DECARBONISING PATHWAYS FOR ULAANBAATAR’S URBAN MOBILITY

Dissemination event
22 March 2023
RESULTS OF THE ITF CLIMATE AMBITION SCENARIO FOR ULAANBAATAR

Dr Mallory Trouvé, Policy Analyst, ITF
How did we build the Climate Ambition scenario?

- Existing measures (current policy scenario)
- International best practices
- Can this measure be implemented on a larger scale?
- Additional measures

Result: Climate Ambition scenario
Results of the Climate Ambition scenario

**Annual Urban mobility CO₂ emissions by scenario**
*(thousand tonnes CO₂)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Climate Ambition</th>
<th>Current Policies</th>
<th>Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>100</td>
<td>200</td>
<td>300</td>
</tr>
<tr>
<td>2020</td>
<td>200</td>
<td>300</td>
<td>400</td>
</tr>
<tr>
<td>2025</td>
<td>300</td>
<td>400</td>
<td>500</td>
</tr>
<tr>
<td>2030</td>
<td>400</td>
<td>500</td>
<td>600</td>
</tr>
<tr>
<td>2035</td>
<td>500</td>
<td>600</td>
<td>700</td>
</tr>
<tr>
<td>2040</td>
<td>600</td>
<td>700</td>
<td>800</td>
</tr>
<tr>
<td>2045</td>
<td>700</td>
<td>800</td>
<td>900</td>
</tr>
<tr>
<td>2050</td>
<td>800</td>
<td>900</td>
<td>1000</td>
</tr>
</tbody>
</table>

**CO₂ emissions in 2050**

- **Compared to the baseline scenario**: -87%
- **Compared to the current policy scenario**: -64%
Vehicle Technology Development

Measure enhancement (by 2050)
- 50% of private vehicles will be electric, twice the share of Current Policy
- Full electrification of the bus fleet, compared to 70% in Current Policy

Quantification of policy measures
Reduction in transport-related CO2 emissions attributed to the measures

By 2030
-19%
Current Policy (reminder)
-18%

By 2050
-63%
-37%
Measure enhancement (by 2050)

Compared to the Current Policy scenario, the Climate Ambition scenario considers that:

- LRT network: keep expanding to 150 km
- Cable Car network: keep expanding to 50 km
- Bike network: keep expanding to 2,400 km
- Pedestrian network: keep expanding to 2,600 km

Quantification of policy measures

Reduction in transport-related CO2 emissions attributed to the measures

<table>
<thead>
<tr>
<th></th>
<th>By 2030</th>
<th>By 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-10%</td>
<td>-24%</td>
</tr>
<tr>
<td>Current Policy (reminder)</td>
<td>-9%</td>
<td>-16%</td>
</tr>
</tbody>
</table>

Source: UPRI
Public Transport Promotion

Measure enhancement (by 2050)

- Increases the operational speed of buses by up to 20%
- **The totality of the bus network** has priority over other road modes
- The share of the population with a public transport subscription goes up to 80%

Quantification of policy measures

Reduction in transport-related CO2 emissions attributed to the measures

<table>
<thead>
<tr>
<th></th>
<th>By 2030</th>
<th>By 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Policy (reminder)</td>
<td>-0%</td>
<td>-1%</td>
</tr>
<tr>
<td></td>
<td>-1%</td>
<td>-2%</td>
</tr>
</tbody>
</table>
Shared Transport Promotion

Measure enhancement (by 2050)
- Replace 25% of ridesharing vehicles by taxi
- Increases the size of bike and scooter sharing fleet to 6,000 vehicles

New Measures
- Introduce incentives for car sharing
- Launch of on-demand taxibus services

Quantification of policy measures
Reduction in transport-related CO2 emissions attributed to the measures

<table>
<thead>
<tr>
<th></th>
<th>By 2030</th>
<th>By 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Policy</td>
<td>-3%</td>
<td>-7%</td>
</tr>
<tr>
<td>New Measures</td>
<td>-5%</td>
<td>-9%</td>
</tr>
<tr>
<td>Measure enhancement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25% ridesharing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6,000 bike &amp; scooter</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

By 2030
-5%
By 2050
-9%
Current Policy (reminder)
-3%
-7%
Regulatory Measures

Measure enhancement (by 2050)
- Increased Parking access restrictions to 70%
- Increased Vehicle access restrictions to 40%

Quantification of policy measures
Reduction in transport-related CO2 emissions attributed to the measures

<table>
<thead>
<tr>
<th>By 2030</th>
<th>By 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>-4%</td>
<td>-11%</td>
</tr>
</tbody>
</table>

Current Policy (reminder)

-1%  -1%

Source: OpenStreetMap
Other Measures

Measure enhancement (by 2050)

- Promotion of teleworking to attain 10% of the active population
- Increased density around public transport stations to 20%

Quantification of policy measures

Reduction in transport-related CO2 emissions attributed to the measures

<table>
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<th>By 2030</th>
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</tr>
</thead>
<tbody>
<tr>
<td>-4%</td>
<td>-9%</td>
</tr>
</tbody>
</table>

Current Policy (reminder)

| -2%     | -6%     |

Source: UPRI