EcoMobility SHIFT - Assessment and Audit Scheme

City Profile Factors
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<th>EcoMobility Scheme to Incentivise Energy-Efficient Transport (EcoMobility SHIFT)</th>
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<td>Berlin, Germany, (C) Santhosh Kodukula, 2011</td>
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City Profile Factors

What are City Profile Factors?
Within the SHIFT scheme, seven city profile factors have been determined. These seven factors together describe the city’s overall background context which might favour or hinder a city in its overall EcoMobility performance. See table on the right.

What and how are they used for?
In order to avoid cities with natural structural barriers to implement EcoMobility being unfairly penalised, and cities with few barriers being unfairly advantaged, the licensed SHIFT auditor re-calculates the EcoMobility scores from the self-assessment taking into account the city’s profile factor values. How this is done is explained in part II of the SHIFT-manual, in the section “Optional step: Audit and Label procedure”.

So, if a city wants to have its self-assessment audited, the SHIFT project leader of the city should provide the auditor with the city’s profile factors together with the audit request form. On the next pages, you find detailed descriptions of the city profile factors and an explanation on how to measure them in a correct way. For each factor you find:

- A definition of the indicator;
- The purpose;
- An explanation of the terms used in the indicator definition;
- Questions to answer;
- Possible influence on EcoMobility indicators;
- Links to further information and best practice.

City Management and Finance
Administrative Area Assessed
Factors Influencing Propensity of Active Travel
Wealth
Car Ownership
Influence of a city in the region
Size of City Population
**CP1. City management & finance**

**Definition of Indicator**

Ability of city to manage its own strategic land-use / transport planning and raise its own finance for transport investment / operation, including regulation of public transport systems (specialist judgement). Level of constraint exercised by national legislation on city’s transport policies and actions.

**Purpose**

This indicator is necessary because achieving EcoMobility (or any other policy) is likely to be easier for cities that are more autonomous in how they raise their money and that have more independence from other levels of government, and power in relation to private sector bodies such as (some) transport operators, or land developers.

**Explanation of terms used in the indicator definition**

**Strategic land use and transport planning** – the planning of transport investments and the location and nature of new land use (including re-use of previously developed land).

**Regulation of transport systems** – whether there is any regulation and, if so, who exercises it.

**Questions to answer**

- Number of functions where responsibility lies with another organisation:

- Is the city required to spend money from higher levels of government on roads?

**Possible influence on EcoMobility indicators**

CP1 might have an influence on the following EcoMobility Indicators: E4, E5, TSS1, TSS2, TSS5 and TSS9.

**Links to further information and best practice**

CP2. Administrative area assessed

Definition of Indicator

Whether the city or a larger administrative area is the subject of the assessment.

Purpose

A city’s own administrative area can be smaller or larger than the city region. Assessing EcoMobility in the city region would be preferable in principle because in transport terms the region is often more relevant than the (normally smaller) administratively-defined city area, but the assessment would be difficult in practice because of data availability and the split of functions across administrative boundaries. A wider area is likely to be more dispersed and have a default position of lower use of Ecomobile modes than a city. Sometimes, however, a wider area may be assessed and if this is the case it is important to take this into account to ensure that all areas, be they cities or wider regions, are assessed on a level playing field.

Explanation of terms used in the indicator definition

This indicator requires no further explanation.

Questions to answer

- Is the area assessed wider than just the city (e.g. the city region)?

Possible influence on EcoMobility indicators

CP2 might have an influence on the EcoMobility Indicator RI1.
CP3. Factors influencing propensity for active travel

Definition of Indicator

Factors to be taken into account are: extent of urban area, proportion of total administrative area population in continuous urban area, proportion of people below 30 in the population, hilliness, extremities of climate, existing culture of active travel, whether a capital and/or historic and/or university or highly educated city (specialist judgement). Wheeling is travel by modes such as scooter and skateboard.

Purpose

There are a large number of other factors that can affect people’s propensity to use active travel, which is a key element of EcoMobility. These factors need to be taken into account so that, as much as possible, cities are assessed on a “level playing field”. It is likely that a flat, dry, small, dense, historic university city would default to a higher level of cycling than would a hilly, damp, cold, dispersed, 19th and 20th century largely (post-)industrial city, even without any interventions. The assessment framework should therefore take this into account.

Explanation of terms used in the indicator definition

- Extent of urban area – whether most parts of the urban area are within 5 km of the city centre (easy cycling distance). Short distances – so smaller urban areas – are better suited to active travel.
- Proportion of total administrative area population in continuous urban area. This takes into account how dispersed the population in the area within 15km of the city centre is. The smaller the ratio of population outside the city but in the region to the city population, the more conducive the situation is for active travel.
- Proportion of people below 30 in the population. Younger populations may be more accepting of and more likely to use active travel.
- Hilliness – whether at least 20% of the city area has an altitude difference of more than 150m in relation to the other 80%.
- Extremities of climate – a compound of the numbers of rainy days per year, average maximum and minimum temperatures compared to an average city’s climate such as that in Kassel, Germany (see http://www.climatetemp.info/germany/kassel.html).
- Existing culture of active travel. Some cities have retained a reliance on active travel (be that for cycling or walking) from the days before motorisation, in spite of a lack of supportive policy measures. They may appear to be ecomobile, but this may be a default situation unrelated to the policies of the city administration and should not therefore be rewarded.

- Type of city – a university city is one in which the university is a dominant employer and part of the town, such as Lund in Sweden, Peruggia in Italy, Tuebingen in Germany, Groningen in the Netherlands or Cambridge in the UK; an historic city is one in which certain parts of the city (and not just single buildings) are recognised internationally to be of historic significance and that these parts of the city date from before the invention of the car; a highly educated city is one in which the proportion of the population with a university degree is at least 25% above the national average. All these are factors that are likely to make the city more likely to have implemented EcoMobility measures even without a deliberate policy of encouraging EcoMobility, and therefore this should be taken into account when using the SHIFT scheme to assess such cities’ performance.

Questions to answer

- Numerical assessment of factor (from 1-5) (Check table on the right)
- Number of factors enhancing the likelihood of active travel
- Number of factors reducing the likelihood of active travel
- Is the city historic and/or a capital and/or an old university city (at least two of these)?

<table>
<thead>
<tr>
<th>Assessment Level</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high propensity to be a city for active travel</td>
<td>High propensity to be a city for active travel</td>
<td>A balance of factors for and against active travel</td>
<td>A few factors make for a propensity for active travel</td>
<td>City’s propensity acts against active travel</td>
<td></td>
</tr>
</tbody>
</table>

Possible influence on EcoMobility indicators

CP3 might have an influence on the EcoMobility Indicators TSS2, TSS6 and TSS7.

EcoMobility SHIFT - City Profile Factors
CP4. Wealth

Definition of Indicator

This is the GDP per capita, purchasing power parity adjusted, for the region in which the city is located, in relation to the EU average. Ideally the city’s GDP per capita would be used, but this figure is difficult to obtain.

Purpose

Wealthy cities/countries are likely to have more resources available for transport and also to have dealt with other even more “serious” societal issues such as housing, social care and education, leaving both more money and more time to focus on transport, land use and the environment.

Explanation of terms used in the indicator definition

Gross domestic product (GDP) is a measure of a country’s wealth. When divided by the population and adjusted for prices in the country, it gives a reasonable measure of how wealthy the country is in relation to others.

Questions to answer

Numerical assessment of factor (from 1-5)

<table>
<thead>
<tr>
<th>Assessment Level</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 130% above the average</td>
<td>105 - 130% of average</td>
<td>105 - 95% of average</td>
<td>50 - 94% of average</td>
<td>Less than half of the average</td>
<td></td>
</tr>
</tbody>
</table>

The levels are defined in relation to the EU average and taking into account the distribution of regions around the average. With the exception of Luxembourg, the wealthier regions in the EU are clustered closer to the average than are the poorer regions. There are no sub-criteria used to define this indicator.

Possible influence on EcoMobility indicators

CP4 might have an influence on the EcoMobility Indicators TSS3, TSS4 and TSS10.

Links to further information and best practice

**CP5. Car Ownership**

**Definition of Indicator**

Actual level of ownership within city (private vehicles per 1000 inhabitants) and underlying growth (based around averages for EU).

**Purpose**

Car ownership is a factor that as well as being a long term outcome of EcoMobility policies also has a strong influence on what policies are achievable/implementable. For example, a restraint-based parking policy, or re-design of streets to make them more liveable, may be publicly unacceptable if high car ownership levels mean that existing parking is at saturation.

**Explanation of terms used in the indicator definition**

The terms used are straightforward.

**Questions to answer**

Numerical assessment of factor (from 1-5)

<table>
<thead>
<tr>
<th>Assessment Level</th>
<th>Ownership/annual growth rate</th>
<th>Less than 0.5%</th>
<th>0.5% - 3%</th>
<th>More than 3%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low ownership 400 cars per 1000 people or fewer</td>
<td>Level 5</td>
<td>Level 4</td>
<td>Level 3</td>
</tr>
<tr>
<td>2</td>
<td>Medium ownership 401 - 500 cars per 1000 people</td>
<td>Level 4</td>
<td>Level 3</td>
<td>Level 2</td>
</tr>
<tr>
<td>3</td>
<td>High ownership - 501 cars per 1000 people or more</td>
<td>Level 3</td>
<td>Level 2</td>
<td>Level 1</td>
</tr>
</tbody>
</table>

The EU average for vehicle ownership per 1000 people is around 550. The average growth rate in car ownership per 1000 people in the EU 1995-2009 was 1.93% per year (Eurostat, http://www.eea.europa.eu/data-and-maps/figures/vehicle-ownership-and-truck-intensity). By countries the growth rate varied from an actual decrease in Luxembourg to an increase of 11% per year over this period in Latvia; in general, the growth rate in the new member states was much higher but from a much lower base than in the old member states, such that certain new member states (Slovenia, Estonia, Cyprus) have rates higher than the average for the EEA as a whole.

**Possible influence on EcoMobility indicators**

CP5 might have an influence on the EcoMobility Indicators TSS5, TSS7 and TSS8.

**Links to further information and best practice**

**CP6: Influence of city in Region**

**Definition of Indicator**
How important the city is within its region and its relationship to that region

**Purpose**
Cities that are leaders and/or dominant within their region are likely to have more “room for manoeuvre” in their transport policies than are those that are much less dominant. For example, the political leaders of a less dominant city may be more concerned about competition from other cities than their counterparts in the dominant city. Therefore, the dominant city may be able or at least willing to test more controversial transport policies than its less dominant neighbours.

**Explanation of terms used in the indicator definition**
There terms used are clear.

**Questions to answer**

**Numerical assessment of factor (from 1-5)**

<table>
<thead>
<tr>
<th>Assessment Level</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very important, completely dominant within its region</td>
<td>Among the top three most important cities in its region, but not wholly dominant</td>
<td>Neither dominant, nor influenced by other cities - self-contained</td>
<td>Some influence from other cities in region</td>
<td>Little influence on region but much influenced by other cities in region</td>
<td></td>
</tr>
</tbody>
</table>

- A level 5 city is either alone in its region or almost completely dominant – so at least twice as large in population as its nearest competitor city, the main employment attractor in its region, the main and best shopping centre in the region, and the seat of regional government. Other characteristics may include the fact that it is the only city in its region with an airport and/or with intercity rail links to the country’s capital. In recent years it may have enjoyed levels of growth significantly greater than the average, and grown in terms of population.

- A level 4 city has some similar-sized competitors in the region but is still the main city in the region.

- A level 3 city operates within its region broadly without competition from others but it does not dominate the others. This is most likely to be the case where economically it differs significantly from other cities in the region – for example, where it is an historic university city in a region that is largely industrial.

- A level 2 city “lives in the shadow” of its larger neighbours, having few of its own major sources of employment, and a feeling that its retailing is a second choice in comparison with nearby level 4 or 5 cities. It is largely a commuter town for larger cities nearby.

- A level 1 city only functions as a commuter town for other larger cities nearby and has no large employers and a poor retailing offer. Its population may be declining.

**Possible influence on EcoMobility indicators**
CP6 might have an influence on the EcoMobility Indicator TSS5.
CP7: Size of city population

Definition of Indicator

Population of the city area assessed by the EcoMobility scheme in thousands as a proportion of the total national population.

Purpose

In general the larger the city the more powerful it is, and the more resources that it will have available, including power and resources to implement EcoMobility, should it so choose.

Explanation of terms used in the indicator definition

This indicator requires no further explanation.

Questions to answer

Numerical assessment of factor (from 1-5)

<table>
<thead>
<tr>
<th>Assessment Level</th>
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<tbody>
<tr>
<td>5</td>
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<tr>
<td>2</td>
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<tr>
<td>1</td>
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</tbody>
</table>

> 15% 3 - 15% 1 - 2.99% 0.5 -.99% <0.5%

The five levels are defined bearing in mind that the largest cities in Europe can account for up to 25% of the entire national population, whilst smaller cities in a large country may only make up a fraction of one percent of the national population.

Possible influence on EcoMobility indicators

CP7 might have an influence on the EcoMobility Indicators TSS4 and RI1.