The policy and practice brief on "Basic Services and the Urban Poor Children" has been published by Youth For Social Development with the purpose to improve physical environment and basic services for the urban poor children which is vital for their physical and mental growth. We do believe this will provide important research and policy inputs to various stakeholders specifically the government, policy makers, service providers and think tanks to improve urban basic services.

Safe water, adequate sanitation and good hygiene practices are essential for young children to survive and thrive - to be healthy and to flourish both physically and mentally. People living in slums and informal urban settlements in city like Berhampur in Odisha lack official water supply which resulted in lost in time for other activities and young children are mostly affected by morbidity and mortality. The responsibility of the local urban government and an efficient water policy should be adopted for better service provision.

Introduction

Berhampur city is the fourth largest and one of the oldest cities of India located in the southern part of Odisha state with a population of 0.38 million within a geographic spread of over 79,80 square kilometers area and divided in to 40 wards. Within Odisha, the city is the oldest municipality, constituted in 1955 and practicing local municipal governance since 1867. Several slums emerged over a period of time and these slums form part and parcel of the city's character. There are around 26,270 households residing in these slums with a population size of 1,75,41 in 137 pockets scattered all over the city, out of which 106 are authorized and 31 are unauthorized. The authorized slums are spread over 15,29,964 square meters of the city and unauthorized ones are spread over an area of 1,85,662 square meters.

Berhampur Municipal Corporation (BMC) being the oldest municipality in Odisha continues to grapple with providing basic facilities to the citizens. Among the basic services, provision of drinking water is a decade old problem in the city. The urban poor living in slums and informal settlements are the most disadvantaged with respect to access to basic services. A majority of these informal communities either lack completely or have inadequate access to formal systems for water supply and sanitation.

Drinking Water and Children in Slums

Safe water, adequate sanitation and good hygiene practices are essential for young children to survive and thrive - to be healthy and to develop both physically and mentally. People living in informal slum settlements in medium cities like Berhampur in Odisha lack official water services. The few slum communities that have official water connections are subjected to poor quality and inconvenient supply timings, and irregular services. Low pressure during peak hours, insufficient quantity, irregular supply, bad quality (in terms of taste, cleanliness and odour). These problems are very acute during summer season (that is March to June) every year. The heaviest burden in the community is borne by the women and children who must carry loads up to 20 kilograms and walk 4 to 6 kilometers in a day. Girls children are denied education, in part because of the

Major Issues in Drinking Water in Berhampur City

- 68% of slums are not covered under official water supply.
- The supply of water is sporadic and frequency supply is only one (1) hour per day whereas it is alternate days in some places.
- As per standard norms of Central Public Health and Environmental Engineering Organization (CPHEEO) the per capita supply of water should be 155 liters per capita per day (lpcd) but in Berhampur it falls short of 120 lpcd.
- Only 30.10% of households have access to piped water supply.
- Deficit of water remains at 18 MLD as against requirement of 03 MLD.
- Most of the water pipes (88.7%) have holes and leakages due to old and bad maintenance.
- No mechanism for institutional accountability BMC does not play a role in the water supply but as per the 74th constitutional amendment this function needs to be performed by the corporation.

Source: Public Health and Environmental Engineering Department, Govt of Odisha 2010

1 Berhampur Municipal Corporation, 2009
working hands needed for fetching water. Children also lose time for other activities like schooling, playing, meeting with other children in their neighborhood, networking, etc. At the same time it has been observed that young children are mostly affected by a range of water borne disease like diarrhea, cholera, malaria, typhoid, filariasis, dengue, etc. due to poor water quality. However, the slum dwellers due to lack of awareness continue to ignore the link between poor water quality and the diseases. This in turn affects livelihood of women who are unable to work to earn money or grow food because of the time spent activities related to fetching water like walking, waiting in queues for the intermittent water supply to flow in slums. The social life in the slums is degraded due to quarrel and violence among the slum dwellers at the water point. These issues directly or indirectly adversely affect the growth of children and their abilities.

Water supply in Berhampur City

Official piped water supply to the city was first started in the year 1905 by Berhampur Municipality with a capacity of 2.72 MLD for a designated population of 30,000. The water supply of Berhampur town has been taken over by Public Health and Engineering Organization (PHEO) from Berhampur Municipality during August 1998. The present supply of water to the city by the PHEO department is 45 MLD which comes from three different sources Rushikulya 16 MLD, Dakchinapur 25 MLD and 4 MLD from 48 production wells.

The main problem with the water supply of Berhampur is that the source is very far from the city. Water comes to the city through open canals and due to a lot of tapping on the way there is about 80% loss of water. Except the Dakchinapur and Rushikulya sources and few production wells there is no other alternative source of water supply to Berhampur city.

Clear indication of poor water supply in Berhampur was reflected through indicators like only 34% of slums were covered with official water supply through stand posts. Access to piped water supply remains at very low level with only 391% coverage and the frequency of water supply is only one hour per day, number of stand posts are less as compared to the standard norms. Further stand posts per household also remain at low level. Total stand posts in the city are only 1,826 as against 2,412 stand posts as per the standard norm fixed by PHEO i.e. one (1) stand post per thirty (30) households.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Actual</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of wards covered</td>
<td>37 partially</td>
<td>40 fully</td>
</tr>
<tr>
<td>Total slums covered</td>
<td>73</td>
<td>213/all</td>
</tr>
<tr>
<td>Percentage of slums covered</td>
<td>34%</td>
<td>100%</td>
</tr>
<tr>
<td>Total number of stand posts in the city</td>
<td>1,826</td>
<td>“2500- (1/150 people)”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“2412– (1/30 HHs)”</td>
</tr>
<tr>
<td>Total number of hand pumps</td>
<td>1,218</td>
<td>–</td>
</tr>
<tr>
<td>Number of household water connections</td>
<td>25,350</td>
<td></td>
</tr>
<tr>
<td>Standard norm for setting up of a Stand Post</td>
<td>30 (1 is/150 people)</td>
<td></td>
</tr>
<tr>
<td>Current rate of water supply LPCD</td>
<td>120 LPCD</td>
<td>185 LPCD</td>
</tr>
<tr>
<td>Current requirement of water supply MLD</td>
<td>45 MLD</td>
<td>57 MLD</td>
</tr>
<tr>
<td>Access to piped water supply</td>
<td>3910%</td>
<td>100%</td>
</tr>
<tr>
<td>Network coverage</td>
<td>70%</td>
<td>100%</td>
</tr>
<tr>
<td>Frequency of water supply (hrs/day)</td>
<td>1 hour per day</td>
<td>24 hours per day</td>
</tr>
<tr>
<td>Unserved area</td>
<td>30%</td>
<td>0</td>
</tr>
<tr>
<td>Unserved slums</td>
<td>140 (46%)</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: City Development Plan in Berhampur and PHED, Berhampur, Govt. of Odisha

References:
2. Public Health and Engineering Department, Berhampur.
Financial Aspects of PHEO in Berhampur City

<table>
<thead>
<tr>
<th>Operation and Maintenance Cost (Rs. in Lakhs)</th>
<th>Revenue Collection (Rs. in Lakhs)</th>
<th>Percentage of O &amp; M Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11 736.56</td>
<td>2010-11 44,810</td>
<td>2010-11 60.76</td>
</tr>
<tr>
<td>2011-12 996.78</td>
<td>2011-12 390.10</td>
<td>2011-12 39.13</td>
</tr>
<tr>
<td>2012-13 1197.20</td>
<td>2012-13 363.92</td>
<td>2012-13 30.39</td>
</tr>
</tbody>
</table>

Surprisingly the recovery of operation and maintenance cost since 2010-11 has been significantly declining due to low level of revenue collection and the recovery has reached to 30.39% in 2012-13. This indicates that the PHEO is depending heavily on external funding, either from state or central government, to meet its increasing expenditure with regard to operation and maintenance costs.

Government Response to Drinking Water Supply

- As a measure to mitigate the water crisis in Berhampur city a water treatment plant at Dakshinapur with a capacity to treat 20 MLD was setup during September, 2012 by the PHEO which added 20 MLD per day.
- Another project proposal estimated to cost Rs. 9209 crore to streamline drinking water supply in Berhampur has also received administrative approval by the state government. The project would involve laying of around 238 kilometer water pipeline and construction of 11 underground reservoirs and 17 elevated storage reservoirs.
- State Housing and Urban Development Department and PHEO envisioned a project involving bringing water from Ianivili anicut through closed conduit which would enable supply of 125 MLD of water to the city. The project was expected to cost around Rs. 274.90 crore and is under consideration by the state government.

Immediate Attention

Public Health and Engineering Department, Government of Odisha and the Berhampur Municipal Corporation should take some immediate and long term action plan to resolve the decade old water crisis in the city. An immediate step the Public Health and engineering department should make necessary arrangements:

- Setting up of extra public taps and increase the timing of water supply to two hours and two times in a day. In water shortage areas in general and slum areas in particular to avoid rush, time spent walking long distance, waiting in queues.
- Extra provision should be arranged to supply water during the acute shortage period like in summer. Supply through water tanker twice times in a day should be regularized to the unserved and shortage locations.
- Surroundings of the water supply source should be immediately cleaned and hygiene conditions should be maintained including set up regulator, basement must be cemented, connection to drain to clear waste water and the old holed water supply pipes should be changed immediately to stop contamination of water.
- Children should be kept out of engaging in water collection and water fetching labors which affect their time to engage in reading, schooling, playing, meeting friends and networking among their communities.
- Mechanisms for institutional accountability should be put in place, which can be by means of an agreement between different institutions like the Berhampur Municipal Corporation (BMC) and Public Health and Engineering Department, Government of Odisha as per the 74th Constitutional Amendment Act.
- Long term plan should be designed for bringing water from a major water source, construction of underground reservoirs and elevated storage reservoirs. For this the state government should make immediate budget provision and start the projects pending under approval.
- Last, but most importantly, all households, government offices and other buildings should be encouraged to construct proper rainwater harvesting structure to recharge ground water.
- Local ward wise civic clubs should be established by the BMC or PHEO to deal with issues related to water supply. Monthly public meetings should be held by the BMC to discuss water supply issues.
Condition of Sand Post Slums in Berhampur City.

Ankuli
Gramadevati Street
Khodasingi New Bauri Street
Phulasundari Street
Pichpicha Nagar
Pandav Nagar

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