Industrial Land Use Planning in India

International Conference on “Planning of New Industrial Parks and Investment Zones”

Dr. S. K. Kulshrestha
Senior Urban and Regional Planner, Advisor, GIZ. New Delhi

October 7-8, 2013; New Delhi
Presentation scheme

• Location and siting of industrial estates in India at:
  1. National level;
  2. Interstate level; and
  3. State level.

 4. Suggestions on location, siting and land use of new industrial estates / townships
1 National Level
Location / siting of industrial estates

• 12th Five Year Plan 2012-2017

• Targets (p-54):
  • growth of manufacturing sector: 12-14% (in mid-term)
  • Contribution to national gross domestic product (GDP): 25% by 2025
  • Additional jobs creation: 100 million by 2025

• Strategies to realise these objectives:
  • Create good infrastructure for manufacturing enterprises along transportation corridors (p-57)
  • Clustering of industries (including micro and small & medium enterprises –MSME) (p-62 & 87)
Location / siting of industrial estates

12th Five Year Plan 2012-2017

• Development of special manufacturing zones – NIMZs (p-62)

• Development of modular industrial estates near premier technical institutions (like IITs) (p-62 & 87)

• Ensure environmental sustainability with industrial growth (p-77)
Location / siting of industrial estates

12th Five Year Plan 2012-2017

- Develop National / State Land Use Policy (p-81-82) to take care of:
  - Land requirement;
  - Land mapping;
  - Land records;
  - Land benchmarking for current utilisation efficiency and
  - Standards and incentives for more efficient land utilisation
Location / siting of industrial estates

- **National Manufacturing Policy 2012**
- Industrial growth and employment objectives: same as 12th Five Year Plan
- Policy promotes clustering and aggregation of industries and investments as it:
  - Enhances supply chain responsiveness
  - Provides access to market and talent; and
  - Lowers logistic cost
Location / siting of industrial estates

• National Manufacturing Policy 2012

• Accordingly, the policy introduces National Investment and Manufacturing Zones (NIMZs) (p-5) which will be:
  • Greenfield industrial townships under Article 243 Q(c) of the Constitution of India*

* According to this Article, Industrial Townships will be governed by the respective township authority and will perform all municipal functions.
Location / siting of industrial estates

• National Manufacturing Policy 2012
  • Area of NIMZs: at least 5,000 hectare
  • Location attributes of NIMZs:
    • Government land
    • Land under existing industrial area / industrial estate / sick or defunct industries
    • Waste/ infertile / dry land
    • Minimum use of agriculture land
Location / siting of industrial estates

• National Manufacturing Policy 2012

• Location attributes of NIMZs:
  • Not within any ecologically sensitive area
  • Not closer to the minimum specified distance from any ecologically sensitive area
  • Access to water within a reasonable distance (p-25)
Location / siting of industrial estates

• National Manufacturing Policy 2012

• Land use requirements of NIMZs
  • Mix of industrial plots
  • High quality physical infrastructure
  • Green infrastructure:
    • Rainwater harvesting
    • Renewable energy farm
    • Water treatment plant
    • Waste water treatment plant
    • Captive power plant (p-15)
Location / siting of industrial estates

- National Manufacturing Policy 2012
- Land use requirements of NIMZs
  - Industrial Training Institute (ITI) integrated with the cluster of industries in the township (NIMZ) for workshop / lab practice (p-18)
  - Establishment of specialised polytechnic that exclusively serves the specific needs of the NIMZ.
2 Inter-state Level
Location / siting of industrial estates

Delhi-Mumbai Industrial Corridor (DMIC)

- Dedicated freight corridor connecting Dadri & J.N. Port
- Length: 1,484 km.
- Width: 150 to 200 km
- Area: 0.514 million sq. km.
- Expected investment: $100 bn.
- Passes 6 states:
  Uttar Pradesh, Haryana, Rajasthan, Gujarat, Madhya Pradesh, Maharashtra
Location / siting of industrial estates
Delhi-Mumbai Industrial Corridor (DMIC)

- Total Population: 173.4 Million
- Total Workers: 68.36 Million
- Total 82 Districts of
- Vision:

To create strong economic base with globally competitive environment and state-of-the-art infrastructure to activate local commerce, enhance foreign investments and attain sustainable development.
Location / siting of industrial estates
Delhi-Mumbai Industrial Corridor (DMIC)

- Spatial planning approach:
- Three zones based on
  - industrial development index and
  - human development index

Zones A, B, C
Location / siting of industrial estates
Delhi-Mumbai Industrial Corridor (DMIC)

- 24 IRs & IAs in 2 phases
  - first phase (1,2,3,4…12)
  - second phase (A, B, C, D…K)
- one Investment Region (IR) minimum 200 sq. km. and
- one Investment Area (IA) of minimum 100 sq. km area in each of the 6 states

3 State Level
Location / siting of industrial estates


- Activities and infrastructure in an industrial area (other than industries)
  - Approach roads to Airport, Port or Highway
  - Earth station / Communication facilities
  - Water / Gas/electricity/energy distribution network
  - Desalination Plant
  - warehousing facilities

- Facilities Centre,
- Product Development Centre,
- Training Centre,
- Testing Centre,
- R&D Institution
- Transport Terminal / Transport hub
- Trauma Care Centre
- Recreation Centre
- Business Support Services
- Social Infrastructure like Hospitals, Schools & Colleges etc
2. Industrial Policy of Maharashtra 2013

- Integrated industrial area:
  - Size: Min. 40 ha,
  - Access road: 24 m
  - Land use:
    - Integrated industrial area - 60%
    - Commercial area* - 10%
    - Others (residential / health / education / amenities / open spaces)* - 30%
    - TOTAL 100%

* Permitted only after development of industrial area and disposal of 1/3rd area.
Location / siting of industrial estates

Greenfield Megacity: Pune- Nashik -Ahmadnagar Region

Source:
H.B. Singh. C B Richard Ellis South Asia Private Ltd. And Scott Wilson India Private Ltd.
Greenfield Megacity: Pune-Nashik - Ahmadnagar Region,
4 Suggestions
Location / siting of industrial estates

Suggestions

1. Areas to be Avoided (MoEF) while siting

- Ecologically sensitive areas: at least 25 km away
- Coastal areas: at least 1/2 km from High Tide Line.
- Flood Plain of the Riverine Systems: at least 1/2 km from flood plain
- Transport/Communication System: at least 1/2 km from highway and railway.
Location / siting of industrial estates

Suggestions

• Major settlements (300,000 population): At the time of siting of the industry if any major settlement’s notified limit is within 50 km, the spatial direction of growth of the settlement, for at least a decade, must be assessed and the industry shall be sited at least 25 km from the projected growth boundary of the settlement

2. Siting Criteria (MoEF)

• No forest land conversion
• No prime agricultural land conversion
• one kilometre (to be left as green belt) away from any adjoining large scale industries
Location / siting of industrial estates
Suggestions

3. Land use

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<th>Land use</th>
<th>% CS-1</th>
<th>% CS-2</th>
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<tr>
<td>Residential</td>
<td>26-28</td>
<td>20</td>
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<tr>
<td>Commercial</td>
<td>2-3</td>
<td>4</td>
</tr>
<tr>
<td>R&amp;D Office</td>
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<td>6</td>
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<td>Industrial</td>
<td>21-19</td>
<td>21</td>
</tr>
<tr>
<td>Logistics &amp; warehousing</td>
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<td>4</td>
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<tr>
<td>Open spaces</td>
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<td>20</td>
</tr>
<tr>
<td>Institutional (PSP*)</td>
<td>10-12*</td>
<td>6</td>
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<tr>
<td>Utilities</td>
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<tr>
<td>Roads</td>
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<td>15</td>
</tr>
<tr>
<td>Others</td>
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<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Recommended Land Use pattern (CS-2)


CS-2: Case study 2: Singh, H. B. (2010), Greenfield Megacity, Pune-Nashik -Ahmadnagar Region, Broad Concept Plan (Draft), Scott Wilson India Private Ltd., and C B Richard Ellis South Asia Private Ltd., New Delhi
Dr. S. K. Kulshrestha,
Senior Urban and Regional Planner,
Advisor, GIZ. New Delhi

AO-27 Shalimar Bagh, New Delhi 110088, India
Email: skksdr@gmail.com
Mob:: +91 9313951557

Thank you