Presentation

on

City Sanitation

- *Situation Analysis*

Presented by

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Objective

National Urban Sanitation Policy

All Indian cities and towns become totally sanitized, healthy and livable 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 woman

Orissa Urban Sanitation Strategy

Develop citywide sanitation plans and implement them by integrating all aspects of sanitation in an effective way with special emphasis on slums.

Objective Contd..

City Sanitation Plan

- To improve public health and environmental standards of the city
- Access to toilet for one and all
- Cities must be free of open defecation
- No manual scavenging and safe disposal of liquid and solid waste
- Ensure cost effective and sustainable collection and disposal systems
- Improve quality of life of sanitary workers
- Educate citizens and generate awareness in a sustainable manner
- strengthen institutional set up and build capacity
- Improved performance levels with reference to SLB indicators

Rationale

WHY CSP ?

- Facilitate vision on a long term perspective
- Sanitation aspect should be approached on a holistic manner to ensure effectiveness
- Long term vision on transition to a 100% sanitized city
- To understand the cost and user charges implications
- Ensure proper assessment of capex and investment phasing
- Awareness and sensitization of community

Approach & Methodology

- Secondary data collection and client engagement
- Primary household survey
- Condition Assessment survey
- Walk through Survey
- Councilor engagement and inputs
- Focused Group Discussion
- Interaction with associated stakeholders
- Reference to other available reports

City Profile

Description	Value
Total Area	31.6 SqKm
Number of wards	33
Population 2001	224987
Population 2011	269602
Total Households	59239
Total number of Slums	114
Slum Population	114980
Slum Households	25994
Total Road length	629
Total Holdings	15770

Findings (General)

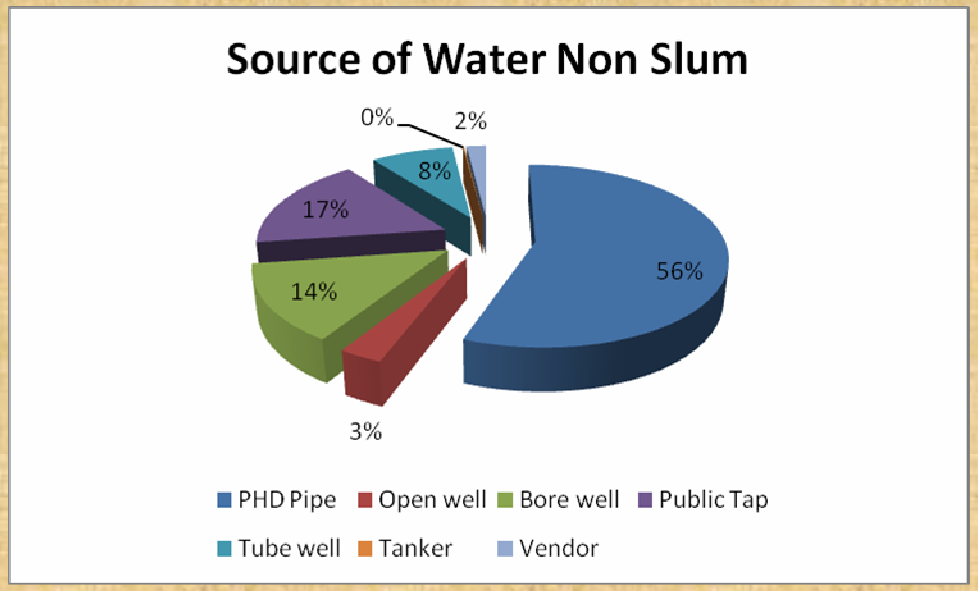
- Encroachment into the service corridor
- Development of unauthorised settlements due to migration of rural population
- High floating population
- Lack of organised effort from NGOs
- 42% of total population stay in slums
- Decadal growth in population is 20%
- Road Condition : Average
- Access to health care :Good
- Hygiene practices : Low
- Access to safe drinking water : Average

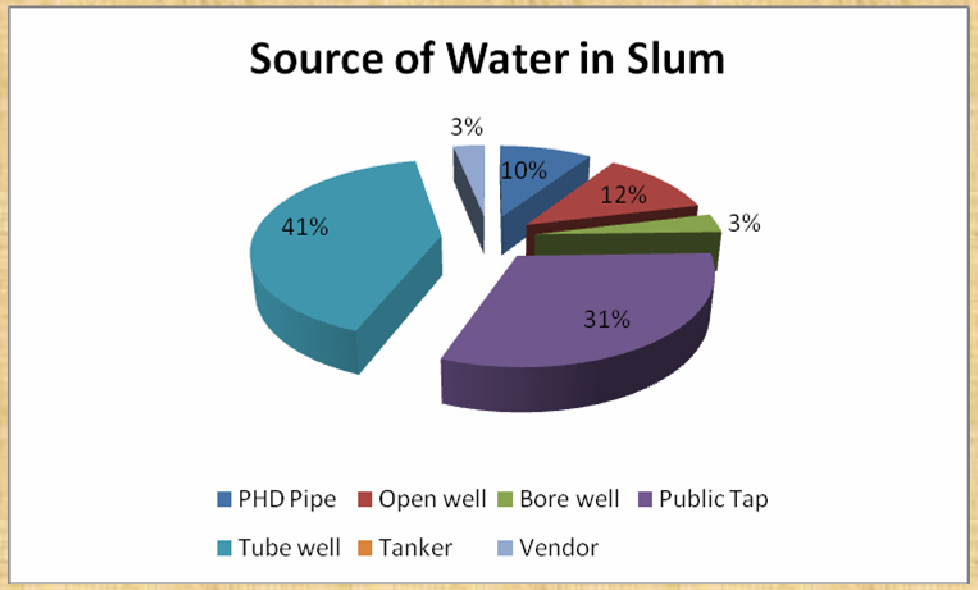
Findings (Water)

- No. of Consumers : 14437
- Stand Post : 431
- Hand Pumps: 1132
- Avg. Supply Duration: 2.8h
- Dist. Length : 220 Km
- Production facility: 79MLD
- Actual Production :48MLD
- Tube wells go dry during summer due to low GWT

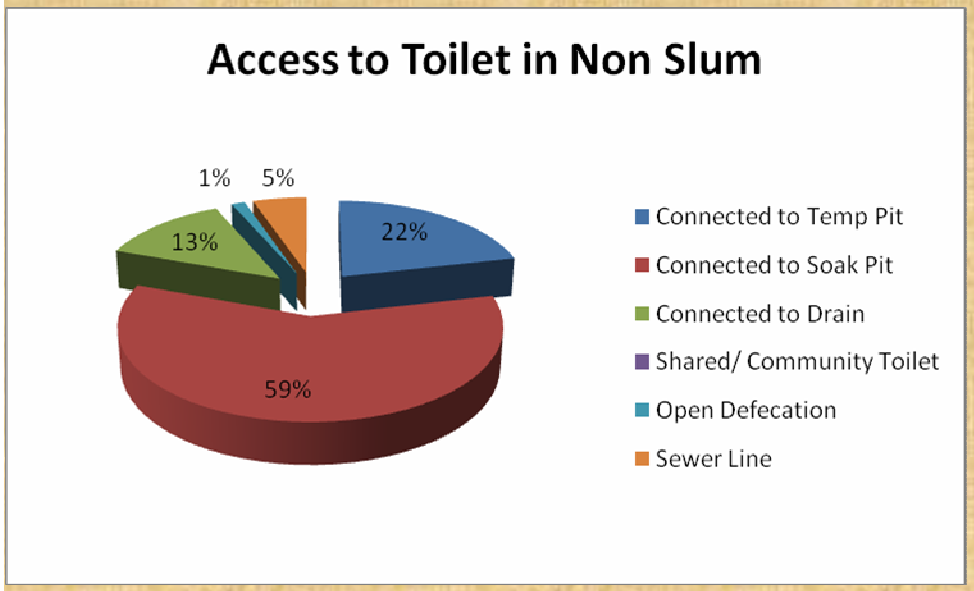
Performance Indicator	Benchmark	2009-10	20010-11	Target for 2011-12
Coverage (%)	100%	34.1	35.0	40
Per Capita Supply of Water(lpcd)	135	293.0	275.0	250
Extent of Metering (%)	100%	0	0	2
Extent of Non-Revenue Water (%)	15%	74.2	33.2	30
Continuity of water supply	24x7	2.9	2.8	2.8
Eff. in redressal of customer complaints (%)	80%	76.4	78.3	80
Quality of Water Supplied (%)	100%	81.5	89.5	100
Cost Recovery (%)	100%	23	21.5	30
Eff. In Collection of Water Charges (%)	90%	65.5	66.5	80

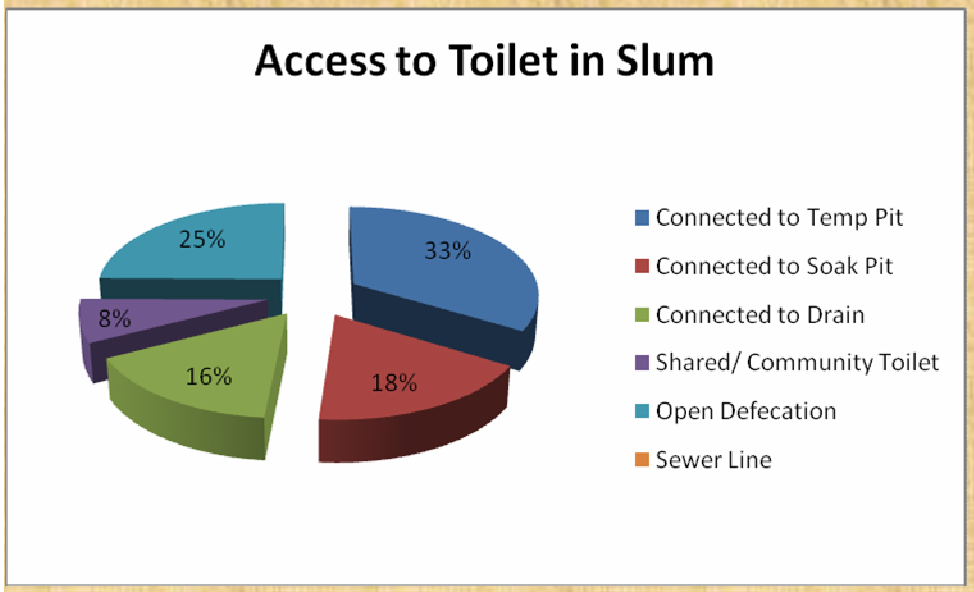
Findings (Water)





- Dependence on PHD water is high with almost 60% direct connection in non slum area
- High dependence on tube well and stand post in slum area
- Water purchase from vendors is observed in slum area





Findings (Sewerage)

- City Sanitation rank 2010 : **134**
- 5% sewerage network with onsite sanitation
- Majority of houses in Non Sum have own soak pits or temp pits
- Open defecation in slum area is not very high and can be controlled
- Drains, Road side & open space widely used for open defecation
- Drains are widely used to discharge sewage
- All liquid waste discharged to river
- Very few community/public toilets

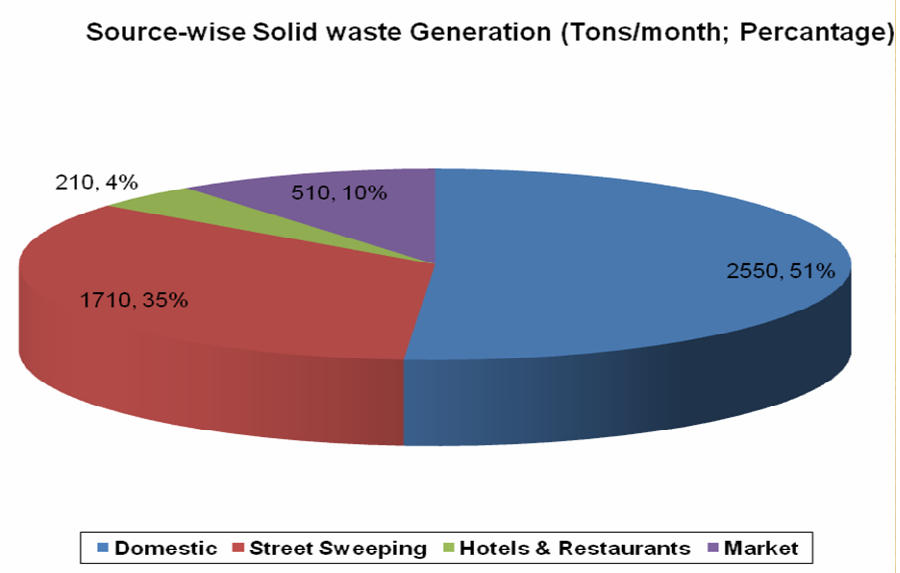
Findings (Sewerage)

Good Practices

Findings (Solid Waste)

Sl.	Indicator	Benchmark	2010-11	Target 2011-12
1	Household Level Coverage of SWM Services(%)	100	80	90
2	Efficiency of Collection of MSW (%)	100	90	100
3	Extent of Segregation of Solid Waste (%)	100	00	00
4	Extent of Municipal Solid Waste Recovered (%)	80	70	80
5	Extent of Scientific Disposal of Solid Waste (%)	100	00	30
6	Efficiency in Redressal of Complaints (%)	80	70	75
7	Extent of Cost Recovery in SWM Services (%)	100	00	10
8	Efficiency in Collection of SWM Charges (%)	90	00	50

- 15 wards covered under DTD collection
- Total generation : 4980 MT/MTH
- Total Disposal : 4410 MT/MTH
- No segregation practiced
- High Street sweeping waste



Findings (Solid Waste)

Good Practices

Findings (Drainage)

- 488 Km of Drain; mostly Kuchha
- Four natural drains : Bandha Munda nallah, PF nallah, main drain nallah and Kalinga Vihar Nallah
- Nine outfall points into river
- Natural slope towards North helping in quick drainage of rain water
- Very few Water logging problem reported
- Encroachment & solid waste choking of drains are widely observed and hence overflow

Key Issues

Water supply

- High production but Low coverage; inequality of distribution;
- wastage and theft of water; illegal connection and high system loss
- Distribution network not available to all parts; growth areas are uncovered

Sewerage

- 5% sewage collection network, transmission and primary treatment .
- Septic tanks not functioning properly and Lack of proper septage management
- Very few public toilets; open defecation observed
- Raw sewage and tank effluent being disposed to drains leading to health hazards

Solid waste

- Lack of proper treatment facility, land fill site and management plan
- All solid wastes are dumped in low lying area posing a threat for ground water
- Institutional and commercial waste needs more attention

Key Issues

Drainage

- Inadequate carrying capacity of drains leading to flooding
- Encroachment into drain; choking of drains due to garbage dumping
- Lack of comprehensive drainage master plan

General

- Awareness level needs to be enhanced more so in the slum area
- Unhygienic condition in slum area
- Lack of coordination between various institutions responsible for urban services and development
- Inadequate staff strength
- Inadequate initiative on reforms
- Ring fencing of expenditure not practiced
- E-governance has not yet been implemented leading to manual method which results requirement of large man power and delay

Strategy

Strategy to be adopted for CSP

- Access to toilet
  - Objective would be to achieve 100% access to sanitary toilets to all residents
  - Provide incentives for encouraging individual toilets to people who can afford and available space
  - Support subsidies for individual toilets for low income households
  - Provide community toilets for slum clusters where individual toilets are not feasible
  - Public toilets at all public places (markets, bus stand, etc.)
  - Structured communication for regular usage and maintenance of toilets
  - Encourage community management of community/public toilets and encourage cost recovery

Strategy

- Sanitation
  - Onsite sanitation with suitable septage management system to be proposed for areas with congested houses and difficulty in construction & connectivity to sewer network
  - Combined system where space for drainage and sewerage is not sufficient to construct
  - Increase coverage of collection network and connections
  - Off site treatment and disposal coupled with onsite septage management for community/individual septic tanks
  - Adopt natural bio-degradation technologies economically feasible and locally suitable and minimise energy requirement in transport and treatment of sewage
  - Critical issues of sludge management, odour control and mosquito menace
  - Encourage reuse of recycled treated effluent water for non portable purpose

Strategy

- Solid Waste
  - Accessibility of service to every citizen
  - Ensure 100% collection through door to door collection
  - Implement segregation at disposal point
  - Minimize occupational adverse exposure to the waste handlers
  - Adopt economic and eco-friendly transport system
  - Evaluate and adopt viable technology for treatment & disposal
- Drainage
  - All roads should have drains
  - All drains should be RCC construction
- IEC & Capacity Building
  - To reach out to maximum public and efficiently communicate
  - To advocate user fee for sustainability
  - Institutional strengthening and capacitate to ensure efficient O&M

Thank You