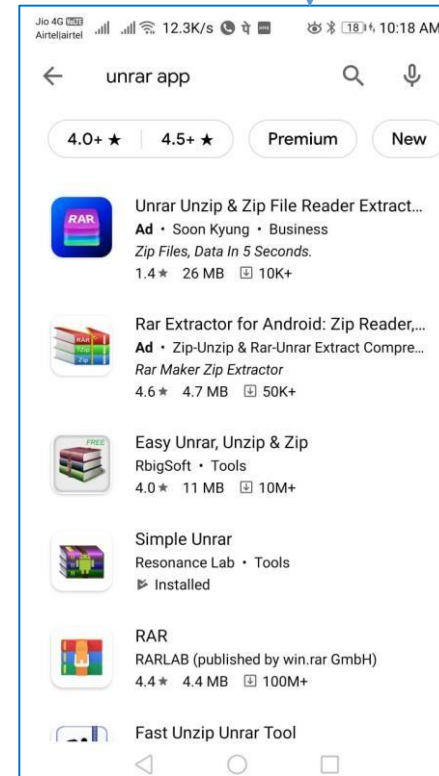
After extraction

First- Install BhuvanFASAL_old_app.apk
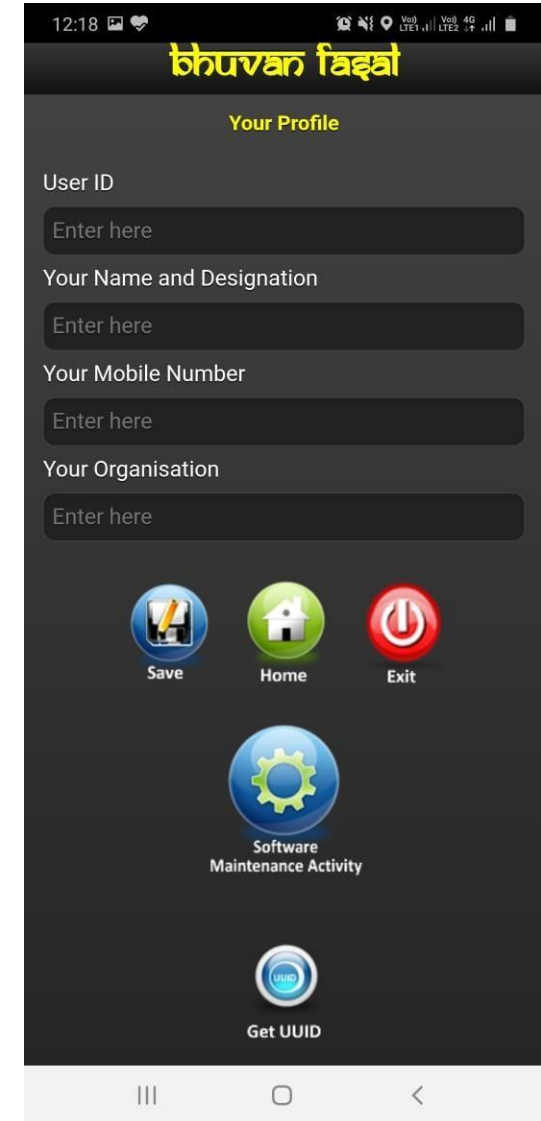second- Install BhuvanFASAL_new_app.apk
overwrite on old app

Open the Bhuvan FASAL app

If App is installed first time on the phone, app will ask you to fill your profile first

Bhuvan FASAL Version 1.3 Profile

Fill all the details

In *User ID* any text can be given

Click on save after filling the details

Bhuvan FASAL Version 1.3
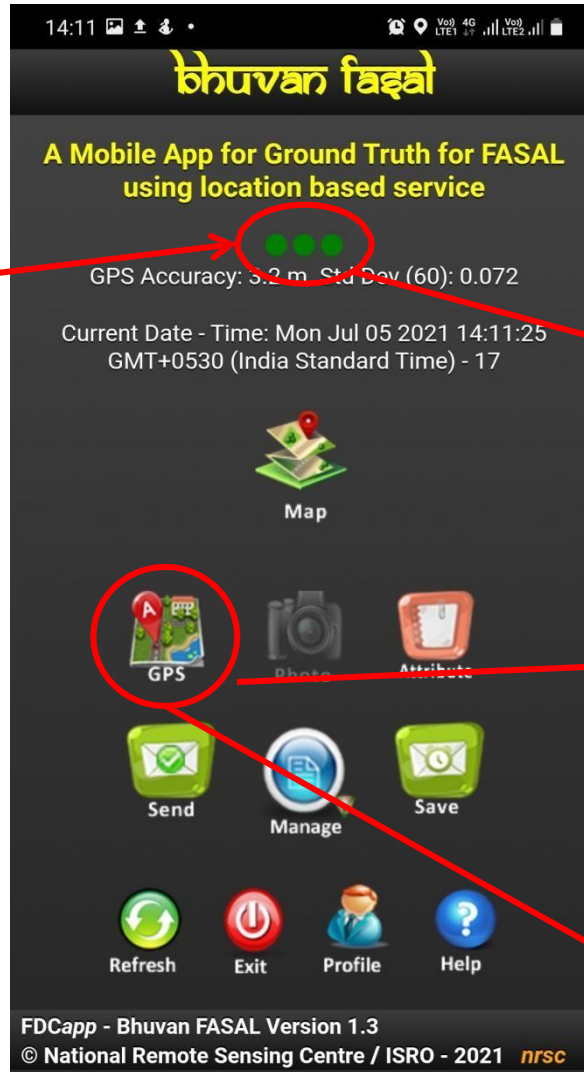
Please follow below given instruction while collecting Ground truth

➢ **GPS accuracy** should be less than 20 m

➢ Wait for some time whenever this values goes beyond 20 then values of std. deviation will start to appear like this Std Dev (31): 0.170

➢ Also this colour will change from **red** to **green** then press **GPS** Icon

➢ Standard deviation a new parameter added – it takes last 20 observations and then compute std dev values and the range of std. dev value should be between >0 and <0.5

➢ When **GPS Accuracy** value comes below **20m** & **Std. Dev** value comes between >0 and <0.5, icon above GPS accuracy will become **green** then click on **GPS** button to capture the location.

Click on GPS while

NCFC
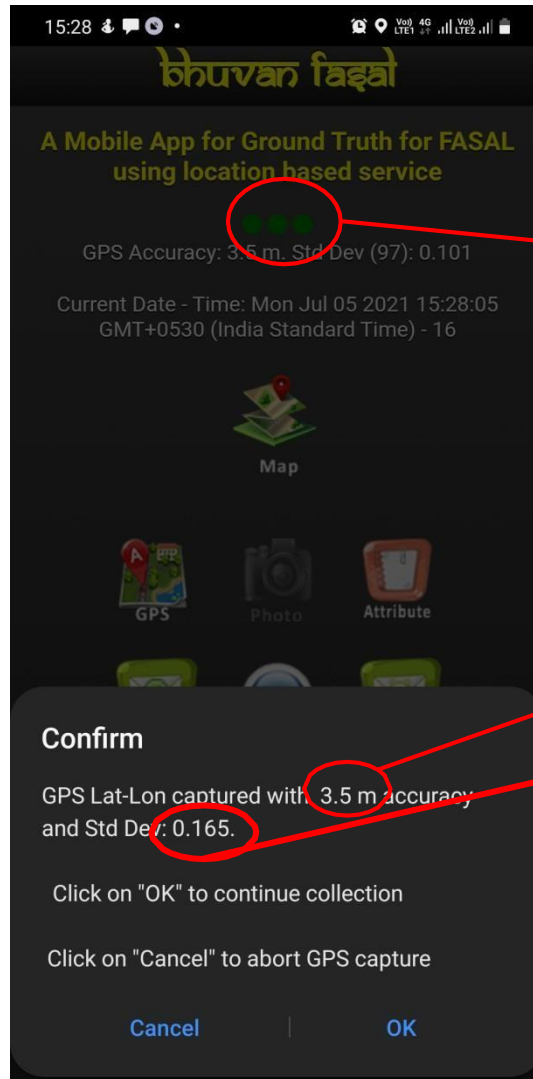
When GPS accuracy is less than 20 m and Std. dev. value is between 0 and 0.5

This color Colour will become green

GPS accuracy is less than 20 m

Std dev is ranging between >0 and <0.5

After capturing GPS location, capture 2 photographs. Screen Auto rotation should be off while taking photograph

1. Don't stand near /under the tree and high tension electric wire.
2. Don't keep application ON while travelling from one location to other location.

Screenshot content:

15:28

bhuvan fasal

A Mobile App for Ground Truth for FASAL using location based service

GPS Accuracy: 3.5 m. Std Dev (97): 0.101

Current Date - Time: Mon Jul 05 2021 15:28:05 GMT+0530 (India Standard Time) - 16

Map

GPS   Photo   Attribute

Confirm

GPS Lat-Lon captured with 3.5 m accuracy and Std Dev: 0.165.

Click on "OK" to continue collection

Click on "Cancel" to abort GPS capture

Cancel | OK

Fill all attributes in proper format

State, District, Village :

Haryana Hisar Bandaheri

Field / SiteID (YYYYMMDD-NNN) :

20200909-001

Type of Crop :

Moong

Size of Crop Field / site-(m x m) :

200x200

Crop Growth Stage :

Vegetative

Crop Health Condition :

Good

Crop Cover on Ground :

>80%

Crop Cover on Ground :

>80%

Crop Variety :

M421

Date Of Sowing / Exp.date-of-Harvesting (DDMMYYYY) :

15072020

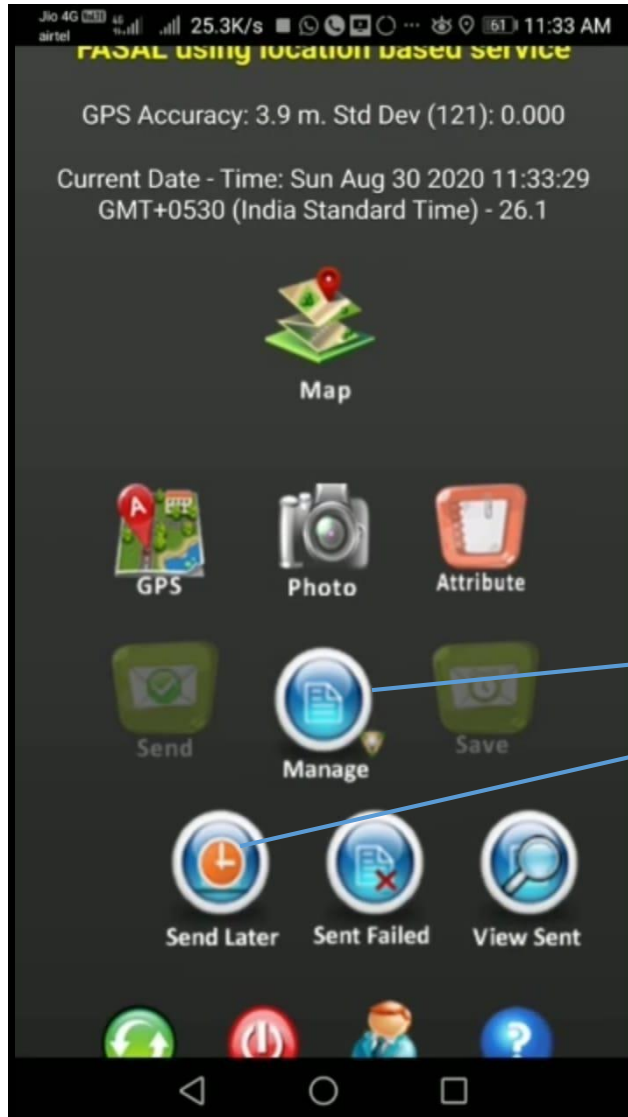Other Crops in Field :

Enter here

Soil Condition :

Moist

Any Other Remarks :

Enter here

Send   Manage   Save

Fill only Date of sowing and In proper format like (DDMMYYYY)

Click on save button after filling all the information

Where to find Saved point and how to upload data to server ?

NCFC

This window will be open

1. Click on manage
2. Click on send later
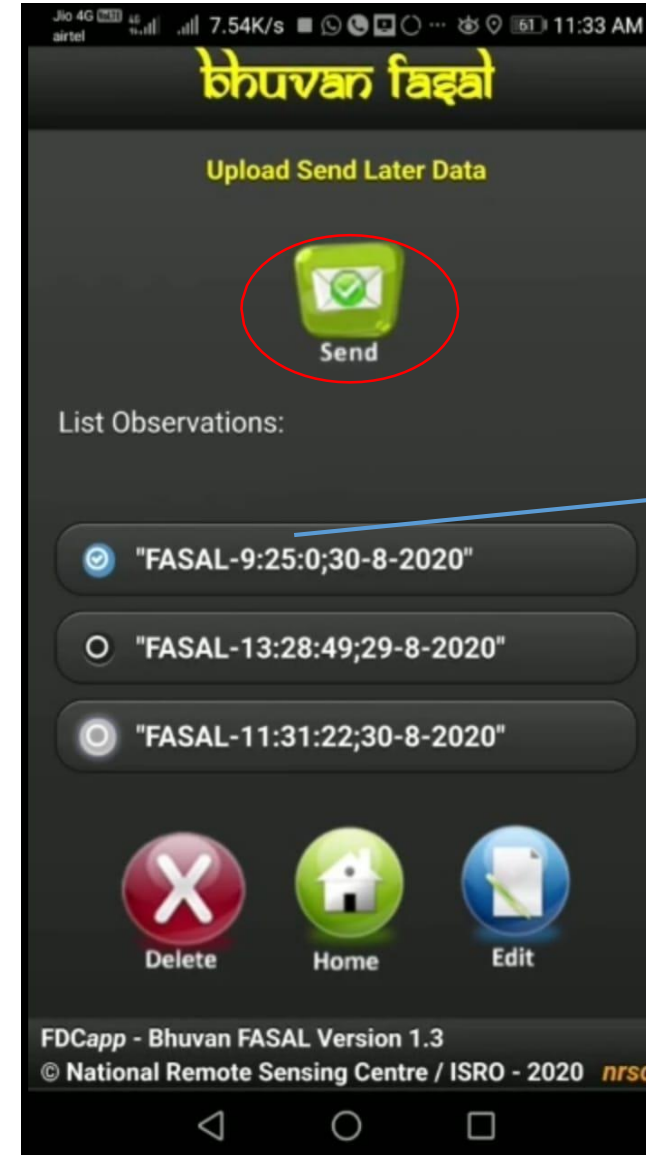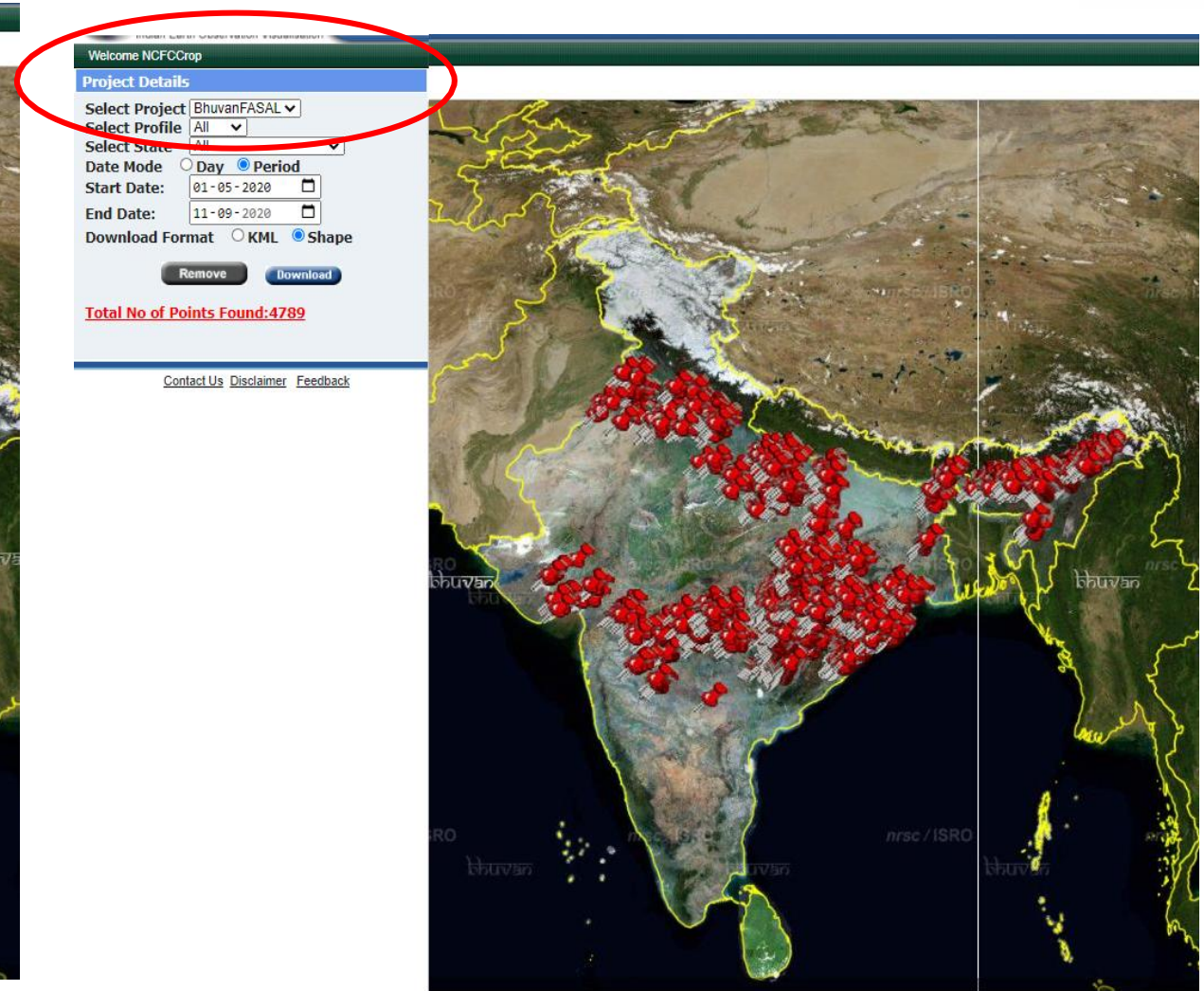
Select point

Then
Click on send

How to see uploaded Data on Bhuvan Portal

GT data collected using Older version GT
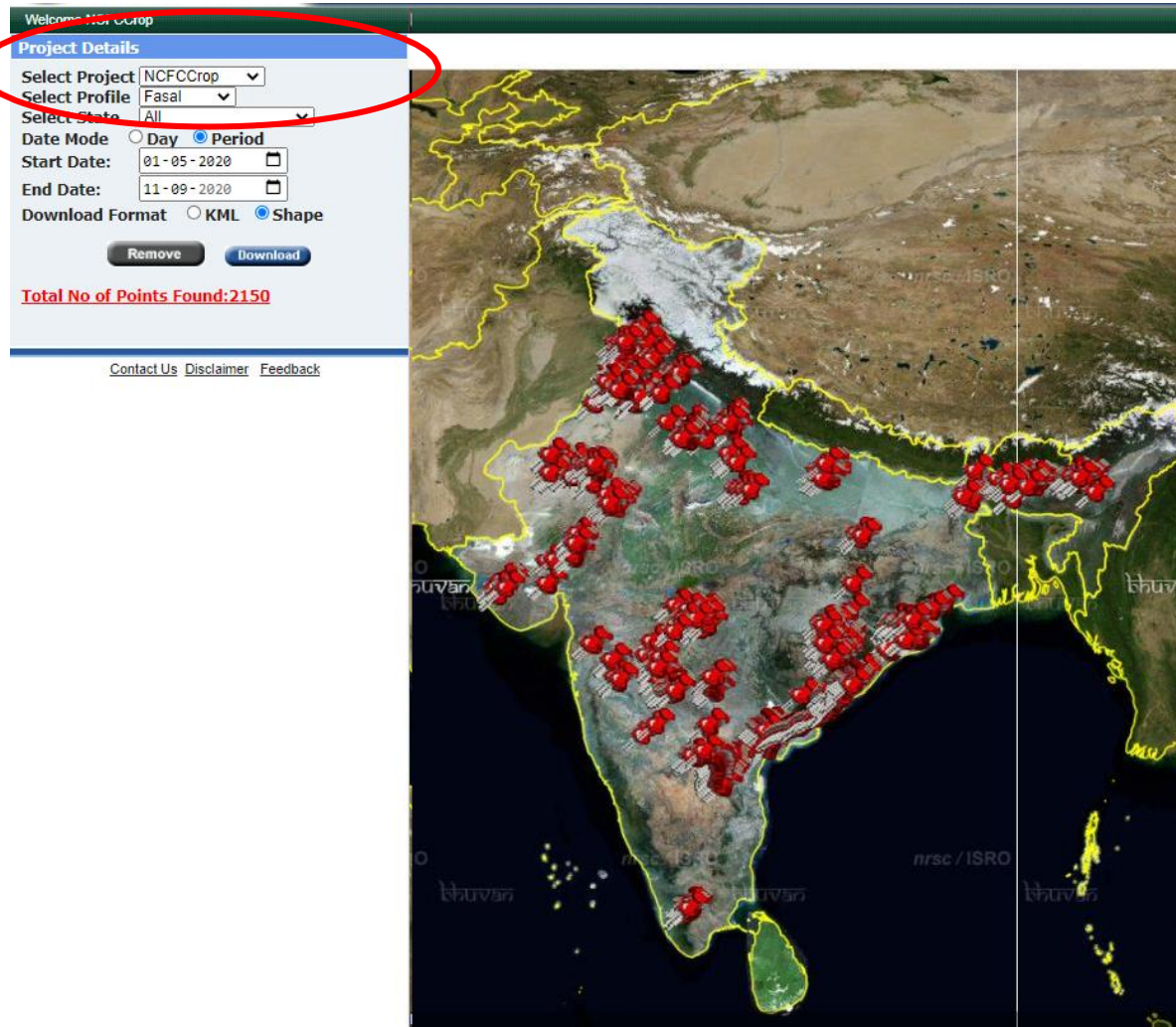
GT data collected using Newer version GT

Login ID and Password for FASAL FDC Viewer (Bhuvan Portal) has already been given to every State.

Link for accessing the GT data on Bhuvan portal: *https://bhuvan-app1.nrsc.gov.in/fdcviewer/fdcviewer.php*

After uploading on Server, locations are on Bhuvan Portal

Login ID and Password for Bhuvan portal login has been given to each state for checking the status of GT

CCE App Interface and Attribute

Screen 1:

Attributes of selected Activity

Survey No :
Enter here

Name of the Farmer :
Enter here

Aadhar Number :
Enter here

Mobile No of the Farmer :
Enter here

Crop Name :
Enter here

Crop Variety :
Enter here

Water Source :
Select from here ▼

Screen 2:

Any Stress :
Select from here ▼

Date of Sowing (DDMMYYYY) :
Enter here

Shape of CCE :
Select from here ▼

Size of CCE (Side of Triangle or Square and Radius of Circle or rectangle (Length x Width)) :
Enter here

Weight of Biomass (including grain in Kg) :
Enter here

Biomass Moisture Content (percentage-appox) :
Enter here

Weight of Grain (Kg) :

Screen 3:
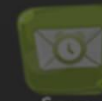
Weight of Grain (Kg) :
Enter here

Grain Moisture Content (percentage-appox) :
Enter here

Milling (percentage-appox) :
Enter here

Any Other Information :
Do not use any special text characters

Send   Manage   Save

Refresh   Exit   Profile   Help

FDCapp - Bhuvan CCE Version 1.4

Thank You