

**State Level Workshop on Decentralized
Sanitation Systems and Technologies for
Madhya Pradesh**

**22nd December 2018
Organized by**

Department of Architecture and Planning, MANIT, Bhopal

A Report

BACKGROUND

On October 10th, 2018 an agreement between NIUA, New Delhi and MANIT, Bhopal and was signed for Academia Engagement on Decentralized Sanitation. This is an SCBP initiative for providing an opportunity to students and faculty of universities and academic institutes to engage with studying and understanding urban sanitation systems in terms of centralised and decentralised sanitation system options. In the terms of reference following two specific activities and expected deliverables were finalized:

Activity No.	Specific Activity	Expected Deliverables
1	<p>Design and roll out of Short-Term Training Program on Recent Trends in Urban Sanitation Systems</p> <ul style="list-style-type: none"> • Course content, teaching material and exercises to be developed by MANIT in consultation with SCBP partners and NIUA. • Conducting of the training program for up to 40 participants 	<ul style="list-style-type: none"> • The structure and content of the training be finalized to be finalized within 30 days after signing the agreement. • Five Days training will be held on mutually agreed dates during December 2018. • Submit report on learnings/ feedback from certificate course within 45 days of conducting the program
2	<p>One Day State Level Dissemination and Advocacy Workshop to promote Decentralized Sanitation</p> <ul style="list-style-type: none"> • Workshop Agenda and List of invitees to be prepared in consultation with NIUA. Invitees to include city officials, state officials, experts and practitioners. • Conducting workshop with Presentations of select work prepared in advance of the workshop • Some expert presentations by SCBP partners 	<ul style="list-style-type: none"> • Workshop agenda and list of invitees to be finalized within 30 days after signing the agreement. • Workshop to be held on mutually agreed date during December 2018. • Workshop report to be submitted after completion of the workshop within 45 days of conducting the workshop

In continuation with the signing of agreement, both parties worked individually and collectively to thresh out the contents, dates and other details of the one week Short-Term Training Program on Recent Trends in Urban Sanitation Systems and **State-Level Workshop on Decentralized Sanitation Systems for ULBs in Madhya Pradesh**. After many telephonic communications, emails and a meeting in MANIT at 10:30 AM on 15th November 2018, the dates for the training program and one day workshop was finalized as 17th – 21st December 2018 and 22nd December respectively. Subsequently the contents and resource persons were also finalized.

The program brochure was circulated both in hard copy and soft copy. The selection was done in a way so as to get participants from varied academic and professional backgrounds, organizations, representing diverse places. The selected applicants were then asked to communicate their confirmation; in this manner in all 63 attended the course. The participants' profile/description is shown in figure 1. The complied list and the registration forms are enclosed in annexure 1.

State-Level Workshop on
Decentralized Sanitation Systems and Technologies for
Madhya Pradesh

Date: 22nd December 2018, Saturday Time: 9:30 AM – 2:00 PM
Venue: Hotel Palash Residency, T.T. Nagar, Bhopal





Registration

S. No.	Name	Organization	City	Signature
1.	B. ASHWIN KUMAR	DADA PUDUKKOTTAI	PUDUKKOTTAI	B. Ashwin
2.	AKSHAY GUPTA	MANIPAL UNIVERSITY, JAIPUR.	JAIPUR.	Akshay
3.	Anand Upadhyay	Architect	UJAIN	Anand
4.	JUMANT KUMAR	M.D.W.S. FATA TARI	RAJTI (UP)	Jumant
5.	Dakshin Kothekar	GIT UNIVERSITY.	Ahmedabad.	Dakshin
6.	GANDHI SAGAR	GIT Univ.	Ahmedabad	Sagar
7.	S.G. Phalke	TLE WAKAS	Bhopal	S.G. Phalke
8.	Shameet Kaur	MPUC	Bhopal	Shameet
9.	POOJA GUPTA	CPR	DELHI	Pooja
10.	MANMohan KAPSTUE	MANIT	BHO PAL	Manmohan
11.	MAHENDRA AHIRWAR	MANIT COEP PUNE	BHO PAL	Mahendra
12.	ANJAN NANDY	PRACTISING Ar.	BHO PAL	Anjan
13.	Aparajita Dubey	SSAA, Gurgaon	Gurgaon	Aparajita
14.	Shilpa Singh	MPOADD	Bhopal	Shilpa
15.	Narvart Kumbhar	MANIT	Bhopal	Narvart
16.	Anuday Nigam	TIT	Bhopal	Anuday
17.	Yogesh Bhatt	NIIUA	Delhi	Yogesh
18.	Rishi Sam	Practising Ar.	Bhopal	Rishi
19.	Yogesh K. Garg	By & HD, MANIT	Bhopal	Yogesh
20.	Dr. MAKESH K. Lalji	S.V. poly. college Bhopal	Bhopal	Dr. Makesh
21.	Hareh Tiwari	UIUC	Bhopal	Hareh
22.	Ashish Raj	MANIT, Bhopal	Bhopal	Ashish

Figure. 1: Sample profile of participants

INAUGURAL SESSION:

Dr. Manmohan Kapshe, Dean Institutional Development Maulana Azad National Institute of Technology delivered the welcome Address. He welcomed all to Bhopal and to the State Level Workshop on Decentralized Sanitation Systems and Technologies for Madhya Pradesh. He highlighted the importance of managing sanitation in small towns where the conventional solutions do not work and therefore new approaches have to be adopted. He also stressed upon the role of training personnel apart from building infrastructure.

Shri Neelesh Dubey, Deputy Director, SBM, UADD, Government of Madhya Pradesh, delivered the keynote address. He emphasized upon the integration of all types of sanitation services; solid waste management, waste water treatment, sewerage etc. for reaping the full benefits of improving the environment. He too highlighted the training of first-line workers and assisting the ULBs to set their priorities with respect to cleanliness. He presented the sanitation data of Madhya Pradesh and highlighted the challenges with case examples. He also offered the share the drawings and estimates of treatment plants for small towns. He also shared his strategy of identifying 'champions' for succeeding in the quest of sanitation for all.



Figure 2: Inauguration of the workshop



Figure 3: Welcome address by Dr. Manmohan Kapshe, Dean Institutional Development, MANIT, Bhopal



Figure 4: Key note address by Shri Neelesh Dubey, Deputy Director, SBM, UADD, Govt. of Madhya Pradesh



Figure 5: Mr. Vikas Mishra, Asstt. Commissioner, UADD

TECHNICAL SESSION I, SPEAKER 1: MS. SHALINI SINGH, ASSISTANT ENGINEER AT UADD, GOVT OF MP.

Topic: MP sanitation situation and FSSM strategy

Ms. Shalini Singh shared the experience of the progress made by Madhya Pradesh state in sanitation since 2009. She highlighted the strategies, achievements, with specific examples. This was followed with the future plan for achieving sanitation for all.



Figure. 6: Ms. Shalini Singh, Assistant Engineer at UADD, Govt. of MP



Figure. 7: Mr. Saket Kumar (Amrut-Tsu), Ministry of Housing and Urban Affairs, Government of India

TECHNICAL SESSION I, SPEAKER 2: MR. SAKET KUMAR, (AMRUT-TSU), MINISTRY OF HOUSING AND URBAN AFFAIRS, GOVERNMENT OF INDIA.

Topic: Policy initiatives and Program level initiatives

Mr. Saket Kumar presented the status of sanitation in India. He informed about the number of states which have adopted policy for FSSM, operational guidelines, ODF, ODF ++ amongst other policies and programs. The progress made by Maharashtra, Odisha, Karnataka, Chhatisgarh, Madhya Pradesh and Rajasthan states were also shared. The issues of guidelines for technology and procurement procedure to be adopted were also discussed.

TECHNICAL SESSION I, SPEAKER 3: MR. ASIM MANSURI, CWAS

Topic: ODF and beyond; A case of Maharashtra.

He informed about the progress made by Maharashtra in the field of sanitation, especially the towns of Wai and Sinnar. The process followed for regular desludging of septic tanks by the ULBs was also presented. The financing strategies like Sanitation tax, escrow accounts were presented. He also highlighted the importance of handholding support to ULBs for achieving sustainability.

TECHNICAL SESSION I, SPEAKER 4: MS. MAHIMA VIJENDRA, IIHS

Topic: Cluster based approach for Tamil Nadu Urban Sanitation Support Programme (TNUSSP)

Ms. Mahima Vijendra shared the experience of Tamil Nadu Urban Sanitation Support Programme. She informed that in Tamil Nadu for sanitation a 'cluster based approach' was followed as the state is a high urban developed state. The topics of Capex, Opex, scheduling/phasing, optimizing existing infrastructure were also discussed. She emphasized that behavioral change regarding desludging was key for achieving sanitation standards. She also highlighted the role of training to masons. Future plans of the state were also presented.



Figure 8: Mr. Asim Mansuri, CWAS



Figure 9: Ms. Mahima Vijendra, IIHS

TECHNICAL SESSION I, PANEL DISCUSSION, CHAIR: Dr. MANJIT SINGH.

PANELISTS: Ms SHALINI SINGH, Mr. SAKET KUMAR, Mr. ASIM MANSURI, Ms. MAHIMA VIJENDRA

Dr. Manjit Singh, summarized the presentations of the session. He then invited the participants for questions for discussion. The discussion was mainly on:

- Types of human resource needed; their availability and training
- Encouragement to field staff
- Sources of funds for different types of ULBs
- Strengthening of ULBs for long term sustainability; organization structure
- Procurement, contracting options for infrastructure and service delivery
- Low and high technology options available
- Shared knowledge is a valuable resource; follow others' success with modifications to suit local needs.



Figure. 10: Session 1, Panel Discussion

After the panel discussion, Mr. Vikas Mishra, Asstt. Commissioner, UADD, shared his experiences with the participants. He pointed out that most of the knowledge resource material was in English but for greater dispersal it should be in local language. As per him communication was an important factor for the success of any project therefore common websites, social media can be used. He opined that the program results should be inclusive and benefits whether economic or other should be for all. He also expressed that for any big campaign the real players are the first line workers, therefore for best results attention needs to be paid to their skills up gradation. He added that opportunities for waste to wealth have to be explored for sustainability.

TECHNICAL SESSION II, SPEAKER 1: MR. G. S. SANTOSH, CDD

Topic: Nature based FSTP

Mr. G. S. Santosh, explained the working of faecal sludge treatment plant at Devanhalli, Karnataka which is nature based. He also informed about the capital cost and running cost of such a treatment plant.

TECHNICAL SESSION II, SPEAKER 2: MR. DEEPAK, TIDE TECHNOCRATS

Topic: Thermal treatment of FSST

Mr. Deepak explained the management of FSST by thermal treatment process; one such plant is in Jabalpur. He informed about the life cycle costing, capital cost and running cost.



Figure. 11: Mr. G. S. Santosh, CDD



Figure. 12: Mr. Deepak, TIDE Technocrats

TECHNICAL SESSION II, SPEAKER 3: MR. KALIMUTHU ARUMUGAM, WASH INSTITUTE

Topic: Mobile Septage Treatment Unit

Mr. Arumugam explained the treatment process of septage in which the liquid and solid components were separated and then the solid treated. As the solids were less in quantity, the treatment could be done in a small space. As the area required was less, the plant could be set up in a mobile unit. He informed about the life cycle costing, capital cost and running cost.

TECHNICAL SESSION II, SPEAKER 4: MR. ASIM MANSURI, CWAS

Topic: Sludging, Desludging Innovations in Maharashtra.

He shared the experience of Maharashtra towns in sanitation. The logistic, financial and regulatory aspects were discussed. He also informed about the role of private entrepreneurs in the desludging operations and the use of social media in creating awareness and monitoring.

TECHNICAL SESSION II, PANEL DISCUSSION, CHAIR: MR. DEPINDER KAPUR, SCBP. PANELISTS: DR. MANNOHAN KAPSHE, MR. G. S. SANTOSH, MR. DEEPAK, MR. KALIMUTHU ARUMUGAM, MR. ASIM MANSURI.

Mr. Depinder Kapur, summarized the presentations of the session and expressed his thanks to MANIT for organizing the short term training program and this workshop. He then invited the participants for questions for discussion. The discussion was mainly on:

- Technical aspects for choice of treatment options, town considerations, present situation
- Uses of the output of treatment; treated water and solid material

- Standards were available for treated water but not for solid material
- Temperature requirements for pyrolysis
- Limitations of natural treatment vis a vis mechanized treatment.
- Importance of implementing mechanism
- Training of future professionals and skilled manpower and skill upgradation of existing personnel

The session and the workshop ended with a vote of thanks proposed by Mr. Dipender Kpoor.



Figure. 13: Mr. Kalimuthu Arumugam, WASH Institute



Figure. 14: Session 2, Panel Discussion

KEY TAKEAWAYS:

- Training of human resource; professionals, administrators, skilled workers
- Making knowledge resources available in local language
- Making document sets of various types of treatment plants including drawings, quantities, cost estimates for commonly used plant capacities.
- Having networking and experience sharing events for academia (faculty and students), professionals and administrators.
- An elective on urban sanitation can be proposed both at undergraduate and post-graduate levels.



Figure. 15: A cross section of participants attending the workshop

ANNEXURES

ANNEXURE- 1: List of Participants

State-Level Workshop on Decentralized Sanitation Systems and Technologies for Madhya Pradesh

Date: 22nd December 2018, Saturday Time: 9:30 AM – 2:00 PM

Venue: Hotel Palash Residency, T.T. Nagar, Bhopal



National Institute of Urban Affairs

Registration

S. No.	Name	Organization	City	Signature
1.	B ASHWIN KUMAR	DADA PUDUKKOTTAI	PUDUKKOTTAI	B. Ashwin
2.	AKSHAY GUPTA	MANIPAL UNIVERSITY, JAIPUR.	JAIPUR.	Akshay
3.	Anand Upadhyay	Architect	UJJAIN	Anand
4.	SUMANT KUMAR	M.D.W.S FTATA TRUST	RAJTI (NP)	Sumant
5.	Dakshen Kothekar	GIT University.	Ahmedabad.	Dakshen
6.	GANDHI SAGAR	GIT Univ.	Ahmedabad	Sagar
7.	S. G. Phalke	TLE WAKAS	Bhopal	S. G. Phalke
8.	Ishmeet Kaur	MPUOC	Bhopal	Ishmeet
9.	POOJA GUPTA	CPR	DELHI	Pooja
10.	MANMORAN KAPSTIE	MANIT	BHO PAL	Manmoran
11.	MAHENDRA AHIRWAR	MANIT COEP Pune	BHO PAL	Mahendra
12.	ANJAN NANDY	PRACTICING Ar.	BHOPAL	Anjan
13.	Aparajita Dubey	SSAA Gurgaon	Gurgaon	Aparajita
14.	Shelini Singh	MPOADD	Bhopal	Shelini
15.	Navneet Punetha	MANIT	Bhopal	Navneet
16.	Anudrey Nigam	TIT	Bhopal	Anudrey
17.	Yogesh Bhatt	NIDA	Delhi	Yogesh
18.	Rashi Jain	Practicing Ar.	Bhopal	Rashi
19.	Yogesh K. Garg	By & HOD, UMANY	Bhopal	Yogesh
20.	Dr. Mukesh K. Lalji	S.V. poly. college Bhopal	Bhopal	Mukesh
21.	Hareh Tiwari	UIUC	Bhopal	Hareh
22.	Abhishek Raj	MANIT, Bhopal	Bhopal	Abhishek

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Registration

S. No.	Name	Organization	City	Signature
2	Devi Pichu	NIUA	Del	[Signature]
2	Vinay Mohan Das	MANIT	BPL	[Signature]
3	Ankita Gupta	IHE, Delft	BPL	[Signature]
4	Dr. SONIA TANETA	MANIT	BPL	[Signature]
5	Anugrah Klagouch	SPA Bhopal	BPL	[Signature]
6	Nancy Gupta	NIUA	B. Delhi	[Signature]
7	Kumar Sahit	KPMG-AMRUT	TSU Delhi	[Signature]
8	Prince R.	MANIT, Bhopal	Bhopal	[Signature]
9	Charumitra Kapshe	MANIT, Bhopal	Bhopal	[Signature]
10	Neelish Dubey	UADD	Bhopal	[Signature]
11	Mohit Kapoor	NIUA	Delhi	[Signature]
12	Mangit Singh	NIUA	Jaipur	[Signature]
13	Shafiq Ahmed	NIUA	Delhi	[Signature]
14	Nakul Shergil	MANIT	Bhopal	[Signature]
15	Prieta m Karmakar	SPA Bhopal	Bhopal	[Signature]
16	Apoorv Gang	SPA, Delhi, practicing	Delhi	[Signature]
17	Nancy Sabena Kapoor	AIILSG, New Delhi	Delhi	[Signature]
18	Ankita Verma	NIUA	Delhi	[Signature]
19	RIMJIM BAJPAI	NIUA	DELHI	[Signature]

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Registration

S. No.	Name	Organization	City	Signature
01.	JAYESH SONI	ATELIER K+J.	BHOPAL	<i>[Signature]</i>
02	Bhavna Shrivastava	Practicing Architect.	Bhopal	<i>[Signature]</i>
03	Prof. Pratap Raval	COEP.	PUNE.	<i>[Signature]</i>
04	MAHIMA VIJENDRA	IHS	BAHENA	<i>[Signature]</i>
05.	ANUBHAV SHRIVASTAVA	EY LLB.	BHOPAL.	<i>[Signature]</i>
06	AKSHAY GUPTA	CENTRAL UNIVERSITY RAJASTHAN	JAIPUR	<i>[Signature]</i>
07	VISHNU BALAS	ANNA UNIVERSITY, TAMIL NADU	CHENNAI	<i>[Signature]</i>
08	CHANDRA SEKHAR . N	RURAL DEVELOPMENT & PANCHAYAT RAJ	CUDDALORE	<i>[Signature]</i>
09	AR. ANIL KUMAR	MANIPAL UNIVERSITY	JAIPUR	<i>[Signature]</i>
10	LAKSHYA SHARMA	M-I-TS (STUDENT)	GUWAHATI	<i>[Signature]</i>
11	KARAMSIT S. SANDHU	P.R.D. Scheme of Panchayat Raj	AMRITSAR	<i>[Signature]</i>
12	Anamayan Kalimullin	WASH INSTITUTE	DELHI	<i>[Signature]</i>
13	Mamun Tyagi	Wash Institute	Bhopal	<i>[Signature]</i>
14	Bhanupratap Sharma	INDUS UNL.	AHMEDABAD	<i>[Signature]</i>
15	Ankita Srivastava	MANIT	Bhopal	<i>[Signature]</i>
16	Laxmi Kant	IIT Madras	Bhopal	<i>[Signature]</i>
17.	Atok Kumar Tripathi	IIT Kanpur	Bhopal	<i>[Signature]</i>
18	Deepinder Kaur	NIUA	Bhili	<i>[Signature]</i>
19.	Vidya Sagar Gupta	KPMG- ISU- UADD	Bhopal	<i>[Signature]</i>
20.	Bhyanika Kulkarni	WASHI - ISU	Bhopal	<i>[Signature]</i>
21	Vandana Tiwari Srivastava	LIADS, Mumbai	Mumbai	<i>[Signature]</i>
22	Monika Mewade	MPUDC, BHOPAL	BHOPAL	<i>[Signature]</i>

AE, MPUDC

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