HAVE DUTCH CITIES MADE THE TRANSITION TOWARDS NON-MOTORISED TRANSPORT?

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ISSUES TO BE DISCUSSED

- Movie Cycling in the Netherlands
- Some facts
- Success factors of Dutch NMT
- Policy objectives, development and implementation
- Have Dutch cities reached their full NMT potential?
- Lessons for Indian cities?
CYCLING IN THE NETHERLANDS
**SOME FACTS**

- 27% of trips are made by bicycle, 19% by walking.
- A Dutch person cycles 1000 km/y, walks 250 km/y.
- Only nation with more bicycles than people (1.2 per person).

![Modal split in the Netherlands 2004-2008](source: Mobility Survey Netherlands)
SUCCESS FACTORS OF DUTCH NMT

- Cultural and political
- Spatial development
- A high level of bicycle infrastructure, good integration with PT and a strong and innovative industry
- High level of knowledge in spatial and transport planning, social and policy science and the ability to apply this in actual practice
CULTURAL AND POLITICAL

- Egalitarian society: young and old, rich and poor, educated and uneducated, everybody cycles.
- The bicycle is an icon of Dutch culture, straight back, against the wind, calvinistic, effort driven.
- Politics are therefore deemed to be supportive of cycling
- A planning culture, every bit of space is subject of discussion
SPATIAL DEVELOPMENT

- Small and compact cities with relatively short trip lengths
- Clustering of functions in city centres
- Transit oriented development
INFRASTRUCTURE, PT INTEGRATION, INDUSTRY
KEY POLICY OBJECTIVES FOR CYCLING

- Increasing access to jobs, facilities, education
- Improvement of the quality of the living environment
- Improving social and traffic safety
- Improvement of public health
Responsibility primarily at municipalities, each municipality can have a different approach. Funding: Municipal budget, subsidies (Central government, EU). E.g. Amsterdam spends 20 million Euro per year on cycling related projects.
KEY POLICY INTERVENTIONS

- Provision of fully networked infrastructure in integration with PT
- Traffic management: give priority to cyclists and pedestrians
- Legal: protection of cyclists and pedestrians in case of accidents
- Demotivate car use, car-low city centres and streets, transferia
- Land use planning
ARE ALL DUTCH CITIES DOING EQUALLY WELL?

<table>
<thead>
<tr>
<th>Name of City</th>
<th>Population</th>
<th>Total avoided tons CO₂ per year</th>
<th>CVoC per capita per year [kg CO₂]</th>
<th>Bicycle Kilometer Traveled p.p.p. year [km]</th>
<th>Total Bicycle km per day [km]</th>
<th>Average cycling distance p.p.p.d. [km]</th>
<th>Cycling share in modal split [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amsterdam</td>
<td>747,090</td>
<td>41,091</td>
<td>55</td>
<td>1,003</td>
<td>2,053,496</td>
<td>2.8</td>
<td>21%</td>
</tr>
<tr>
<td>Utrecht</td>
<td>294,740</td>
<td>27,140</td>
<td>92</td>
<td>1,290</td>
<td>1,041,470</td>
<td>3.5</td>
<td>22%</td>
</tr>
<tr>
<td>Groningen</td>
<td>182,480</td>
<td>26,055</td>
<td>143</td>
<td>1,644</td>
<td>821,832</td>
<td>4.5</td>
<td>36%</td>
</tr>
<tr>
<td>Eindhoven</td>
<td>210,330</td>
<td>25,986</td>
<td>124</td>
<td>1,284</td>
<td>739,869</td>
<td>3.5</td>
<td>26%</td>
</tr>
<tr>
<td>The Hague</td>
<td>475,680</td>
<td>22,064</td>
<td>46</td>
<td>735</td>
<td>957,249</td>
<td>2.0</td>
<td>18%</td>
</tr>
<tr>
<td>Rotterdam</td>
<td>582,950</td>
<td>20,014</td>
<td>34</td>
<td>538</td>
<td>859,363</td>
<td>1.5</td>
<td>14%</td>
</tr>
<tr>
<td>Enschede</td>
<td>154,750</td>
<td>17,588</td>
<td>114</td>
<td>1,023</td>
<td>433,900</td>
<td>2.8</td>
<td>32%</td>
</tr>
</tbody>
</table>

Cultural, economic, demographic, geographical factors determine these differences. Cities with integrated transport policies do better.
HAVE DUTCH CITIES MADE THE TRANSITION AND REACHED THEIR FULL NMT POTENTIAL?

There is room for improvement but gain may be limited

Possible actions:

- Improvements in infrastructure design, long distance bicycle infrastructure, better parking facilities etc.
- Marketing to achieve all segments of society, e.g. immigrants
- More compact spatial development of cities

A theoretical ceiling for Dutch NMT could be 50% modal share for cycling and 20% for walking if all trips <7.5 km are made by NMT.

But: hampering factors: financial crisis, popularity of modes like scooters, more liberal spatial policies, climate change.
ARE THERE LESSONS TO BE LEARNT FOR INDIA?

NMT is very big in India, has lots of potential, but it is under threat. (captive riders, quality of the environment for cycling, safety, risk)

Challenge: Make cycling and walking the **preferred modes** of transport for cyclable trips (trips up a max of 5-8 km)

Some ideas:

- Integrated planning at city level: priority for people centered NMT infrastructure of high quality design in integration with PT systems. Implies reallocation of road space.
- Legal and transport planning policy framework needs to put the pedestrian and the cyclist central
- Incentives for cycling, disincentives for short motorized trips
- Marketing of cycling, creation of a culture of cycling
THANK YOU FOR YOUR ATTENTION

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