INTRODUCTION

Indian Cities

- High urbanisation & motorisation, low PT mode shares
- Multiplicity of organisations; No singular agency for urban transport
- Public transport provision not a compulsory function
- Existing PT – public/private bus services, shuttle para-transit (auto-rickshaws)

Trigger for emergence of BRT systems

- Focus on PT post National Urban Transport Policy 2006
- National level funding in 2005
## OVERVIEW OF BRT CITIES

<table>
<thead>
<tr>
<th>S.No</th>
<th>BRT Cities</th>
<th>Population in million (2011)</th>
<th>Funding from</th>
<th>Year of sanctioning of funding</th>
<th>Network length (km) sanctioned</th>
<th>Network Length (km) operational</th>
<th>Status</th>
<th>Date of start of operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Delhi*</td>
<td>11.4</td>
<td>State Government</td>
<td>2004</td>
<td>5.8</td>
<td>Dismantled in 2016</td>
<td>Apr-08</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Ahmedabad</td>
<td>5.6</td>
<td>JnNURM, Govt of India</td>
<td>Aug 06, Oct 06, Aug 08</td>
<td>88.5</td>
<td>97 (88.5 + 8.5 shared)</td>
<td>Operational</td>
<td>Oct-09</td>
</tr>
<tr>
<td>3.</td>
<td>Jaipur*</td>
<td>3.1</td>
<td></td>
<td>July 07, Jan 09</td>
<td>39.45</td>
<td>20</td>
<td>Operational - partial</td>
<td>Jul-10</td>
</tr>
<tr>
<td>4.</td>
<td>Rajkot</td>
<td>1.3</td>
<td></td>
<td>Jul-07</td>
<td>29</td>
<td>10.7</td>
<td>Operational</td>
<td>Jan-12</td>
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<td>5.</td>
<td>Bhopal</td>
<td>1.8</td>
<td></td>
<td>Nov-06</td>
<td>42.2</td>
<td>24</td>
<td>Operational</td>
<td>Sep-13</td>
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<tr>
<td>6.</td>
<td>Indore</td>
<td>1.9</td>
<td>JnNURM, Govt of India</td>
<td>Aug 06, Sept 13</td>
<td>11.65</td>
<td>11.4</td>
<td>Operational</td>
<td>Dec-13</td>
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<td>7.</td>
<td>Surat</td>
<td>4.5</td>
<td></td>
<td>Mar-08</td>
<td>29.9</td>
<td>102 (30 + 72 SMC funds)</td>
<td>Operational</td>
<td>Jan-14</td>
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<tr>
<td>8.</td>
<td>Pune Pimpri Chinchwad*</td>
<td>3.1</td>
<td></td>
<td>Aug 06- Nov 08</td>
<td>157</td>
<td>22.5</td>
<td>Operational - partial</td>
<td>Aug-15</td>
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<td>9.</td>
<td>Amritsar</td>
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<td></td>
<td>Jan-14</td>
<td>31</td>
<td>9</td>
<td>Operational - partial</td>
<td>Dec-16</td>
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<td>10.</td>
<td>Vijaywada</td>
<td>1.05</td>
<td></td>
<td>Mar-07</td>
<td>15.2</td>
<td>10</td>
<td>Operational - partial</td>
<td>2013</td>
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<tr>
<td>11.</td>
<td>Vishakhapatnam</td>
<td>1.7</td>
<td></td>
<td>May-07</td>
<td>45.2</td>
<td></td>
<td>Under implementation</td>
<td></td>
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<td>12.</td>
<td>Kolkata</td>
<td>14.1</td>
<td></td>
<td>Jun-10</td>
<td>15.5</td>
<td></td>
<td>Under implementation</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Naya Raipur</td>
<td>na</td>
<td>The World Bank, SUTP Project (GoI)</td>
<td>na</td>
<td>56</td>
<td></td>
<td>Under implementation</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Hubli Dharwad</td>
<td>0.9</td>
<td></td>
<td>na</td>
<td>22.4</td>
<td></td>
<td>Under implementation</td>
<td></td>
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*Open BRT System*
# Challenges Faced

## Planning & Implementation Challenges

<table>
<thead>
<tr>
<th>Category</th>
<th>Challenges</th>
</tr>
</thead>
</table>
| **Institutional** | • Capacity  
                  • Stakeholder partnerships  
                  • Inclusiveness of the planning process                                      |
| **Political**    | • Change in governments  
                  • Political support                                                          |
| **Legal**        | • Court cases against BRT  
                  • Land acquisition                                                            |
| **Technical**    | • Unfamiliarity with a new mode/system  
                  • Vehicles, ITMS, AFCS                                                        |
| **Economic**     | • Availability of funds  
                  • Revenue streams to manage operational deficits                               |

## Operational Challenges
DELHI & JAIPUR BRT

**Delhi**
- India’s first operational BRT in 2008 - 5.8km
- Dismantled in 2016 after 8 years of operation
- Resistance from private mode users, media criticism, court case against BRT, No buy-in from Traffic Police, Loss of political support

**Jaipur**
- Influenced by negative publicity of Delhi
- Change in political power at the state – shift of focus on metro
- Second BRT corridor changed to a metro corridor, Constructed 20 km BRT corridor which is not enforced and used as a mixed traffic lane
AHMEDABAD & INDORE BRT

Ahmedabad

- Build up of the BRT network – 97km, complementing proposed metro network
- Challenges – integration with existing city bus services, funds for BRT expansion & operating deficits

Indore

- Single corridor of 11.3 km, feeder bus network of 21km, partnered with Traffic Police, integrated fares, generating operating surplus
- Challenges – ongoing litigation against BRT impacted further addition of BRT network, proposed metro conflicting with BRT network
SURAT BRT

- BRT network 102 km – 72 km using own funds
- City bus operations as feeder, integrated routes & fare structure, institution of Urban Transport Fund to cover revenue deficits
- Challenges – Competition from shared auto-rickshaws
1. Energetic BRT uptake by cities due to availability of funds, actual implementation has been slow
   - Implementation challenges similar across cities – how well these are managed is key
   - Proactive and competent lead agencies – set out strategic vision, scaled up BRT, strengthened their own capacities to manage technical aspects, operations & contracts

2. BRT in Surat & Ahmedabad - sustained efforts, have scaled up operations, BRT as a system;

3. Other cities having corridor level operations – further expansion?

4. Scaling up of BRT depends on:
   - Mode conflict – BRT vs Metro
   - Integration with existing PT, competition with auto-rickshaws/two wheelers
   - Availability of finances - new corridors & operational deficits

SUMMING UP