



Online **ADB Sanitation Dialogue 2021**

ACCELERATING INCLUSIVE SANITATION

12–22 April 2021

Coordination, Cooperation, and Collaboration

Enabling Environment for CWIS – Lessons from Warangal

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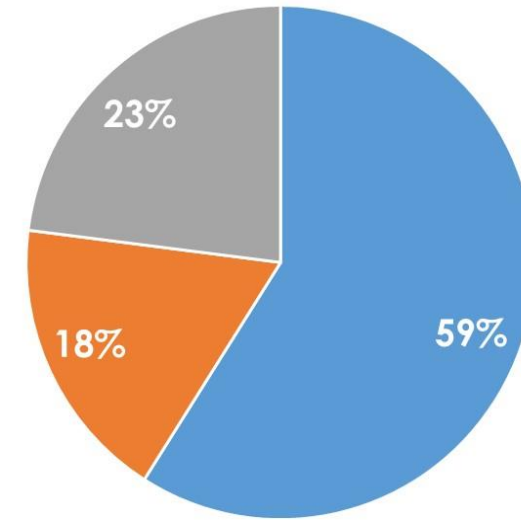
About the City of Warangal, India

- Population: 0.8 million (census 2011) ; ~ 1 million now
- Slum population ~ 30% in slums
- City of lakes, heritage, domestic tourism
- Economy: Vibrant trade, educational institutions and large floating population
- No sewerage system & STPs
- Dependent on onsite sanitation – septic tanks, leach pits etc.



Sanitation Situation – 2015/16

- Households with toilets: 77%
- Inadequate public toilets (PTs) and community toilets (CTs)
- Existing PTs/CTs were dysfunctional without service delivery standards.
- Onsite toilets built without any design considerations /standards
- Insanitary toilets in slums
- Unregulated faecal sludge and grey water management
- Pollution of lakes and ground water.



- HH with Septic Tanks
- HH with Pit Latrines
- HH with Insanitary toilets and OD

Coverage of water supply (HH tap)	< 50 %
Per capita water supply	< 100 lpcd
SW Drain – coverage	42 %

CWIS – Drivers for Change

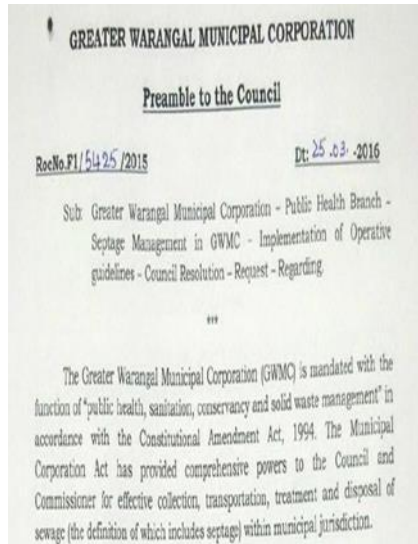
- Evidence based advocacy
- Lake pollution and public health concerns
- City and state leadership for inclusive sanitation
- Availability of technical support to adopt innovative approaches to sanitation



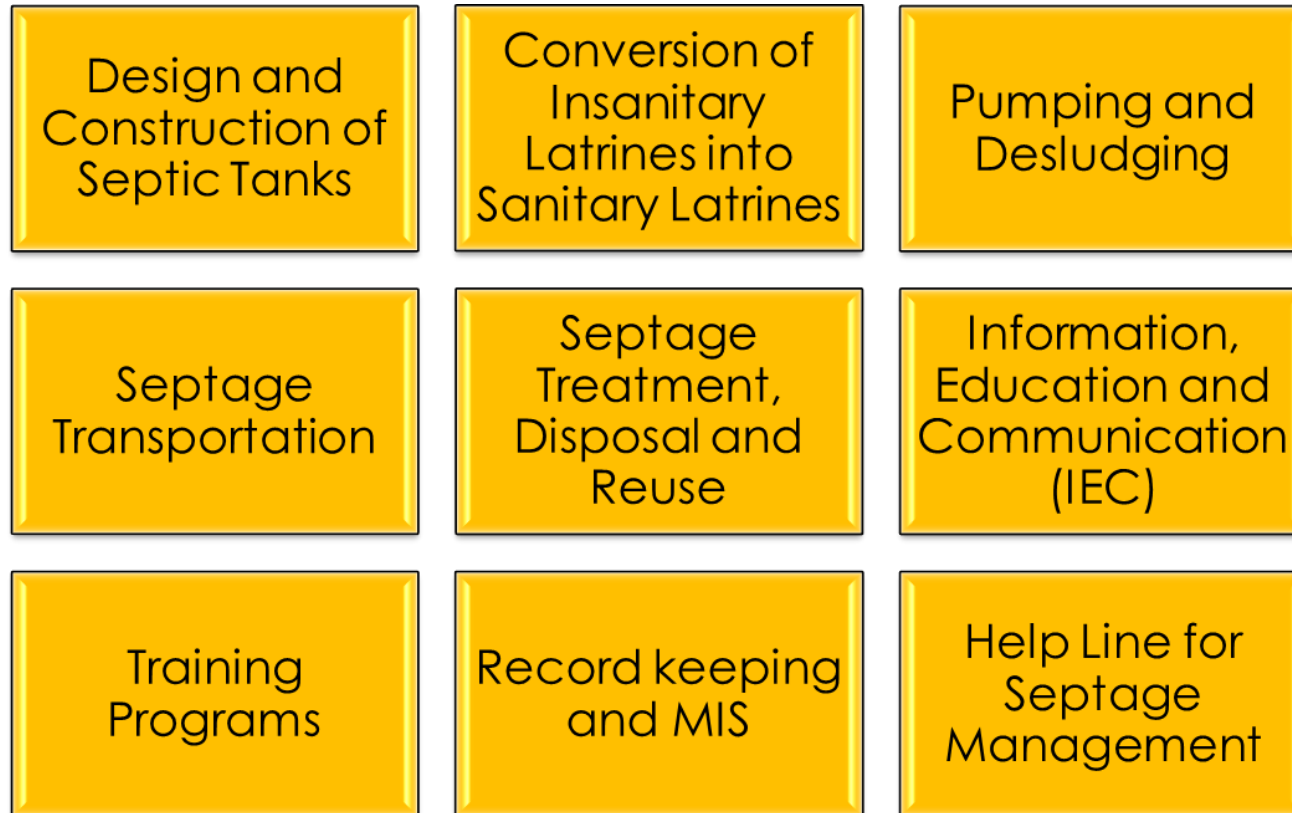
Enabling conditions & actions

Citywide Inclusive Sanitation – Warangal

1. Non-sewer Sanitation – Policy & Regulatory Framework



**First city in India to
notify FSSM
Regulations in 2016**



Components of the regulatory framework

2. Institutional Accountability – Roles and Responsibilities

- Sanitation is a public service
- Clear assignment of roles
 - **City government** – Policy (pro-poor), regulation, finance, standards, citizen connect, gender mainstreaming, monitoring
 - **Service delivery** – private sector under DFBOT, HAM, service contracts with clear SLAs and payment terms
 - **Oversight & Citizen Participation** – City sanitation taskforce – multistakeholder group/50 % women participation, gender sub-group including representation of third gender.
 - **Citizens** – compliance with regulations, payment for service
 - **Others** – third party agencies for monitoring, technical support organizations for guidance and capacity building, corporates & philanthropic organization to support innovations

2. Institutional Accountability – Agencies and Coordination Mechanisms

- Vision & policy formulation– **City Council** led by the Mayor; guided by state sanitation vision
- Strategy, Coordination, Monitoring and Budget – **Municipal Commissioner** (Chief City Manager)
- CWIS planning and execution - led by **Public Health Department** under the Municipal Corporation (MC)
- Inclusion – **Officer on special duty** for slum sanitation, **Community engagement** department (MEPMA)
- Procurement – **Engineering** department under MC
- Establishment of **Sustainable Environmental Sanitation** (SES) Department – final approval underway

3. Public Private Partnerships with well defined service level agreements



Public Toilets



Toilets at Fuel Stations



- SHE-TOILET**
- Capacity- 2 or 4 seater
 - Women caretaker
 - Natural and interior lighting
 - Hand wash facility & mirror
 - Napkin dispenser
 - Incinerator





Public toilet service standards maintained

- Trained caretakers
- Cleaning schedule
- Feedback machine
- Soaps
- Timings, user fee defined
- ICT based weekly monitoring by Sanitary inspector
- Service level agreement displayed
- Customer complaint number displayed
- Sensor based tracking of smell, water and footfalls

NOTICE BOARD
Users should keep their Vehicles, Luggage & Mobile Phones at their own risk the management is not Responsible for this.

PUBLIC TOILETS
Safe, Clean & Hygienic
CLEANING CYCLE

	MORNING	AFTERNOON	EVENING		
	3.00	5.00	7.00	9.00	
Mon					ATTENDER SIGNATURE
Wed					SUPERVISOR SIGNATURE
Fri					

City Warangal Location Name Weddapalli Cross Road

SmartLoo Dashboard

On

SENSOR TYPE ANALYSIS ACTION ITEMS/COMMENTS

Water sensor	Water is available all the time. Although the Water tank is mostly filled between 50-75%	Following assumptions can be made: 1.The water usage is high due
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Sanitation Resource Park (SRP) - FSTPs

Two pilots (15 & 10 kld) on CSR
150 kld on DBOT



4. Regulating the unregulated

File No.HLTH-GEN/20/2016-SR AST1 HLT HOF

PROCEEDINGS OF THE COMMISSIONER (FAC) :: GREATER WARANGAL MUNICIPAL CORPORATION

Present: Sri Shahid Masood, B.Com.

Roc.No.HLTH-GEN/20/2016/Permit-03/2016

Dated:27-10-2016

Sub: Greater Warangal Municipal Corporation – Public Health Branch – License for collection, Transportation and disposal of septage - Orders – Issued.
Ref: Your application dated 01/09/2016

-000-

ORDER:

In accordance with all the terms and conditions of the By-laws / Regulations, Municipal Corporation Act/Rules, the special license conditions accompanying this license and applicable rules and laws of Government of Telangana, permission is hereby granted to.

Shri. Dilli Sampath Rao S/o. Ramana is hereby authorised to undertake desludging of the septic tanks and pits from the individual households, institutions, commercials entities and to transport for disposal at a designated site as notified by GWMC duly following the "Operative Guidelines on Septage Management (Collection, Transportation Treatment and Disposal) in Greater Warangal Municipal Corporation (GWMC) - 2016".

Municipal Health Officer
Greater Warangal Municipal Corporation

To
Copy to the Deputy Commissioner-II (Sanitation), GWMC
Copy submitted to the Commissioner, GWMC for favour of kind information.
Copy submitted to the Hon'ble Mayor, GWMC for favour of kind information.

Received Copy

Signature

Signature valid

Digitally signed by SADHIA
SADANALA
Date: 2016.10.28 14:49 IST
Reason: ...
License PHE-2016



5. Sanitation for the poor and vulnerable population

- Targeted subsidies and S line support (Rs 12000 per HH)
- Scheduled desludging with subsidized tariff (proposed)
- Innovative solutions for slum sanitation – shallow sewer system
- Public toilets /community toilets/SHE toilets – over 150 units
- P – budget

6. Citizen Engagement : Sanitation Helpline (S-line)



A single point contact for gaining access to new individual household toilets, receives applications, verifies as per eligibility etc



Provides technical assistance in matters related to design of septic tanks and toilets, masons and contractor details, registration, identity



Provides desludging service to the citizens



Deals with the status of applications received



Receives sanitation related grievance redressed by the citizens

I WANT A TOILET
For my Health, Safety and Dignity

DO YOU KNOW?
GOVERNMENT OF TELANGANA
OFFERS ₹ 12,000/- PER FAMILY TO
BUILD A SAFE TOILET AT YOUR HOME

APPLY NOW. CALL S-LINE.

Eligibility:

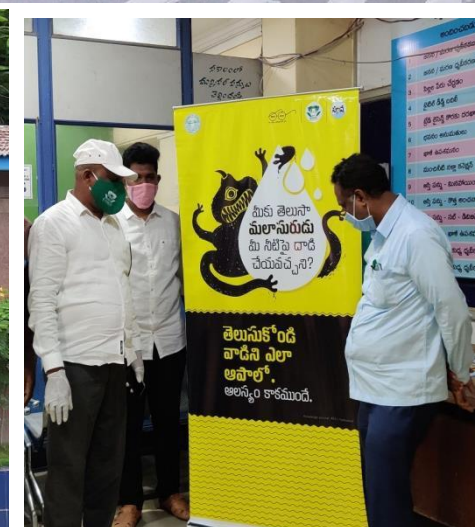
- No toilet at home
- No benefits availed for building a toilet at home
- Aadhar Case / Address proof
- Bank Account
- Space for building a toilet

GWMC AT YOUR SERVICE
CALL SANITATION HELPLINE
TOLL-FREE NUMBER

S-LINE
180 0425 1980
TOILETS • TECHNICAL ASSISTANCE • COMPLAINTS & SUGGESTIONS

Knowledge Partner **asci**

Engaging citizens : BCC campaigns



7. Gender Mainstreaming in Sanitation



Public Toilet construction work orders issued to SLF members



Training program for SLFs on Operations and maintenance of PTs



O&M contact for Public Toilet issued to transgender community SHG

8. Innovations & Technology Transformation

- Decentralized WW Treatment at various locations – Hospitals, housing units, outfall points



Japanese team visits FSTP



Kazushi Hashimoto of Japan Sanitation Consortium inspecting FSTP at Ammavaripet, a suburban village of Warangal, on Saturday

HANS NEWS SERVICE

Warangal: A Japanese delegation led by Kazushi Hashimoto from Japan Sanitation Consortium, and Asian Development Bank official Dr Sitaram visited the faecal sludge treatment plant (FSTP) located at Ammavaripet as part of their study tour on Saturday.

It may be mentioned here that the FSTP was set up by GWMC in association with the Bill and Melinda Gates Foundation with

Administrative Staff College of India (ASCI), Hyderabad, as its knowledge partner, through a public-private partnership (PPP) model.

The delegation which also inspected the toilet constructed at Charbowli as part of Swachh Bharat campaign met the Warangal Urban district Collector Prashanth Jeevan Patil. The Collector explained them about the measures being taken to turn Greater Warangal as a clean, green and hygiene city.

Earlier, the Japanese delegation was explained about the FSTP by the ASCI Area Director Prof Srinivas Chary. Explaining about the thermal process, Chary said that from the toilet to the final conversion of the biochar, the process is scientific and comprehensive. He also gave an account of the geotube, which use geo bags (non-mechanical technology) to dry the faecal sludge. The delegation also inspected mini STP under construction at Ambedkar Nagar.

THE HANS INDIA

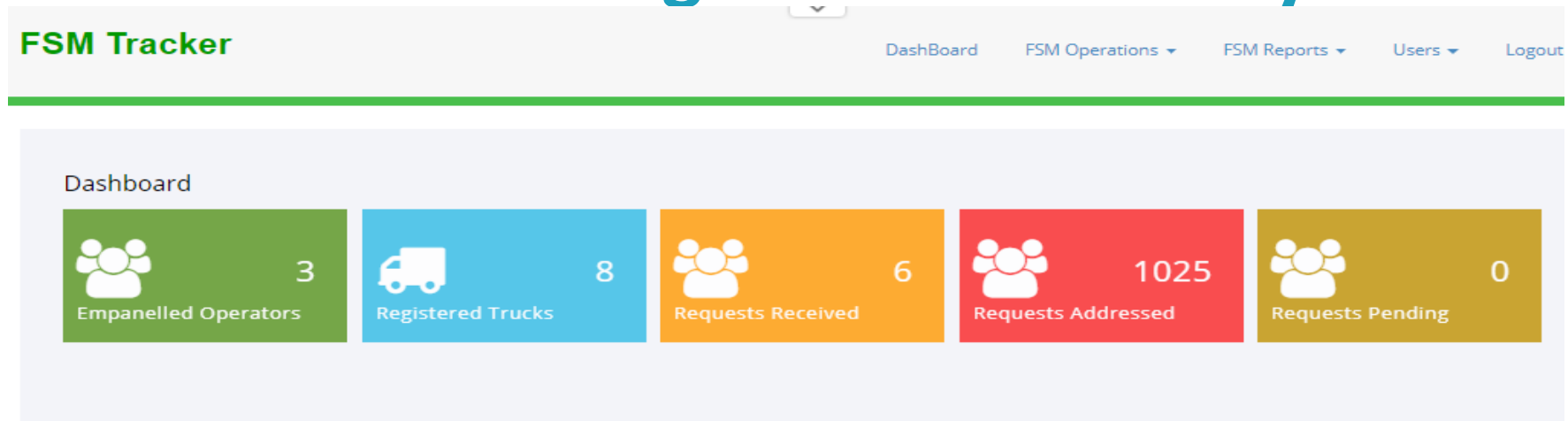
Sun, 14 July 2019

<https://epaper.thehansindia.com/c/41378901>



మేయర్తో సమావేశమైన జపాన్ బృందం సభ్యులు

9 . ICT based monitoring for sustainability and impact



FSM TRACKER

Sign In / సైన్ ఇన్

Truck Id (Last 4 digits of Truck No) / ట్రక్ ఐడి (ట్రక్ సంఖ్య యొక్క చివరి 4 అంకెలు)

Truck Id / ట్రక్ ఐడి

Sign In / సైన్ ఇన్

Sanitation Value Chain

ENVIRONMENT > SUPPLY > TREATMENT > TREATMENT > REUSE/RECYCLE

FSM TRACKER

Truck Id / ట్రక్ ఐడి : AP28U2420

New Request / కొత్త అభ్యర్థన

Reports / నివేదికలు

Sign Out / సైన్ ఔట్

Sanitation Value Chain

ENVIRONMENT > SUPPLY > TREATMENT > TREATMENT > REUSE/RECYCLE

FSM TRACKER

Type of Establishment / స్థాపనల రకం

Select / ఎంచుకోండి

Name / పేరు

Name / పేరు

Email / ఇమెయిల్

Email / ఇమెయిల్

Mobile No / మొబైల్ సంఖ్య

Mobile No / మొబైల్ సంఖ్య

House Number / ఇంటి సంఖ్య

House Number / ఇంటి సంఖ్య

Area / ప్రాంతం

Area / ప్రాంతం

ICT based record keeping and tracking of all assets – PTs/CTs, DWWT, FSTPs, Desludging activities

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10. Capacity building for sustainability



Septic Tank with Soak Pit - Masons Handbook

Septic tank with soak pit



Points to remember

- Septic Tank should always have two chambers
- Wall of septic tank must be water tight
- Septic Tank should be accessible for desludging
- Always use T-pipes for inlet and outlet
- Pit should be located atleast 15 ft away from the water source

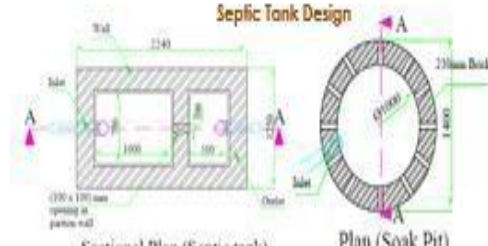
Operation & Maintenance

- Always use enough water for flushing
- Desludge atleast once every three years
- Scum layer must be removed frequently

Do's and Don'ts

- Never throw objects in toilet
- Maintain area so that accessibility is always provided
- Pour huge quantities of water to remove blockages in the pipes

Septic Tank Design



Resources for Users
Figures are Indicative

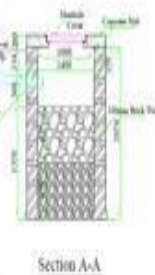
Resources	Units	Septic Tank	Soak Pit
Bricks	Nos	1100	885
Cement	Kg (Bags)	550(11)	200(4)
Sand	Cum	0.873	0.292
Steel	Kg	30	20
Pipe	Feet	20	
T- Pipe	Nos	2	
Aggregates	Cum	0.7	0.63

Indicative Figures

	5 Users	10 Users	15 Users
Length	5	6.5	6.5
Breadth	2.5	3	3
Depth	3.5	4.5	6.5

	3.2	3.2	3.2
Diameter	3.2	3.2	3.2
Depth	4	4	5

Sectional A-A



Lessons

- Nurturing city leadership (political and administrative) through advocacy and peer learning
- Enabling environment for CWIS is a necessary condition for ensuring impact (sanitation is a municipal service, ensure clear mandate)
- PPP in CWIS is doable and sustainable
- Capacity to implement inclusive sanitation – slow and often painful, should precede programme implementation
- Innovations can accelerate the process
- Monitoring is super important – digital enablement