



A

Report on

Technical Workshop for

# “Vishwakarma Yojana : Sustainable planning for villages”



Rain Water Harvesting

Repair, Reimagine  
and Redesign



Waste Management

Date: 26<sup>th</sup> September, Saturday, 2015

Venue: Seminar Hall, GTU-Gandhinagar Campus, Gandhinagar

*Presented by:*

Prof. (Dr.) Indrajit Patel

Ms. Jagruti Shah



**Gujarat Technological University,  
Ahmedabad**



Gujarat Technological University,  
Ahmedabad, Gujarat.  
Technical workshop of Vishwakarma Yojana at GTU, Gandhinagar Campus  
(26<sup>th</sup> September, 2015)

**Concept by Dr. Akshai Aggarwal, Hon'ble Vice Chancellor:**

*The aim of the Vishwakarma Yojana was to study village life with respect to the delivery of basic needs and then to re-imagine, redesign, rejuvenate and strengthen the community life. Any research work without direct relevance to the society will not normally lead to great Engineering Research. The students are required to re-imagine & redesign the infrastructure and make sure that the soul of the village is supported by the new architecture.*



Gujarat Technological University had organized a One Day Technical Workshop of Vishwakarma Yojana Phase-III for the students of Civil Engineering (Zone1,2,&4) on “Sustainable planning for villages” held on 26<sup>th</sup> September, 2015 at GTU, Gandhinagar Campus.

Ms. Darshana Chauhan, OSD welcomed experts, all invitees & participants in the workshop. Expert speakers Prof. Dharmesh Juremalani, Architect, 6 Nodal officers and 365 students from 59 Institutes affiliated with GTU, Ms Jagruti Shah, Project Coordinator-VY were remain present.

Mrs. Jagruti Shah, Project Co-ordinator of Vishwakarma Yojana briefed all about the progress of Vishwakarma Yojana stepwise, objectives features, planning & present Status work to be done during current phase, modality of project in context to rural development & role of education institutions. She explained the aspects of Infrastructural & Social designs for villages. She explained to all that about technical Session themes.

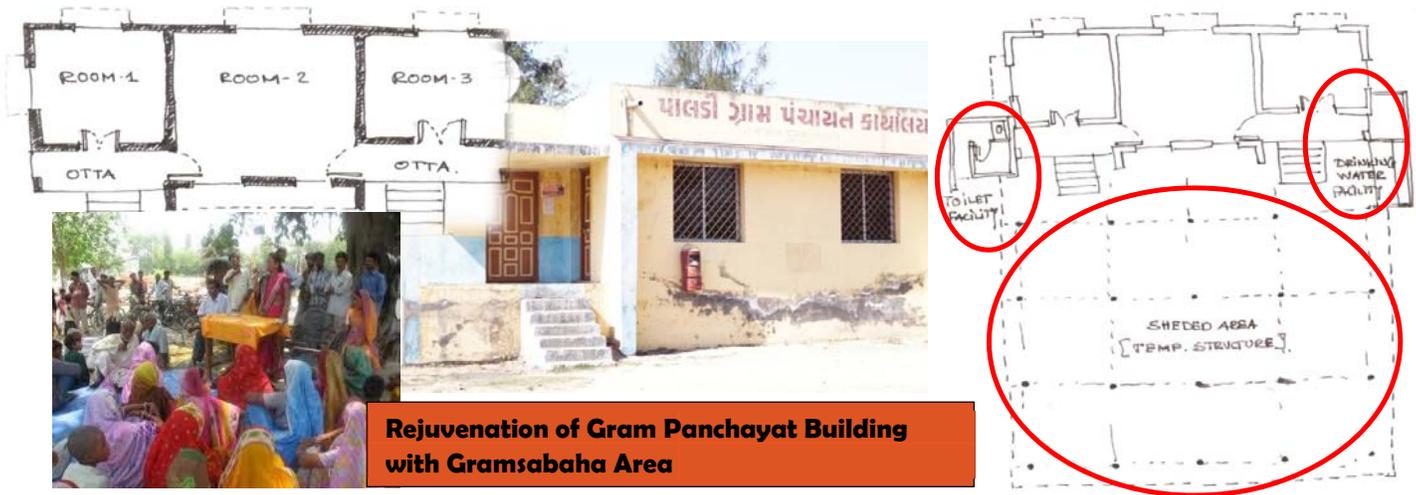
Technical Session has been grouped in Three core themes:

- (I) Repair, Reimagine & Redesign of Public infrastructure in villages”.
- (II) Sustainable Solid and liquid waste management
- (III) Rain water Harvesting Techniques for villages

**Technical session I: Repair, Reimagine & Redesign of Public infrastructure in villages”**

The first session has been conducted by Shri Dharmesh Juremalani, from ITM School of Arch. & Design, Vadodara. His areas of interest are encouraging physical activities through urban designs, healthy urban settlement and sustainable architecture.

He had explained different methods to redesign of the old buildings like Gram Panchayat office, PHC, Schools, Community hall, Public library, Public Toilet block, etc. He explained this with the past situation of those particular buildings and compared it with the suggested plans which rejuvenate the basic facilities with economy. In addition to this rejuvenation can be done by the Structural Repairs, Up-gradation of Protective layers, Addition in facility (like drinking water, toilet etc.) and Addition in existing functions (like shed to accommodate gram-sabha etc.). He shared some examples of redesign in Vadodara (like palace converted in to Hotel, Govt. office converted in to Museum etc.). He simply describe the redesign by taking an example of clinic in which by addition in facility to suit the changed need (like Drinking water, Ramp for wheel chair etc.). He gave an excellent idea about converting the open spaces in purposeful amenities. At the end he briefed with the water body rejuvenation (Pond Beautification) to make it useful and beautiful.



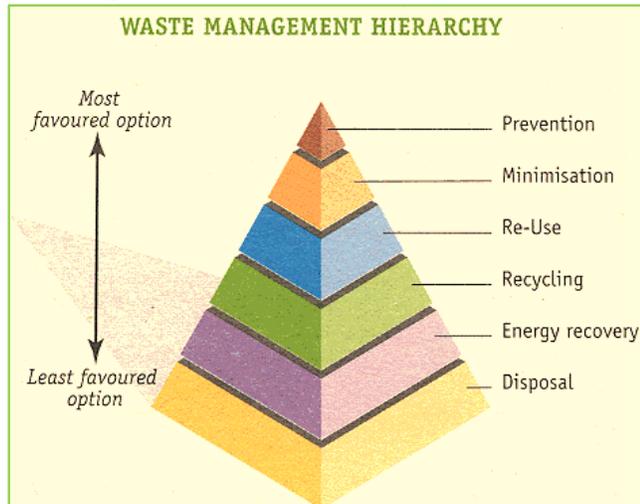
## Technical session II: Sustainable Solid and liquid waste management

This session has been conducted by Mrs. Jagruti Shah, Project coordinator & Urban planner, Vishwakarma Yojana- GTU. She presented the theme of waste management for villages.

Waste management is one of the challenge for urban as well as rural area. In her presentation, definition of waste, types of waste, waste management techniques, different parameters for design and guidelines to design waste management model have been explained.

Tapi model is one of the most sustainable approach for waste management in which Zero waste management centre was built by local material, local man power and with optimum cost. Door to door collection has been done by local people only.

Three SHG members involved in door to door collection for every 250 to 300 families. Primary segregation or source segregation should take place at households for which two dustbins each have been provided. Secondary Segregation of organic (wet) waste into 20 types and inorganic (Dry) waste into 17 types in ZWM Centre. Aerobic composting (Windrow) & using cattle to reduce the volume of organic waste makes this model more sustainable.

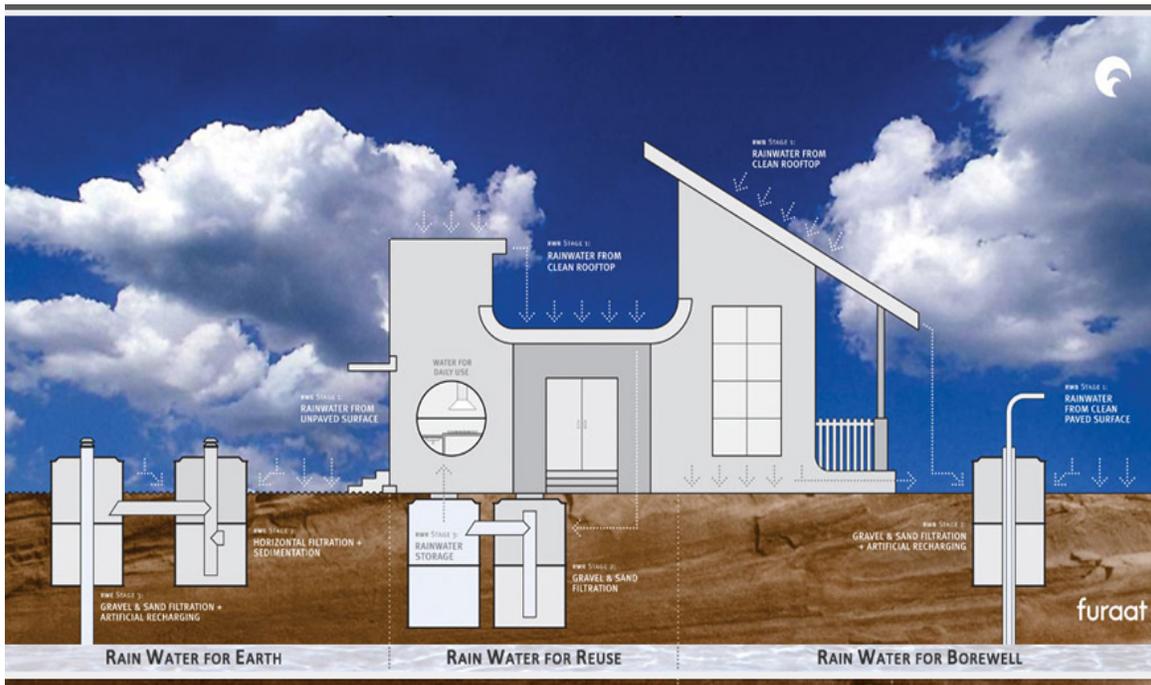


*Waste Is Not Waste Always, But Wealth...*

## Technical session III: Rain water Harvesting Techniques for villages

This session has been conducted by Shri Yusuf Attarwala, Director, Furaat Earth Pvt. Ltd, Ahmedabad. Furaat, a design lead company which is engaged in providing rainwater harvesting solutions. Their systems are installed across the nation ranging from individual residences, farm houses, urban townships, institutes and major industrial plants.

His has presented various case studies and live working models of rainwater harvesting systems. He has also included the solutions which is in the form of precast modular system that can adapt itself to various site condition and are highly reliable and efficient. He also explained about the system filters rainwater that can be later used for various water requirements.



### Brain Storming Session



Mrs. Jagruti Shah briefed about Design phase to Student & Nodal Officers. Student & Nodal officers shared their Problems & issues for designs in villages. She gave solutions to different technical issues for village planning. She had explained the design proposals for overall development of village includes Physical, Social and Socio-Cultural infrastructures facilities based from the gap analysis and people's responses and various recommendation & suggestions for Sustainable village development should be included in DPR. She shared various guidelines for designing part. She explained techniques for overall development of village with effective and sustainable planning.

On Behalf of VY Team, B.E. student of P.I.E.T expressed their gratitude and sincere thanks to Dr. Akshai Aggarwal, Hon'ble Vice Chancellor for his motivation and valuable support to project. She thanked all eminent speakers, Students, Nodal Officers, Co-ordinators of Vishwakarma Yojana & Staff of Parul Institute & team of GTU for making the workshop success for Vishwakarma Yojana.

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**On behalf of GTU**

Dr. Indrajit Patel

Ms. Jagruti Shah & Mrs. Usha Banker