



**Pune Consultation on Sanitation
Engaging Local Legislators, 30 May, 2014**

PUNE: Factsheet

- Population of Pune is 33.9 lakh.
- 6.4% of households have drinking water facility away from the premises.
- 33.1% Rural and 2.9% Urban households go out for open defecation.
- 103 estimated open defecation spots used by approximately 8500-9000 people daily.
- 23.7% of households have no drainage connectivity.
- 97.57% sewage network in the area.
- Total sewage generated in the city is 744 MLD.

Schemes and Programs

- Swarna Jayanti Sujal & Nirmal Maharashtra 2010 Abhiyan
- Sant Gadge Baba Urban Sanitation Campaign
- Ecological Sanitation (ECOSAN) method
- Formation of city sanitation task force and implementation agency
- Stakeholder mobilization to create awareness about sanitation
- Kharadi plant for the sewage treatment

Basic Profile

- Second largest metropolitan city in Maharashtra and sixth largest city in India.
- The current population of the city is approximately 39.33 lakh with almost one million households.

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- The city's floating population is around 3.4 lakh.
- The total number of BPL families in the city is 9441.
- There are 564 slums with a population of 10.53 lakh. Most slums are on Private and Government Lands.

Sanitation

- 33.1% households in rural and 2.9% in urban areas defecate openly.
- 18.55% households in Pune had latrine within premises in 2001, while 61.8% had in 2011.
- Estimated 103 open defecation spots used by approximately 8,500-9,000 people daily.
- A total of 24,153 properties do not have access to toilets within walking distance.
- In 1999-2000, 7250 seats were constructed in 414 toilet blocks.
- Special toilets were constructed for children.

Water

- 75.9% of households have drinking water facility within the premises (UNICEF, 2011).
- 6.4% households have drinking water facility away from the premises.
- In 2011, 80.6% of households have tap as source of drinking water facility.
- 8.9% of households have well as source of drinking water facility.
- 41 Schools do not have water facility in toilets.

Sewage System

- 23.7% households have no drainage connectivity.
- 97.57% sewage networks exist in the area.
- Total sewage generated in the city is 744 MLD (Million Litres per Day).
- Environment friendly decentralized treatment. Additional 230 MLD capacity of STP (Sewage Treatment Plant) work identified, and implementation for 100% treatment of waste water generated in PMC (Pune Municipal Corporation) limits.
- Source reduction by separation of sullage and sewage.
- Implementing SCADA (supervisory control and data acquisition) system to monitor the sewerage inflow and outflow at STPs. Also, SCADA Systems are frequently used in Water and Waste Water Systems to monitor and control tank levels, remote well pumps, lift station pumps, high service pumps, valves, and chemical pumps.
- For housing colonies of 80 tenements and above and commercial establishments of 2000 sqm and above it is made mandatory to construct its own sewage treatment plant and reuse the effluents, thus resulting into Zero discharge of sewage into the Municipal Sewer.

- Reservation of land for new STPs in fringe areas has been made while preparing Development Plans for those areas.
- Considering the future growth of the city & need for sewage treatment PMC has prepared detailed project report as per NRCD guidelines & the same is being forwarded to NRCD for approval & sanction of funds.
- Identify, delineate and protect natural water courses and drainage.
- Prevention of river pollution by treating 100 percent sewage generated.
- Increase supply of treated waste water for irrigation purpose to farmers.
- Web Based Compliant Redressal System.

Proposed Plan for improved Water Supply

PMC proposes to undertake the following steps to improve the water supply in the city:

- **Equal distribution of water:**The proposed project aims at providing 150 litres per capita per day. Activities included are replacement of old rusted water lines, streamlining of distribution system, zoning, etc. It is estimated that by implementation of this project water supply department of PMC will be able to save approximately 6.30 TMC of water and Rs11.26 crore of expenses per year. The implementation of this project will provide sufficient water supply to the population rise till 2035.
- **Development of new water treatment plant at Warje:**This plant will have a capacity of 200 MLD for improvement in water quality in the western part of the city. Simultaneously capacity of the old Warje plant will be increased by 86 MLD.
- **Water supply from Khadakwasala dam through closed pipeline:** A Team of experts has been appointed for this project, and the process of tendering has been started for the same.
- **Around 285 crore for planned work and 220 crore for non-plan area work is suggested for different provisions under the 13th finance commission.**
- **Service level benchmarking plan has been prepared by the water supply department and steps are being taken to improve the performance related to each point.**
- **For implementation of Kharadi project, approximately Rs. 427.87 crore of expenditure is expected which will be funded through NRCD project of the Govt. for the next two years and budgetary provision shall also be made accordingly.**
- **ECOSAN method:** PMC proposes to implement ECOSAN method on pilot basis for sewage treatment. The aim would be to identify and implement the project in a municipal or government office building as a Model.

Ministry of Urban development, Government of India, 'Pune city Sanitation plan 2012' available at http://www.urbanindia.nic.in/programme/uwss/CSP/Draft_CSP%5CPune_CSP.pdf

UNICEF, 'Wash Atlas: Unpacking the Census 2011 Data on Water and Sanitation Maharashtra' available at http://www.unicef.org/india/WASH_ATLAS.pdf

UNICEF India, 'Water, Environment and Sanitation' available at <http://www.unicef.org/india/wes.html>
<http://ayaz-123.blogspot.in/2011/01/chhatrapati-shivaji-raje-bhosle.html>

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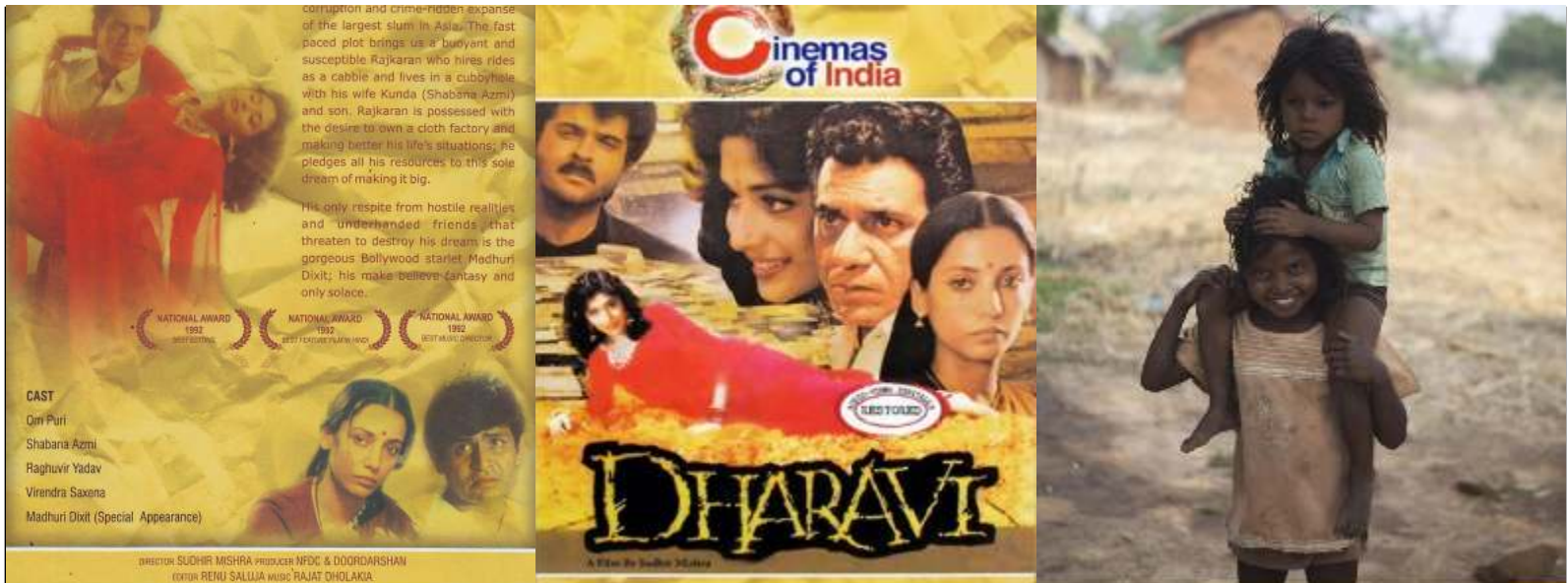
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MUMBAI GREATER MUMBAI: Factsheet

- 84.9% of households have drinking water within premises.
- Population of Greater Mumbai 12.5 million.
- Water Supply in Greater Mumbai is around 3350 MLD.
- Total 12000 tubewells supply water to the households.
- Nearness of sea has caused salinity in ground water.
- 2848 toilets for men in 2012 as against none for women.
- An estimated one person in 20 (or about 420000) defecates in open areas; this represents about six percent of Mumbai's slum area population.

Schemes and Programs

- Deployment of NGO labours for collection of garbage around collection Points.
- Implementation of Greater Mumbai Cleanliness and Sanitation Bye-laws, 2006.
- Creation of dry-waste sorting centres managed by NGOs to accept the recyclable and E-waste in each ward.
- Computerization Project inclusive of vehicle tracking system; Implementation of Radio Frequency Identification (RFID) Tags for real time tracking of bin servicing.
- Implementation of Construction and Demolition Waste Disposal Project as per the Debris Management Policy.

- People's participation through Advance Locality Management for the residential associations of Mumbai.
- Slum Adoption Scheme (DattakVastiYojana) for regular collection of waste from the slums areas.
- Restructuring of SWM Department on functional lines.
- Launch of the slum sanitation program.

NAVI MUMBAI: Factsheet

- Population of Navi Mumbai is 1.12 million.
- The city has 20% floating population.
- There are 41,805 slum households.
- The total water supply for NMMC (Navi Mumbai Municipal Corporation) is 334 MLD, and hence the waste water generated is 267.20 MLD.
- Out of 2,73,426 households, total 2,02,186 (73.94%) households have individual toilets.
- There are total 366 public toilets having 4331 seats constructed under MMRDA (Mumbai Metropolitan Regional Development Authority) Vasti Swachata Gruha program.
- There are 40 open defecation spots identified by NMMC and a total of 47,485 population is defecating in that area.

Schemes and Programs

- Good morning squad for 40 open defecation spots.
- Awareness generation in all zones.
- Construction of 25% additional toilets.
- Try for best O&M of community/public toilets.
- Treatment plants at Nerul, Vashi and Airoli are reconstructed based on Cyclic Activated Sludge process. The treatment plants in Belapur, Sanpada and Koparkhirane are also reconstructed
- Sant Gadge Baba Urban Sanitation Campaign.

Basic profile of 'Mumbai' city

- Total area covered by the city: 437.71 sq km
- Slum population: 7.2 million
- Ranked 46th overall in the sanitation rank given by Ministry of Urban Development

- This is the lowest rating among all the metro cities

Sanitation in Urban Mumbai

- Sanitation facilities, mainly community toilets in urban areas, are provided by MCGM (Municipal Corporation of Greater Mumbai) or MHADA (Maharashtra Housing and Area Development Authority).
- These facilities are mainly utilised by the 3-million large floating population.
- Number of toilet seats is skewed in favour of men by almost 8%.
- The total requirement was 1,25,000 toilet seats in 2001, when the BMC had conducted its survey.
- The ratio of toilets versus population comes to a whopping 1:50 or 3000 people using it daily.

Slum Sanitation

- 50% of the slum population doesn't have access to safe sanitation.
- About 73% depends on community toilets, 28% defecate in the open, and 0.7% has to pay to use toilets.
- Inadequate water supply and limited number of toilets also make the toilets unhygienic.
- The total shortage of toilet seats faced by the region is 65000.

Water Supply facilities

- Water supply coverage in the Mumbai region is quite high with about 1.62 lakh metered stand-posts.
- 50% slums are covered through stand-posts supplies, 40% have supply from more than 1 source, and the rest gets supplies from tube wells.
- Water supply is adequate at 268 LPCD (litres per capita per day) but issues exist as distribution losses, inequitable distribution across wards, and intermittent water supply.
- Service levels and recovery of revenues continue to be a challenge in slum areas.

Sewerage system

- The total sewage generated is 2680MLD.
- Total sewage placed in conveyance: 1700MLD.
- Sewage disposal in slum areas continues to be a problem.
- Sewage disposal in an environment friendly way is being planned under

Schemes by Municipal Corporation of Greater Mumbai

- **Mumbai Sewerage Disposal Project:**
 - Funded by the World Bank; Rs 1,200 crore was released to improve the sewerage system of the city.
 - This was used to set up the Bandra and Worli marine outfall systems and improving old sewage lines.
- **Mumbai Slum Sanitation Programme:**
 - Aims to build community toilets proportionate to the population.
 - Provided incentives to multiple stakeholders to work together to deliver reliable community sanitation in a flexible manner.
 - An estimated 400,000 slum dwellers have benefited.
- **Cleanliness and Sanitation byelaws 2006**
 - Fines were introduced for open defecation
 - Different agencies were allotted separate wards to maintain
 - Clean up Marshals or litter cops were introduced

All India Institute of local self-government, Mumbai; Urban Water and Sanitation in Maharashtra; Ministry of Urban Development, Government of India, 'City Sanitation Plan Navi Mumbai 2011' available at http://urbanindia.nic.in/programme/uwss/CSP/Draft_CSP/Navi_Mumbai_CSP.pdf



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PIMPRI CHINCHWAD: Factsheet

- Current population of Pimpri-Chinchwad is 1.73 million.
- Out of the current number of 72 slums, 7 slums are reported to have no toilets.
- 54 have less than one toilet seat for every 35 people.
- Under the 'city sanitation plan', Pimpri-Chinchwad Municipal Corporation (PCMC) of Pune has recently proposed to construct nearly 2,200 toilets (separate for men & women) on a 'pay-and-use' basis by 2015.

Basic profile of the city

- Pimpri-Chinchwad Municipal Corporation (PCMC) is a prosperous, industrial city situated on the Mumbai-Pune corridor.
- The current population of Pimpri-Chinchwad is 1.73 million.
- The population is expected to double within the next 20 years.

Sanitation and open defecation

- Out of the current number of 72 slums, 7 slums are reported to have no toilets.
- 54 have less than one toilet seat for every 35 people.
- The toilets usually lack hand washing, bathing and laundry facilities and are generally in poor condition – primarily because of poor care by the users and poor O&M.

Water supply

- Currently, agriculture accounts for about 80% of total water consumption in the State.
- Domestic need is about 15%, while that of industry is about 5% of total water consumption.

- The goal is to have 24 hours per day (24x7) continuous water supply throughout the city by 2017.

PCMC plans

- To achieve better results (service improvements) from investments made to date under Jawaharlal Nehru National Urban Renewal Mission (JnNURM).
- To introduce and scale up 24x7 continuous water supply, and ensure equitable and safe water supply throughout the city.
- To better utilize existing capacity of sewage treatment, and enhance collection and transportation of wastewater.
- To address river pollution, especially from slums and local industries.

UNICEF, 'Wash Atlas: Unpacking the Census 2011 Data on Water and Sanitation Maharashtra' available at http://www.unicef.org/india/WASH_ATLAS.pdf

UNICEF India, 'Water, Environment and Sanitation' available at <http://www.unicef.org/india/wes.html>

The World Bank: Project and Operations, 'Maharashtra Rural Water Supply and Sanitation "Jalswarajya" Project available at <http://www.worldbank.org/projects/P073369/maharashtra-rural-water-supply-sanitation-jalswarajya-project?lang=en>

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THANE: Factsheet

- Population of Thane is 1.8 million according to the census data 2011.
- 3.32% of people are defecating in open.
- 51.1 % of rural and 4.1% of urban households go for open defecation.
- 18.6% of households have no drainage connectivity.
- Thane Municipal Corporation has existing sewerage scheme of 74 km of network, 7 pumping stations, and 54 MLD STP at Kopri.

Schemes and Programs

- Task force committee and implementation agency.
- Public awareness through campaigning, e-communication and involvement of NGOs.
- Easy access to toilets at all schools, private and government offices and public toilets.
- City sanitation plan seeks to improve the solid waste management, access to sewage network for sewage management and drinking water supply.
- Under Jawaharlal Nehru National Urban Renewal Mission (JnNRUM) Thane Municipal Corporation has appointed MWH to prepare the Underground Sewerage Scheme. This scheme would improve the entire sewerage system in Thane.
- Jalswaraj Project was launched to provide quality drinking water supply to villagers and create awareness regarding the need for toilets and motivate them to construct toilets.

Basic Profile of the city

- The total population according to the National Decennial Census in 2001 was 1.3million.
- The City Sanitation Plan prepared by the municipal corporation has been assessed according to the current situation and wide consultation with stakeholders.

- Thane Municipal Corporation established “A City Sanitation Task Force Committee” headed by the Mayor of Thane City and “The Implementing Agency” which is headed by the Municipal Commissioner.
- There is also a Public Awareness program of City Sanitation Plan for spreading awareness among the citizens of Thane.

Sanitation and Open Defecation

- Records shows that 3.32 % people are defecating in open; there are 120 open defecation spots identified and the list is as follows:
- 60.3% of rural and 25.5% of urban households have no latrine within the premises.
- 51.1 % of rural and 4.1% of urban households go for open defecation.
- 18.6% of households have no drainage connectivity.

Water supply facility

- According to UNICEF data 71.9% of households have drinking water facility within the premises in 2011.
- 8.2% of households have drinking water facility away from the premises.
- 80.6% of households have tap as source of drinking water facility.
- Jalswaraj Project- Gomukh- is working with 33 gram panchayats in Thane district.
- The basic aim of the project is to provide quality drinking water supply to villagers and create awareness regarding the need for toilets and motivate them to construct toilets.

Sewerage System

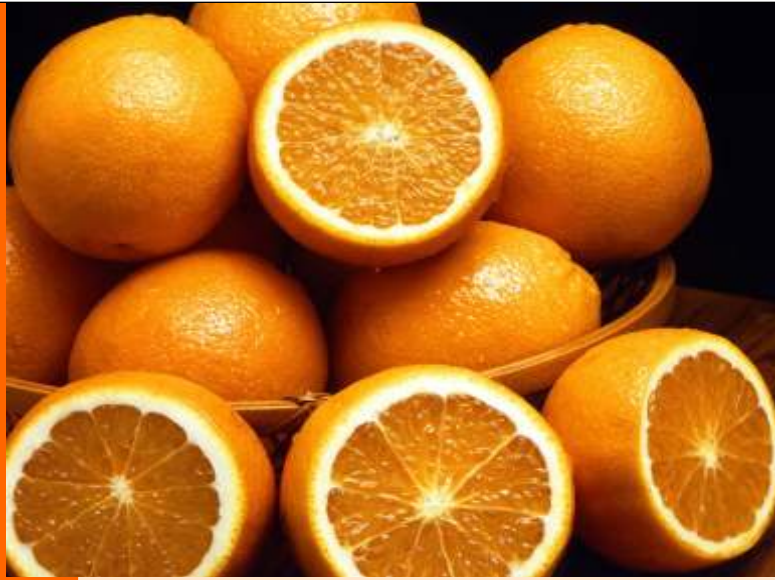
- Thane is a very congested city. The roads available in the slum measure about only 0.9 to 21.5 m in width. So it is not practicable to excavate and lay sewer lines in these internal roads.
- The data provided shows that Thane Municipal Corporation has existing sewerage scheme of 74 km of network, 7 pumping stations, and 54 MLD STP at Kopri.
- The TMC according to the topography has planned to provide pumping stations at low lying areas. This will tend to save cost as the depth of excavation for gravity lines will be reduced.

Schemes by TMC

- Under JnNRUM Thane Municipal Corporation has appointed MWH Pvt. Ltd. to prepare the Underground Sewerage Scheme.
- The scheme provides Consultancy Services for the Underground Sewerage Scheme.
- This scheme would improve the entire sewerage system in Thane.

UNICEF, 'Wash Atlas: Unpacking the Census 2011 Data on Water and Sanitation Maharashtra' available at http://www.unicef.org/india/WASH_ATLAS.pdf

UNICEF India, 'Water, Environment and Sanitation' available at <http://www.unicef.org/india/wes.html>



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NAGPUR: Factsheet

- Population of about 2.5 million.
- It has a slum population of more than 8 Lakhs.
- In 2009-10, Nagpur was ranked 239th in national sanitation survey.
- Out of a population of 25 lakhs, close to 1,09,475 do not have proper toilet facilities.
- Of these 35,895 from 7179 households, mostly from slum areas, are resorting to defecation in open grounds, roadsides, or nullahs
- The CSP (City Sanitation Plan) has said that to rid the city of open defecation menace, at least 4882 more individual toilets were needed.
- Pumping and treatment facilities are inadequate; out of 345 MLD, only 80 MLD is collected and treated.
- Less than 50% of the sewage is collected, which is disposed into the rivers without any treatment.

Schemes and Programs

- Constitution of Task force and Implementation Committee in the month of August 2010 by the city sanitation plan.
- Policy of providing individual latrine facility rather than “community or public” facility.
- Construction of either individual latrines or Sulabh type models.

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- NMC (Nagpur Municipal Corporation) is already demolishing community toilets at number of places and individual toilets are suggested for the community households.
- High court has given directives for construction or installation of more number of urinals in proportion to the floating population. Thus, NMC has planned to install urinals for both male and female population within the city.
- For the un-served floating population, NMC suggests to construct a comprehensive Sulabh model of 16 to 20 seats as per the space availability at strategic locations within markets, commercial establishments, bus stations or other crowded areas within the city.
- Awareness programmes promoting the dangers of open defecation and the need for proper sanitation should be encouraged.

UNICEF, 'Wash Atlas: Unpacking the Census 2011 Data on Water and Sanitation Maharashtra' available at http://www.unicef.org/india/WASH_ATLAS.pdf

UNICEF India, 'Water, Environment and Sanitation' available at <http://www.unicef.org/india/wes.html>

Department of Urban Development, Government of Maharashtra, 'Nagpur City Sanitation Plan 2011' available at http://www.urbanindia.nic.in/programme/uwss/CSP/Draft_CSP/Nagpur_CSP.pdf

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NASHIK: Factsheet

- Population of Nashik: 1.49 million
- It was ranked 42nd out of the 423 Indian cities in the sanitation ranking carried by the NUSP (National Urban Sanitation Policy)
- According to the UNICEF data 2011, only 58.5% households had drinking water facilities within premises
- 70.7% households have no latrines within premises in rural areas
- 30.9% households have no latrines within premises in urban areas
- 38.4% of households defecate in open
- 45% of households had no drainage connectivity

Schemes and Programs

- Jalswarajyojana to increase rural households' access to improved and sustainable drinking water supply and sanitation services
- Behavioral change through awareness campaign drives and branding initiatives
- Municipal solid waste management plans
- Capital Projects under JnNURM
- Implementation of Basic Services to the Urban Poor (BSUP) scheme for rehabilitation and development of slums

Nashik Municipal Corporation, 'City Sanitation Plan, 2011' available at
http://nashikcorporation.gov.in/doc/10_0_Nashik%20Draft%20CSP_Executive%20summary.pdf

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KOLHAPUR: Factsheet

- The population is of 35.15 lakhs.
- 142832 households with toilet facility.
- 339075 households without toilet facilities.
- A whopping 58728 below poverty line population were without toilet.
- Only 19732 BPL people have access to latrines.
- 276323 APL Population without toilet.
- Only 134420 of the APL have toilet facilities.
- 69% of the people in Kolhapur defecate in open.

Schemes and Programs

- Mansion training
- Gram Sabha for Sanitation
- Conducted Swachta Rath and rallies
- Celebrated Sanitation week from 9th to 15th August 2008
- Nirmal Nirdhar Jyoti
- Swachta Doot to spread the message of need of toilets and cleanliness
- Banking Finance for Sanitation
- Self Help Groups' involvement
- Special NSS camps for student participation in sanitation awareness

Kolhapur Municipal Corporation, 'DEBANS- Sanitation for small and medium towns- Case study Kolhapur available at http://www.urbanindia.nic.in/programme/uwss/CSP/Bangalore_Wshop/Presentations/P_DBNS_Kolhapur.pdf

ZilaParishad Kolhapur, 'Total Sanitation Campaign' available at rural.nic.in/sites/downloads/presentations/TSCKolhapurMaharashtra.ppt

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