Parking Management Guidelines for Small & Medium Cities
(Research Study of MoHUA)

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Need

- Conventional parking policies focused towards increasing parking supply in urban areas
- Need for parking policies focusing on:
  - Parking demand management
  - Encourage people to shift from private mode to public mode of transport
Objectives

• To frame guidelines for encouraging parking management in small & medium cities.

• To identify the implementation mechanism of the guidelines for different land uses as well as different modes.

• To enable suggestive measures for improving public transport & non-motorised transport, thereby ensuring parking management.
Methodology

- **Interim Report**
  - Demarcation of parking survey area
  - City visit & Data collection
    - Secondary data
    - Primary data
      - Parking inventory
      - Parking usage survey
  - Data analysis
  - Issues and gaps
  - Strategies for management guidelines
  - Stakeholder Consultation
    - Incorporation of Comments & Suggestions
  - RAC Review
    - Incorporation of Comments & Suggestions

- **Final Report**

- **Completed**
- **In Process**
Summary from National Case Studies

- Increase PT Share & reduce vehicle km travelled
- Provision of facilities for all modes
- Effective management of parking demand
- Avoid utilization of open (public) spaces for parking & reducing the vehicle growth
- Utilization of alternate mode of transport to decrease congestion due to parking
- Proper utilization of land & incentivizing use of green mobility measures
Summary from International Case Studies

- **Eliminate curb side parking** by high parking fees comparative to off street parking
- Incentivizing residents for leasing their private parking space for others.
- **CO2 emission based parking fees** that vary based on a vehicle’s engine standards.
- **Develop an integrated transport system** to ensure balance between parking supply and demand.
- Fixing the scale, location and parking fees **according to road and transit capacities**.
City Selection Criteria

- Population size
  - <10 lakhs = small cities
  - 10 - 30 lakhs = medium cities
- Geographical spread
- Geographical characteristics including plain terrain, hilly terrain, tourism and smart cities.
### Criteria for Identifying Survey Locations within City

<table>
<thead>
<tr>
<th></th>
<th>Commercial</th>
<th>Institutional</th>
<th>Residential</th>
<th>Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>City centre with PT</td>
<td>CC1</td>
<td>IC1</td>
<td>RC1</td>
<td>TC</td>
</tr>
<tr>
<td>City centre without PT</td>
<td>CC2</td>
<td>IC2</td>
<td>RC2</td>
<td></td>
</tr>
<tr>
<td>Periphery with PT</td>
<td>CP1</td>
<td>IP1</td>
<td>RP1</td>
<td>TP</td>
</tr>
<tr>
<td>Periphery without PT</td>
<td>CP2</td>
<td>IP2</td>
<td>RP2</td>
<td></td>
</tr>
</tbody>
</table>

- **Location of areas within city** (with exceptions in Thane & Nainital): City Centre (CBD), Periphery (Within Municipal Limits)
- **Areas accessible by public transport** (with exception in Chandigarh): < 500 m – PT Accessible  
  >500 m – PT Not Accessible
- Considering residential areas require parking mostly during night
- 10 types of locations are considered for survey
- A demarcated area has been segregated with distinct entry / exit points for conducting the survey for the cities visited so far.
DATA ANALYSIS
Parking Accumulation & Index

- The highest parking accumulation is at transport nodes & lowest at CP1 in medium cities.
- In small cities transport in city center & CC2 have high parking accumulation whereas CP1 has low.

The parking index is high at IP1 & TP whereas CP1 has low parking index in medium cities.
- In small cities TC has high parking index whereas TP & CP1 has low parking index.
The parking turnover is high at IP1 & TP whereas IP2 has low parking turnover in medium cities.

In small cities TC has high parking turnover whereas IP2 has low parking turnover.
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Average Parking Split (%)</th>
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<tbody>
<tr>
<td></td>
<td>Long</td>
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<td>CC1</td>
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<td>CC2</td>
<td>15.35</td>
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<tr>
<td>CP1</td>
<td>15.05</td>
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<td>CP2</td>
<td>13.69</td>
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<tr>
<td>IC1</td>
<td>14.58</td>
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<tr>
<td>IC2</td>
<td>16.32</td>
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<tr>
<td>IP1</td>
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<tr>
<td>IP2</td>
<td>11</td>
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<tr>
<td>TC</td>
<td>6.70</td>
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<tr>
<td>TP</td>
<td>5.93</td>
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</table>
DEMAND & SUPPLY
The demand & supply gap is about 60% or more across all types of commercial landuse.
The demand & supply gap ranges between 50 - 55% across all types of institutional landuse across different tier cities.
• The demand & supply is more than 50% at transport nodes across different tier cities
Inferences

• High parking accumulation **irrespective of availability** of Public Transport

• Though parking is available within the premises, there is a **spillover on roads**

• **Lack of public transport** in small cities & **higher egress distance** in case of medium cities leading to usage of private modes.

• Due to **less RoW** even city centre **irrespective of landuse** has **low accumulation**

• **Availability of alternates** with better connectivity

• Parking accumulation at **major transport nodes is high**.

• **Medium Term Parking Duration** is observed in all cities
Way Forward

- Data Analysis of remaining 3 small cities
- Comparing the existing scenario with the existing guidelines
- Formulation of guidelines for curbing on-street parking