

WARANGAL - THE MODEL SANITATION CITY

- **Background**

In India, for a fact, 70 % sewage in unfiltered and conditions of no toilets, washrooms and tap water still prevail. Any growing city in India faces severe sanitation problems. Over the last few years, the Warangal city in Telangana has undergone a remarkable transformation into a model city in sanitation. The organisation *ASCI (Administrative Staff College of India)* has been working closely with the Greater Warangal Municipal Corporation - from increasing access to toilets to containment, treatment and transport of toilet waste.

The *Warangal model* tells us that to plan for complete sanitation solutions for any city, it is imperative to plan across the sanitation value chain. The model uses deep government engagement, on ground data, private sector involvement and innovative technologies. It also keeps its citizens at the forefront. This is the model sanitation city.

- **Location, Date**

Warangal, 2011

- **Areas**

Across Warangal city, public and private places

- **Stage/Scale**

Warangal - Initially started as public services, then expanded to offer private services

- **Objective of the assignment**

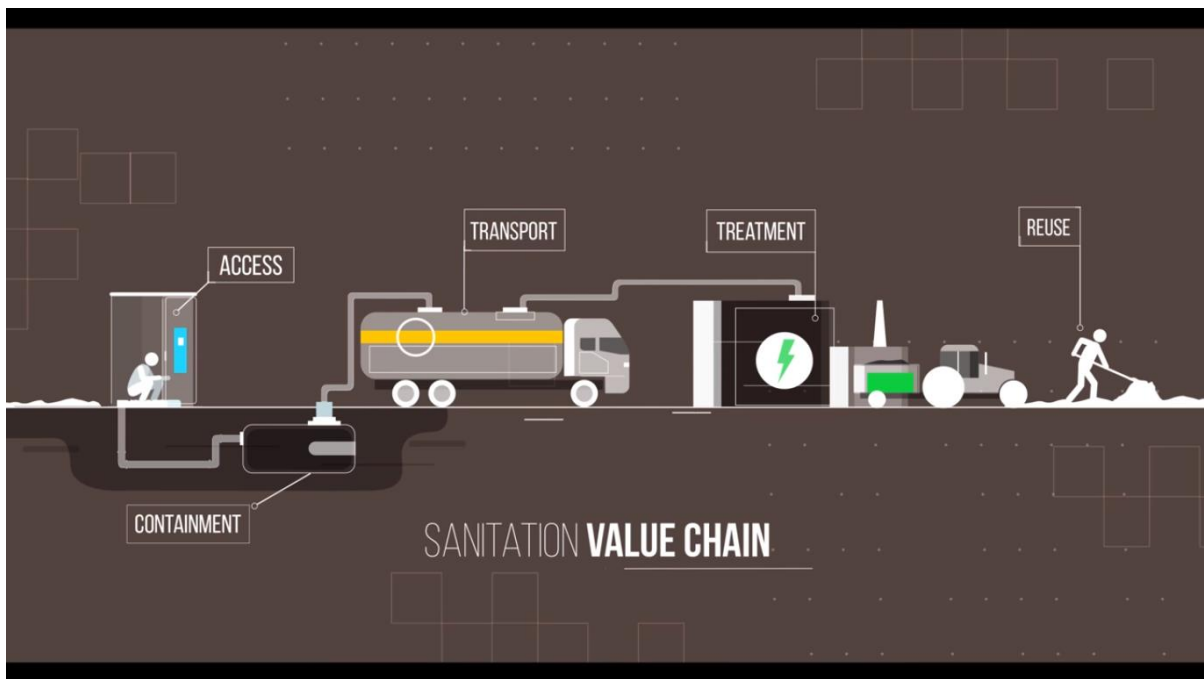
Warangal city scored a dismal 26.36 out of 100 in the city sanitation rating in 2010. The objective of the project was to make Warangal a perfect city in terms of sanitation and rank it among the top cities in the sanitation rating given by GoI.

- **What was done**

Warangal city approached ASCI after reviewing the poor condition of the city in terms of sanitation and hygiene. A team at ASCI thoughtfully planned the course of action and suggested ways to tackle the situation. Both these institutes went forward with public private partnership model for the development of a robust sanitation model. ASCI conducted on ground research and came up with the findings that led them to come up with a transforming model.

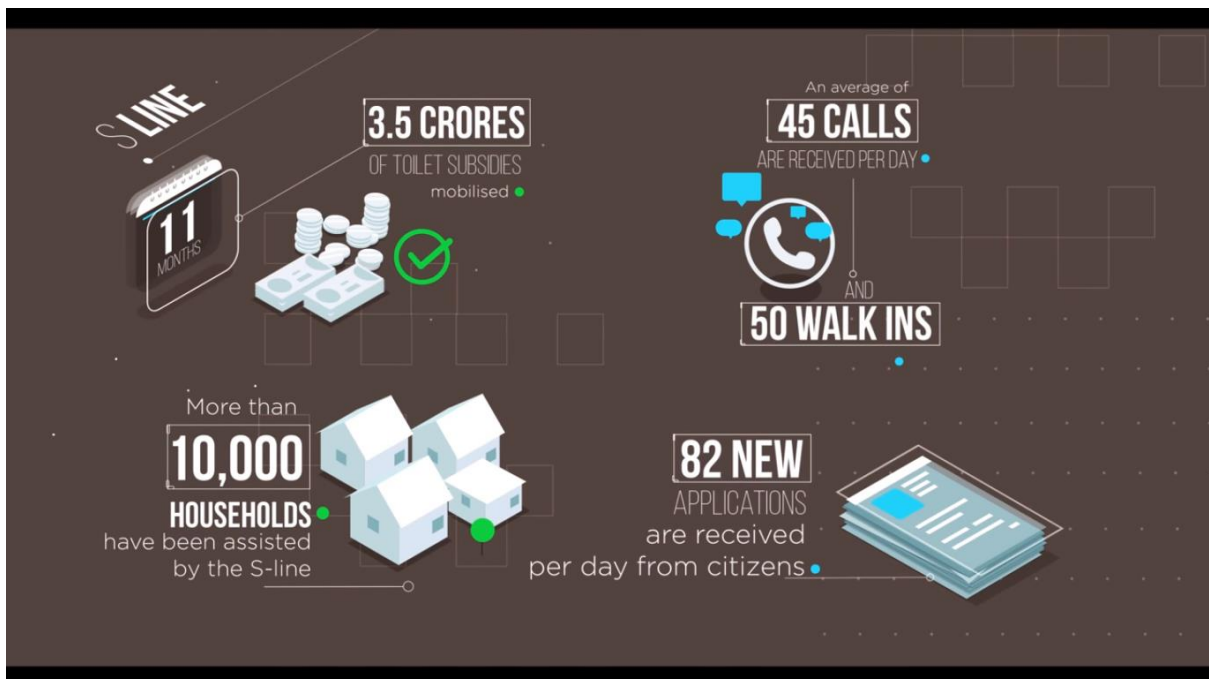
The team started with public toilets where people would pay as they use the systems. Soap, hand wash, and dustbins were provided at every system. Handicapped and ladies were given special treatment. Along with this, footfall data was also collected. Soon after the project was a hit, private toilets were also built under the project. Toilet applications could be made through helpline and the applicant would get a toilet built within 10 days. People could also request for subsidies and all this could be done over the helpline.

Below picture depicts the Sanitation Value Chain as used in the model.



- **Impact**

Soon after the launch of the projects, results started making the city a better living place. The following picture gives the statistics about the program.



As of 2010, according to the survey done by ASCI, only 25 % people had toilets. After the implementation of the project, the same figure increased to 50 %. After the huge success of Warangal sanitation project, it became a role model for other cities. Government of Telangana has asked many other cities to follow this model and step on the footprints of Warangal city.

Sr No	Indicators	Benchmarks	Status
1	Coverage of toilets	100%	70.00
2	Coverage of sewage network services	100%	-
3	Collection efficiency of the sewage networks	100%	-
4	Adequacy of sewage treatment capacity	100%	-
5	Quality of sewage treatment	100%	-
6	Extent of reuse and recycling of sewage	20%	-
7	Efficiency in redressal of customer complaints	80%	-
8	Extent of cost recovery in sewage management	100%	-
9	Efficiency in collection of sewage charges	90%	-



The table above shows the targets for Warangal city sanitation project and the project was able to meet its benchmarks in almost every parameter.

• Challenges and Issues

Selecting the course of action for addressing the burning issue of sanitation was a great challenge for Warangal city administration. But they took help from ASCI which proved immensely beneficial.

The tracking details of public toilets showed a concern about gender bias. For every 600 men using the toilets, there were only 10 women. To tackle this situation, the team came up with an idea called 'She toilet'- a toilet designed for and maintained by females. These toilets addressed issues like menstrual hygiene.

After successfully implementing the public toilet systems, making individual household toilets available in seamless way proved to a challenge for the project team.

• Innovation

- The project utilized the concept of public-private-partnership beautifully. Private sector was incentivised by giving land by government so that they could build the systems and generate revenue. This resulted in better designed public toilets.
- **Feedback system:** Not only the systems were installed but also feedback systems were provided to understand the usefulness and necessities of the users.
- She toilet was designed for females owing to the low percentage of females using common toilets.
- Sanitation helpline number '1800 425 1980' was run to address all the queries related to city sanitation.

- FSM trackers and GPS systems were used to monitor sludge collected.
- Sludge treatment plant was used for bio methanation.

• **Lessons learnt**

Public private partnership worked very well in a massive project requiring huge funds. Because of involvement of private sector, the quality of work was superior.

• **Financials**

Short term (6 months)

S.No	Action plan	Indicative cost	Source of funding	Time frame
1	Refining data base	10.00 lakhs	WMC	3 months
2	Campaign against OD	2.00 lakhs	WMC	2 months
3	Individual toilets	14.00 crores	ILCS	6 months
4	Disconnecting toilets to drains	Rs 3000-4000 per households	Household	6 months
5	Community toilets	Rs 10-20 lakh per toilet block	Municipal budget/grant	6 months
6	Public toilets	Rs 10-20 lakh per toilet block	PPP/VGF/Advt. rights	6 months
7	Schools survey	1.00 to 2.00 lakhs	District collector	2 months
8	Upgrading toilets in schools	To be estimated	District collector/schemes	4 months

Long term (3 years)

S.No	Action plan	Indicative cost	Source of funding	Time frame
1	Septage	To be estimated	PPP	1 year
2	Bio-medical liquid treatment	To be estimated	Major Hospitals	1 year
3	Slaughter Houses	To be estimated	13 th FC/PPP	1 year
4	Drainage	Rs 225 crores	UIDSSMT	1-2 years
5	UGD	Rs 400 crores	Community/PPP/grant	2-3 years
6	SWM – D2D and transport	RS 10 crores	13 th FC	1 year
7	Compost and landfill	Rs 75 crores	PPP	1-2 years
8	Water Bodies	To be estimated	National River Action Plan	2-3 years

- **Economic sustainability/Revenue Model**

The model runs on public-private-partnership. Private sector was incentivised by giving land by government and built the systems and generates revenue. This resulted in better designed public toilets also.

- **Implementer Contact Persons**

- Mr. Rajmohan Reddy, Team lead
- Mr Navin Mittal, IAS
- Prof. V. Srinivas Chary & Dr. Malini Reddy
- Administrative Staff College of India
- Nannapaneni Narender, Mayor, Warangal

- **Sources and References**

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- <http://www.thehansindia.com/posts/index/Telangana/2016-09-30/Model-Sanitation-City-plan-for-Warangal/256479>
- <https://www.youtube.com/watch?v=Xdd4b2yAkgw>