

# Presentation from the 2011 World Water Week in Stockholm

**WORLD**  
in Stockholm,  
August 21–27, 2011 **WATER**  
**WEEK**

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[www.siwi.org](http://www.siwi.org) 



**Case India:**

# **Supporting the Indian National Urban Sanitation Policy (BMZ-GIZ)**

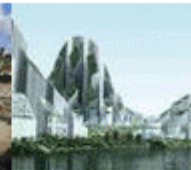
- Policy development**
  - City Sanitation Plans**
  - School Sanitation**
- ... from Plan to Implementation**

**Dr. Arne Panesar,  
Dr. Regina Dube, Dirk Walther, Sanjay Kumar Srivastava IFS (GIZ)  
Dayanand Panse (ESF)**

**Stockholm World Water Week, August 2011**



Ministry of Urban Development  
Government of India



Programme >> [Urban Water Supply and Sanitation](#) >> **Service Level Benchmarks**

## Service Level Benchmarks

**Improving urban services through Service Level Benchmarking**  
**Ministry of Urban Development, Government of India.**

<a href="#">A Handbook on Service Level Benchmarking</a>	<a href="#">Minimum set of standard performance parameters</a>
<a href="#">28 Performance Indicators</a>	<a href="#">Definition, calculation methodology, monitoring guidelines</a>
<a href="#">28 Pilot Cities</a>	<a href="#">National Consultations Workshop</a>
<a href="#">SLB performance data</a>	<a href="#">Information Systems Improvement Plans and Performance Improvement Plans</a>
<a href="#">13th Finance Commission ( Chapter10 , Annex10 )</a>	<a href="#">SLB Data Book</a>
<a href="#">SLB Flyer</a>	

### Background:

The urban sector is being increasingly recognized as a critical growth driver for the Indian economy. The share of population residing in urban areas is also witnessing rapid growth – from 28% in 2001, it is projected to rise to 38% by 2026. Basic service levels however remain well below desired levels.

Even as additional investments are being made in these services, there is a critical need to increase accountability for service delivery. This has also been the cornerstone of the urban reform agenda being implemented as part of various centrally sponsored schemes (e.g. JNNURM, UIDSSMT). It envisages a shift in focus

## Programme

[Urban Development](#)

[Urban Water Supply and Sanitation](#)

[Urban Transport](#)

[Local Self Government](#)



MINISTRY OF URBAN DEVELOPMENT  
GOVERNMENT OF INDIA

HANDBOOK OF  
SERVICE LEVEL  
BENCHMARKING



A.K. Mahta

Joint Secretary  
Ministry of Urban Development  
Nirman Bhawan  
New Delhi

## 2.2 Sewage Management (Sewerage and Sanitation)

S. No.	Proposed Indicator	Benchmark
2.2.1	Coverage of toilets	100%
2.2.2	Coverage of sewage network services	100%
2.2.3	Collection efficiency of the sewage network	100%
2.2.4	Adequacy of sewage treatment capacity	100%
2.2.5	Quality of sewage treatment	100%
2.2.6	Extent of reuse and recycling of sewage	20%
2.2.7	Efficiency in redressal of customer complaints	80%
2.2.8	Extent of cost recovery in sewage management	100%
2.2.9	Efficiency in collection of sewage charges	90%





**Press Information Bureau  
Government of India  
Ministry of Urban Development**

19-August-2010 15:7 IST

### Sanitation Rating of Cities

Rating of 423 Class- I cities on various sanitation related parameters has been conducted under the National Urban Sanitation Policy(NUSP) during the period December, 2009 to March, 2010. The aim of the exercise was to assess the performance of the cities in the area of sanitation with respect to outputs, processes and outcomes including environmental and health outcomes. 189 cities were categorized as red cities scoring less than 34 marks out of 100 marks and 230 cities as black cities scoring 34-66 marks out of 100 marks. 4

No	Indicators	Points*
<b>1</b>	<b>Output-related</b>	<b>50</b>
A	No open defecation sub-total	16
i.	Access and use of toilets by urban poor and other un-served households (including slums) - individual and community sanitation facilities	4
ii.	Access and use of toilets for floating and institutional populations – adequate public sanitation facilities	4
iii.	No open defecation visible	4
iv.	Eliminate manual scavenging and provide personnel protection equipment to sanitary workers	4
B	Proportion of total human excreta generation that is safely collected (6 points for 100 percent)	6
C	Proportion of total black waste water generation that is treated and safely disposed off (6 points for 100 percent)	6
D	Proportion of total black waste water generation that is treated and safely disposed off (6 points for 100 percent)	6

No	Indicators	Points**
<b>2</b>	<b>Process-related**</b>	<b>30</b>
A	M&E systems are in place to track incidences of open defecation	4
B	All sewerage systems in the city are working properly and there is no ex-filtration (Not applicable for cities without sewerage systems)	5
C	Septage/sludge is regularly cleaned, safely transported and disposed after treatment, from on-site systems in the city (MAXIMUM 10 marks for cities without sewerage systems)	5
D	Underground and surface drainage systems are functioning and are well-maintained	4
E	Solid waste management (collection and treatment) systems are efficient (and are in conformity with the MSW Rules, 2003)	5
F	There is clear institutional responsibility assigned; and there are documented operational systems in practice for B)/C) to E) above	4
G	Sanctions for deviance on part of polluters and institutions is clearly laid out and followed in practice	3
<b>3</b>	<b>Outcome-related</b>	<b>20</b>
A	Improved quality of drinking water in city compared to baseline	7
B	Improved water quality in water bodies in and around city compared to baseline	7
C	Reduction in water-borne disease incidence amongst city population compared to baseline	6

No.	Category	Description	Points
1	<b>RED</b>	Cities on the brink of public health and environmental 'emergency' and needing immediate remedial action	<b>&lt;33</b>
2	<b>BLACK</b>	Needing considerable improvements	<b>&lt;34 ≤66</b>
3	<b>BLUE</b>	Recovering but still diseased	<b>&lt;67 ≤90</b>
4	<b>GREEN</b>	Healthy and Clean city	<b>&lt;91 ≤100</b>



## Vision of the *National Urban Sanitation Policy (NUSP) 2008*

*All Indian cities and towns become totally sanitized, healthy and liveable and ensure and sustain good public health and environmental outcomes for all their citizens with a special focus on hygienic and affordable sanitation facilities for the urban poor and women.”*



National Urban Sanitation Policy  
Ministry of Urban Development  
Government of India





# National Urban Sanitation Policy

**NUSP vision on healthy & liveable cities**  
*(Living quality in cities is enhanced and inclusive)*

**Restored Water bodies**  
*(Lakes & Rivers are ecological restored)*

**Open defecation free cities**  
*(100% awareness generation)*

**100% grey water treatment**  
*(no open discharge into stormwater drains)*

**100% black water treatment** *(adequacy of treatment capacity including unserved areas & floating population)*

**100% sewered cities/100% access to sanitation**  
*(max. coverage of sewage network services)*

**Create Greener & Healthier Cities**

**Eradicate Pollution**

# Process orientation of the National Urban Sanitation Policy



(Source: National Urban Sanitation Policy MoUD 2008)

IEC= information, education, communication





Focussed support of the Indian development agenda through German Development Cooperation (examples):

<u>Year</u>	<u>Policy</u>	<u>GIZ Activities</u>
■ 2005	<i>JNNURM Reform- and Infrastructure programme</i> (50 Billion Dollar)	BMZ (2008-2012)
■ 2008	<i>National Action Plan on Climate Change</i>	BMU / BMZ
■ <b>2008</b>	<b><i>National Urban Sanitation Policy (NUSP)</i></b>	<b>BMZ (2011-2019)</b> Phase I: 4,8 M.EUR, CSP/Schools
■ 2009	<i>Rajiv Awas Yojana</i> (Slum focussed)	
■ 2010	<i>Clean Ganga Mission</i> (Cities as polluters)	GTZ IS Proposal



Support on the development of  
**City Sanitation Plans**  
 in 6 JNNURM cities

Varanasi

Tirupati

Kochin

Raipur

City

Nashik

Shimla



MSW

WS&SWM

CSP

Intervention

CDM

Reforms

CMP



Shimla:  
Population (2001):  
174,789

Varanasi:  
Population (2001):  
1,202,443

Nashik:  
Population (2001):  
1,076,967

Raipur:  
Population (2001):  
699,264

Phandapur:  
Population 1 Mio.  
Pilgrims ca. 3 Mio./y

Kochi:  
Population (2001):  
1,138,413

Tirupati:  
Population (2001): 200000  
Tourists ca. 60 000 / d



**Aim:** To Integrate environmental considerations more systematically into JNNURM



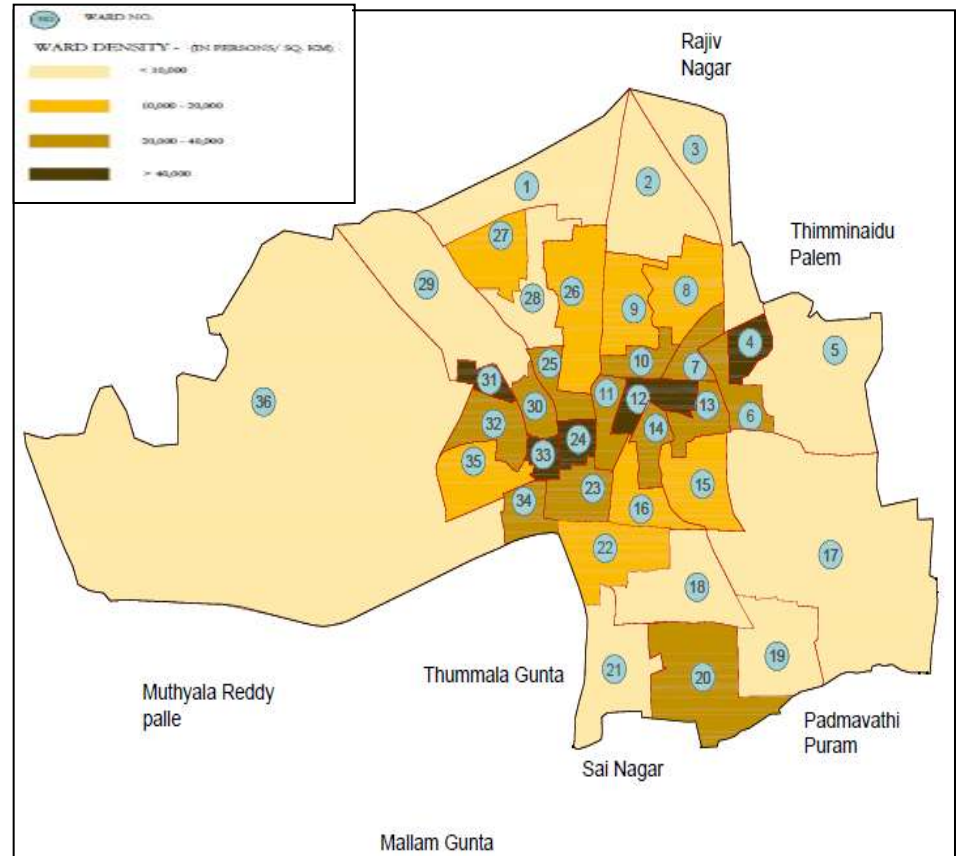
# City Sanitation Plan-Tirupati







City profile	
Area of MCT	16.70 Sq Kms
Population	290 000 (2001 census)
Population Density	17 000 / Sqkm
Urban Agglomeration	54.27 Sqkms
Population (UA)	340 000 (2001 census)
Slum population (%)	35% in 42 slums
Election wards	36 ( 20 Revenue wards)
Households	72 371
Total Properties	41 646
Road Length	251 kms
Sewerage networks	240 kms
Drain length	450 kms
Tourists population	60 000/ day
Rank -NUSP ratings	117 <sup>th</sup> position



Growth potential- MCT / TUA population projected to grow to **400 000** and **670 000** in 2021

**Major tourism based economy and educational hub of Rayalseema region**

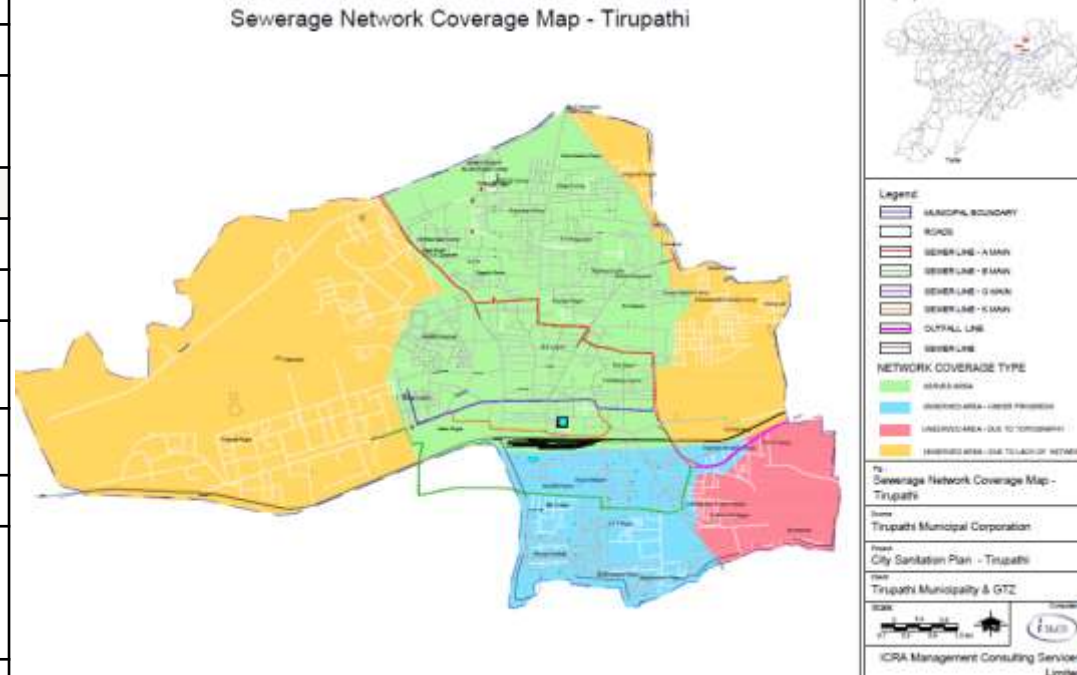




Performance Indicator	Benchmark	Status	Reliability
Coverage of Toilets	100%	93%	C
Coverage of Sewerage Network	100%	39.46%	B
Coll. Eff. of Sewerage Network	100%	78.91%	B
Adequacy of Sewage Treatment Capacity	100%	78.87%	NA
Quality of Sewage Treatment	100%	100%	ND
Extent of Reuse and Recycling of Sewage	20%	0.00%	NA
Extent of cost recovery	100%	68.84%	B
Eff. in redressal of customer complaints	80%	100%	A
Eff. In Collection of Sewage Water Charges	90%	21%	B



Sewerage Network	
Coverage	85%
Trunk main	~ 42 km
Branch, lateral and sub-lateral	~ 182 km
Connections	
No. of Connections	~ 17750
Estimated Households	~ 41467
Connection penetration	~ 42% of properties
Treatment	
STP Location	Tukivakkam
STP capacity	25 MLD (upgradable to 100 MLD)
Type	Oxidation pond



## Key Issues

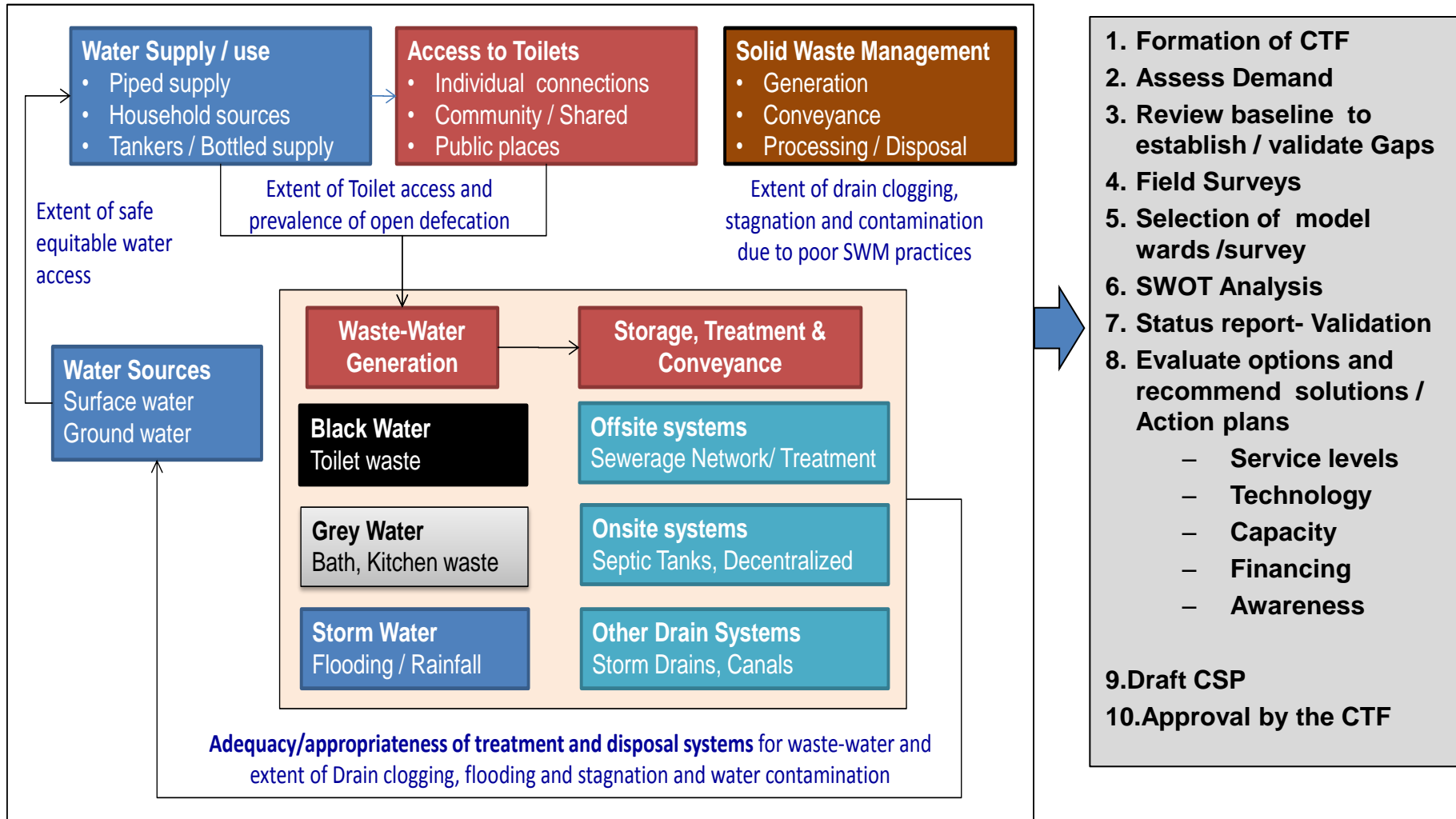
- Open defecation in periphery areas, low income pockets is prevalent (3-4%)
- Low penetration of UDS connections
- Toilets connected to open drains in parts of city
- Lack of clean public toilets facilities for the pilgrims and open urination is rampant .
- Pumping bottlenecks at the STP and absence of flow meters to determine treatment efficiency . No secondary treatment
- Lack of awareness on septage management



(A) Sector - Chapters: Water, **Sanitation**, SWM, Storm water, Access

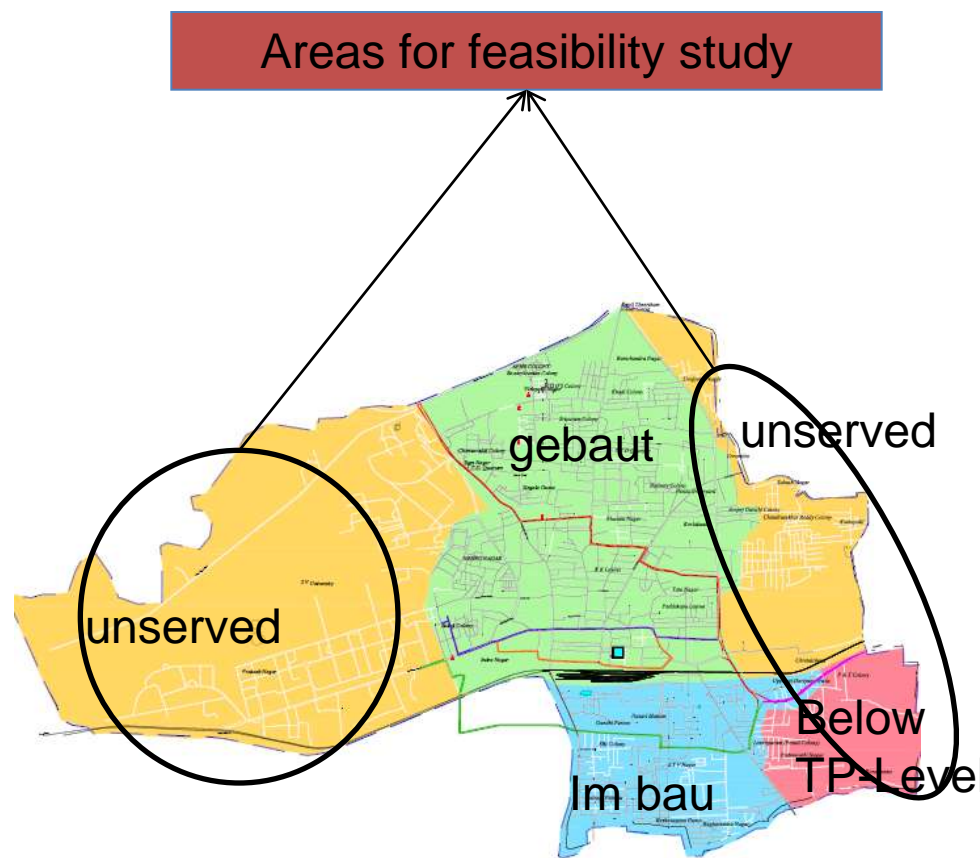
(B) 5 Pillars, to be appropriately addressed by CSP







- **A feasibility study on:**
  - Potential areas within the city for decentralized waste water treatment systems (especially the university area and the current unserved areas)
  - Assessing the possibility of draining the septage into the sewer networks, the respective locations of the access points
- **Recommendations for formalizing the current service providers and ensuring compliance to safety, health and environment practices in onsite sanitation**
- **Recommendations for a municipal byelaw which discourages the usage of septic tanks**





# Process orientation of the National Urban Sanitation Policy



(Source: National Urban Sanitation Policy MoUD 2008)

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# GIZ-ASEM's Support to CSP

## GIZ supported ESF Project



Shimla:  
Population (2001):  
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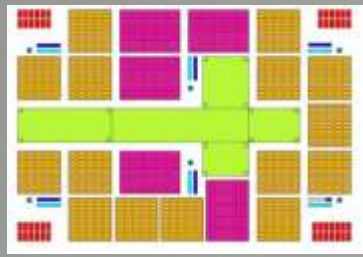
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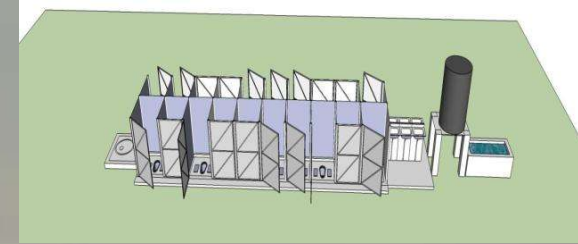
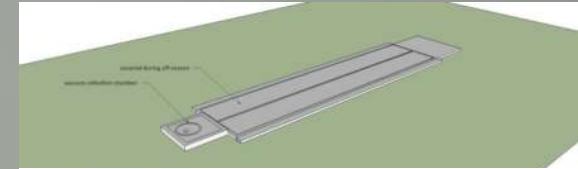
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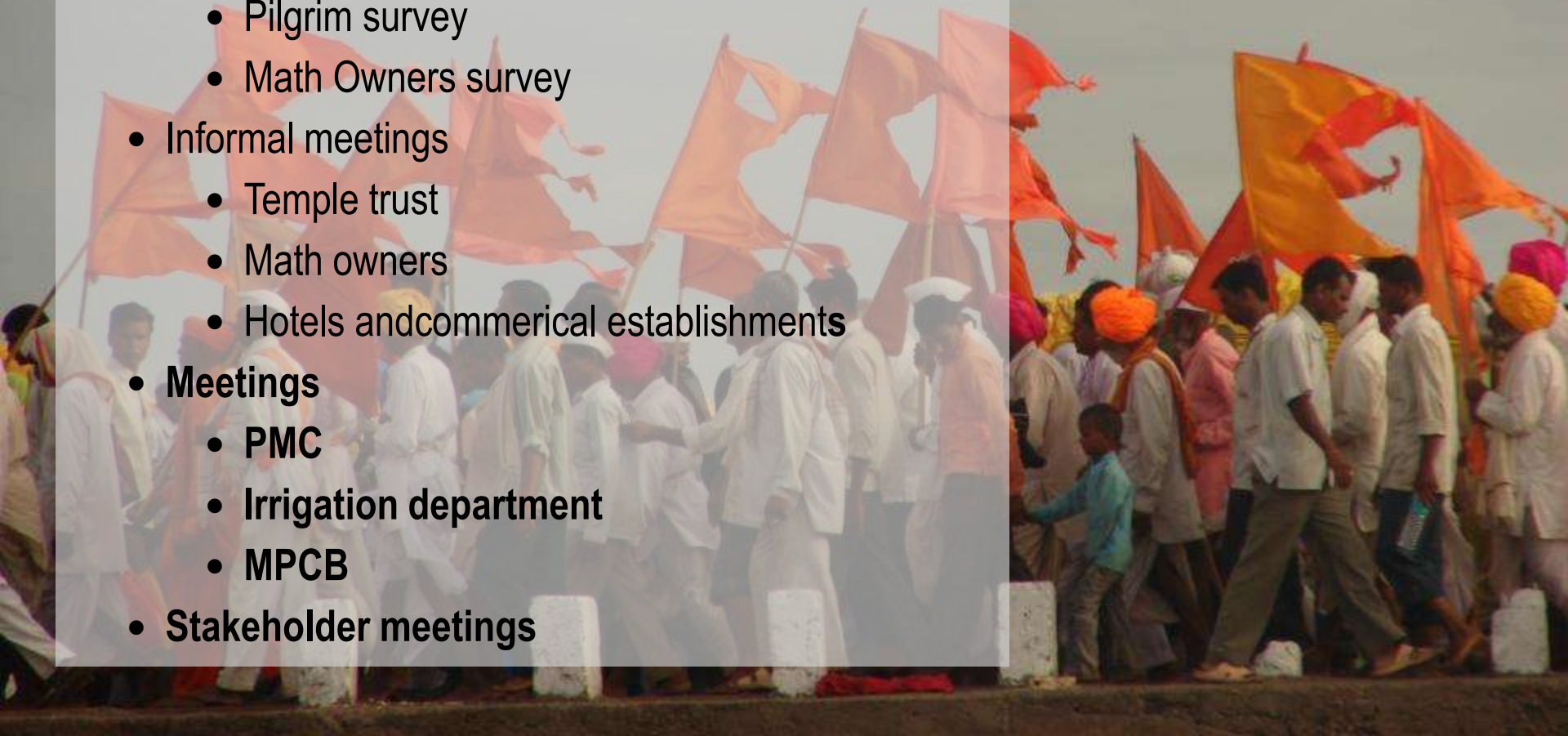


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## Consultative Process by involving stakeholders in decision making:

- Surveys – during wari and non-wari season
  - Pilgrim survey
  - Math Owners survey
- Informal meetings
  - Temple trust
  - Math owners
  - Hotels and commercial establishments
- Meetings
  - PMC
  - Irrigation department
  - MPCB
- Stakeholder meetings





## Mobilisation of O&M-Staff

- Creating of a network and platform for CBO's on District & State Level
- Attract new groups to join the CBO (Community Based Organisations)
- Incentives for participation – create an attractive atmosphere
- Profitable wages & benefits
- Provision of necessary equipment (cleaning material, soap, water,...)
- Provision of qualitative good working uniform (jacket, gloves,... )

**Only a clean toilet is attractive -  
O&M has to be institutionalized**



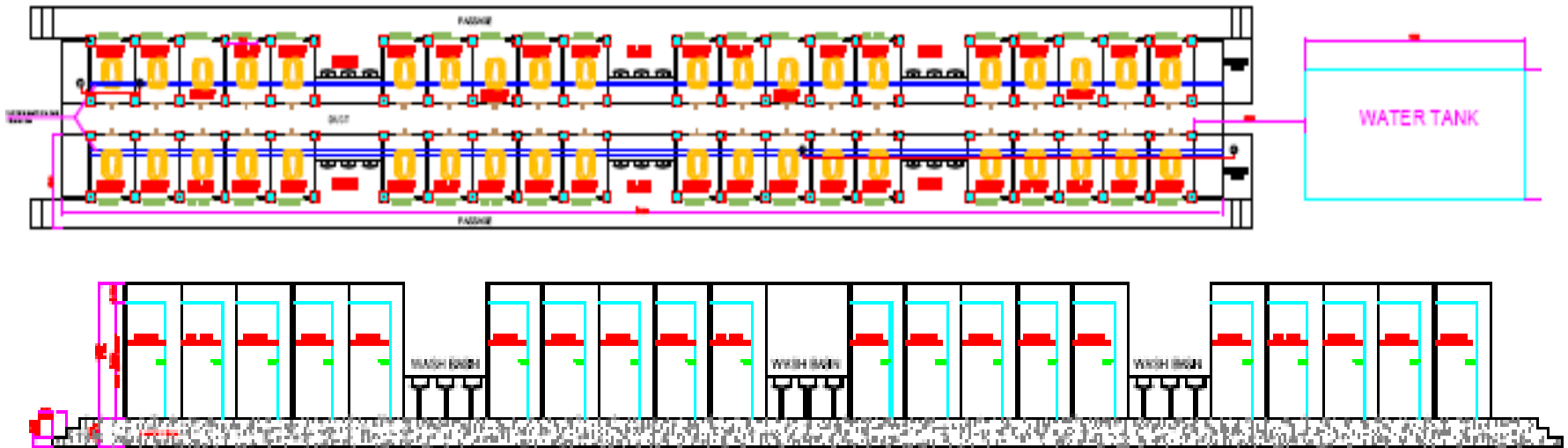
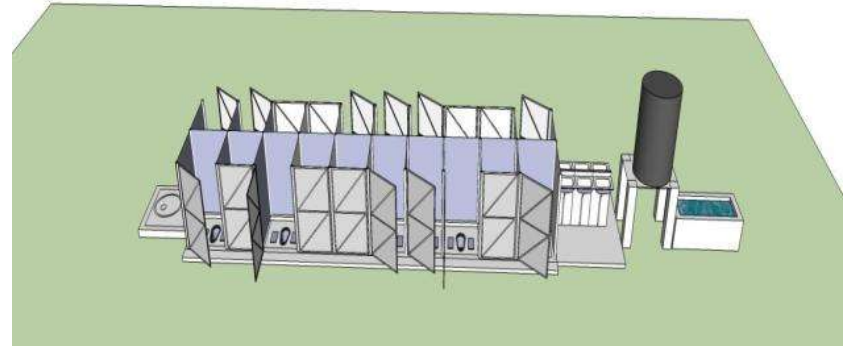
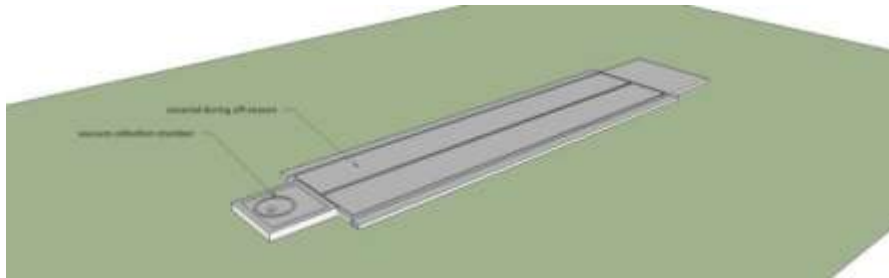


## Types of collection system

- Public Toilet Centres – in public locations, Takli Lake area and parking lots
- Sewer toilets - different model camp sites
- Integrated Toilets in Maths and public buildings

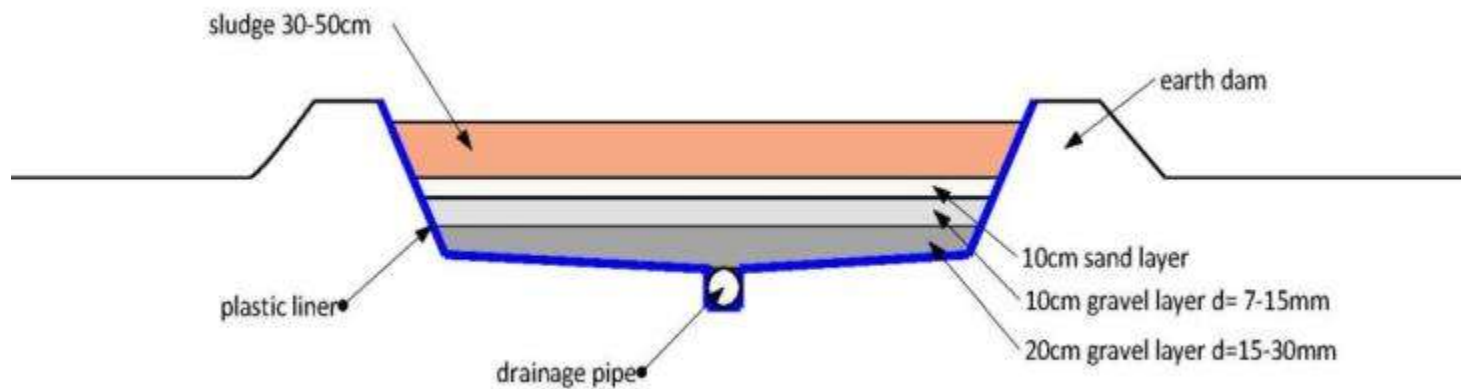
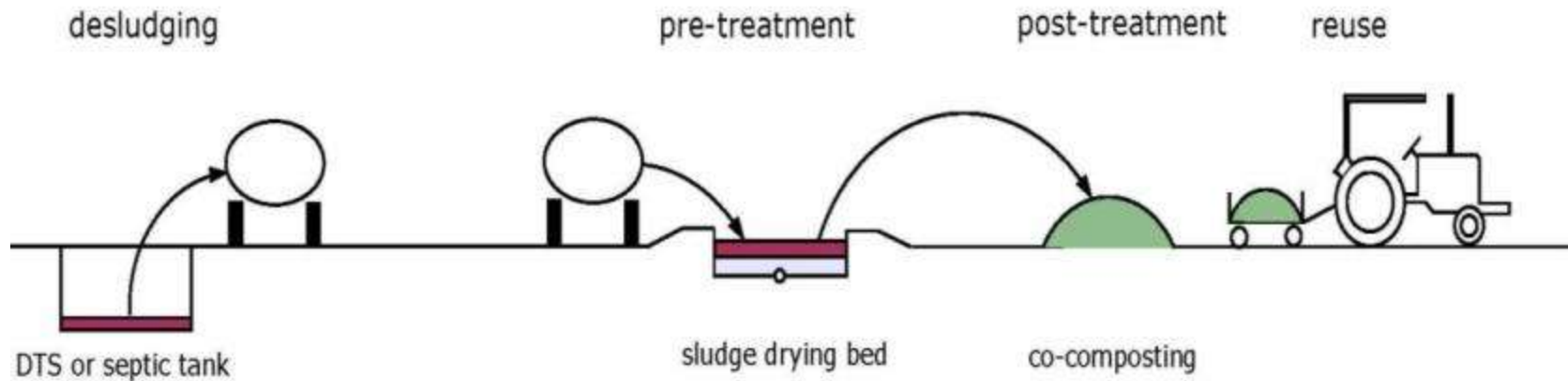
**Location of facilities as close to users as possible**





FRONT ELEVATION

- No. of people served 2000
- No. of Seat 40
- Waste Water Production : 50 cu m





Nallas carrying high organic load and industrial effluent:

## Measures:

→ on-site treatment systems for industries  
(milk dairy unit at Isbavi and sugar factory)

→ DTS's at end of nallas

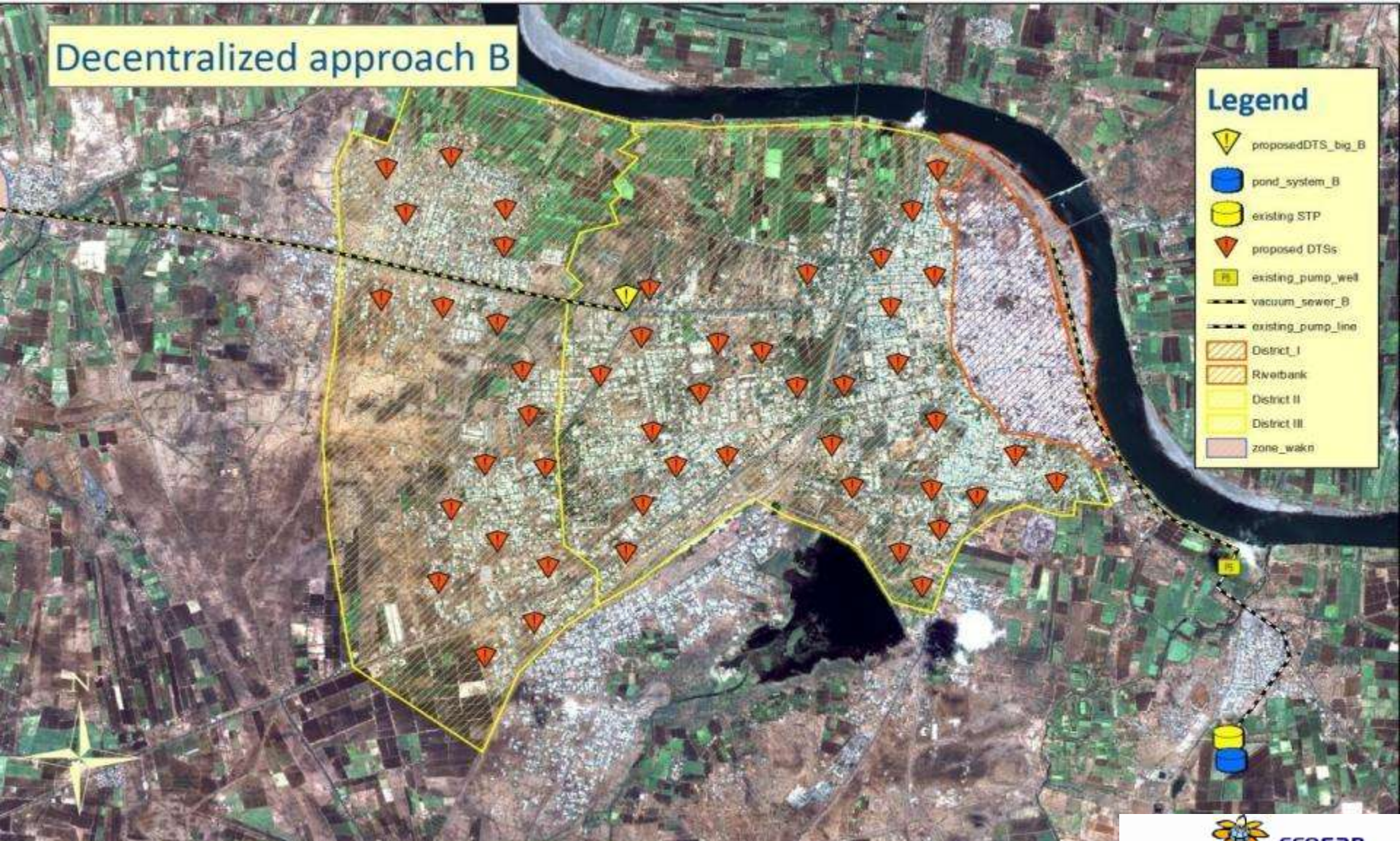
## But:

→ The nallas need to be converted into rain water drains, as soon the entire city has a completely implemented sanitation solution





## Decentralized approach B



### Legend

- proposedDTS\_big\_B
- pond\_system\_B
- existing STP
- proposed DTSs
- existing\_pump\_well
- vacuum\_sewer\_B
- existing\_pump\_line
- District\_I
- Riverbank
- District II
- District III
- zone\_wakn

0 405 810 1.620 2.430 3.240 Meters









# National School Sanitation Initiative



## School Sanitation

By 2030, it is expected that 60% of the world's population will live in urban areas. 180,000 people are added to the urban population every day. WSUP supports local service providers around the world to deliver affordable and sustainable water and sanitation services to poor people in urban communities.

▶ [View Live Launch](#)

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### Schools with respective Ratings

Sr No.	School Name (UIN)	City/District	State	Current Rating	Comment	Certificate
1	Satwan Public School (HA201195349240)	Gurgaon	Haryana	GREEN	<a href="#">View Comments</a> <a href="#">Write Comments</a>	<a href="#">View</a>
2	KALKA PUBLIC SCHOOL (DE20119096080)	South Delhi	Delhi	GREEN	<a href="#">View Comments</a> <a href="#">Write Comments</a>	<a href="#">View</a>
3	TATA CHEM DAV PUBLIC SCHOOL (UT2011091460)	Budaun	Uttar Pradesh	GREEN	<a href="#">View Comments</a> <a href="#">Write Comments</a>	<a href="#">View</a>
4	BEVA GANDHI NAGAR DELHI (DE20115842470)	East Delhi	Delhi	BLUE	<a href="#">View Comments</a> <a href="#">Write Comments</a>	<a href="#">View</a>
5	Vidya Jain Public School (DE201155969400)	West Delhi	Delhi	BLUE	<a href="#">View Comments</a> <a href="#">Write Comments</a>	<a href="#">View</a>
6	BRCM PUBLIC SCHOOL VIDYAGRAM (HA201158531810)	Bhiwani	Haryana	YELLOW	<a href="#">View Comments</a> <a href="#">Write Comments</a>	<a href="#">View</a>
7	Bosco Public School (DE20119089610)	West Delhi	Delhi	YELLOW	<a href="#">View Comments</a> <a href="#">Write Comments</a>	<a href="#">View</a>
8	HENDRIYA VIDYALAYA AFS BAGDOGRA (WE201155334560)	Darjeeling	West Bengal	YELLOW	<a href="#">View Comments</a> <a href="#">Write Comments</a>	<a href="#">View</a>

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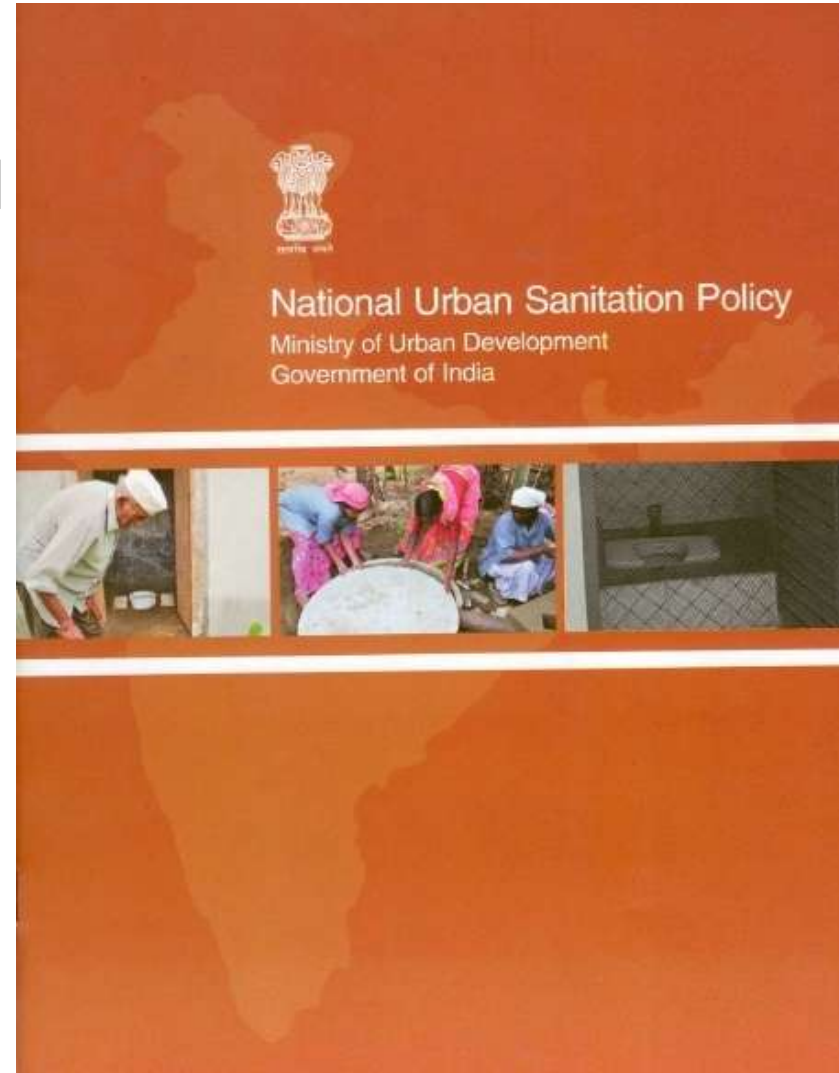
### News

#### Low sanitation rating!!

If your school has got a sanitation rating, don't panic!



- Awareness Generation and Behavioral Change as envisaged in the Indian National Urban Sanitation Policy (Nov 2008)
- Open Defecation Free Cities
- “Educating them Young” as the key theme





## Partners :

- MoUD - Ministry of urban Development, Government of India (GOI)
- MoHD - Ministry of Human Resource Development, GOI
- CBSE - Central Board for Secondary Education, GOI
- GTZ-ASEM (GTZ - Advisory Services for Environmental Management, India)



## Initially targeting:

- 10.000 CBSE schools
- Several 1.000 schools under the ULB's (Urban Local Bodies), MoUD
- ... to be extended to all schools on national level



- From “Blueprint-Mode (DPR)” to Process-Orientation
- Link between performance and funding
- Competition on all levels (Transparency)
- Good governance (→ linked to breaking the taboo around sanitation)



**Thank You**





**Case India:**

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- Policy development**
- City Sanitation Plans**
- School Sanitation**

**... from Plan to Implementation**

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**Stockholm World Water Week, August 2011**

**giz**





- 1 Crore  
(1,00,00,000) = 100 Lakhs
- 1 Lakh = Hunderttausend  
(1,00,000) = 0.01 Crores
- 1 Million  
(1,000,000) = 0.1 Crores
- 1 Crore  
(1,00,00,000) = 10 Million
- 1 Billion  
(1,000,000,000) = 100 Crores
- 1 Crore  
(1,00,00,000) = 0.01 Billion