PRIYA RANJAN Joint Secretary



भारत सरकार कृषि एवं किसान कल्याण मंत्रालय कृषि एवं किसान कल्याण विभाग Government of India Ministry of Agriculture & Farmers Welfare Department of Agriculture & Farmers Welfare



DO No. - 14-33/2022-Fert.Use

Date- 27.02.2023

Dear Colleague,

You are aware that the Centrally Sponsored Soil Health Card (SHC) and Soil Health Management (SHM) Schemes were introduced as sub-schemes of National Mission for Sustainable Agriculture (NMSA) under Umbrella Scheme- Green Revolution-Krishonnati in Agriculture Sector during 2014-15. The main objective of the Schemes was to encourage judicious use of fertilisers in conjunction with organic & bio-fertilisers. SHC provide information to farmers on nutrient status of their soil along with recommendation on appropriate dosage of nutrients to be applied for improving soil health fertility and productivity.

This objective has been achieved through a large network of Soil Testing Laboratories both in Government and private sector. This scheme is now being implemented as a component "Soil Health & Fertility" of Rashtriya Krishi Vikas Yojana (RKVY) from the year 2022-23. This Department vide letter dated 20.01.2023 has circulated revised procedure of formulating Annual Action Plan for the Schemes implemented by it. The Principal Secretary Agriculture/ ACS Agriculture/Agriculture Production Commissioner will be the nodal officer for all the schemes of DA&FW. A presentation of overall AAP for the agriculture sector of the state will be done by the State Agriculture Secretary to Government of India and the comments of GoI will be given in meeting itself and minuted. The final approval of the consolidated AAP with the comments of GoI will be approved by SLSC headed by Chief Secretary of the State. Tentative allocation of funds has also been communicated by this Department as EFC has approved the EFC note and final approval of Cabinet is underway. In view of the changed scenario, the Soil Health and Fertility Component under RKVY will be implemented by State Governments as per circular issued or guidelines provided and State Government will enjoy more flexibility to implement the scheme.

- 2. In order to make the schemes more farmer friendly and assist the State Government to implement Soil Health and Fertility Scheme, the Government of India has made some technological interventions.
 - The Soil Health Card portal has been revamped and integrated with a GIS system so that all the test results will be captured and can be seen on a map.
 - Introduction of a mobile application for easy hassle free QR code enabled soil sampling
 and testing The QR code based soil sample collection app has been developed by the
 Ministry as a reference app which can be directly used by the state governments or they
 can develop / build their own app and integrate it with SHC portal through APIs.
 - Focus on providing service at the doorstep to the farmers by encouraging and facilitating soil testing facilities at a local level through entrepreneurs, SHGs, Cooperatives, Schools, FPOs etc.

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- Data parameters for collection of soil data have been standardized to allow use of certified/validated equipment in a decentralised manner.
- The States are requested to link up all the existing and new soil testing labs for automatic transmission of test data to the georeferenced platform. Till date the data with regard to sample collection and sample analysis has been entered manually by the States. However, now in new procedure the data will be automatically fetched by the system on a real time basis after the test is conducted.
- The existing Soil Health Portal https://soilhealth.dac.gov.in has been totally revamped to monitor physical and financial progress of various components of the Scheme in the respective States.
- 3. In addition to this, DA&FW has constituted a committee with all the organizations related to Soil Health and State Universities to bring about a **National One Soil Unified Information System** which may be easily accessible to farmers, policy makers, academia, researchers and also to the stakeholders operating in the ecosystem. This committee will work out a mechanism for convergence and interoperability of data related to soil resources across different organisations in the country and develops standards for data framework. The committee will work on the strategy to take forward the development of Digital Soil Resource Map of India. Decision support system for farmers and stakeholders will be developed and an interface for farmers and other stakeholders will be provided.
- In order to develop the soil fertility map, Government of India has decided to conduct 5 Crore Soil Samples across the country during year 2023-24 to 2025-26. States should prepare Annual Action Plan keeping in mind that during these three years they have to conduct atleast 200 soil samples testing in each Gram Panchayat on an average. These figures will vary according to the area of the Panchayat. On an average, out of these 200 soil tests, 100 tests will be done under the SHC Scheme through the State with the help of Village Level Entrepreneur / own machinery/ FPOs/SHGs/ Schools etc. for which Rs. 300 (CSS in the sharing of 60:40 of Centre and State) from the scheme will be provided to State. State will ensure priority to small and marginal farmers and try to cover all types of land in a Gram Panchayat (G.P.). Under the scheme for upto 100 additional tests to be done through Village Level Entrepreneur (VLEs) in the GP, for which farmers will have to pay to VLE, Rs. 20 will be given as incentive from the scheme to that VLE for each test. The VLE will be obligated to use the SHC App. and portal to upload the test results in SHC portal and once he does this he will be provided the incentive of Rs. 20 per soil test. All such samples will be tested and a fertility map on GIS platform all over the country will be generated. State will decide the physical distance between two tests performed so that test will be equally distributed all over the GP.
- 5. To make the implementation/monitoring of the Scheme smooth and to facilitate farmers an easy access to his soil health card, the mobile application has been made robust with the following additional features:
 - > Restrict the sample collection region for the VLE/operator collecting the soil sample
 - > Auto selection of the latitude and longitude of the location
 - > Generation of a QR code to link with the sample

- Prevents erroneous entry of non-agricultural region coordinates (eg. Settlements, Waterbodies etc.,)
- > Test results of all samples directly on the portal from the geo-mapped labs, without any manual intervention.

The user manual of mobile application/portal and dashboard is enclosed for ready reference. There will be four types of Users i.e. central, state, district and Soil Testing Laboratories/VLEs on the portal. Manufacturers of mini soil testing labs would also be registered on the portal. Whereas mini/village level soil testing labs are required to be updated in order to make compliant with new mobile app in order to place data directly on the portal, analysis reports generated by static soil testing labs would be shared through APIs on the portal. IARI-ICAR has already initiated exercise to update the mini/village level soil testing labs. DA&FW has already created State Level authorities on the portal and User mail ids and passwords in this regard are also being shared.

6. In order to ensure seamless and effective implementation of the new soil testing regime and to achieve the above objectives, State Governments are expected to undertake following activities:-

	Activities	Timelines
(i)	Enrolment of Users under the State Level authority by a registration process	15/03/2023
(ii)	Creation of District Level authorities by the State Level authorities	25/03/2023 (after attending the Training.)
(iii)	Enrolment of Users under the District Level authority by a registration process	31/03/2023 (District level users need to register themselves, state authorities need to approve.)
(iv)	Assigning necessary permissions to users by the State/District level authorities to manage their respective roles.	15/3//2023 (Permissions already inbuilt)
(v)	Mapping of Soil Testing Labs/Mini/village level Soil Testing labs	15/4/2023 (District users need to do it in the portal)
(vi)	Registration of lab operators, VLEs etc.	15/4/2023 (District users need to do it in the portal)
(vii)	Training of State Level/District Level authorities	1/3/2023 to 31/3/2023

7. DA&FW has planned extensive trainings for users at different levels, a tentative schedule for these trainings, in virtual mode, is also being enclosed herewith. The portal/mobile

Juna

app has been developed by M/s Klonec Automation System Private limited, Shri Sandeep Kondaji, Tel: 180-010-34112 mail id shc.support@krishitantra.com/sandeep.kondaji@krishitantra.com may be contacted for any technical assistance, if required. For administrative issue State can contact, Director (INM) Tel. No. 23382546 email - rajni.taneja66@gov.in and US (INM) Tel. No. 23381191, email — chandra.sp@nic.in. States are expected to prepare master trainers for the same so that they can further impart training as and when required by the State. If there will be need to organize regional workshop, state may send request in this regard and the training programme will be organized for the state officials.

8. I shall be grateful if states take appropriate timely action in this regard and coordinate with various authorities/users in order to ensure operationalisation of the revamped portal at the earliest.

with vgasds

Yours Sincerely,

(Priya Ranjan)

To,

The Principal Secretary Agriculture/ ACS Agriculture/Agriculture Production Commissioner of all States.

Copy to -All Nodal Officers of Soil Health and Fertility in States/UTs

Training Schedule:-

State/ Union Territories	Date & Time	Trainers
Delhi	01/03/2023	Team A
	10:00AM-12:00 PM	
Jammu & Kashmir	01/03/2023	Team B
	10:00AM-1:00 PM	
Haryana	01/03/2023	Team C
	10:00AM-12:00 PM	
Himachal Pradesh	02/03/2023	Team A
	10:00AM-12:00 PM	
Assam	02/03/2023	Team B
	10:00AM-12:00 PM	
Bihar	02/03/2023	Team C
	10:00AM-12:00 PM	
Arunachal Pradesh	03/03/2023	Team A
	10:00AM-12:00 PM	
Andhra Pradesh	03/03/2023	Team B
	10:00AM-12:00 PM	
Telangana	03/03/2023	Team C
	10:00AM-12:00 PM	
Madhya Pradesh	06/03/2023	Team A
	10:00AM-12:00 PM	
Gujarat	06/03/2023	Team B
	10:00AM-12:00 PM	Tourn D
Maharashtra	06/03/2023	Team C
	10:00AM-12:00 PM	
Goa	07/03/2023	Team A
	10:00AM-12:00 PM	1 Cull 1 L
Karnataka	07/03/2023	Team B
	10:00AM-12:00 PM	realit D
Kerala	07/03/2023	Team C
	10:00AM-12:00 PM	Todili C
Rajasthan	09/03/2023	Team A
	10:00AM-12:00 PM	realit A
Punjab	09/03/2023	Team B
· willian	10:00AM-12:00 PM	Tealli B
Tharkhand	09/03/2023	Team C
AMI AHUHU	10:00AM-12:00 PM	realii C
	10.00AWI-12.00 FWI	

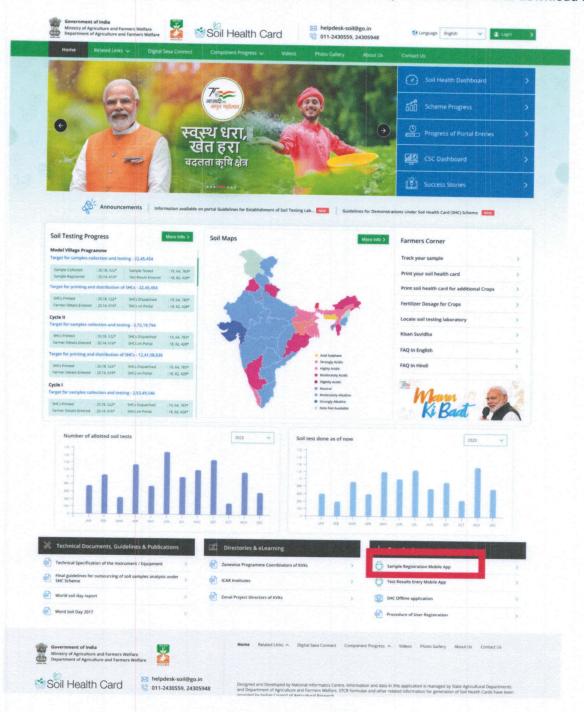
Meghalaya	10/03/2023	Team A
Wieghalaya	10:00AM-12:00 PM	Team A
Manipur	10/03/2023	Team B
	10:00AM-12:00 PM	
Mizoram	10/03/2023	Team C
	10:00AM-12:00 PM	
Sikkim	13/03/2023	Team A
	10:00AM-12:00 PM	
Odisha	13/03/2023	Team B
	10:00AM-12:00 PM	
Nagaland	13/03/2023	Team C
	10:00AM-12:00 PM	
Tripura	14/03/2023	Team A
	10:00AM-12:00 PM	
Tamilnadu	14/03/2023	Team B
	10:00AM-12:00 PM	
Uttar Pradesh	14/03/2023	Team C
	10:00AM-12:00 PM	
West Bengal	15/03/2023	Team A
	10:00AM-12:00 PM	
Lakshadweep	15/03/2023	Team B
	10:00AM-12:00 PM	
Andaman & Nicobar	15/03/2023	Team C
	10:00AM-12:00 PM	
Dadra Nagar Haveli Daman Diu	16/03/2023	Team A
	10:00AM-12:00 PM	
Puducherry	16/03/2023	Team B
	10:00AM-12:00 PM	
Ladakh	16/03/2023	Team C
	10:00AM-12:00 PM	
Additional Slot 1	17/03/2023	Team A
	10:00AM-12:00 PM	
Additional Slot 2	17/03/2023	Team B
	10:00AM-12:00 PM	
Additional Slot 3	17/03/2023	Team C
	10:00AM-12:00 PM	
Additional Slot 4	20/03/2023	Team A
	10:00AM-12:00 PM	

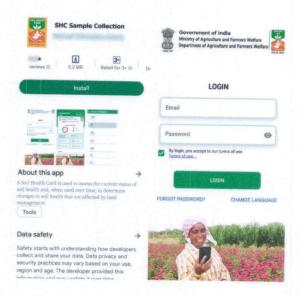
A 11'4' 1 C1 4 C	20/00/2000	
Additional Slot 5	20/03/2023	Team B
	10:00AM-12:00 PM	
Additional Slot 6	20/03/2023	Team C
	10:00AM-12:00 PM	

SHC Mobile App

App Install

Visit SHC portal https://soilhealth.dac.gov.in/ and click Soil Sample Collection APK to download the App.





You can also download the SHC App by visiting Android playstore and search for SHC Soil Sample Collection.

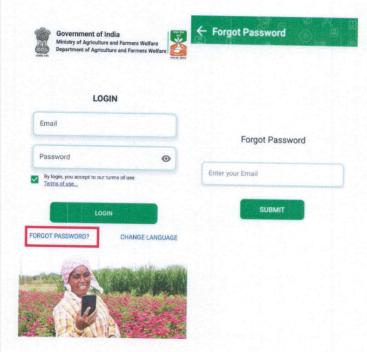
Click Install App.

Login

- Open the SHC mobile application
- You will be navigated to login page with input fields as "Email" and "Password"
- Fill out all the credentials and make sure that by default the checkbox "By login, you accept to our Terms of use..." is marked or not, if not need mark the check box
- Click on "LOGIN" button

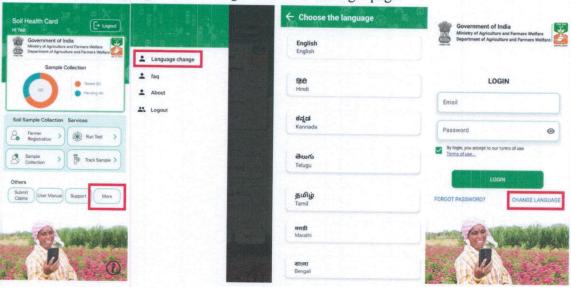
Forgot password

- If you wish to change your password, click on the "FORGOT PASSWORD?" present in the login page itself.
- After this, you will be navigated to the forgot password page
- Need to enter the email Id to which the reset password will be sent
- Click on the "SUBMIT" button



Change language

- If you want to change the language which you want to prefer, click on "CHANGE LANGUAGE" button.
- After this, you will be navigated to change language page
- Here you need to choose one language whichever you want. Click on "OK" button
- The App language can be changed also from the login page.



Registration of farmers

Need to add details of the farmer for whom this soil sample test is being conducted. The procedure to add the details of the farmers is as follows:

- Click on the "Farmer Registration" button present on the home page
- Add the details of the farmer:
 - Name of the farmer
 - Mobile number of the farmer
 - Email(Optional)
 - Adhaar number of the farmer
 - Preferred language of the farmer
 - Address of the farmer: The select location is integrated with Google Maps and on clicking this field, a map view is generated and the user can pinpoint his/her location.
- Click on "ADD NEW FARMER" button



Generate QR Code

Login to SHC Admin Panel using VLE login.VLE users can generate QR codes for collecting soil samples in advance and print them in bulk.



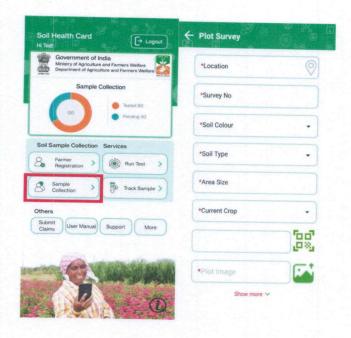
Enter a name for your reference to QR codes and number of QR codes needed. Press the Save button.



Users can print the QR codes generated by using the **Print** button. One QR code sticker is needed for collecting one soil sample.

Sample Collection

If farmer details are already present in the SHC database, click **Sample Collection** button in the dashboard.



You can also add plots that are associated with the farmer. This information is required before running the tests from this soil plot. The following information is collected for a particular plot for a farmer:

- Location of the plot: The select location is integrated with Google Maps and on clicking this field, a map view is generated and the user can pinpoint his/her plot location.
- Survey Number: The survey number of the plot being added is captured here.
- Soil Color: Dropdown field (if one is unaware of this, select the option "unsure")
- Soil Type: Dropdown field
- Area Size: The size of the plot that is being added (it can either be in acres or hectares)
- Current Crop: Dropdown field
- QR Code: Needs to scan QR code
- Plot Image: Need to take a picture of plot
- Previous Crop: Dropdown field
- Stoniness: A radio button. Can have the value of Yes/No. If the farmer/input operator is not sure of the same, please select "Unsure"
- Land Sloping: A radio button. Can have the value Yes/No. If the farmer/input operator is not sure of the same, please select "Unsure"
- Drainage: A dropdown field
- Water source: A dropdown field
- Water source capacity: This field appears only when the "Water Source" is NOT rainfed. It is a dropdown field

- Electricity connection at Farm: Yes/No
- Electricity Phase: This appears if the "Electricity Connection" value entered by the farmer/input operator is "Yes"
- Irrigation Pump: This appears if the "Electricity Connection" value entered by the farmer/input operator is "Yes"
- Pump Size in HP: This appears if the "Irrigation Pump" value entered by the farmer/input operator is "Yes"
- DT Connection: A dropdown field
- Previous Yield: Numeric field (Previous yield obtained)
- Target Yield: Numeric field (Target yield for the current season)
- Previous Yield Price: Numeric field (should be in INR/quintal)
- The amount of manure added: Numeric field
- Fertilizer that was applied in the previous season

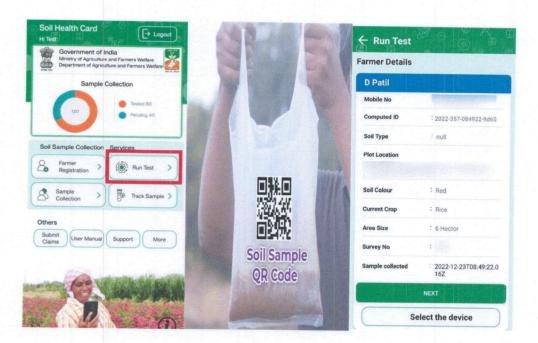
After filling the above details click on "SUBMIT" button.



Conduct Test

- Click on the "Run Test" button on the home page
- Camera will open and need to scan the QR code which is uploaded during plot registration

- After scanning the QR code farmer details will display and here we need to select the device (Click on the "Select the device" button)
- Devices list will display (Select the device on click of devices name)
- Click on "NEXT" button
 - Static Lab: If you selected "Static lab" as a device, list of parameters will display and need to pass the value for all the parameters
 - O Third-party app: If a third-party app is used to perform the test, the third-party app is launched to complete the test. The test results are automatically fetched to SHC database afer the completion of the test.
- Click on the "SUBMIT" button



Static Lab

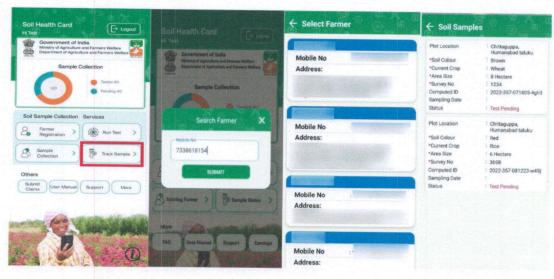
Third-party App



Track Sample

Here you can check the status of your soil sample.

- Click on the "Sample Status" button on the home page
- Search farmer dialog box will display, here we need to enter the mobile number which was entered during the farmer registration, and click on "SUBMIT" button
- Farmers list which are associated with entered mobile number will display, select the farmer to which you wish to check the status.



Claim Status

You can check the list of completed tests and request for the claims at the bottom of the home page. The pending claims and other details are shown.



Logout Option

- You can logout from the application by clicking on the "Logout" button available at the top right corner of the home page.
- You can also logout from the application by clicking on the "More" button available at the bottom of the home page
- In the menu option, select"Logout"
- In the confirmation dialogue box, select on "Yes"
- You will then be redirected back to the login page and you can either enter a new username/password or again log back in with the same credentials

SHC Portal

Accessing SHC Portal

To login, enter the URL: https://soilhealth.dac.gov.in/ and click on Login button at the right-side top of the window.



User Registration

For new user registration, the user has to click **Register** tab on the Login page. New users need to fill in the registration form and click on **Submit** button. The new registration will appear in the Pending users list. Once the Admin approves the request, a confirmation email with login credentials will be sent to the user.





User Login

In the login page, select your state, enter user name and password. Enter captcha and press the Login button.



Forgot Password

In the login page, click the **Forgot Password** button. Enter your username and the link to reset your password will be sent to your registered E-mail. Click that link and enter new password, confirm password and click **Submit** button.



Soil testing Progress



Number of allotted soil tests and soil tests completedyear-wise data

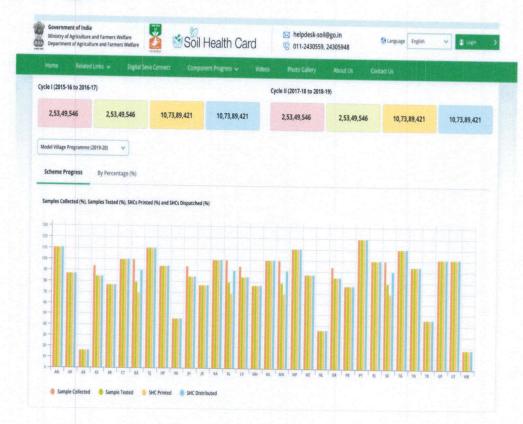


Soil Map

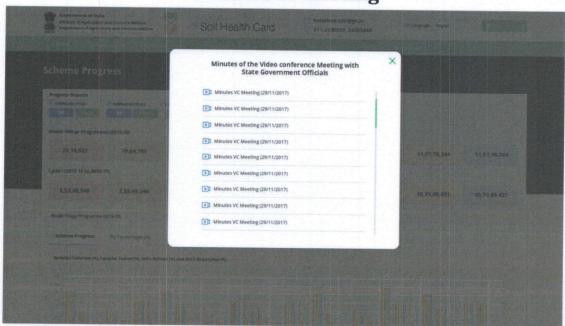
Click view more in the soil maps in home page.



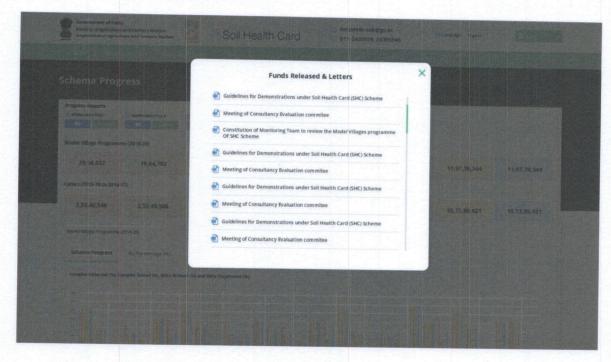
Scheme Progress



Minutes of Meeting

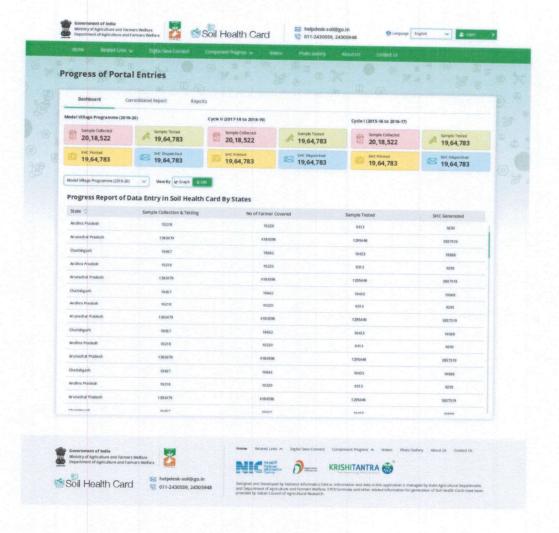


Fund Released & Letters



Progress of Portal Entries

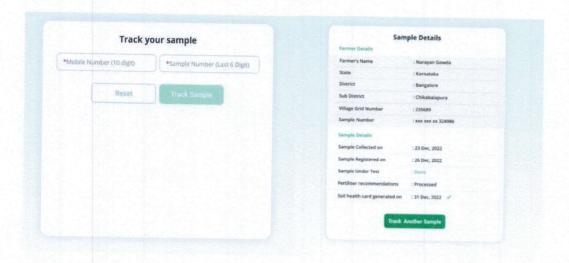




Farmer's corner

Track Your Sample

- Enter Farmer's mobile number and last six digits of the sample number.
- Click the Track Sample button
- Soil sample details are displayed.



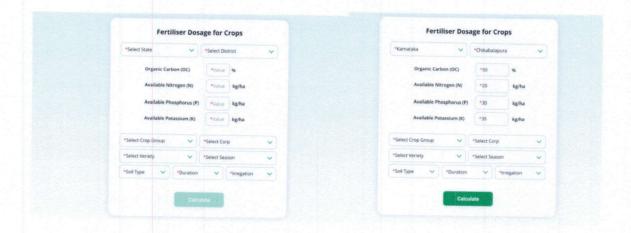
Print your soil health card

- Enter Farmer's mobile number and last six digits of the sample number.
- Click View card
- Soil health card is displayed. Click download button or Print Card button.



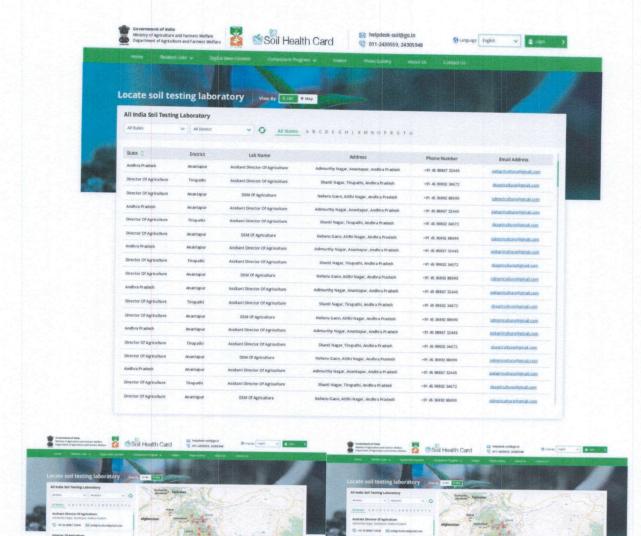
Fertilizer Dosage for Crops

- Select state and district.
- Enter the soil parameter values.
- Select crop group, crop and other details..
- Click the Calculate button.



Locate soil testing laboratory

- Click Locate soil testing laboratory option in the Farmers corner in home page.
- Select state, district to view the available STLs.





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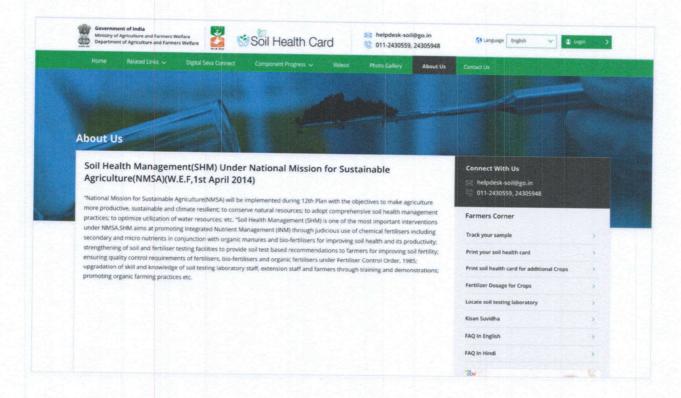
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About Us



Admin Panel

Accessing SHC Admin Panel

To login, enter the URL: https://soilhealth.dac.gov.in/ and click on Login button at the right-side top of the window.



User Registration

For new user registration, the user has to click **Register** tab on the Login page. New users need to fill in the registration form and click on **Submit** button. The new registration will appear in the Pending users list. Once the Admin approves the request, a confirmation email with login credentials will be sent to the user.





User Login

In the login page, select your state, enter user name and password. Enter captcha and press the Login button.



Forgot Password

In the login page, click the **Forgot Password** button. Enter your username and the link to reset your password will be sent to your registered E-mail. Click that link and enter new password, confirm password and click **Submit** button.



Dashboard

After successful login, you will see the dashboard.



Dashboard lets us generate region-wise, year-wise statistics as:

- Allotted tests
- Tests completed
- Number of VLEs
- Farmers benefited
- Un-allotted tests
- Farmers benefited

To view these statistics in a specific interval, select **Time-interval** tab. Select the region, From date and To date. Click the **Search** button, to view the details.

Edit User Profile

Click Profile under Account to edit user profile.





Authority Management

In the organization hierarchy, the lower levels like States, Districts are termed as Authority in the admin panel. Central user can create State level Authorities. State users can create District level authorities.

Each Authority needs to be named and assigned to a geological region. Central user can create State-level authorities. State-level users can create district-level authorities.

Create Authority

To create an authority, select Authority Management and click Create Authority.



Enter the name of the authority and select a region from the list. Click **Submit** button to create the authority.



The new authority created is listed with details such as name of the authority, region, number of users, number of STLs, number of farmers and status.

Manage Users

Click Manage button to manage the users and Edit button to change the name and region.



In Manage users tab, click User status dropdown button to view Active, Pending and Inactive users.



You can disable an user by clicking the Disable button.



Test Management

Click Test Management button to allot the tests.



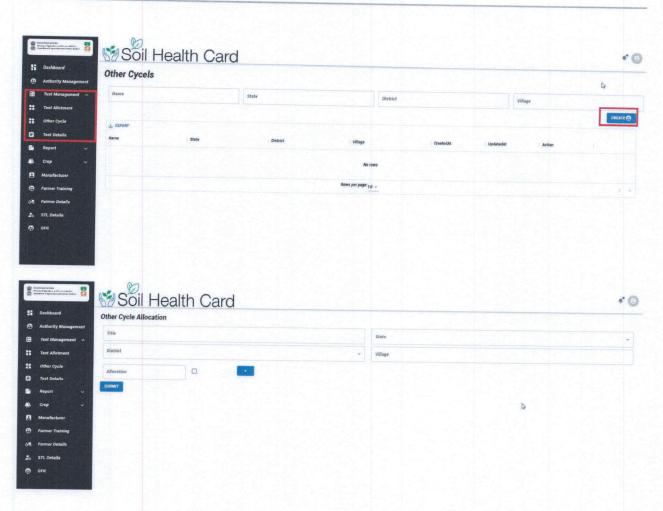
Allot Tests

Click **Test Allotment** under **Test Management**. Enter a Name for the test series, number of tests, select an authority and select an user under the Authority to super-wise the tests. Enter an expiry date for the tests to be completed. Select **All parameters** check box to allot tests for all parameters with a target price. Click **the Submit button**.



Other Cycle

To add new cycle click other cycle under Test Management and click Create button.



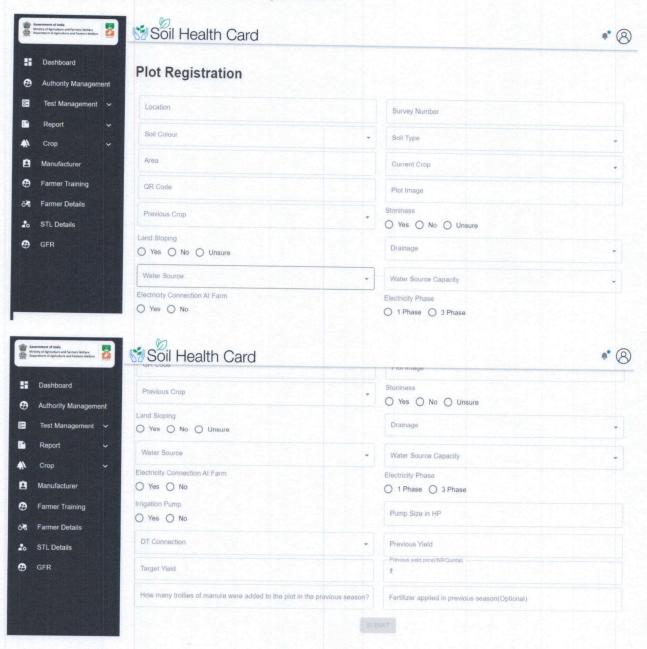
Farmer Registration

Click farmer registration button and fill farmer details. Click Submit button to save.



Plot Registration

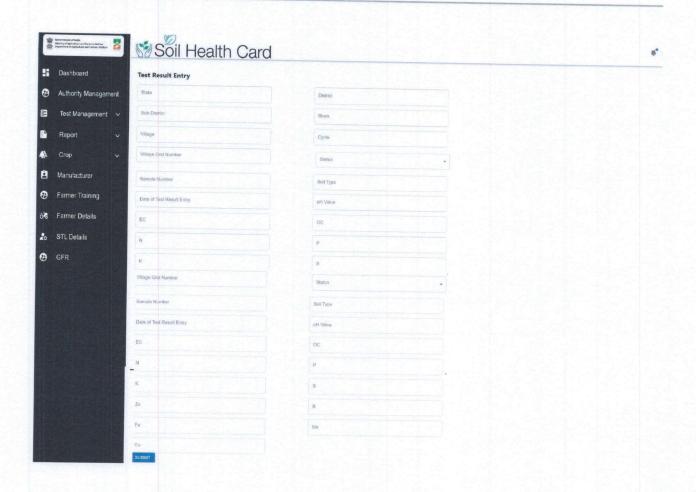
Click plot registration button and fill in the plot details.



Click submit button to save the results.

Test Result Entry

Click Test Result entry button and fill in the soil test results.

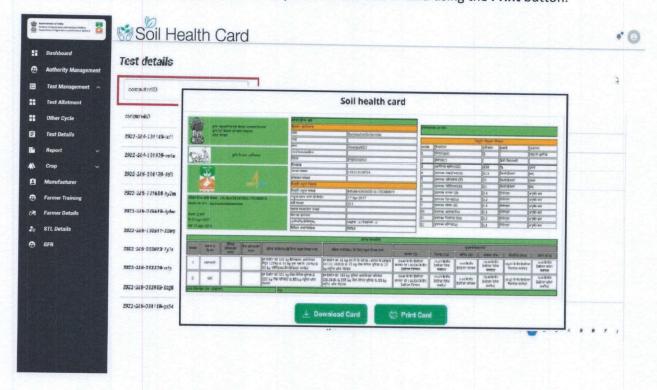


Test Details

To view details of soil samples collected, Click on Test details under Test Management.

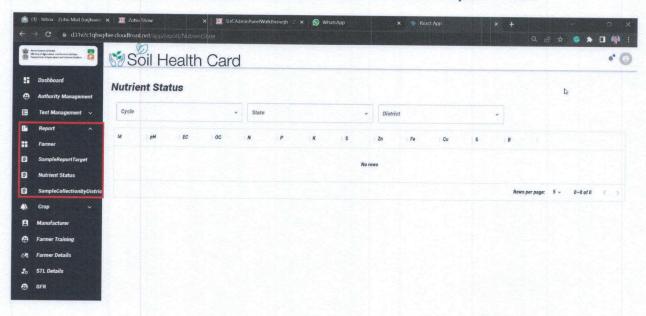


If the soil test is completed, you can view & print the soil health card using the **Print** button.



Report Generation

To generate reports click on the Report on the left-side menu. The list of reports is listed.



Click on the type of report you want to generate.

Vendor Management

Vendors and manufacturers are allowed to participate and provide their services under the SHC program only after their empanelment. They need to provide their company details, certifications and soil parameters supported by them.

Vendors need to have a mobile application in order to provide soil testing services. The APIs must be incorporated to allow interface with the SHC portal.

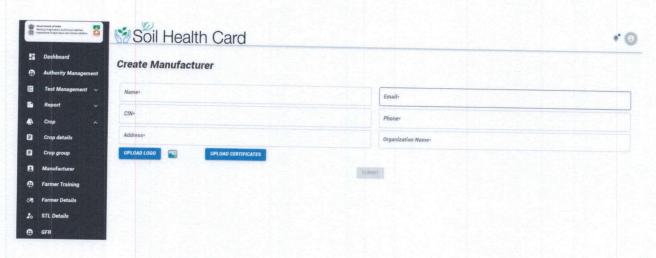
Create Vendor

For Vendor empanelment and enrolling a soil test device manufacturer in the SHC portal, click on **Create Vendor** under **Vendor Management**.



Enter Vendor name, Email, CIN, Phone number, Address and Organization name.

Click **Upload Logo** button to browse and upload the Vendor logo. Click **Upload Certificates** button to browse and upload the certificate. Click the Submit button.

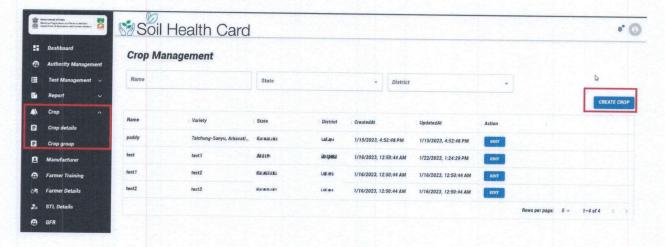


Manage Vendors

Click the Edit button to modify the vendor details.

Crop Details

Click Crop and click Create Crop button.



Enter Crop Details and press Submit button.



STL Details

Click the STL details button to view the list of Soil Test Laboratories.



Create STL (for district user)

District user can add STL by clicking Create STL button.



Fill the STL details, contact info, bank details. If it is a static lab, tick the **Static lab** check box. Click the **Submit** button. The list of STLs is shown under the STL tab with details.



Generate QR code (VLE user)

VLE users can generate QR codes for collecting soil samples in advance and print them in bulk.



Enter a name for your reference to QR codes and number of QR codes needed. Press the Save button.



Users can print the QR codes generated by using the Print button.

Logout

Click the Signout button to terminate the session.

