Data Issues in Cost Estimation Analyses for Industrialising Regions

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Abstract

Cost estimation analysis for industrialising regions is greatly hampered by a lack of data, and a lack of quality for what data do exist. Cost estimation and planning need to be informed by past data, but common problems that exist are:

1. Scarcity in public domain
2. Accessibility Issues
3. Authentication difficult.
4. Highly scattered
5. Cost adjustments
6. Frequent updating of government regulations
7. Outsourcing by municipalities

As an example of the difficulties faced through use of existing data, Table 1 presents costs for solid waste management by Indian municipalities.

Table 1: Per capita expenditure on SWM from various sources (roughly 1 US$ = 50 Rs)

<table>
<thead>
<tr>
<th>City</th>
<th>FICCI*</th>
<th>NIUA**</th>
<th>NSWAI***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delhi</td>
<td>Rs 431</td>
<td>Rs 135</td>
<td>Rs 497</td>
</tr>
<tr>
<td>Mumbai</td>
<td>Rs 428</td>
<td>Rs 372</td>
<td>Rs 392</td>
</tr>
<tr>
<td>Jaipur</td>
<td>Rs 301</td>
<td>Rs 185</td>
<td>Rs 301</td>
</tr>
<tr>
<td>Chennai</td>
<td>Rs 295</td>
<td>Rs 150</td>
<td>Rs 295</td>
</tr>
<tr>
<td>Ludhiana</td>
<td>Rs 258</td>
<td>Rs 73</td>
<td>Rs 1</td>
</tr>
</tbody>
</table>

*FICCI - Federation of Indian Chambers of Commerce and Industry
**NIUA - National Institute of Urban Affairs
***NSWAI - National Solid Waste Association of India

The poster for ICLRS would provide an overview of research into cost estimation methods that could be applied to industrialising regions, highlighting data quality issues, and the effects of outliers in data sets on cost estimation tools.