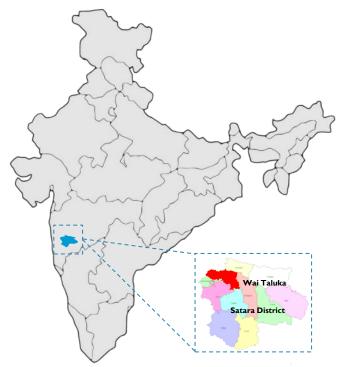


WAI CITY....

A city moving towards universal access to sanitation



C Class Municipal Council		
District	Satara	
Location	95km south of Pune; 35km from Satara	
Area	3.54 sqkm	
Population (2019)	43000	
Households	8991	
Slum population	4%	
Prabhags	10	

TOWARDS MENAVALI TOWARDS DHOM DAM		
OUTGROWTH	OLD MUNICIPAL LIMIT	NEW MUNICIPAL LIMIT

Administrative Map, Wai

- The town is known in Maharashtra for its Ghats on the banks of River Krishna and around 250 temples.
- It is a holy pilgrimage town and an old Buddhist settlement



Key features of Wai....







Bollywood shooting town



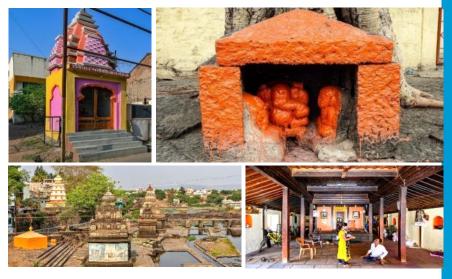
Dakshin Kashi



Famous in Maharashtra for the ghats on the banks of river Krishna



Around 250 temples



Holy Pilgrimage Town

Wai is one of the 8 global cities under CWIS programme of BMGF











Access

Collection

Conveyance

Treatment

Disposal / Reuse

Pour flush toilets

Septic tanks

Suction emptier truck No treatment facility

Disposed off on dumping site

- 2% open defecation
- High dependency on community toilets
- Majority of toilets are connected to **septic** tank
- Septic tanks 2-3 chambered
- Septic tanks were oversized and only few had access covers

- Only 2-4 % of septic tanks cleaned annually
- ULB provide the emptying services on demand basis
- Levy **user charges** from **1000 / trip** for emptying

- No facility for fecal sludge treatment
- Septage **disposed** off on dumping site without treatment









Activities undertaken by city council to become ODF

Toilet Subsidy scheme Awareness and inviting applications

Posters/banners/handouts/form distribution





Jingles/movies: rickshaw, TV, radio, festivals







Newspaper adverts

सिन्नर नगरपरिषद, सिन्नर क किल, कि नहिल रिकोनी ठालीर आवादन

Community gatherings



School awareness



OD spot monitoring

Good morning Squad





Capacity building and enabling

Toilet vendor-lender fair



Training staff/masons



Finance options

Self help groups

Micro-finance institutions

Credit societies

Commercial banks

Housing finance companies

Application Monitoring

Bulk SMS





Application process, site inspection







Wai amongst the first cities to be declared ODF at State and National level...



TPI for ODF, Wai Municipality



Third Party Inspection (TPI) report for Re-Certification of ODF: Wai Municipality

	ath a second second
Date of TPI Inspection	18 th December 2018

Name of the ULB: Wai

City Profile

State	Maharashtra
District	Satara
Total Population (current year)	36,030
IHHL & CT/PT details on SBM Urban Portal (Yes/No)	Yes

TPI Summary

Sr. No.	Locations Visited in the ULB	Location Type	Protocol	Status
1	GUREBAAZAR	Slum	Complete	ODF
2	KASHIKAPADI	Slum	Complete	ODF
3	DHARMAPURI	Residential Area	Complete	ODF
4	RAVIWAR PETH	Residential Area	Complete	ODF
5	BHAJI MNADI	Commercial Area	Complete	ODF
6	DAANEB BAAZAR	Commercial Area	Complete	ODF
7	MUNICIPAL SCHOOL NO.6	school	Complete	ODF
8	KANYASHALA	School	Complete	ODF
9	OLD KRUSHANA BRIDGE PARISAR	Special Location	Complete	ODF

As on September 6th 2017, Wai Municipality can be Re-Certified as Open As on December 18th Wai Municipality can be Re-Certified as Open Defecation Free As on June 16th Wai Municipality can be Re-Certified as Open Defecation Free

Wai was Ist declared ODF by the State Govt. followed by ODF declaration at National level by QCI in September 2016

& Revalidated ODF in September 2017,

April 2018, December 2018 and June 2019

Wai has moved Beyond toilets and now become **ODF** ++ city

Wai resolved to implement FSSM plan in their cities through a council resolution

बाई नगरपरिषद सर्वसाधारण सभा ठराव क्रमांक ४ दिनांक १८-०४-२०१५ ठराव क्रमांक ४

विषय - मैला व्यवस्थापन आराखडा तथार करन त्याची अंमलबजावणी करणे आणि हुडको कार्यालयाकडे निधी मंजुरीसाठी प्रस्ताव सादर करणे बाबत निर्णय घेणे.

सध्यविक्षातित, तमरपालिका ही बुटुंबांग सैन्धिक हैंक्य स्वच्छ करण्याची सेवा त. १,००० प्रती खेप इतका शुक्तामध्ये सामगीनुसार पुरचित अणि त्याचील मैत्याची प्रतिया न करताच घनकचरा जमा करग्याच्या दिकाणी (हम्पिन साइंटबर) त्याची विव्हेंबाट लाकती आहे. पर्वावरच्य तसेच्य मनुष्य / प्राची यांच्या अटोग्यावर पाये परिणाम होतील, लेखिक देवसची अधिक निर्मामित स्वच्छाता सरप्यास सरप्यासाठी आणि क्रिक्या न केलेला मेला तमाच टाकचे टाकण्यासाठी निर्मामित सेटिक टेक स्वच्छा करण्याच्या सेवेची तसेच मैत्याप्रतिया प्रकल्याची योजना आवले आवश्यक आहे. नागरी विकास संवावपाच्या गर्वीत मैता व्यवस्थायनविषयक सर्वायास समितीचे तिमारक केली आहे की. सेटिक टेक्स पर तीन वर्षाच्या सामावाधीन स्वच्छा केले पाहिलेत, तम मैतावर प्रतिया केली तेली पाहिले व सम त्याचा पुरवर्तिपर केली प्रतिया पार्टिके, हे करण्याचे समाय स्वच्या केलेच पाहिलेत तम प्रतिया केली तेली परिवाय केली स्वायाच्या प्रकामुक सेटिक टेक्स च्याच्या वार्यायसमाठा अमता खालावत जावार साही, योजनावद्य रितीचे सेटिक टेक्स स्वच्छा केली जातील, सेटिक टेक्स च्याच्या करण्यासून विकित सहसूनाचा ओप सुरू होईल आणि प्रतिया केलेल्या मैताची विक्री करता वेईल. व्हणून नपरपालिकेन वार्टवाडी सर्वायीन वेता व्यवस्थापत योजना कार्यान्यत करणे आवरपत आहे.

या वरावानुसार असा निर्माय घेणेत येत आहे की, सेप्टिक टॅक्स घोजनावद्ध रिसीने नियमिलपये स्वच्छ करण्याची तेवा पूरिकेपमा असि सब्हें तंबर २३८ (जुना) / २५९ (नवीन) फेपील घनकचरा टाकन्याच्या किनाणी (विभिन्न साइटकर) सेपायिकम पेतनना आहे. सेपितन टेक्स स्वच्छ करण्याची तेवा पुरिकेषे (ट्रक पेता व्यक्त सरण्याची तेवा पुरिकेषे (ट्रक पेता व्यक्त प्रत्याची तेवा प्रतिका प्रकार कार्याची तेवा प्रतिका सेपायिक सेपायिक केपी वाईस. सेता व्यक्त्यायानामध्ये खावणी संस्थाया हा सहचार कार्याची टेक्सून देवनपात्याची, सालमता/ निवक्तीवर कर लावणीत खाव. तसेच सर्व वालमता प्रतिकानी संस्थाया हा सहचार कार्याचीनेत व्यक्त कार्याचीनेत व्यक्त कार्याचीन संस्थाया हा सहचार कार्याचीनेत व्यक्त स्वच्या कार्याचीन संस्थाया हा सहचार कार्याचीनेत व्यक्त स्वच्या कार्याचीन प्रवच्या कार्याचीन विभाग कार्याचीन विभाग कार्याचीन विभाग हा सहचार कार्याचीन कार्याचीन कार्याचीन कार्याचीन सालमा धारकाची (marriolea) तरहर कार्याचीन स्वच्याक सालमा सालमा सारकाची राहील. "Oneite Sanitation" व्यक्त सालमा साल

या उराबानुसार असा निर्णय ग्रेणेत येत आहे की, खाजनी संस्थान्या सहसामानून संबंधित येला व्यवस्थायनाची वार्यवाही करण्यासाठी व त्याच्या यक्तवी अंसलवज्ञावणीलाठी योग्य असे कर, निष्यावानी व जनायेल लागू सरप्यामा मंजूरी वैत्याल येल आहे. त्रवेच सवर मैलाप्रक्रिया प्रकल्याचा पाविस्तर प्रकल्य ज्ञाराखडा कम्यून निर्धा प्रातीसाठी HUDCO या संस्थानडे सावर करण्याचेही या उरबादारे वैणेत येता अले.

सुचक - माली स्ट्रीखा विश्वतारा जावन सही xxx

अपूर्मादक - माजी जमेता विजीध इफि कर्य सही XXX उ.स.मंजूर



सही XXX अध्यक्ष बाई नगरपरिषद बाई मुख्याचिकारी | वाई नगरपरिषद बाई

44

The resolution covers aspects like:

☐ Citywide FSSM

☐ Involving Private sector

☐ Scheduled cleaning

☐ Land for treatment facility

☐ Taxes to be levied

Ist Cities in INDIA

to have passed such a resolution ...

The idea was to move from a consumer complaint redressal system to a scheduled service ...

On-Demand Basis

Cleaning is done **on-call** by the household, who do not see the need for regular cleaning

The cleaning services of the ULB are currently treated as a complaint redressal system for overflowing septic tanks rather than a regular cleaning and maintenance service.

The ULBs operates the trucks when the demand arises.

Households generally pay a certain amount once in >8-10 years to get tanks cleaned during the time of overflow.

Scheduled Practice

Septic tanks will be cleaned on a **pre- determined schedule.**

Regulations and penalties will be set in place to ensure periodic cleaning

Awareness generation activities will educate households about the need for regular cleaning

ULB will require an additional number of trucks to meet service standards (which can be operated by a private player)

Local taxes levied by the ULB will be used to recover the operating expenses for regular cleaning.

Benefits of Scheduled Emptying



Equitable and inclusive services - all households / properties are covered by services. The payment is linked to property tax.



No manual labour - Removal of need for manual labour due to regular emptying



Pricing – Services are offered at lower prices, due to efficiency gains and the pricing is much less than the distress fee that households had to pay previously



Infrastructure optimization – Planned schedule and frequency for all. Clustered service visits. More predictable loads for treatment facility and route optimization of trucks



Behavior change - Contribution to ODF sustainability as toilet usage can increase



Environmental benefits - Likely reduction in BOD in septic tank effluent, as well as lower likelihood of septic tank overflows





Planning for Scheduled desludging in WAI

I. Zones of Emptying cycle

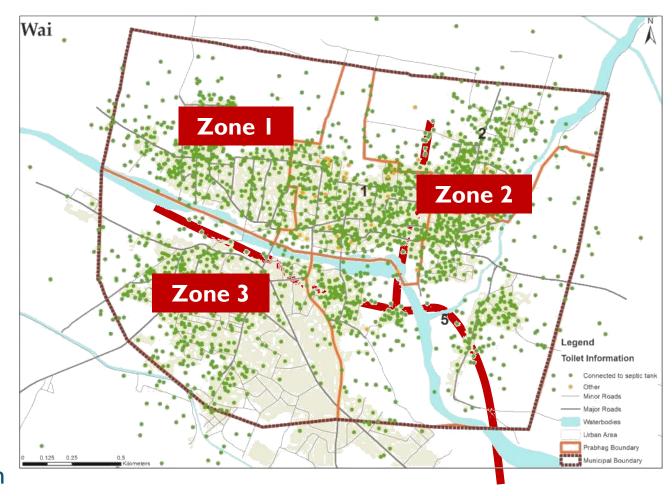
• The city was divided into 3 zones as per the citywide database on toilets and septic tanks.

2. Emptying Truck: Number and capacity

• Number and capacity of vehicles required for desludging operations.

3. Route planning

 Deciding the truck movement within the zone



Wai council decided to involve private sector for Scheduled desludging

Preliminary discussions with potential private providers to assess interest, concerns

Ownership of assets

The private party brings their own trucks for emptying and operate them for 3 years.

Performance linked payments

Payments based on achieving agreed targets of septic tanks emptied

Clauses to ensure safety standards - use of PPE and vigilance against manual scavenging

Fines on non-achievement of targets

Escrow mechanism – reducing late payment risk

An Escrow account is held by a third party bank.

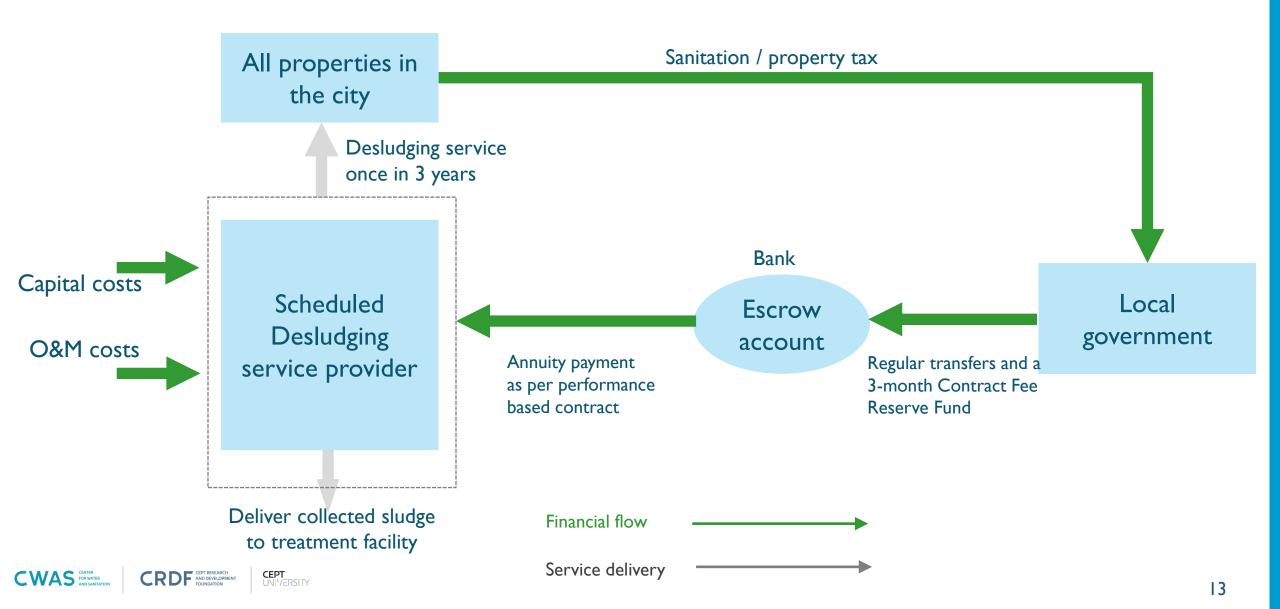
ULB needs to maintain a fixed balance in it = 3 months of payment

Transparent bidding process through government approved process and websites

Awareness activities to be done by private contractor

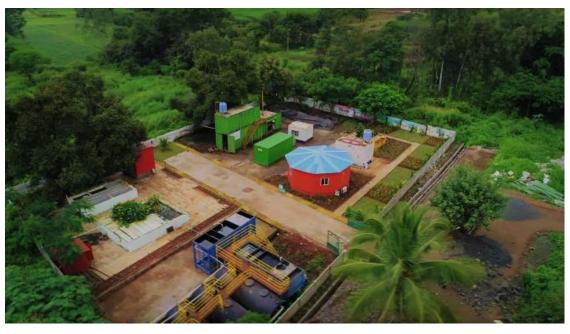
Emergency emptying also included in contract

Performance Linked Annuity Model (PLAM) for scheduled desludging



FSTP setup in the city to treat the septage and treated WW reused for urban forest and landscaping . . .





Capacity: 70 KLD

Land: 1200 sq mt

Funded: BMGF

Capital cost: Rs 2 Cr

O&M: Rs 24 lakh/year

Commissioned - 2018

Awareness generation a key feature for success of high uptake of FSSM services . . .



Paintings / banners in the city by WMC





Household visits by desludger with info. leaflets



Cities circulated small videos



Intimation through SMS

वाई नगर-रिघरेच्या पोजने अंतर्गत आपला संस्थिक टेंक विनोक १८/११/२०१८ रोजी: नाकाजी १ पाजता साक करण्यात येणार-आहे. तमी आपण या येजा पनी हजर राहा व संस्थित देवा प्रे आक्रम प्रोवकों





IT enabled monitoring systems for FSSM and real-time database creation of onsite systems for Ist time in India ...

"Real time" monitoring No need to process data for results



SaniTab







Easy to Operate, Reduce paper work, Minimize human error



Can view progress easily and process payments











Photo stamping, Geo stamping, Signatures



Unique database

















Monitoring Scheduled Desludging in Wai

397

89% of desludge

1537 **Properties Covered**

100% of deslud

Properties Covered

Charts: Type of properties visited

73

Emergency

(11% of desludged)

12KLD

Time Frame 11.02.2019 ▼

Emergency

(0% of desludged) 23KLD

Cumulative

CONSOLIDATED PROGRESS REPORT

470

Desludged

(71% of target)

35

Desludged

(83% of target)

0

1650

513

Properties Visited

Target Septic Tanks

Properties Visited

SPATIAL VIEW

Property Details

Nature of Service Type of properties visited Vulnerable areas covered **Desludging Details**

Last time ST was emptied Opened covers for service

Problems faced during emptying Household's plan to reseal ST Performance Metric PPE usage Two-inch septage left

DAILY PROGRESS REPORT

What has been achieved after implementing FSSM in Wai

- 2100+ septic tanks covered by scheduled desludging covering
 4300+ properties
- 7-8 septic tanks desludged per day as compared to 7-8 per month in 2017 with demand desludging
- I5+ million liter septage delivered to the treatment facility
- 90%+ acceptance rate from HHs for scheduled service
- Sanitation workers now wear safety gear regularly
- Households pay sanitation tax instead of high user charges for desludging





Sanitation Situation in 2021.... The city has now been declared ODF++ by MoHUA

After implementation of FSSM

Access

Collection

Conveyance

Treatment

Disposal / Reuse

Pour flush toilets

Septic tanks

Suction emptier truck

No treatment facility

Treatment Plant)

operational at Wai

Disposed off on dumping site

- Open defecation Free city
- 86% IHHL and 14% depend on CT
- People are aware about scheduled desludging (3 yr cycle)
- Have replaced permanent chamber covers with easy accessible ST covers
- People pay Rs. 60 i.e. sanitation tax for emptying service
- Scheduled desludging at Wai by private operator
- FSTP (Faecal Sludge
 Reuse of output products
 - Treated waste water is reused for gardening and landscape
 - Biochar along with compost is used as a plant food











Thank you

cwas@cept.ac.in pas.org.in

About us

The Center for Water and Sanitation (C-WAS) at CEPT University carries out various activities – action research, training, advocacy to enable state and local governments to improve delivery of services.









