Public Provisioning in Water and Sanitation
Study of Urban Slums in Delhi

GYANA RANJAN PANDA, TRISHA AGARWALA

With the changing face of Delhi, delivery of essential services like drinking water and sanitation to the people living in slums ought to be a policy priority for the government. However, public spending in the Eleventh Plan (2007-12) for slums seems to have been unresponsive and inadequate, leading to poor utility services governance. Using budget analyses and public expenditure tracking survey methods, this article highlights important issues that impede effective water and sanitation services delivery in the context of experiences and practices captured from two resettlement colonies in Delhi.

This article draws heavily from the study “Gender Responsive Budget Analysis in Water and Sanitation: A Study of Two Resettlement Colonies (Jhuggi-Jhopri Clusters) in Delhi”, published as an annex to the main study report “Gender and Essential Services in the Low Income Communities”, published by Women in Cities International and International Development Research Centre. The study was also presented as a finalist in the GDN 13th Cities International and International Income Communities, published by Women in Development: Delving Deeper into the Nexus, Central European University, Budapest, 16-18 June 2012. The authors acknowledge the contributions of Centre for Budget and Governance Accountability and JAGORI in the preparation of the study.

Gyana Ranjan Panda (panda.gyana77@gmail.com) works with the Centre for Budget and Governance Accountability and Trisha Agarwala (trisha14@gmail.com) is now associated with Focus on the Global South (India Programme).

The number of people living under notified and non-notified slums or slum-like habitations has grown considerably since the last Census (2001). According to Census 2011 and the Report of the Committee on Slum Statistics/Census (2010), the combined slum population of Delhi is approximately 32 lakhs. However, this figure is debatable and the actual number seems to be much higher than official statistics. The expanding slum population has apparently exerted huge pressure on the existing civic infrastructure, especially drinking water and sanitation. The situation is worrisome in the context of inadequate provisioning and poor implementation of schemes and programmes pertaining to water and sanitation services. Intermittent and inequitable distribution of water supply and poor sanitation facilities are regular features of slums and the drivers can be linked to urban poverty, lack of tenure, poor living conditions, unemployment and few livelihood options (Sen and Bhan 2008; Sheikh 2008).

In the context of dismal indicators, an important concern that emerges is whether Delhi’s budget is responsive to water and sanitation services (WSS) in slums. The use of the term “budget” in this article should not be construed merely as a signpost of policy priorities flagged by government from time to time, for instance, to address impending concerns that affect poor and marginalised communities.

Following the analysis of various budget documents, including the detailed demands for grants (DNGs) of the department of urban development (DoUD) of Delhi, this article attempts to capture the quantum of budgetary outlay for WSS in Delhi’s slums under the Eleventh Five-Year Plan (FY) period (2007-12). In doing so, it relies on data from five annual plans from the financial years (FY) 2007-08 to FY 2011-12. Further, using the public expenditure tracking survey (PETS) methodology, this article tries to go beyond mere allocations to expenditure debate and captures various systemic weaknesses that impede the effective delivery of WSS in various slums localities by looking at two resettlement colonies in Delhi – Bawana and Bhalaswa. Various officials of the Municipal Corporation of Delhi (MCD), Delhi Jal Board (DJB), and the Delhi Urban Shelter Improvement Board (DUSIB) at the zonal and subdivision levels were interviewed to map their perceptions on the issues affecting WSS schemes and programmes. Recognising the fact that an analysis based on budgetary data sources and qualitative perceptions of implementing functionaries has its inherent limitations, but certain insightful findings/inferences can be drawn pertaining to policy and budgetary priorities of the government, adequacy of budgets, budgetary processes and institutions at play in delivering services and finally flagging certain issues that hamper effective delivery of services.

Inadequate Provisioning
Interrogating the policy narrative of whether public resources in delivering essential services are adequate evolve from the perspective of beneficiaries/end-users in the context of their experiences and usability of public services. Certain visible indicators, inter alia, like the shortage of necessary infrastructures, human resources, and poor quality-control mechanisms drive their narratives. Budgetary outlay for slums, particularly for WSS, is uncharacteristically inadequate. However, even in the given outlay, funds remain unspent and unutilised. The Eleventh Plan had proposed around Rs 73 crore as plan outlay for providing drinking water services for all slum localities to be implemented through two plan schemes – “Grant-in-Aid for Augmentation of Water Supply in Jhuggi-Jhopri (JJ) Clusters” and “Water Supply in Resettlement Colonies”. After interventions made through five annual plans,
nearly Rs 20 crore remained unutilised. In FY 2011-12, a meagre Rs 4.8 crore was allocated by DJB, which has increased marginally to Rs 5 crore in FY 2012-13, the first annual plan under the Twelfth FYP.

The immediate question is whether Rs 5 crore is sufficient to provide drinking water services to nearly 1,058 notified slums and 2,075 non-notified slums in Delhi.12 The meagre allocation only reinforces the argument that budgeting practices in the country elude rational estimates based on proper planning and need assessment. Further, the absence of non-plan outlay in DJB’s budgets pertaining to the operation and maintenance (O&M) activities of drinking water facilities in slums reflects the indifferent attitude of the implementing agency towards the services it delivers. In addition, DJB officials also revealed that the implementing agency has no direct programme intervention in the slums – DJB is paid by the MCD for the services it delivers to slums across Delhi through a budgetary head “Grant-in-Aid to DJB for Water Supply in JJ Clusters” (Table 1). Similar insensitivity is shown by the MCD in its budgetary allocations for sanitation in slum colonies.

It is evident that there is hardly a case of incremental budgeting for the existing schemes and programmes, and most allocations have either declined in real terms or remained stagnant. Financial support for providing additional facilities such as other civic infrastructures, including sewerage and garbage disposals in JJ colonies, has not increased in the last five annual budgets of the Eleventh FYP; for example, in FY 2011-12, the Delhi government allocated a negligible Rs 35 crore for providing sanitation facilities in JJ clusters, which has declined further to Rs 27 crore in 2012-13.

MCD and DUSIB are the two nodal agencies mandated to provide sanitation facilities in Delhi’s slums. MCD implements a plan scheme called “Grants-in-Aid to MCD for Sanitation in JJ Clusters” under its plan budget whereby resources are allocated for sanitation facilities in JJ colonies. Similarly, DUSIB also implements a plan scheme since the Seventh Plan called “Grants-in-Aid to MCD (Slum) for the Construction of Pay and Use Jan Suvidha Complexes,”13 or community toilet complexes (cocrs), in JJ colonies. While the scheme intends to take care of environmental problems emerging from mass open defecation by slum-dwellers, the amount allocated is woefully small to realise the existing norms of providing facilities of one toilet seat for 20-25 persons and one bath for 20-50 persons. The money channelised through the schemes is unable to meet the O&M expenditure of the cocrs constructed so far. According to the detailed budget analysis (see in table with major heads), water supply constitutes 11% of the total allocation for slums, followed by 28% for sanitation, and a significant 66% for upgrading, environmental improvement, and provision of additional facilities in JJ colonies.

The reasons for inconsequential budgetary outlay in WSS for slums defy all logic of budgeting when compared with corresponding allocations in WSS for the

Table 1: Scheme-Wise Expenditure for WSS in Urban Slums in Delhi (Rs in crore)

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<tbody>
<tr>
<td>For water supply in JJ colonies</td>
<td>Major head 2215 (water supply and sanitation): grant-in-aid to DJB for water supply in JJ clusters</td>
<td>8</td>
<td>8</td>
<td>9</td>
<td>23</td>
<td>3</td>
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<td></td>
<td>Major head 2217 (urban development): grant-in-aid to MCD for sanitation in JJ clusters</td>
<td>102.5</td>
<td>16.4</td>
<td>16.4</td>
<td>16.4</td>
<td>21.4</td>
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<tr>
<td></td>
<td>Major head 2217 (urban development): grant-in-aid to MCD (slum) for the construction of pay &amp; use Jan Suvidha complexes</td>
<td>4</td>
<td>4</td>
<td>2.7</td>
<td>2.4</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>A</td>
<td>Total Budgets for Water in JJ Colonies</td>
<td>10.8</td>
<td>12.9</td>
<td>11.5</td>
<td>11</td>
<td>4.8</td>
<td>5</td>
</tr>
<tr>
<td>For sanitation facilities in JJ colonies</td>
<td>Major head 2217 (urban development): grant-in-aid to MCD for sanitation in JJ clusters</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td>0.0</td>
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<td></td>
<td>Major head 2217 (urban development): grant-in-aid to MCD for sanitation in JJ clusters and unauthorised colonies (YAP II)</td>
<td>22.5</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
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<tr>
<td>B</td>
<td>Total Budgets for Sanitation in JJ Colonies</td>
<td>21.6</td>
<td>24.0</td>
<td>22.7</td>
<td>23.4</td>
<td>35.0</td>
<td>27.0</td>
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<tr>
<td>For upgradation, environmental improvement and providing additional facilities in JJ colonies</td>
<td>Major head 2217 (slum area improvement): grant to MCD for maintenance of resettlement colonies</td>
<td>99.8</td>
<td>82.3</td>
<td>44.5</td>
<td>125.5</td>
<td>166.7</td>
<td>188.31</td>
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<tr>
<td></td>
<td>Major head 2217 (urban development): grant to MCD for provisions of additional facilities in JJR colonies</td>
<td>41</td>
<td>44.5</td>
<td>41</td>
<td>40</td>
<td>41</td>
<td>41</td>
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<tr>
<td></td>
<td>Major head 2217 (urban development): grant to DUSIB (slum) for environmental Improvement in urban slums</td>
<td>0.75</td>
<td>0</td>
<td>0</td>
<td>5.46</td>
<td>40</td>
<td>24</td>
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<tr>
<td></td>
<td>Major head 2217 (urban development): grant-in-aid to MCD for additional facilities in JJR colonies (SCSP)</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>8.8</td>
<td>9</td>
<td>9.0</td>
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<tr>
<td></td>
<td>Major head 2217 (urban development): grant-in-aid to MCD (slum) DUSIB for in situ upgradation of JJ clusters</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Grant-in-aid to MCD (slum) for shishu vatika/common spaces in JJ clusters</td>
<td>0.3</td>
<td>3.8</td>
<td>1.5</td>
<td>1.93</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Improvement of services in slum resettlement pockets (DUSIB)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>85</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>Total budget for upgrading, improvement and providing additional facilities in JJ colonies</td>
<td>150.8</td>
<td>139.6</td>
<td>96.0</td>
<td>181.7</td>
<td>346.8</td>
<td>264.3</td>
</tr>
<tr>
<td>Total budget for JJ colonies (A+B+C)</td>
<td>183.3</td>
<td>176.5</td>
<td>130.1</td>
<td>216.1</td>
<td>386.6</td>
<td>296.3</td>
<td></td>
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</tbody>
</table>

Source: Compiled from Detailed Demands for Grants, Urban Development & Public Works (Demand No-11) and Budgets of Delhi Jal Board (various years).
Expenditure (TBE) a Delhi Budget c for Slums in Delhi d as % to TBE as % to GSDP

[36x36]support for
[36x48]NDMC
[36x60]such as
[36x202]2010-11 27,028 2,64,496 1,651 34.4 6.11 0.62
[36x227]2008-09 20,362 1,65,948 1,457 36.9 7.16 0.88
[36x238]2007-08 18,160 1,44,303 1,346 32.4 7.41 0.93
[36x264]Table 2: Budgeting for WSS in Delhi

[36x504]b GSDP of Delhi has been sourced from the Budget Speech of Delhi Budget (various years).


[36x612]Medical
[38x632]Urban

[36x661]General

[36x684]Transport

[36x713]COMMENTARY

[36x96]ernment15 and the planning, budgeting
[36x108]under the jurisdiction of the Delhi gov-

[36x134]Institutions and Processes

[36x276]agencies, which submit their utilisation

[36x288]documents of the respective implementing

[36x300]UD

[36x336]participatory process. The need assess-

[36x348]planning all implementing

[36x36]Department (MCD)

[36x384]WSS

[36x414]DUSIB

[36x444]DEMS

[36x468]MCD

[36x480]JJ

[36x516]UD

[36x528]hoc interventions and are not included in

[36x540]MCD

[36x552]MCD

[36x564]MCD

[36x576]MCD

[36x588]MCD

[36x60]JJ RC

[36x624]development of

[36x636]DUSIB

[36x648]WSS

[36x660]WSS

[36x684]Electronic money transfer is the pre-

[36x72]DJSB

[36x84]to private companies that operate and

[36x96]O&M work is done by MCD and private

districts. There are also instances when funds are released even on the last working day of the financial year and therefore carried forward to the next financial year, in which case adjustments are made in the following year’s budget based on allocations made in the previous year.

A case study of the institutional framework of MCD (through the information gathered after discussions with officials on certain qualitative questionnaires) reveals that all schemes for Jhuggi-Jhopri Relocation Colonies (JJRCs) are selective ad hoc interventions and are not included in the core planning agenda for the city. With regard to the budgeting and planning of the interventions in slums, officials observed that proposals are sent annually, sometimes biannually, to MCD’s department of environmental management services (DEMS), which deals with the sanitation programmes in Delhi. Ward committees working in various divisions prepare their non-plan budget and send it to the standing committee of MCD; these are compiled and finalised as the following year’s budget. Since the budget for slums comes as grant-in-aids, it is generally made and consolidated at the nodal MCD office. A senior MCD official at Narela division candidly observed, “Budgeting and planning for any public services for JJ clusters are primarily cosmetic exercises, a top-down handiwork of officials sitting at MCD headquarters.”

Systemic Weaknesses

Various systemic constraints/weaknesses came to light in our interactions with officials of MCD, DJB and DUSIB in the context of delivery of services in Bawana and Bhalswa. The problems of institutional convergences and the issue of ownership among implementing agencies have come up as significant roadblocks. The Delhi Development Authority (DDA), DUSIB, MCD and DJB are all engaged at some level in providing services in slums. In many instances, DDA constructs CTCs for MCD, which in turn awards contracts to private companies that operate and maintain them. DUSIB is only involved in the environmental development of JJ colonies and does not oversee CTCs. The O&M work is done by MCD and private

through these autonomous implementing agencies – MCD for sanitation facilities, DJB for in situ slums developments and improvement of conditions, and DJSB for drinking water. Interviews with officials of the implementing agencies at various levels revealed that there is a high degree of centralisation in planning, budgeting, and expenditure. While in planning all implementing agencies ignore community participation in fixing needs and requirements and achieving targets as seen in their respective outcome budgets, the budgetary processes lack transparency and implementation is devoid of accountability. Planning is more a matter of procedure than a consultative and participatory process. The need assessment of slum-dwellers is hardly undertaken before formulating annual physical and financial plans. These are generally prepared in the last quarter of the financial year by implementing agencies like MCD and DJSB and submitted to the UD department, which reviews, modifies and finally approves it.

Regarding the budgetary process, a large part of the outlay comes as grants-in-aid from the UD in the plan budget documents of the respective implementing agencies, which submit their utilisation certificates to UD (Delhi) after releasing their funds to their respective division/zonal agencies. These funds are disbursed in three instalments in a financial year: 50% in the first instalment, and 25% each in second and third instalments. Electronic money transfer is the preferred means of disbursing fund to the divisions or zonal offices at various

State of Delhi as a whole, WSS is the second most priority area for the government in Eleventh FYP, next only to the transport sector (see the Figure). The WSS budget for the whole plan period is approximately Rs 9,125 crore (Figure), constituting 17% of the total plan outlay. This is irrespective of the fact that nearly Rs 1,373 crore has remained unutilised and hence expectedly being carried forward to the Twelfth FYP budgets as unspent and underutilised amounts of the Eleventh Plan. In FY 2011-12 Delhi spent approximately 0.53% of its gross state domestic product (GSDP), showing a declining trend since FY 2007-08 (Table 2). From the above analysis it can be argued that the overall budget for WSS in urban slums in Delhi is grossly inadequate, unresponsive, and out of sync with the developmental reality.

Table 2: Budgeting for WSS in Delhi (Rs in crore)

<table>
<thead>
<tr>
<th>FY</th>
<th>Total Budgetary Expenditure (TBE)</th>
<th>GSDP of Delhi</th>
<th>WSS Outlays in Delhi Budget</th>
<th>WSS Outlays for Slums in Delhi</th>
<th>WSS Budget as % to TBE</th>
<th>WSS Budget as % to GSDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-08</td>
<td>18,160</td>
<td>1,44,303</td>
<td>1,346</td>
<td>32.4</td>
<td>7.41</td>
<td>0.93</td>
</tr>
<tr>
<td>2008-09</td>
<td>20,362</td>
<td>1,65,948</td>
<td>1,457</td>
<td>36.9</td>
<td>7.16</td>
<td>0.88</td>
</tr>
<tr>
<td>2009-10</td>
<td>24,926</td>
<td>2,17,851</td>
<td>1,649</td>
<td>34.2</td>
<td>6.62</td>
<td>0.76</td>
</tr>
<tr>
<td>2010-11</td>
<td>27,028</td>
<td>2,64,496</td>
<td>1,651</td>
<td>34.4</td>
<td>6.11</td>
<td>0.62</td>
</tr>
<tr>
<td>2011-12 RE</td>
<td>27,067</td>
<td>3,13,934</td>
<td>1,650</td>
<td>39.8</td>
<td>6.10</td>
<td>0.53</td>
</tr>
<tr>
<td>2012-13 BE</td>
<td>33,436</td>
<td>-</td>
<td>1,800</td>
<td>32.0</td>
<td>5.38</td>
<td>-</td>
</tr>
</tbody>
</table>

a TBE is calculated from the Annual Financial Statements (AFS) of Delhi Budget (various years).

b GSDP of Delhi has been sourced from the Budget Speech of Delhi Budget (various years).

c Budgetary outlays for water and sanitation have been calculated from the AFS of Delhi Budget (various years).

d Authors’ calculation on the basis of schemes and interventions for water and sanitation sections captured in Table 1.

Institutions and Processes

Water and sanitation services in slums fall under the jurisdiction of the Delhi government16 and the planning, budgeting and implementation of these services in Delhi is managed by multiple agencies such as MCD, DUSIB, DJB and New Delhi Municipal Council (NDMC). Budgetary support for WSS in slums is routed through these autonomous implementing agencies – MCD for sanitation facilities, DUSIB for in situ slums developments and improvement of conditions, and DJB for drinking water. Interviews with officials of the implementing agencies at various levels revealed that there is a high degree of centralisation in planning, budgeting, and expenditure. While in planning all implementing agencies ignore community participation in fixing needs and requirements and achieving targets as seen in their respective outcome budgets, the budgetary processes lack transparency and implementation is devoid of accountability. Planning is more a matter of procedure than a consultative and participatory process. The need assessment of slum-dwellers is hardly undertaken before formulating annual physical and financial plans. These are generally prepared in the last quarter of the financial year by implementing agencies like MCD and DUSIB and submitted to the UD department, which reviews, modifies and finally approves it.

Regarding the budgetary process, a large part of the outlay comes as grants-in-aid from the UD in the plan budget documents of the respective implementing agencies, which submit their utilisation certificates to UD (Delhi) after releasing their funds to their respective division/zonal agencies. These funds are disbursed in three instalments in a financial year: 50% in the first instalment, and 25% each in second and third instalments. Electronic money transfer is the preferred means of disbursing fund to the divisions or zonal offices at various
companies. Moreover, DUSIB is unable to undertake any kind of work in many slums owing to the issue of ownership of land that belongs to private individuals.

The multiplicity of agencies handling different components of WSS leads to a lack of accountability. The convergence of agencies and departments is important for resolving inter-institutional issues and problems. For instance, in Bhalaswa, DUSIB owes around Rs 4 to Rs 5 crore in dues to DJB. Similarly, in Bawana and Bhalaswa, tube wells in CTCs are installed by DJB but is not responsible for maintaining the water connections it provides to JJRCs, leaving the onus of maintenance on MCD. Neither Bawana nor Bhalaswa have not been provided with a sewerage system by the DJB, which has led to complaints of sewage backflow, damaged septic tanks and waterlogging. There is lack of coordination within the implementing agencies, e.g., in the MCD itself. While the construction and O&M of CTCs is taken care of by the engineering department, other tasks such as sweeping are handled by the sanitation department.

Staff constraint is a serious issue. Since there is a shortage of sanitation staff to service CTCs, women in Bawana and Bhalaswa have to endure unsafe and unhygienic toilets. Discussions with officials revealed that there is no dedicated workforce for JJRCs and MCD staff has to maintain CTCs. MCD officials reported that at the zonal level, besides a lax work culture cases of corruption have also surfaced. Officials said that while they do not face a staff crunch, they do have complaints of sewage backflow, damaged septic tanks and waterlogging. There is lack of coordination within the implementing agencies, e.g., in the MCD itself.

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The poor quality of construction and faulty design of CTCs has been one of the findings from the field. CTCs do not have roofs putting women in a vulnerable position. Indeed, the gross neglect of the complexes points to poor supervision and guidance at the implementation level. In the context of poor quality procurement and inadequate budget for O&M, MCD has awarded contracts for the O&M of CTCs in Bawana and Bhalaswa to private companies who charge a user fee of Rs 2 per person for using the facilities. Sheikh (2008) has estimated that a five-member family would need to pay Rs 37 per day for using CTCs, a huge burden of non-consumption expenditure on the household budget of a slum dweller. This begs the question as to whether the urban poor can afford user fees to avail essential services like water and sanitation while earning a minimum wage of Rs 270 per working day.16 Broadly speaking, inadequate provisioning and poor implementations of government programmes point to the growing privatisation of basic services in Delhi.

Conclusions
To sum up, cities are commonly described as engines of economic growth. But unless the right policy lubricant plays catalyst in the engine, the development of cities may degenerate and cause a negative effect on the lives of people. Urban slums in Delhi are deprived of many essential facilities and culpability can be fixed with adequate policy priorities and concomitant public provisioning. An analysis of the various reasons for the dismal conditions of essential services is merely not enough; rather, solutions to improve the scenario need to be looked into. There is an acute need to look beyond the existing tiny schemes-centric intervention. A comprehensive agenda for the overall development of slums through a time-barred mission should be formulated with higher allocations for the overall development of water and sanitation facilities in Delhi, especially in urban slums.

It is necessary to have an improved governance structure and processes at the institutional level so that significant policy benefits reach end-users/beneficiaries. As this article highlights, provisions under non-plan heads (to meet recurring/day-to-day O&M expenses) would greatly help in improving outcomes. Finally, issues such as lack of decentralised planning, centralised budgeting, shortage of human resources and poor convergence among implementing agencies need to be surmounted for the smooth implementation of programmes and schemes. We also need to look at other macro issues such as land tenure rights, livelihood options, and education and health facilities in slum colonies whose redress may make water and sanitation schemes little more than just ad hoc interventions.

Notes
1 Slums are a state subject. The data of notified slums is maintained by the state governments. The National Sample Survey Organisation (NSSO) has published a report, namely, “Some Characteristics of Urban Slums 2008–09” based on its 65th round sample survey on conditions of slum in the country. According to the NSS Report there are 1,09,86 notified slums and 2,075 non-notified slums in Delhi. The all India figure is around 48,994 slums. See detailed figure in Notification of Slums (2011), Ministry of Housing and Urban Poverty Alleviation, Press Information Bureau, viewed on 18 September 2012 (http://pib.nic.in/newsite/PrintRelease.aspx?relid=72286).
2 Report of the Committee on Slum Statistics/ Slums (2000/01) has defined the following normative definition of slums as “a compact settlement of at least 20 households with a collection of poorly built tenements, mostly of temporary nature, crowded together usually with inadequate sanitary and drinking water facilities in unhygienic conditions”. The committee (26) has suggested following characteristics for the purpose of identification of slum-like habitations such as (a) predominantly roof material, any material other than concrete, (b) availability of drinking water source; not within premises of census house, (c) availability of latrine, not within premises of the census house, (d) drainage facility, no drainage or open drainage. See Ministry of Housing and Urban Poverty Alleviation (MHUPA), 2010, Report of the Committee on Slum Statistics/ Census, Government of India, New Delhi.
3 There is hardly any agreement on the terminology of slums and figures. Various terms are used to describe slum settlements (1) Resettlement/relocated colonies, (2) jhuggi-jhuppi (JJ) clusters, (3) JJ resettlement colonies (JRC), see Batra (2005: 3-4).
4 Report of the Committee on Slum Statistics/ Slums (2010:22) projected slum population in absolute number for Delhi is 32,60,984 in 2012, nearly 20% of the total population of Delhi.
which as per Census 2011 is 1.67 crore. Delhi slum are projected to be adding one lakh populations every year. While Batra (2005:2) estimated slum population as 39 lakh by adding population living in JJ clusters and resettlement/relocated colonies together. Socio-economic Profile of Delhi (2007-08) projected a constant figure as 30 lakh for 2003-04 onwards till 2007-08, see Government of Delhi (2008): “The Socio-Economic Survey of Delhi”, Planning Department, Delhi.

5 As highlighted by the 65th Round of the National Sample Survey (NSS 2008-09), nearly 88% of slums in Delhi largely depend on intermittent piped water supply; that 63% of slum-dwellers use tanks/flush type latrine facilities for sanitation; that underground sewerage is found to exist only in around 16% of slums and around 16% of the slums have no drainage system; that local bodies collect garbage only from 66% of the slums whose frequencies vary from 43% on a daily basis to once in eight days and above in 20% of the slums. Above and beyond, nearly 24% of the slums do not have any regular mechanism for garbage disposal (Government of Delhi 2010).

6 The paper has used WSS as an acronym for Water and Sanitation Services.

7 The selection of the two JJ clusters, Bawana and Bhalaswa, as study regions is based on field assessment by JAGORI and CBGA on the implementation of water and sanitation services in the areas. Bawana is located in North-West district of Delhi near the Haryana state border, and identified as the site for relocation for a large number of people evicted in 2004. Residents living in JJ colonies/slums from Yamuna Pusha, Dhaapa Colony, Bantuwal Nagar, Saransh Vihar, Deepali Chowk, Vikaspuri, Nagla Mashi and Jahangirpuri among others were evicted to this site about 35 km away from their homes. Similarly, Bhalaswa is also located in North-West district of Delhi next to a landfill site. Most people residing here were evicted from areas in north and east Delhi from communities previously located in Yamuna Pusha, Gaurampuri, Barapulla, Nizamuddin, ITO and Rohini, about 20-30 km away from these areas.

8 MCD is an autonomous body mandated to provide civic services to rural and urban villages, resettlement colonies, regularised, unauthorised colonies, and slum/squatter settlements in Delhi. Recently, MCD was trifurcated administratively into three smaller municipal corporations: North Delhi Municipal Corporation, South Delhi Municipal Corporation and East Delhi Municipal Corporation.

9 DJB, which is nodal implementing agency for water supply in Delhi, supplies treated water in bulk to NDMC, the civic body responsible for the New Delhi (also called Lutyens’ Delhi) municipal area, and to the Delhi Cantonment Board (DCB), which is in charge of civic matters in the military cantonment area. Both these bodies are responsible for distribution of water within their own territories. They own the water supply infrastructure in these territories and, consequently, it is not the responsibility of DJB; the MCD area is the responsibility of DJB.

10 Delhi Urban Shelter Improvement Board, the nodal administering body for implementing dedicated schemes and programmes for urban slums in Delhi, was created under Delhi Urban Shelter Improvement Board Act, 2010. As per the Act, the board has the authority to implement the provisions of the Slum Areas (Improvement and Clearance) Act, 1956. The Act states that the board may prepare a scheme for the development of any Jhuggi-jhopri (JJ) basti which may include provisions of toilets and bathing facilities, improvement of drainage, provision of water supply, street paving, and provision of dustbins or sites for garbage collection and street lighting. It was previously known as J & Slums wing of MCD.

11 Delhi state level schemes which are specifically dealing with water and sanitation services in urban slums in Delhi are: (a) in situ upgrade of JJ Clusters and Informal Shelter (implemented by DUSIB); (b) Environmental Improvement in Urban Slums (DUSIB); (c) Construction of Pay and Use Jan Suvidha Complexes (DUSIB); (d) Additional Facilities in Jhuggi Jhopri Relocation Colonies (JJRCs) (implemented by MCD); (e) Augmentation of Sanitation in JJ Cluster (MCD); (f) Augmentation of water supply in JJ Clusters (implemented by DJB).

12 See note no.1.

13 See Evaluation of Jan Suvidha Complexes and Bastee Vikas Kendras (2003), New Delhi, National Institute of Urban Affairs (Draft Report).


15 As per the Seventh Schedule of the Constitution of India, there are three lists of jurisdiction: (1) Union List with 97 items in which union government has exclusive jurisdiction; (2) State List with 66 items in which states have exclusive jurisdiction; and (3) Concurrent List with 47 items in which both union and states have shared responsibilities. The subject of water and sanitation falls within the State List of the Seventh Schedule of the Constitution.

16 As per revised minimum rate of wages, effective from 1 April 2012, an unskilled worker gets Rs 270, a semi-skilled worker gets Rs 298, and a skilled worker gets minimum wages of Rs 328. See F. No.12 (142)/11/MW/Lab-279, Labour Department, Government of NCT Delhi, viewed on 26 September 2012 (www.phdcci.in/admin/userfiles/file/Delhi-MW-Revised-01-04-20).

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