

Manual for Design & Cost Estimation Tool



FOUNDATION FOR ECOLOGICAL SECURITY

User Manual- Design & Cost Estimate Tool

Introduction: MGNREGS is largest schemes of government of India. About Rs 60,000 crores has been allocated to the scheme in FY 2019-20 and about Rs 40,000 crores has to be spent on Natural resource management works. The major objective of developing this tool is to

- Improve planning of NRM works at panchayat level under MGNREGS.
- Correct assessment of person days requirement at panchayat level under MGNREGS.
- A trained rural cadre can prepare design and cost estimate at site.
- To reduce engineers time & energy in planning and design estimation process

User can prepare the design & cost estimate of following structures in the app:

1. **Continuous contour trench (CCT):** It is continuous trench constructed on the contour line. It is constructed up to 25% slope. The objective of CCT is to check the runoff and prevent soil erosion and improve local soil moisture regime. This is suitable for treatment of common land.
2. **Staggered contour trench (SCT):** It is trench constructed on the contour line in a staggered manner. It is constructed up to 25% slope. The objective of CCT is to check the runoff and prevent soil erosion and improve local soil moisture regime. This is suitable for treatment of common land.
3. **Stone bund (SB):** It is stone bund constructed on the contour line. It is constructed up to 30% slope. The objective of SB is to check the runoff and prevent soil erosion and improve local soil moisture regime. This is suitable for treatment of common land where soil depth is less than 20 cm and stones are available at site in sufficient amount.
4. **Boulder Gully Plug (BGP):** It is constructed across the first order drainage line (maximum catchment 20 ha). It is constructed in series maintaining 1 meter contour interval. It is constructed up to 20% slope. The maximum height of BGP should be 1 meter. The objective of BGP is to check the runoff and prevent soil erosion and improve local soil moisture regime. This is suitable intervention for gully treatment where boulders are available at site in sufficient amount.
5. **Earthen Gully Plug (EGP):** It is constructed across the first order drainage line (maximum catchment 30 ha). It is constructed in series maintaining minimum gap based on top to toe principle. It is constructed up to 10% slope. The maximum height should be 2 meter and minimum should be 1 meter. The objective of EGP is to check the runoff and prevent soil erosion and improve local soil moisture regime. This is suitable intervention for gully treatment where proper soil strata is available at site for construction of EGP.

6. **Stone wall fencing (SWF):** It is a stone wall constructed on the boundary of common land for protection of common land. Usually It is preferred where stone are available in sufficient quantity at site.
7. **Cattle Protection Trench (CPT):** It is trench cum bund constructed on the boundary of common land for protection of common land. Usually it is preferred where soil depth is at least 1.2 meter deep.
8. **Thor fencing:** It is usually done in Rajasthan for creating vegetative fencing for protection of common land.
9. **Bush Clearance:** It is an activity needed to remove unwanted species for fresh plantation of seeding of grass species.
10. **Plantation:** It is to improve biomass and biodiversity on degraded common land.
11. **Seeding of grass & tree species:** It is to improve biomass and biodiversity on degraded common land.
12. **Vegetative Interventions:** It includes plantation, seeding of grass & tree species and thor fencing for improving the biomass on common land.
13. **Pastureland Development:** It includes various structures like contour trench, cattle protection trench, stone wall fencing, stone gully plug, bush clearance, plantation, seeding of grass and tree species, thor fencing for treatment of pasture/common land etc.
14. **Sunken Pit (SP):** It is pit dug in the just upstream side of a gully structure to recharge the ground water table. It is constructed where drain bed slope is less than 5%. The size of the pit may vary depend on the space available in the drain. The objective of sunken pit is to recharge ground water. This is suitable intervention where the gullies are already treated with EGP/BGP and soil depth is available up to 1 meter.
15. **Earthen water harvesting structure (Nadi):** It is a water harvesting structure created across the first or second order drainage line to recharge ground water or storage of water over surface based on the CLART recommendation.
16. **Dugout Percolation Pond (DPP):** It is a water harvesting structure created on flat common land to recharge ground water or storage of water over surface based on the CLART recommendation.
17. **Pond deepening:** The objective of pond deepening to increase the water storage capacity of any existing water body. Before proposing any water body for deepening, we need to ensure that the pond has enough catchment area which would not only fill the existing storage capacity but also enough to fill the additional storage created through deepening of pond.
18. **Earthen Farm Bund (EFB):** It is an earthen bund constructed across the slope to prevent agriculture land from soil erosion and improving local soil moisture regime on agriculture land.
19. **Boulder Farm Bund (BFB):** It is an earthen bund constructed across the slope to prevent agriculture land from soil erosion and improving local soil moisture regime on agriculture land.

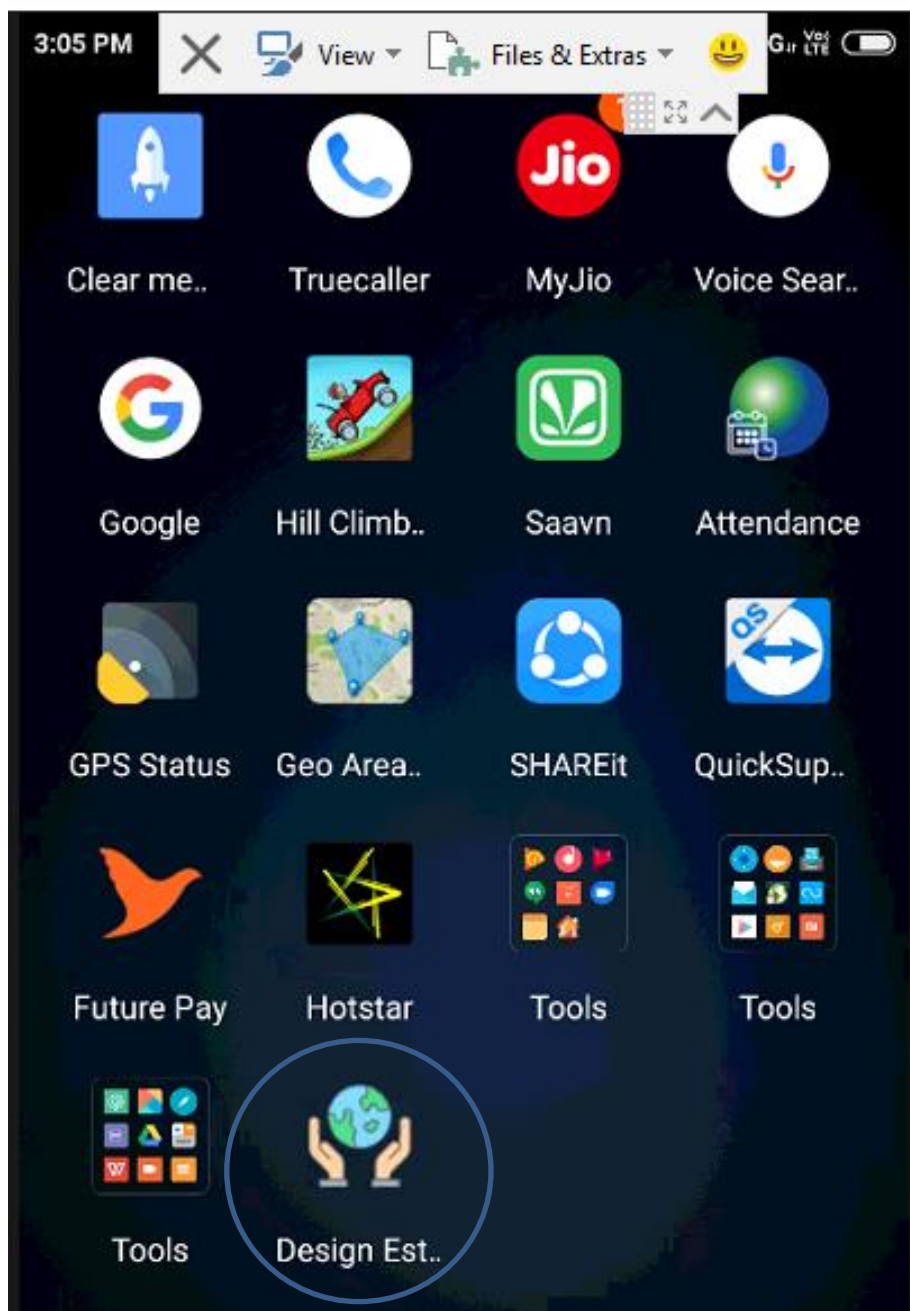
20. **Farm Pond (FP):** It is pond created on farm land to provide protective irrigation to kharif crop. The size of the pond depends on the size of the agricultural land of the farmer. Usually 5% area of the plot is required to fulfil the need of water for protective irrigation.

Downloading and installation of Design & cost estimation Tool

The user needs to download design & cost estimation tool from the following link <https://det.fes.org.in/>. After downloading, the user needs to install the app in the mobile by just clicking on install button.

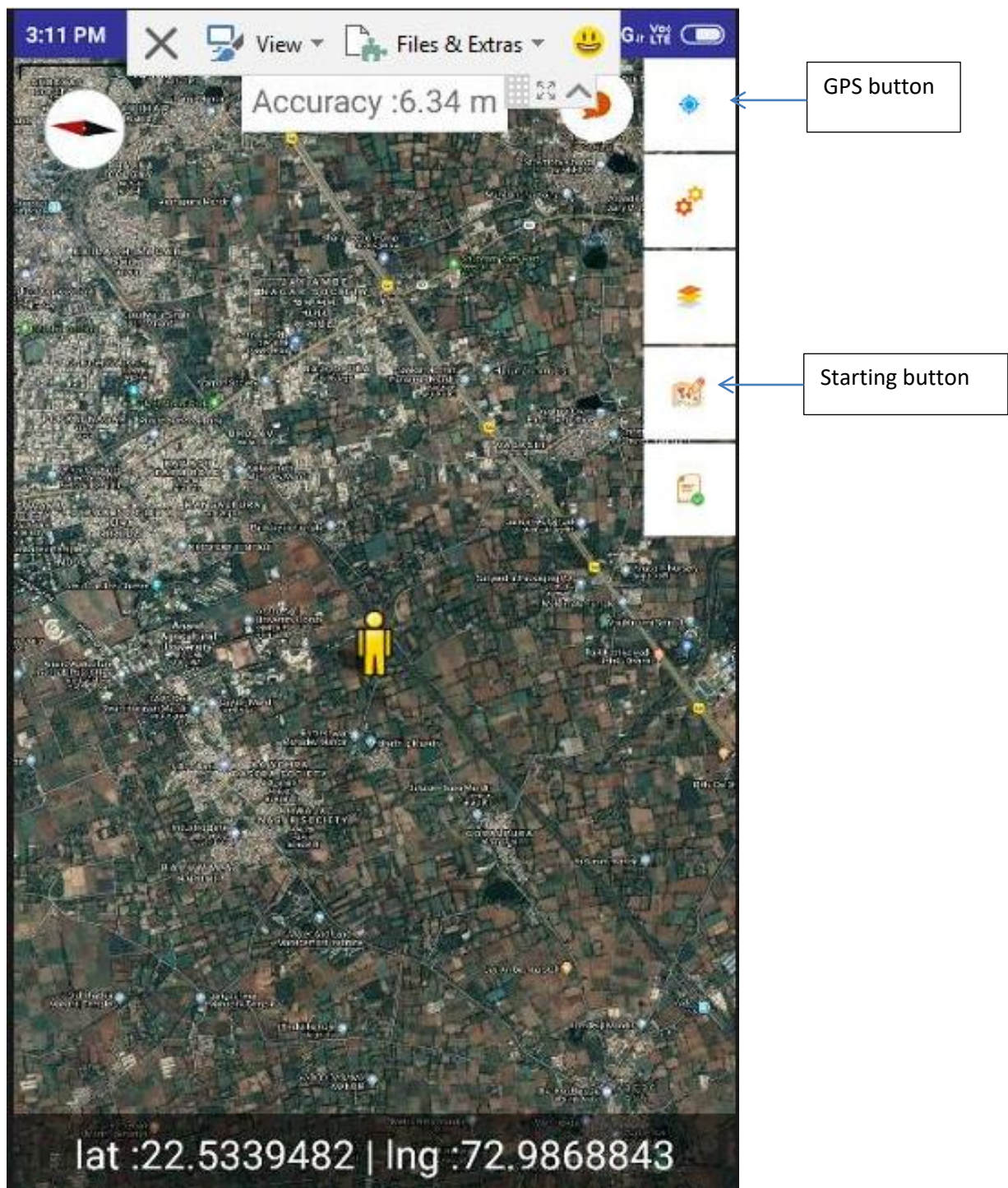
After successful installation of Design and Cost estimation tool, the app icon would appear on the screen of the mobile.

The screen shot after the installation of app



Opening Design and Cost estimation App

Just click on the app following screen will appear on the mobile screen. The user need to check the GPS button should be on, click on the GPS button, it will turn in blue colour that means the GPS is in “ON” position. Wait till the accuracy shows below 6m. Click on the starting button.



Selection of structure

After clicking start button, CLART questionnaire will appear on the screen. You need to fill the CLART form. Thereafter you need to select the structure which you want to propose on the site. After selection of structure, following screen will appear. You need to click on the “Yes” for preparation of design & cost estimation of proposed structure.

The image displays two sequential screenshots of the CLART questionnaire application on a mobile device.

Left Screenshot (3:15 PM): The app is titled "Clart Questionnaire". It shows a form with the following fields:

- Habitation Name**: A text input field.
- What Type of Structure planned**: A dropdown menu currently showing "Please Select Structure".
- Structure Options**: A list of options for the dropdown menu:
 - CCT
 - CPT
 - ST
 - Bush Clearance
 - Stone Wall Fencing
 - Stone Bunding

Right Screenshot (3:18 PM): The app is titled "Clart Questionnaire". It shows a confirmation dialog box with the text: "Do you want to continue with Design and Cost Estimation?". Below the text are two buttons: "NO" and "YES".

Creating Masters in the App

A. BSR Rates

Following BSR rates needs to be filled and updated once in year in the app
(Example of one Block of Rajasthan)

BSR rates of the state (Filled One time in year)				
Sr. No.	Particular	Unit	Labour rate (Rs./Unit)	Total Rate (Material + Labour) (Rs./Unit)
1	Bush/Jangle Clearance	Sqm	3.43	3.46
2	Excavation of soil including initial lead and lift			
2.1	In soft soil/ordinary soil	Cum	137.11	138.52
2.2	In hard soil	Cum	170.06	171.76
2.3	In murrum	Cum	190.3	191.2
2.4	In disintegrated rock	Cum	255.09	257.65
3	Layout (by A-frame or pipe level) for contouring.	RM	0.8	0.8
4	Dug belling work up to 5 to 7 cm depth for contouring.	RM	1.1	1.1
5	Construction of stone bund from available stone at site	Cum	192	469.34
6	Distance of Transportation of loose stone.	KM		5
7	Transportation cost of stone including loading & unloading and stone cost etc.	Cum	0	105.92
8	Supply and cutting of 80 cm thor sticks.	per stick	0	1
9	Transportation cost of thor sticks including loading & unloading.	per stick	0	1
10	Rehandling work of thor sticks up to 200 to 500mt distance.	per stick	0.5	0.5
11	Planting of Thor sticks.	per stick	0.25	0.25
12	Pit digging in hard soil of size 45x45x45 Cm.	per pit	12.35	12.41
13	Pit digging in murrum soil of size 45x45x45 Cm.	per pit	13.71	13.77
14	Treatment of pit by FYM.	per pit	0.5	1.5
15	Cost of saplings	per plant	0	5
16	Plantation work	per plant	6.03	6.03
17	Transportation Cost of saplings from 10 km distance.	per plant	0	1
18	Ring making of 0.50 Mt.dia	per plant	3.56	3.56
19	Two times watering to the plant with 15 liters per plant.	per plant	7.12	7.12
20	Transportation Cost of water from 2 km distance.	per plant	0	1.31
21	Interculture operation.	per plant	2.46	2.46
22	Ploughing by tractor cultivator and grass seed broadcasting (seed rate 6 kgs/ha) cost of seed not included	per ha	0	1000
23	Cost of grass seed	per kg	0	200
24	Making pallets of mixture of fine soil, grass seed, manure etc. (seed rate 6 kgs/ha) cost of seed not included	per kg	50	50
25	Sowing of grass seed pallets on bunds in two rows, notching gap 10 cm.	per kg	50	50
26	Sowing of tree seed on ridges.	per kg	25	25
27	Cost of tree seed	per kg	0	200
28	Stone pitching 23cm depth with available stone including collection and stacking of stone.		90	120
29	Grass pitching on the slope of the bund	Sqm	8	10
30	Minimum wage of the state in Rs per day	Rs.per day		192

A. Filling BSR rates in the app

BSR items will appear one by one on the screen. You need to fill Unskilled labour rate and total rate (including Skilled labour + Unskilled Labour + Material cost). Programme coordinator should ensure that BSR rates of the block should be filled by technical person or technically trained person for all tablets. This should be filled in the office before going to the field for preparation of design and cost estimate. If you know that BSR rates of some activity will not be undertaken in your block you can fill zero in the rates of those activity.

The screenshot shows a mobile application interface for entering BSR rates. At the top, there is a status bar with the time 10:46 AM and network indicators. Below the status bar is a green header with the text 'BSR' and a paintbrush icon. The main title 'BSR rates of the state' is displayed in a large, bold, pink font. Below the title, the first item '1. Bush/Jangle Clearance' is listed. A rounded rectangular box contains the input fields for this item. Inside the box, the unit 'Unit : Sqm' is shown in red. Below it, the 'Labour rate (Rs./Unit)' is entered as '3.43'. Further down, the 'Total Rate (Material + Labour)(Rs./Unit)' is entered as '3.46'. Below the box, the second item '2. Excavation of soil including initial lead and' is partially visible. At the bottom of the screen, a green bar contains the word 'NEXT' in white capital letters.

Item	Unit	Labour rate (Rs./Unit)	Total Rate (Material + Labour)(Rs./Unit)
1. Bush/Jangle Clearance	Sqm	3.43	3.46
2. Excavation of soil including initial lead and			

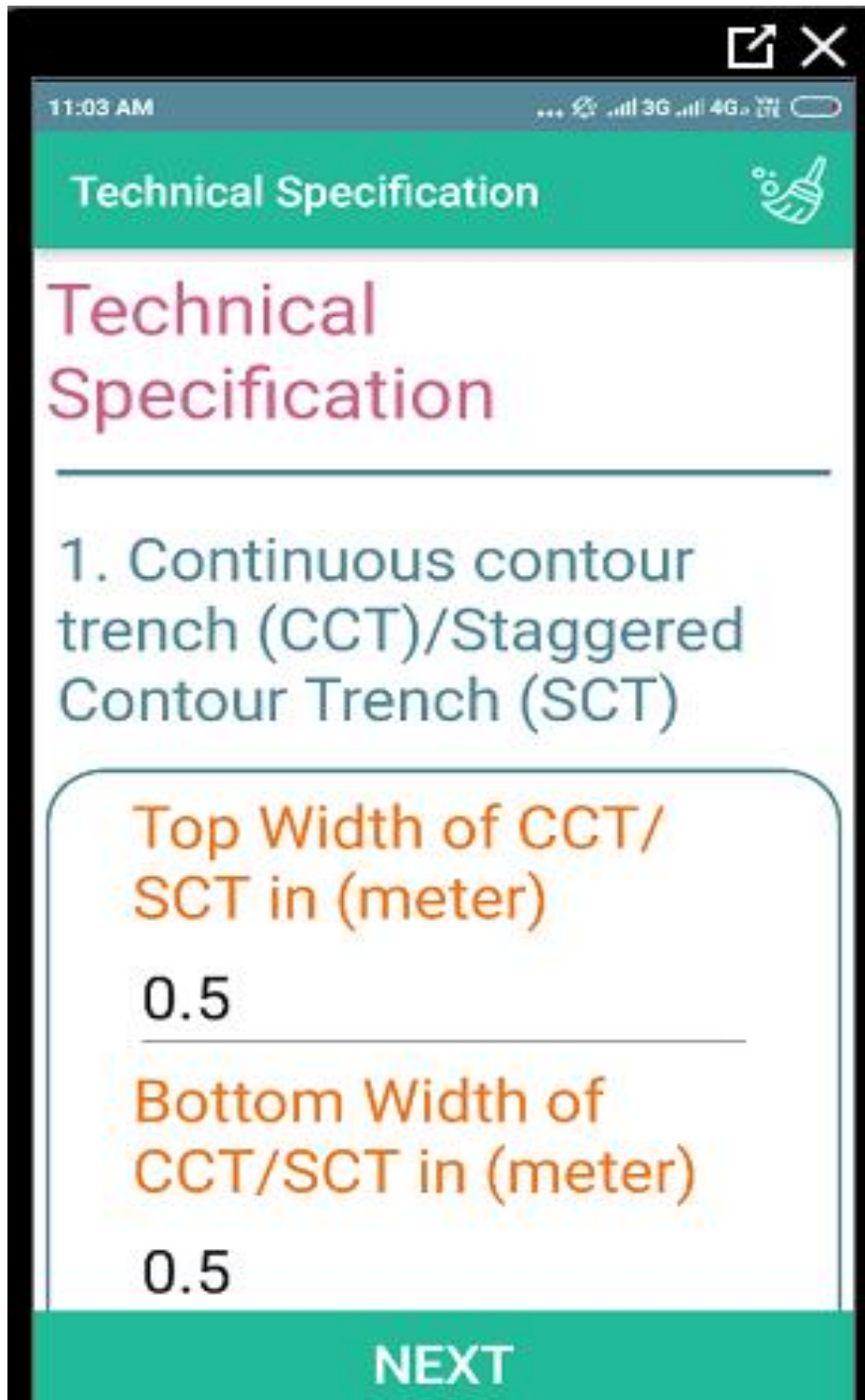
Revision of BSR Rates

Whenever the BSR rates change, the rates need to be revised by just click on the setting button.

The screenshot shows a mobile application interface. At the top, there is a status bar with the time '10:45 AM' and network indicators for '3G' and '4G'. Below the status bar is a green header bar with the text 'CCT'. In the top right corner of the header bar, there is a gear icon representing the 'Setting Button', which is circled in blue. A callout box with the text 'Setting Button' points to this icon. Below the header bar, the main content area has a title 'Input Sheet-A -Basic Details of the Work (Filled for each site)' in a large, bold, purple font. Below the title, there is a rounded rectangular form with three input fields, each with a label in orange text: 'Name of Project', 'Name of Work', and 'Name of the site Location'. Each input field has a horizontal line for text entry. At the bottom of the form, there is a green bar with the text 'NEXT' in white.

B. Filling Technical Specifications in the app

This needs to be filled by the technical person or technically trained person. Based on field experience of working in the block, the technical person needs to finalize the technical specifications of all below works. This should be filled in the office before going to the field for preparation of design and cost estimate. You can also edit for any site specific condition. The process of editing is similar to editing of BSR rates.



The screenshot shows a mobile application interface for 'Technical Specification'. At the top, there is a status bar with the time '11:03 AM' and network indicators for 3G and 4G. Below the status bar is a green header with the title 'Technical Specification' and a paintbrush icon. The main content area has a large heading 'Technical Specification' in pink. Below this, there is a list item '1. Continuous contour trench (CCT)/Staggered Contour Trench (SCT)'. Underneath the list item, there are two input fields with orange labels: 'Top Width of CCT/ SCT in (meter)' and 'Bottom Width of CCT/SCT in (meter)'. Both fields have the value '0.5' entered. At the bottom of the screen, there is a green button labeled 'NEXT'.

11:03 AM

Technical Specification

Technical Specification

1. Continuous contour trench (CCT)/Staggered Contour Trench (SCT)

Top Width of CCT/ SCT in (meter)

0.5

Bottom Width of CCT/SCT in (meter)

0.5

NEXT

Technical specifications

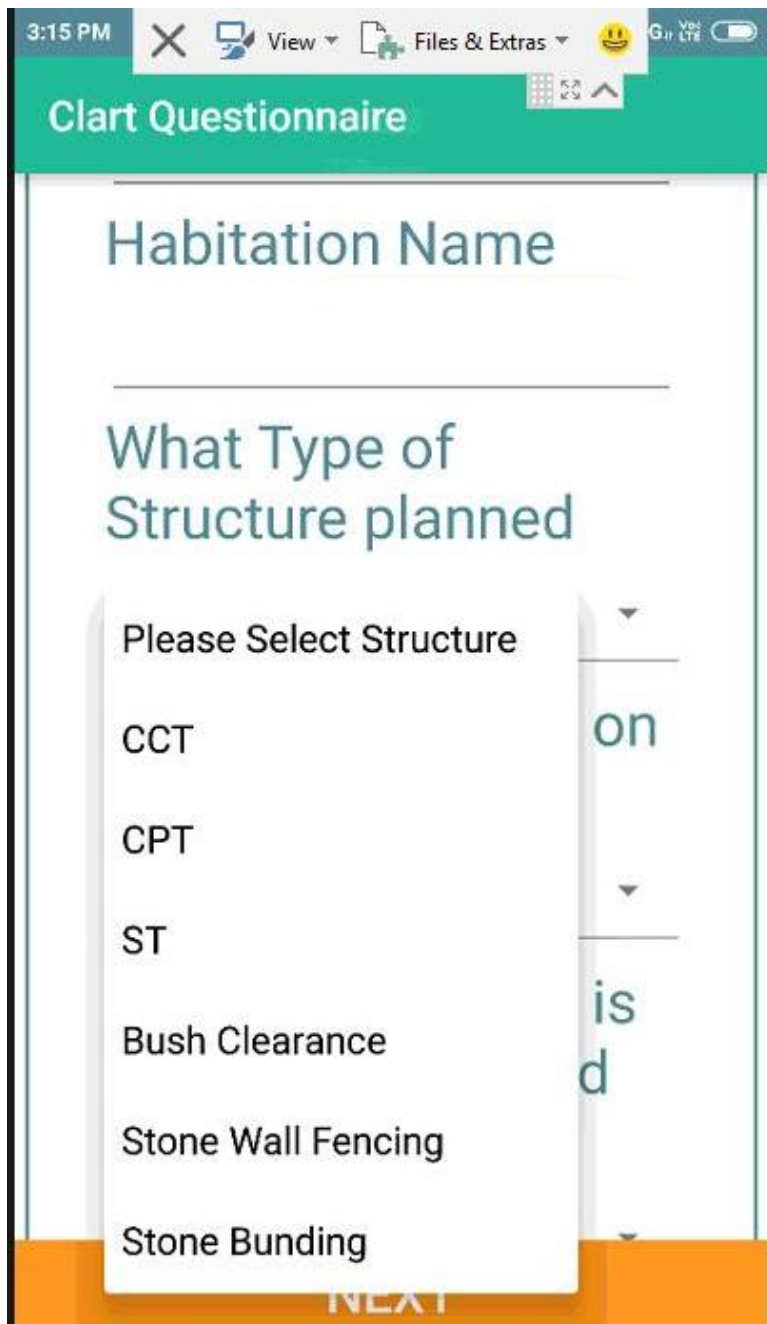
Following technical specification needs to be filled by technical person. If the technical person know that some of the below structures are not feasible in their block, he can just entered zero in the technical specification of that particular intervention. Please note if you entered zero then this app would not be able to prepare design and cost estimate of that particular structure.

Technical Specification- To be filled once by technical person		
1	(SCT)	
1.1	Top Width of CCT/SCT in (meter)	0.5
1.2	Bottom Width of CCT/SCT in (meter)	0.5
1.3	Depth of CCT/SCT in (meter)	0.5
2	Stone Bund	
2.1	Top Width of Stone bund in (meter)	0.5
2.2	Upstream side slope of Stone bund (V:H), 1:	1
2.3	Downstream side slope of Stone bund (V:H), 1:	1
2.4	Depth of foundation trench for Stone bund in (meter)	0.1
2.5	Height of Stone bund in (meter)	0.6
3	CPT	
3.1	Dimension of CPT (mention in meter based on field survey)	
3.2	Top Width of CPT in (meter)	1.5
3.3	Bottom Width of CPT in (meter)	0.9
3.4	Depth of CPT in (meter)	1.2
4	Stone Wall Fencing	
4.1	Average height of stone wall fencing in (meter)	1.2
4.2	Top Width of stone wall fencing in (meter)	0.5
4.3	Bottom width of stone wall U/S & D/S (V:H), 1:	0.8
4.4	Depth of foundation trench of stone wall in (meter)	0.15
5	LBCD	
5.1	Top Width of LBCD in (meter)	0.5
5.2	Upstream side slope of LBCD (V:H), 1:	1
5.3	Downstream side slope of LBCD (V:H), 1:	2
5.4	Depth of foundation trench for LBCD in (meter)	0.15
6	Vegetative Measures	
6.1	Mortality rate for plantation	10.0%
6.2	Total grass seed requirement in kg per ha	6
6.3	Total tree seed requirement in kg per ha	1.5
6.4	No of thor stick required per running meter	6
7	Earthen Gully Plug (EGP)	
7.1	Top Width of EGP in (meter)	1
7.2	Side Slope U/S & D/S of EGP (V:H), 1:	1.5

Technical Specification- To be filled once by technical person		
8	Sunken Pit	
8.1	Side Slope of sunken Pit (V:H). 1:	1
9	Dugout Percolation Pond	
9.1	Side Slope of Dugout Percolation Pond (V:H). 1:	1
9.2	Length of Inlet in meter	3
9.3	Width of Inlet in meter	2
9.4	Depth of Inlet in meter	1.5
9.5	Length of Outlet in meter	4
9.6	Width of Outlet in meter	3
9.7	Depth of Outlet in meter	2
10	Earthen Water Harvesting Structure (Nadi)	
10.1	Top Width of Nadi in (meter)	1
10.2	U/S Side Slope of nadi (V:H). 1:	2
10.3	D/S Side Slope of nadi (V:H). 1:	2.5
11	Earthen Farm Bund (EFB)	
11.1	Top Width of Earthen Farm Bund in (meter)	0.3
11.2	Height of Earthen Farm Bund in (meter)	0.6
11.3	Side Slope of Earthen Farm Bund (V:H). 1:	1
11.4	Top width of stone outlet in meter	0.5
11.5	Side slope of stone outlet	1
11.6	Height of stone outlet in meter	0.3
12	Stone Farm Bund (SFB)	
12.1	Top Width of Stone farm bund in (meter)	0.5
12.2	Upstream side slope of Stone farm bund (V:H). 1:	1
12.3	Downstream side slope of Stone farm bund (V:H). 1:	1
12.4	Depth of foundation trench for Stone farm bund in (meter)	0.1
12.5	Height of Stone farm bund in (meter)	0.6
13	Farm Pond (FP)	
13.1	Side Slope of farm pond (V:H). 1:	1
13.2	Length of stone pitched Inlet in meter	3
13.3	Width of stone pitched Inlet in meter	2
13.4	Depth of stone pitched Inlet in meter	1.5
13.5	Length of stone pitched Outlet in meter	4
13.6	Width of stone pitched Outlet in meter	3
13.7	Depth of stone pitched Outlet in meter	2

Data Entry in the field for Preparation of design and cost estimate by user

Step I : You need to select the structure for which you want to prepare the design and cost estimate. The selection of structure will appear by just clicking on the “What type of structure planned” in the clart questionnaire.



The screenshot displays the 'Clart Questionnaire' app interface on a mobile device. At the top, a green header bar contains the title 'Clart Questionnaire'. Below this, the form has two main sections. The first section is titled 'Habitation Name' and features a text input field. The second section is titled 'What Type of Structure planned' and contains a dropdown menu. The dropdown menu is currently open, showing a list of options: 'Please Select Structure', 'CCT', 'CPT', 'ST', 'Bush Clearance', 'Stone Wall Fencing', and 'Stone Bunding'. The 'NEXT' button is visible at the bottom of the screen.

3:15 PM X View ▾ Files & Extras ▾ ☺ 611 Ver LTE

Clart Questionnaire

Habitation Name

What Type of Structure planned

Please Select Structure

CCT

CPT

ST

Bush Clearance

Stone Wall Fencing

Stone Bunding

NEXT

Step II : You need to fill the basic information of that particular site in the field. The basic information includes name of project, work, location of site, survey number, village, panchayat, block, funding agency, etc. In addition you can also mention the purpose of constructing the structure. You can also take the photographs of the site by just clicking of “Camera” button which appear at the end of Input Sheet-A.

<p>3:21 PM X View ▾ Files & Extras ▾ ☺ G LTE 🔋</p> <p>CCT ⚙</p> <p>Input Sheet-A -Basic Details of the Work (Filled for each site)</p> <hr/> <div><p>Name of Project</p><hr/></div> <div><p>Name of Work</p><hr/></div> <div><p>Name of the site Location</p><hr/></div> <p>NEXT</p>	<p>11:18 AM ... 3G 4G 🔋</p> <p>CCT ⚙</p> <div><p>Name of Panchayat</p><hr/></div> <div><p>Name of Block</p><hr/></div> <div><p>Funding Agency</p><hr/></div> <div><p>Purpose of the Structure</p><hr/></div> <div><p>CAMERA</p></div> <p>NEXT</p>
---	--

Step III : You need to fill the technical information of that particular site in the field. The technical information includes length, width, height, area of plot, catchment area, average slope of the plot etc. The technical information will vary depend on the selection of the structure.

The screenshot shows a mobile application interface. At the top, there is a status bar with the time '3:24 PM', a close button, a 'View' dropdown, a 'Files & Extras' dropdown, a smiley face icon, and a battery icon. Below this is a green header bar with the text 'CCT' and a grid icon. The main content area has a title 'Input sheet B- Filled in the field' in pink. Below the title is a rounded rectangle containing three orange text prompts: 'Total length of contour trench in (meter)', 'Total Area of the treated plot in ha', and 'Net Treatable Area in ha (Exclude area'. Each prompt is followed by a horizontal line for input. At the bottom of the screen is a green bar with the word 'NEXT' in white.

3:24 PM X View Files & Extras 😊 🔋

CCT

Input sheet B- Filled in the field

Total length of contour trench in (meter)

Total Area of the treated plot in ha

Net Treatable Area in ha (Exclude area

NEXT

Step IV : You need to fill the soil strata by observing the field situation. This would vary from site to site. Please note that if some strata is not applicable as per site condition, you need to fill zero against that soil strata. For example if you planning for CCT and based on field observation you found that 60 % is soft soil and 40% is hard soil, then you need to fill zero in other soil strata.

3:26 PM X View Files & Extras G LTE

CCT

Soil Type for Excavation of contour trench (mention in % based on field survey)

In soft soil/ordinary soil in %

In hard soil in %

In murrum in %

In disintegrated rock in %

NEXT

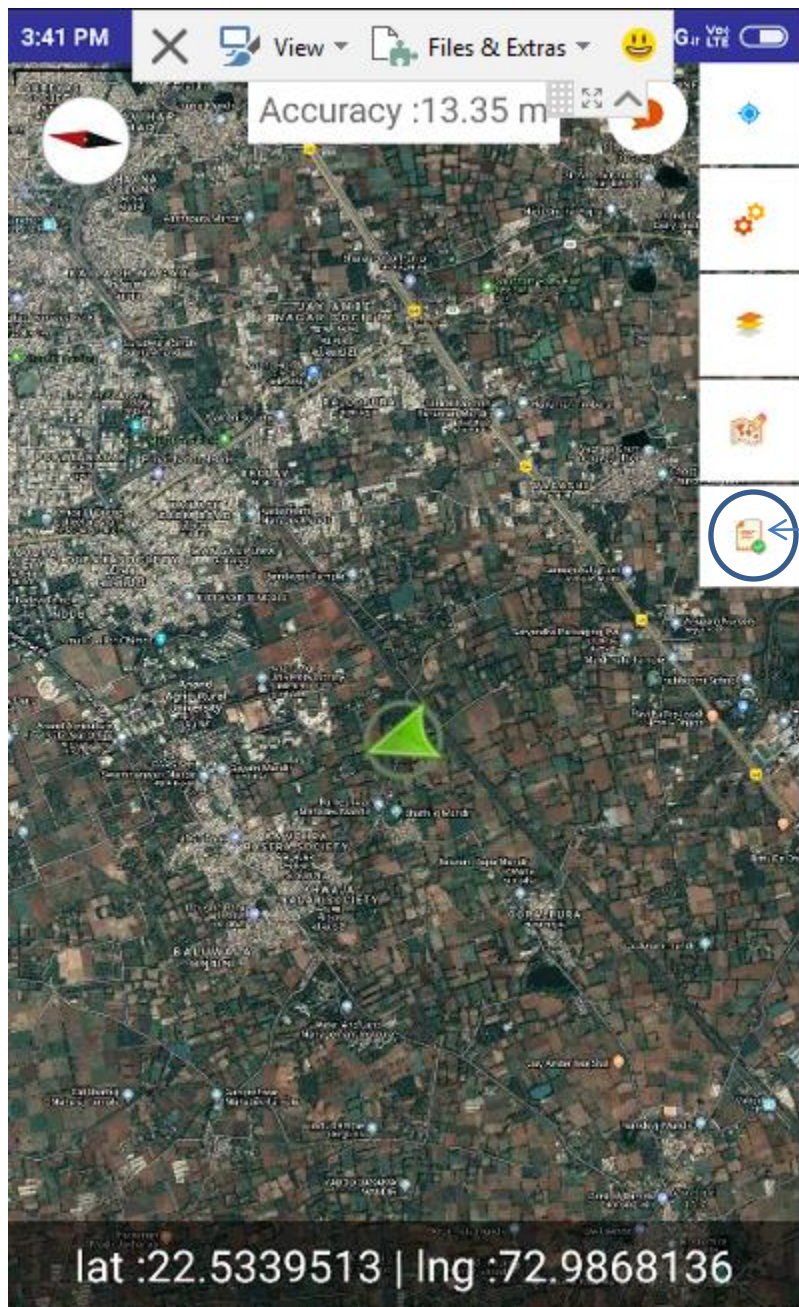
View Cost estimate in the tablet

After completing field data entry, Cost estimate (Output Sheet) will automatically appear on the tablet. You may able to see the total cost of the activity, total material cost of the activity, total Labour cost of the activity, Labour & Material cost ratio and cross section design of the activity in the tablet. Please note this will be visible one time in the tablet, if you think that the cost estimate is not correct you can go back and check the input data filled in the tablet.

CCT	CCT
<div data-bbox="209 725 767 846"><h2>Output Sheet</h2></div> <div data-bbox="209 891 767 1794"><p>Name of Project : Watershed development</p><p>Name of Work : CCT</p><p>Name of the site Location : Kala pathar</p><p>Survey Number : 103</p><p>Name of Village : Rampura</p><p>Name of Panchayat : Narsinghpur</p><p>Name of Block : Gogunda</p><p>Funding Agency : MGNREGS</p><p>Total length of : 5000</p></div> <div data-bbox="209 1794 767 1877"><p>NEXT</p></div>	<div data-bbox="833 725 1391 1055"><p>Sub Total</p><p>Total Labour Cost : 210981.25</p><p>Total Cost : 212925.0</p></div> <div data-bbox="833 1070 1391 1794"><p>Add @3% for Drinking Water and Palnewali : 6387.75</p><p>Sub Total : 219312.75</p><p>Add @2% for Contingency : 4386.25</p><p>Grand Total Cost : 223699.0</p><p>Total Labour Cost : 210981.25</p><p>Total Material Cost : 12717.75</p></div> <div data-bbox="833 1794 1391 1877"><p>NEXT</p></div>

Process of sending data from mobile to website

Step I : Need to start from the first page of the tool- Click last button



Click on this button

Step II: Saved cost estimate files will appear

3:43 PM X View ▾ Files & Extras ▾ ☺ G II Ver LTE

Saved Form

Structure Type : CCT
User Id : 5
Saved at : 28-Feb-2019 3:37:07 PM ☐

Structure Type : CCT
User Id : 6
Saved at : 28-Feb-2019 3:38:23 PM ☐

SEND SELECTED

Step III: Just click on the checkbox and click on the send selected button for sending the file from tablet to website. Once it is sent, the file will not be visible on the saved form.

Saved Form

Structure Type : CCT
User Id : 5
Saved at : 28-Feb-2019 3:37:07 PM

Structure Type : CCT
User Id : 6
Saved at : 28-Feb-2019 3:38:23 PM

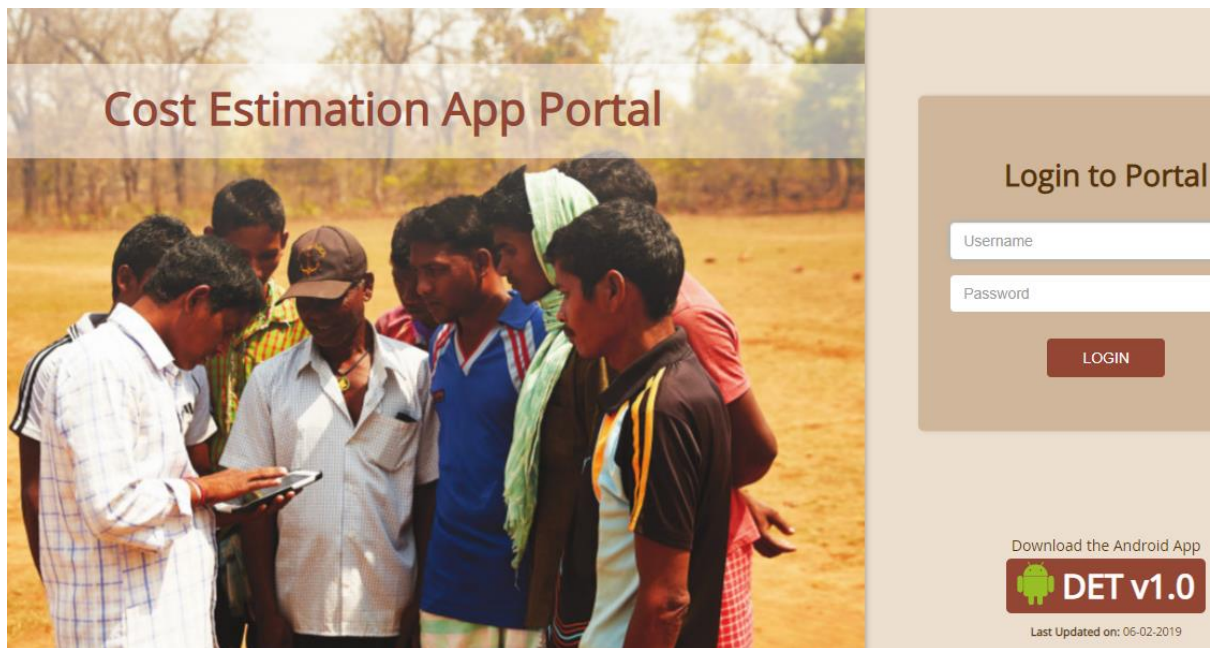
SEND SELECTED

Process of Downloading excel based design & cost estimate from the website

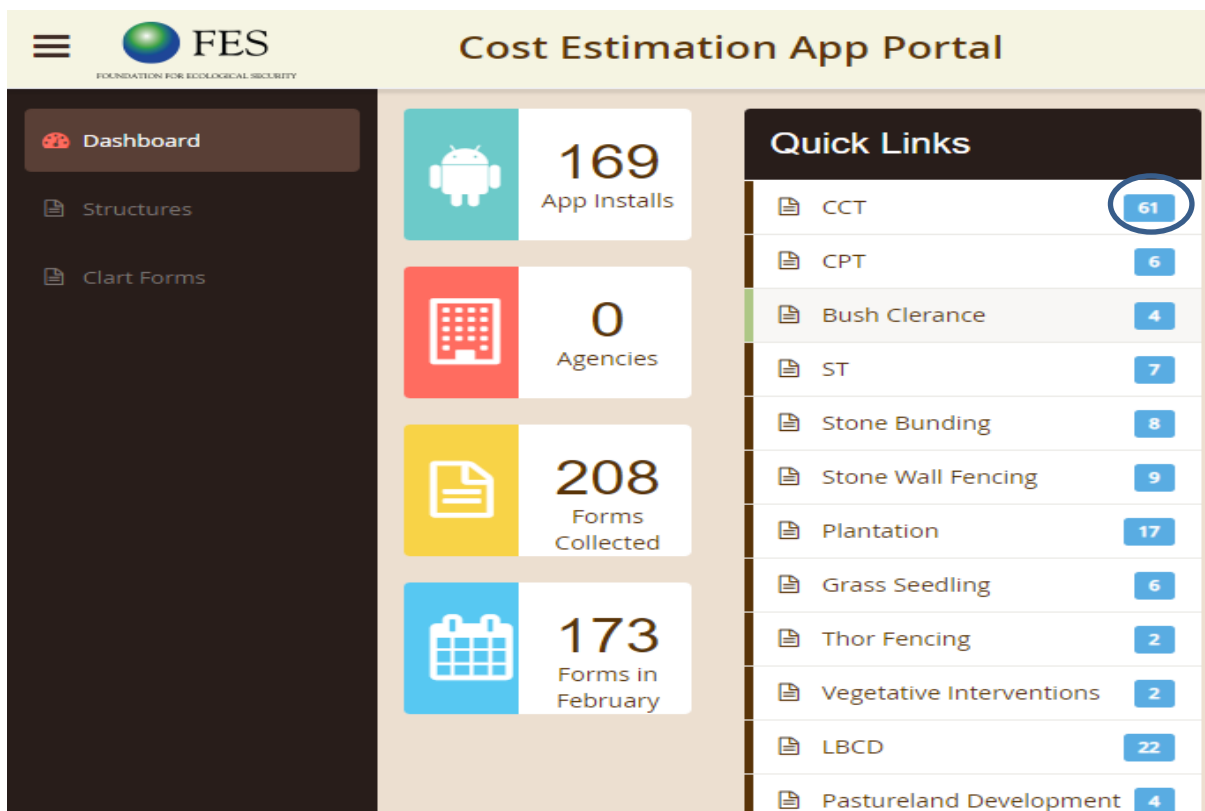
Step I: Visit Website portal for Cost estimation app, the website is
<https://det.fes.org.in>

Step II: Login the portal, the Logo in User Id: guest, and Password: guest2019

Step III;



Step III: Select the structure and click on it.



Step IV: Identify your cost estimate from user name, date, place etc, Click on the download symbol for downloading the excel based cost estimate of the structure.

Cost Estimation App Portal

February 28, 2019, 4:20 pm

FES Guest

Continued Content (1/1)

Name of the site	Survey Number	Village Name	Date	User Name	Organization	Phone	Action
<input type="text" value="Search Name of the site"/>	<input type="text" value="Search Survey"/>	<input type="text" value="Search Villag"/>	<input type="text" value="Search Date"/>	<input type="text" value="Search User Nam"/>	<input type="text" value="Search Organization"/>	<input type="text" value="Search Phc"/>	
dff	ffr	fff	26-02-2019 05:37:32 pm	rajesh verma	FES	9979054614	
B7a?d?a?d?a?n?g?a?r?p?a?h	12	K?u?b?u?r?i?	25-02-2019 08:30:19 am	krishna Chatar	KVK	6351516034	
Baddanger	12	Kuburi	24-02-2019 11:26:00 pm	Niranjan Dharua	BRLF II HMR University Jaipur	6371883163	
Mandopada	23	Mandopada	24-02-2019 06:47:52 pm	Anita Behera	TSRDS	7046564304	
nandurbar	33	somaval	24-02-2019 06:29:01 pm	Jaywanti Padvi	BRLF	9727157195	
Nandurbar	55	Somaval	24-02-2019 05:48:16 pm	Aseem Kujur Kujur	Vsk	7759877437	
Dhol pada	1234	Dhol pada	24-02-2019 05:31:22 pm	Tikun Kumura	Brif	8018270502	
Bairakh	12	Bairakh	24-02-2019 05:18:06 pm	lokes masram	brif	9691654381	
RANAPUR	123	RANAPUR	24-02-2019 05:00:19 pm	Aseem Kujur Kujur	Vsk	7759877437	

Downloaded excel file will have following information

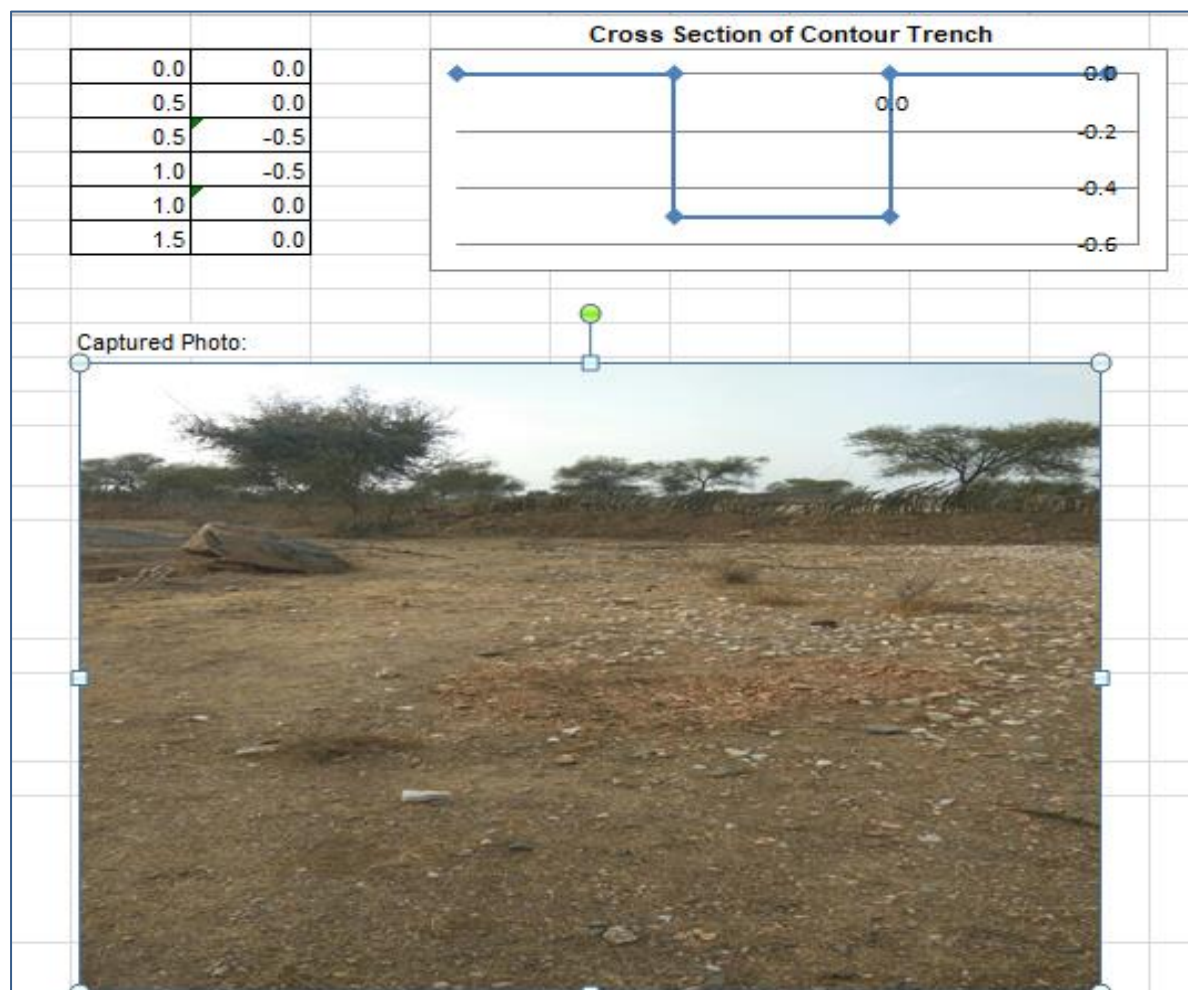
1. Salient Features of the activity (includes GPS coordinates)

FOUNDATION FOR ECOLOGICAL SECURITY	
Salient Features of the Activity	
Name of Project	Watershed Development
Name of Work	CCT
Name of the site Location	Kala Pathar
Survey Number	103
Name of Village	Rampura
Name of Panchayat	Shyampura
Name of Block	Gogunda
Funding Agency	HUF
Total length of contour trench in (meter)	1000
Top Width of contour trench in (meter)	0.5
Bottom Width of contour trench in (meter)	0.5
Depth of contour trench in (meter)	0.5
Total Area of the treated plot in ha	10
Net Treatable Area in ha (Exclude area where CCT is not possible due to excess slope, stony area and dense vegetation etc.	8
Average Slope of the plot (in %)	0.12
Latitude (Degree)	25.68
Longitude (Degree)	74.28

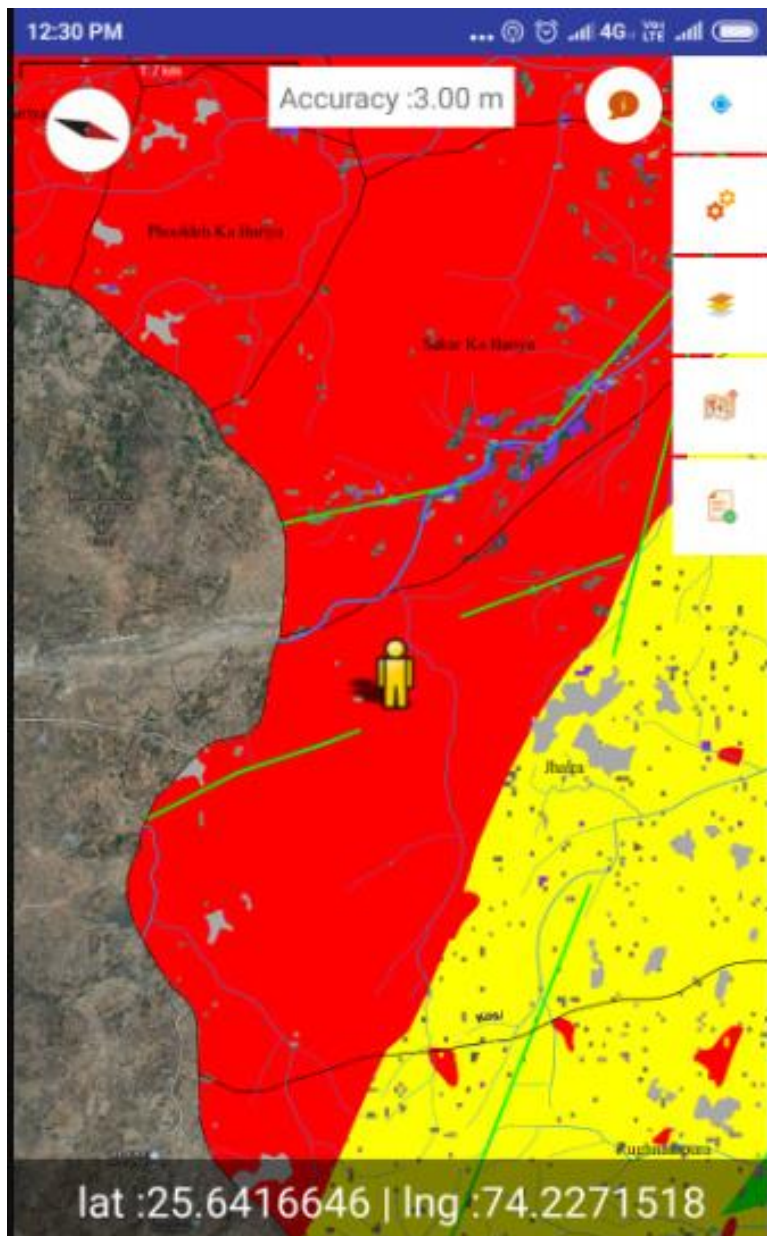
2. Measurement Sheet & Abstract Sheet

A1 Input Sheet A - Basic Details of the Work (Filled for each site)											
G	H	I	J	K	L	M	N	O	P	Q	R
Measurement Sheet & Abstract Sheet - Continuous Contour Trench (CCT)											
Sr. No.	Item		Unit	Length in meter	Average width in meter	Height/Depth in meter	Total Quantity	Labour rate	Total Labour Cost	Total Rate (Material + Labour)	Total Cost
1	Layout (by A-frame or Dumpy level) for contouring		RM	2000			2000	0.8	1600	0.8	1600
2	Dug belling work up to 5 to 7 cm depth for contouring		RM	2000			2000	1.1	2200	1.1	2200
3	Excavation of contour trenches including initial lead and lift			1000	0.5	0.5	250				
3.1	In soft soil/ordinary soil	50%	Cum				125.0	137.11	17139	138.52	17315
3.2	In hard soil	50%	Cum				125.0	170.06	21258	171.76	21470
3.3	In murrum	0%	Cum				0.0	190.3	0	191.2	0
3.4	In disintegrated rock	0%	Cum				0.0	255.09	0	257.65	0
	Sub Total								42196		42585
	Add @3% for Drinking Water and Palnewali										1278
	Sub Total										43863
	Add @2% for Contingency										877
	Grand Total Cost										44740
	Total Labour Cost										42196
	Total Material Cost										2544
	Total Mandays Generated										220
	Cost per ha treatment										4474
	Labour ratio in %										94%
	Material Ratio in %										6%

3. Design and Photographs of the site



4. CLART Map of the site





FOUNDATION FOR ECOLOGICAL SECURITY

P B No. 29, Anand - 388 001, Gujarat, INDIA

Tel: +91 (2692) - 261402, 261238, 261239

Fax: +91 (2692) - 262087

email: ed@fes.org.in

Website: www.fes.org.in