Water and Sanitation
Overview

- Individual’s health and hygiene is largely dependent on adequate availability of safe drinking water, access to improved sanitation and better hygienic practices.
- Water and sanitation-related diseases, despite being preventable, still remains one of the most significant child health problems worldwide and reasons for malnutrition.
- Government of India runs two flagship programmes, National Rural Drinking Water Programme (NRDWP) and Total Sanitation Campaign (TSC), to provide safe drinking water and sanitation facility to all. NRDWP also focuses on sustainability of water availability and quality of water.

Access to drinking water– Rural areas, Maharashtra, June 2010

- Information on access to water facility is available only for rural areas.
- A Habitation\(^5\) is a unit to provide drinking water facilities. In Maharashtra, there are 98,098 habitations.
- Status of habitations by population coverage : (As on June, 2010).

- Drinking water facility is available in all the 98,098 habitations.
- 76,944 (78%) habitations have 100% population coverage, which is very high than the national average (70.82%).
- However, there are 9,751 (10%) habitations where more than half of the population is yet to be covered.

Percentage of habitations with 100% population coverage in rural areas by districts, June 2010

Table: Percentage of habitations with 100% population coverage in rural areas by districts, June 2010

![Map of Maharashtra showing percentage of habitations with 100% population coverage by districts](image_url)

- Significant disparities exist among districts in terms of habitations with 100% population coverage.
- Aurangabad and Amravati divisions are still water stressed.
There has been a steady increase of usage of hand pumps and tube wells in rural areas.

Sharply increase in usage of taps after 2002 in rural areas.

Use of wells for drinking water has declined over the compared time period.

Use of bottled water has started mostly in urban areas.

Impressive progress has been made in rural areas during the last 30 years, specially between 1981 and 1991, in Maharashtra.

Rural and urban disparity is reducing at both national and state levels.

Status of both India and Maharashtra are almost at same level with reference to usage of safe drinking water sources.

Source: NSSO 49th, 58th and 65th round survey reports
90.5% households in Maharashtra use improved drinking water sources which is slightly lower than the national average (91.9%).

- Percentage of households using improved drinking water sources is slightly higher in urban areas as compared to rural areas.

Source: NSSO 65th round survey report and calculation based on JMP definition

- There is a rural and urban disparity in usage of various drinking water sources.
- While in rural areas only 56.9% households are using taps, in urban areas the proportion is 88.9%.
- One-tenth of rural households still using unprotected wells.
Significant disparity exists between rural and urban areas.
• While in urban areas 55.4% households use drinking water source exclusively for their own selves, in rural areas 69% households share with others.

Status of Maharashtra state is slightly lower than the national level with reference to rural areas, but in terms of urban areas, Maharashtra’s position is higher.
• Significant disparity has been observed in rural and urban areas at both national as well as state levels. The disparity is slightly higher in Maharashtra as compared to the national level.

Source: NSSO 65th round survey report
Maharashtra’s position is lower than the national level and the gap in rural areas is very high.

Disparities exist between rural and urban areas and this is more in Maharashtra compared to the national average.

One-fourth of the rural population is still dependent on multiple sources of water for drinking.

Source: NSSO 65th round survey report

Using unimproved sources for drinking water is very high among the poorest quintile especially in rural areas.

Disparities exist between rural and urban areas as well as among wealth quintiles in usage of unimproved drinking water sources.

Source: NSSO 66th round survey report
Using pipe water as sources for drinking water is very low among the poorest quintile, especially in rural areas.

Disparities exist between rural and urban areas as well as among wealth quintiles in using pipe water as a drinking water source.

Percentage of quality affected habitations in Maharashtra (4.2%) is lower than the national average (8.7%).

Major chemical pollutants are iron, nitrate and fluoride.

Maharashtra does not have any arsenic affected habitation.
- 4,122 habitations are affected by quality of drinking water, mostly by fluoride (34%) followed by nitrate (30%).
- 76.68 lakhs people (including 31 lakhs children) are affected by quality of drinking water.

Significant disparity exists among districts with reference to percentage of quality affected habitations.
- Nagpur, Amravati and Aurangabad divisions are the worst affected.
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Nagpur, Amravati and Aurangabad divisions are the worst affected.

17.9% water samples (of 6,78,247 tested) were found contaminated on bacteriological parameters.

Aurangabad and Amravati divisions are more affected compared to Nagpur and Pune divisions.

In Aurangabad, Hingoli and Latur districts nearly one-third of water samples were found fecal contaminated.

- 17.9% water samples (of 6,78,247 tested) were found contaminated on bacteriological parameters.
- Aurangabad and Amravati divisions are more affected compared to Nagpur and Pune divisions.
- In Aurangabad, Hingoli and Latur districts nearly one-third of water samples were found fecal contaminated.
7,623 schools (7.84%)—most of which are Government schools (7,390) and rural schools (7,242)—do not have drinking water facilities. Private and urban schools are better in terms of access to drinking water facilities as compared to Government and rural schools. Upper Primary and Secondary/Higher Secondary schools are better in terms of access to drinking water facilities as compared to Primary schools.

Source: DISE, 2010-11, Maharashtra Prathmik Shiksha Parishad, Mumbai
Trends of waterborne diseases

- Trends among water borne diseases has not changed over the period.
- Majority of cases (more than 80%) are of diarrhoea and the second highest disease is gastro (8-11%).
- Sharp rise in typhoid fever and cholera cases along with decline in viral hepatitis cases is observed.

### Availability of toilet within households, Maharashtra 2001

<table>
<thead>
<tr>
<th>Districts</th>
<th>Less than 60%</th>
<th>60-75%</th>
<th>75-90%</th>
<th>More than 90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of districts</td>
<td>02</td>
<td>08</td>
<td>07</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Census 2001 and www.ddws.nic.in

<table>
<thead>
<tr>
<th>Disease</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cholera</td>
<td>9,269</td>
<td>5,566</td>
<td>20,715</td>
</tr>
<tr>
<td>Gastro</td>
<td>2,21,063</td>
<td>1,70,205</td>
<td>2,29,203</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>15,91,031</td>
<td>17,75,190</td>
<td>16,23,357</td>
</tr>
<tr>
<td>Viral Hepatitis</td>
<td>16,473</td>
<td>9,735</td>
<td>8,205</td>
</tr>
<tr>
<td>Typhoid Fever</td>
<td>82,086</td>
<td>87,809</td>
<td>1,24,662</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19,19,922</strong></td>
<td><strong>20,48,505</strong></td>
<td><strong>20,06,142</strong></td>
</tr>
</tbody>
</table>

Source: Health Status Maharashtra, 2010, SHSRC, Pune, Maharashtra

- 35.1% households in Maharashtra had toilets in 2001. This percentage was very high (58.1%) in urban areas as compared to rural areas (18.2%). It varied across districts from 8.6% in Bid to 32.35% in Wardha, in rural areas.
- Total Sanitation Campaign (TSC) has played a vital role in improving sanitation coverage in rural areas and according to a TSC baseline study, 25.2% households had toilets in year 2005-06. According to TSC reports, 78.7% households in Maharashtra had toilets as in June 2011.
Percentage of households with toilets has increased over the period.

Although the gap in rural and urban sanitation coverage has narrowed down, there is still a huge difference between rural and urban coverage (39% and 94%).

Sanitation coverage has increased by three times in rural areas between 2002-08 as compared to the period between 1993-2002.

Source: NSSO 49th, 58th and 65th round survey reports

- Percentage of households having toilets is higher in Maharashtra compared to the national average in both rural and urban areas.
- While the percentage of households having toilets in Maharashtra is 63.6%, it is only 50.8% at the national level.
- While sanitation coverage in urban areas is 94.1%, it is only 39.3% in rural areas.

Source: NSSO 69th round survey report
57.3% of households have septic tank/flushes and it is higher (89.4%) in urban areas compared to rural (31.6%) areas.

Septic tank/flushes coverage is higher (57.3%) in the state compared to the national average (35.4%).

As wealth quintile increases, sanitation coverage also increases.

65.19% households have toilets exclusively for their use whereas 34.81% share theirs with others.

Percentage of households sharing toilets with others is higher (34.81%) in Maharashtra compared to the national average (27.36%) and difference is more in urban areas.

As wealth quintile increases, sanitation coverage also increases.

41.6% households, even in the highest quintile (80-100%) do not have toilets and in the other extreme, 15.1% households in the lowest quintile (0-20%), have toilets.

This indicates that the economic status of the family is not always a major factor in having toilet.
- 27,514 schools (28.29%) - most of which are Government schools (23,099) rural schools (24,138), do not have separate toilet facilities for girls.
- Private and urban schools are better in terms of having separate toilet facilities for girls as compared to Government and rural schools.
- Upper Primary and Secondary/Higher Secondary schools are better in terms of having separate toilet facilities for girls as compared to Primary schools.

Source: DISE, 2010-11, Maharashtra Prathmik Shiksha Parishad, Mumbai
Budget for Water and Sanitation in the last three years has significantly improved. Budget provision has increased by 28% from 2009-10 to 2011-12.

• Share in the total budget has also improved from 0.95% in 2009-10 to 1.04% 2011-12.

*Trends in budget provisions for water and sanitation, Government of Maharashtra

* Revised, Estimated

Source: www.beams.mahakosh.gov.in