

# The Indian National Urban School Sanitation Initiative (NUSSI)

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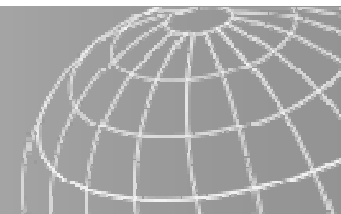


partner of

**sustainable  
sanitation  
alliance**



## Partners / Size



### 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)



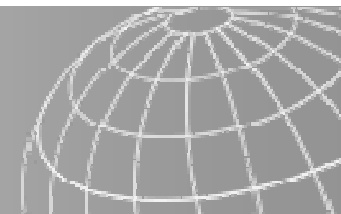
### Initially targeting :

- 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

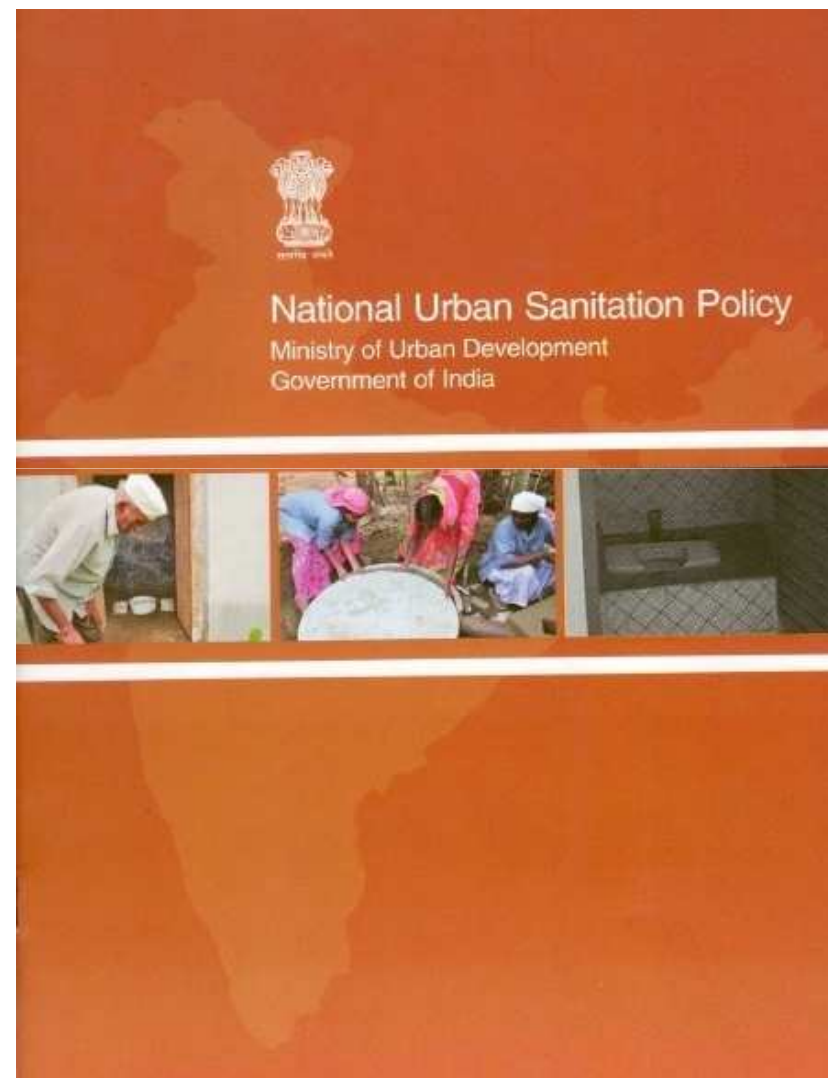


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# Purpose



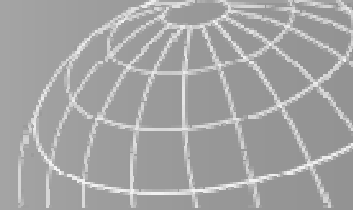
- Awareness Generation and Behavioral Change as envisaged in the Indian National Urban Sanitation Policy (Nov 2008)
- Open Defecation Free Cities
- “Educating them Young” as the key theme





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# Outcomes



**Goal of the program is “better Sanitation in Schools”**

**Focus area is:**

- Behavioural Change
- Sustainable Sanitation practices in schools

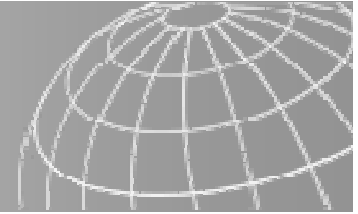
**Change to be achieved through:**

- **Sustainable School Sanitation Manual**
- **Sustainable School Sanitation Awards**
- Clear criteria for “sustainable sanitation in schools”
- Inclusion of “Sanitation” as topic in the curricula



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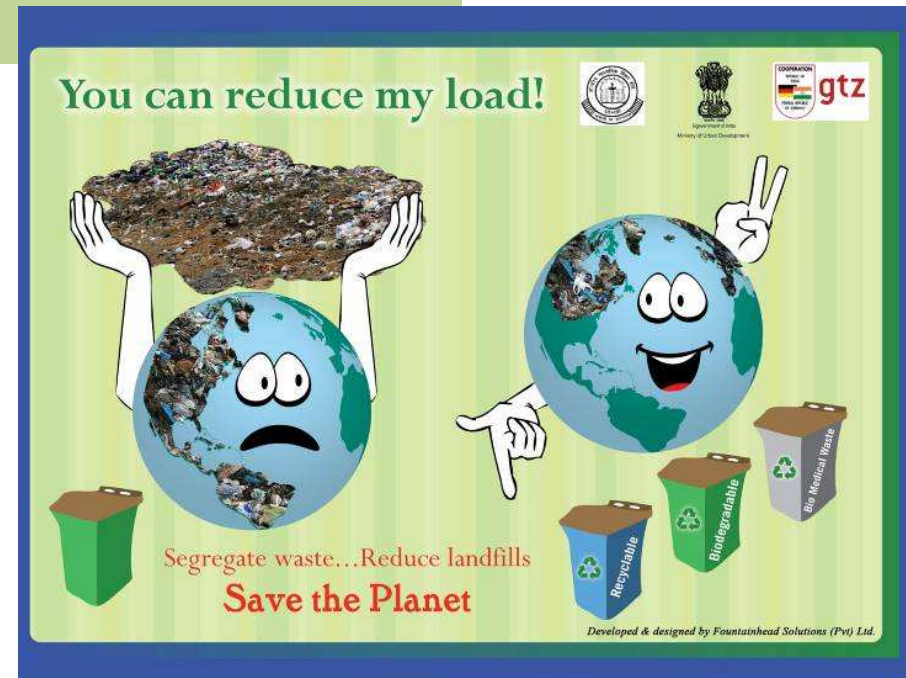
# The Manual



MoUD  
CBSE  
GTZ

## URBAN SCHOOL SANITATION MANUAL

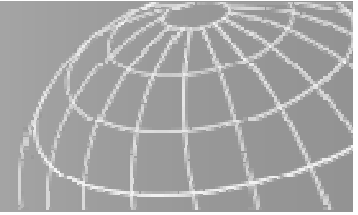
- Gist of Manual :  
“Building the Path for school children to internalize the practice of safe sanitation, waste segregation and a healthy living through enlightened & trained teachers”
- Manual with two sections:  
one for teachers and one for students
- Connects:  
Health, Sanitation, Solid Waste Management, Resource conservation, Green spaces, School kitchen gardens,  
...





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# School Sanitation Awards

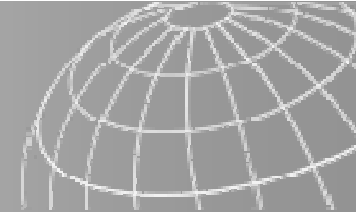


- **Criteria / Parameters for the award**
  - Sustainability
  - Replication
  - Impact
  - Participation / Networking
  - Cost effectiveness
- **MoUD to be the Convener for the awards**
- **Initial Scrutiny Committee formed by CBSE**



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# Actions (1)

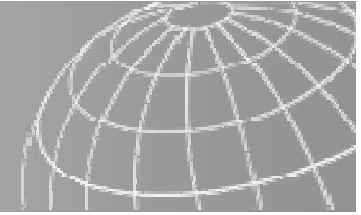


- Base line study on the problem of School Sanitation - for the Manual (done)
- Include Sanitation as Curriculum topic in the Schools (Jan 2010)
- Launch of School Sanitation Manual (Jan 2010)
- Orientation Programme for the School Principals





# Actions (2)



- Inclusion of Sanitation as a requirement for Accreditation/Affiliation of the schools by CBSE
- National Urban School Sanitation Awards (NUSSA)
- Sanitation Status Monitoring by CBSE
- Sanitation Rating of the Schools

**Operations Comparison**

Parameter	Competing Technology	ACME Technology
Process Type	High-Cost/High-Maintenance	Low-Cost/Low-Maintenance - streamlined operations
Process Footprint	High - Inflexibility of the system design	Low - Proven/Proven process treatment, which reduces the footprint of the plant
Cost of Power	High - Requires continuous 24-hour operation	Low - Can be programmed to operate during lower power cost periods while still meeting all operating hours
Maintenance	High - Requires to be replaced periodically	Low - Easy to maintain - All systems are continuously monitored
Building Requirement	High - Special operations, need for multiple buildings for the plant	Low - Footprint of the plant is 300 sqm (3200 sq ft) - compact design
Disposal	Variable - Depends on the efficiency of the system	Low - Footprint of the plant is 300 sqm (3200 sq ft) - compact design

**System Configuration**

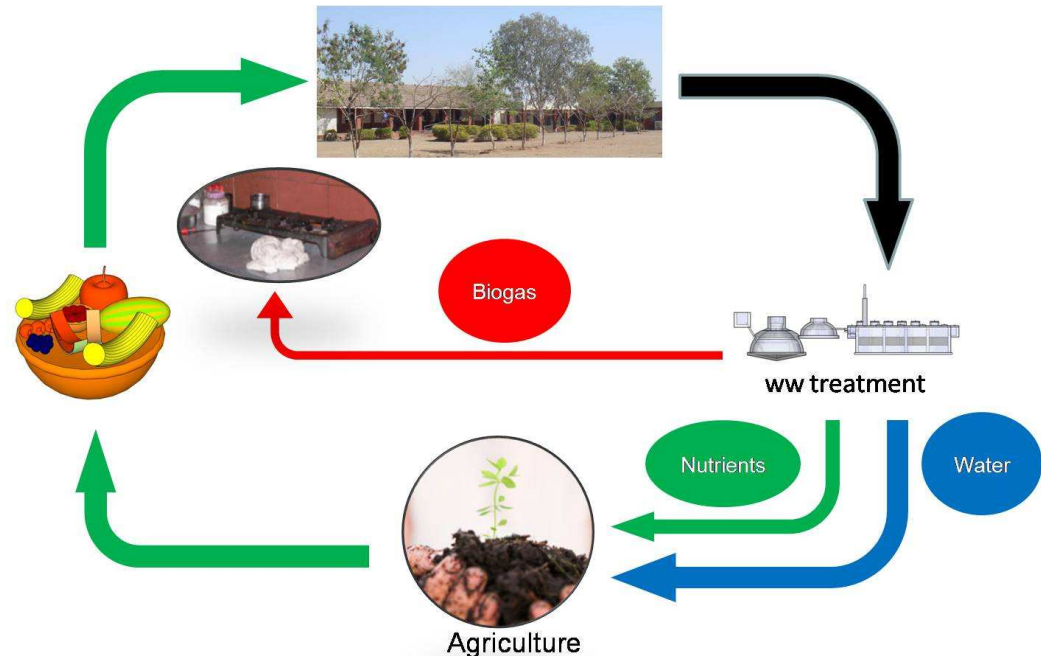
Parameter	Competing Technology	ACME Technology
Plant Type	High-Cost/High-Maintenance	Low-Cost/Low-Maintenance
Footprint	High - Inflexibility of the system design	Low - Proven/Proven process treatment, which reduces the footprint of the plant
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**Treatment Efficiency of ACME Sewage Treatment Process**

Parameter	Competing Technology	ACME Technology
BOD5 Reduction	90%	95%
SS Reduction	85%	90%
Ammonia Reduction	80%	85%
Phosphate Reduction	75%	80%
Chlorophyll Reduction	70%	75%
Sludge Concentration	1000 mg/l	1500 mg/l
Sludge Volume Index	100 ml/g	80 ml/g
Sludge Settling Time	15 min	10 min
Sludge Compressibility	0.8	0.9
Sludge Dewaterability	0.8	0.9
Sludge Disposal	High	Low
Sludge Handling	High	Low
Sludge Storage	High	Low
Sludge Disposal	High	Low

**ACME Sewage Treatment Plant**  
Turns Sewage to your advantage...

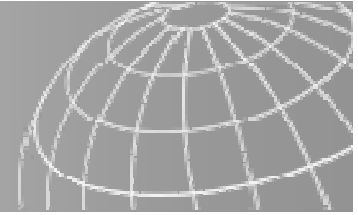
- ✓ Energy-efficient
- ✓ Space Saving
- ✓ Eco-friendly
- ✓ Bacteria-free
- ✓ Affordable





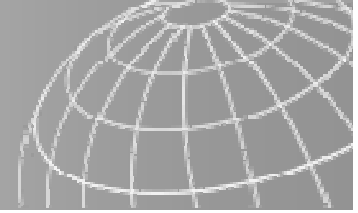


## Action (3)



- Creation of the campaign design for the sanitation initiative
  - Sanitation Brand Ambassador
  - Sanitation Week
- Impact assessment of the Initiative



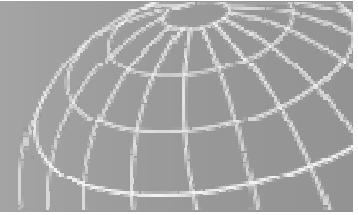


# **STARTING A GLOBAL INITIATIVE ON URBAN SCHOOL SANITATION**

1. For the First time the Indian Urban School Sanitation Initiative has come to this kind of World Fora.
2. WTO could consider to launch a “GLOBAL URBAN SCHOOL SANITATION INITIATIVE” in collaboration with GTZ-ASEM, India.
3. GTZ–ASEM, INDIA offers to organize a meeting with global participation in India in 2010.

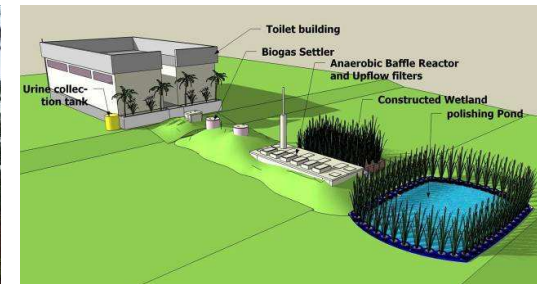


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Navsarjan Trust School : Ahmedabad Science Contest Award Winner

Thank you!



Badlapur College (near Mumbai): National Water Prize - Award Winner 2009