



UNNAT BHARAT ABHIYAN

PARTICIPATING INSTITUTE

SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY, SURAT

PROGRESS REPORT

MARCH, 2020

UBA Coordinator's Name: Dr. Krupesh A. Chauhan

UBA Co-Coordinator's Name: Dr. Shweta N. Shah

Email: uba@svnit.ac.in

Phone Number: 0261 220 4303

Sr. No.	ADOPTED VILLAGES	TALUKA(Block)	DISTRICT
1	MORA	CHORYASI	SURAT
2	RAJAGARI		
3	SUVALI		
4	JUNAGAM		
5	BHATLAI		

List of Activities:

ACTIVITY 1:

Title of the Activity: "Implementation of Swachh Bharat Mission: Community level Solid waste treatment plant design for UBA adopted villages".

Need of the Activity: To provide sustainable solution on solid waste management for UBA adopted villages.

Resource person: 1. Dr. Harshul Parikh, Director, Facile Maven Pvt Ltd, Surat
2. Mr. Dharmendra Parekh, Derbisolve Pvt Ltd, Surat

Brief Description (Need/Impact/Action/Picture (if any)): Unnat Bharat Abhiyan Cell, SVNIT, Surat has started work for developing solid waste treatment plant for UBA adopted villages with help of subject experts from Surat city.



First of all, Team JAL, UBA Cell, SVNIT, Surat has visited and conducted all the required surveys of ongoing process of solid waste management system in UBA adopted villages.

To achieve sustainable solid waste management, it requires an analysis and characterisation of data collection, mitigation measures, and resource recovery potentials. On analysing the data, it revealed that the villages generate the highest amount of biodegradable waste, and least amount of non-biodegradable. Biodegradable waste in rural area is convenient to manage with composting facility.

Team has developed basic plan for treatment of dry and waste of Bhatlai village under guidance of subject experts Dr. Harshul Parikh, Facile Maven Pvt Ltd and Dr. Dharmendra Parekh, Derbisolve Pvt Ltd.

Dr. Krupesh A. Chauhan and Dr. K. D. Yadav has provided implementation guidelines for implementation of project Bhatlai village, according to that it team has started to design project in Phase wise.

Phase - I:

- 1) It has planned to start with proper awareness in village to use 2 bucket: Dry bin and Wet bin for collecting dry waste and wet waste separately respectively. For this it would have decided to conduct Gram Sabha and posters and pamphlets to all village households.
- 2) Preparing and execution of primary level solid waste treatment at place of currently solid waste landfills site location.

Dry Waste:

Collection from each household and shops from village in weekly basis with help of tractor / Collection vehicle.

Segregation / Sorting of all dry waste in various compartments of Plastic, Wood, Metal, Glass, Cloths, Paper, and Cardboard etc. After collection of all dry waste it will be directly sell to recycler.

Wet Waste:

Segregation and sorting of daily collected wet waste from tractor / collection vehicle and manage it on composting bed and making fertilizers.



Phase II:

In Phase-II, plant will be working with machinery enhancement as follows:

For all PET Plastic from dry waste will go to convert into crude oil with help of machine.

For wet waste, first it will undergo for process of rapid composting in Rapid Composting Machine in which shredded wet waste process with microbes / culture at 80 degree centigrade temperature for 12 hours. This process helps to make fertilizers from wet waste within short time period.

As the Phase - II costly due to establishment and operation of costlier equipments and machineries, due to lack of fund supports, stakeholders will implement Phase – I for starting primary solution on village solid waste management solution.

Team Jal, UBA Cell, SVNIT, Surat is working on preparation of Detailed Project Report (DPR).



(a) Current landfill site of Bhatalai Village



(b) Proposed SWM site for Bhatalai village, near to current Land fill site

ACTIVITY 2:

Title of the Activity: Data collection for Solar roof top project implementation for Suvali Gram Panchayat building, Suvali Village.

Need of the Activity: Creation of awareness for using solar power in village and nearby villages.

Brief Description (Need/Impact/Action/Picture (if any)):

- 1) Team Surya (Sustainable Energy) of UBA Cell, SVNIT, Surat has visited the Suvali village and acquired necessary data collection for implementation of solar roof top project on Gram Panchayat building.
- 2) As building layout plan is not available with Gram Panchayat, Team Surya has taken surveys and measurements and prepared building layout plan including general electrical layout plan.



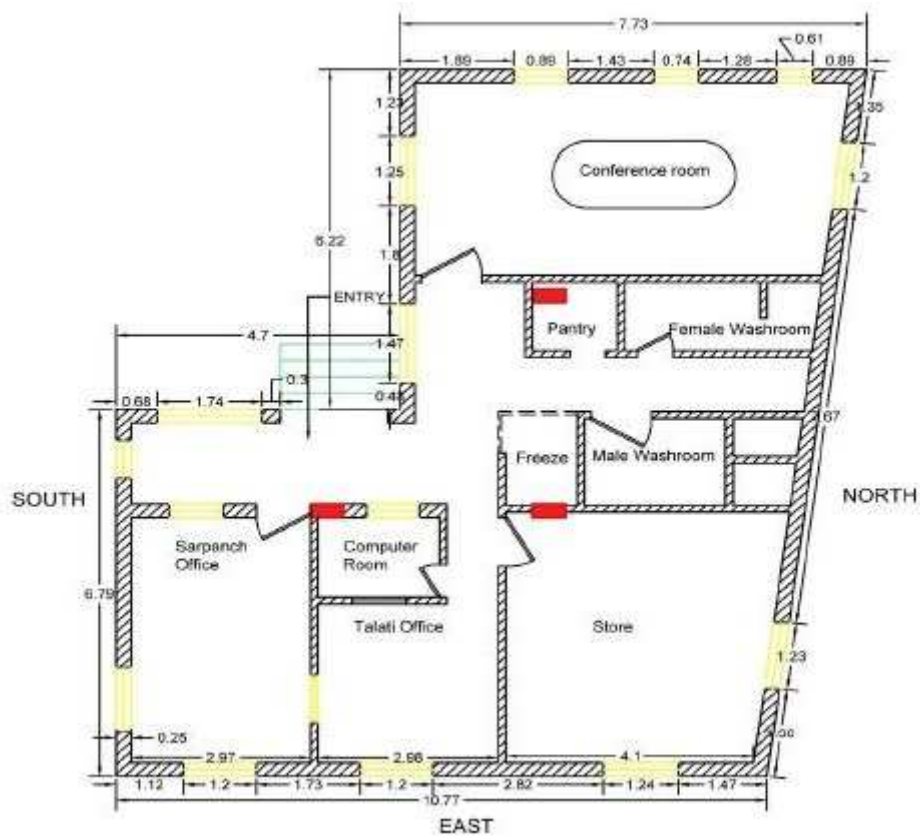
- 3) The electricity meter of Gram Panchayat building has associated with Jilla Panchayat Primary School, Suvali village which is situated besides Gram Panchayat building unit and team has taken electricity bill from Gram Panchayat. So design of solar power project will generate electric power for both Gram Panchayat as well as for school building.
- 4) The working drawing, specification and estimate was prepared with help of Ananya Urja Pvt Ltd.
- 5) Team Surya is preparing Detail Project Report for implementation of Solar Power Project for Gram Panchayat building, Suvali Village.



(a) Suvali Gram Panchayat Bhavan



(b) Terrace view, existing solar panel is not enough for Gram Panchayat building.



(c) Ground floor plan of Suvali Gram Panchayat Building



Nest Action Plan:

Sr. No.	Activity to be conducted (along with reason)
1	"Farmer Welfare" & "Zero Budget Natural Farming (ZBNF)" Workshop in adopted villages (To promoting & implementation of Organic Farming and its benefits)
2	"Organic Farming & Certification" Workshop (To giving awareness about Organic product certification and how to do agricultural export business)
3	Implementation of "Jal Shakti Abhiyan" by creating contour mapping through GIS and proposing of Pond Construction based on surface runoff and proposing of recharge bore wells.
4	Workshop on "Government Schemes" in UBA villages to spread awareness and participation in various Government Schemes for Rural Development.

Dr. Shweta N. Shah
Co-Coordinator,
UBA Cell, SVNIT, Surat

Dr. Krupesh A. Chauhan
Coordinator,
UBA Cell, SVNIT, Surat