

## **Appendix E**

### **Indicator Tools**

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## E1 Developing an Indicator Selector Tool

To support this project, a framework has been developed that forms a dataset of potential indicators. The framework is defined by 22 categories that have each been designed to contain data that can be entered in a number of ways (ie, free text and controlled drop down lists). Once the framework was set up, it was then populated with the long list of indicators from the sources identified in section E1.1. The next stage was to then develop a tool that allowed users to easily identify indicators by selecting from search category options. A 'Pick and Click' tool has been developed to provide quick and easy access to indicators whereby indicators can be selected, based on their specific local requirements.

### E1.1 Index Structure

| Field            | Data Format | Description                                                                                                                                                                                                                                                                                |
|------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ref              | Free text   | Unique Reference Code for the Indicator Index. This is provided to each type of data source. The reference code consists of an abbreviation of the source title plus a three digit reference. For example for the Merseyside Local Transport Plan 3, Indicator 1 the reference is MLTP001. |
| Data Date 1      | List<br>61  | Start date (range 1990 – 2050)                                                                                                                                                                                                                                                             |
| Data Date 2      | List<br>61  | Finish date / latest date (range 1990 – 2050)                                                                                                                                                                                                                                              |
| Release Date     | Free text   | Known date that data is made available to users                                                                                                                                                                                                                                            |
| Data Collation   | Free text   | Known date / period that data is collated for reporting                                                                                                                                                                                                                                    |
| Reporting Period |             | Known date for reporting data to main reporting body                                                                                                                                                                                                                                       |
| Local Authority  | List        | 408 local authority areas across England, Wales & Scotland                                                                                                                                                                                                                                 |
| Source           | List        | Known source of data (DECC, DEFRA, DfT, DfT - National Travel Survey, Environment Agency, EST, Local Authority, MAEI, MEAS, NAEI, NHS, Ofgem, Shipping efficiency, Stockholm Environment Institute, Sustainable Cities Index, VOA, Waste Dataflow, Merseytravel)                           |
| Source Type      | List        | Type of document data is contained in (Annual Monitoring Report, Atmospheric Emissions Inventory, Carbon Management Plan, Carbon Management Programme, Carbon                                                                                                                              |

| Field              | Data Format | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    |             | Reduction Plan, Climate Change Action Plan, Data List, Database, Dataset, Development Plan Document, Energy Statement, GHG Report, Implementation Plan, Local Transport Plan, Low Carbon Action Plan, Sustainable Energy Action Plan, Travel Plan, Sustainable Development Plan, Programme, Plan)                                                                                                                                                                                                                                                                         |
| Source Type Title  | List<br>21  | Annual Monitoring Report, EST & DECC Local Authority Data List, Halton GHG Report, HEED, Knowsley Carbon Management Plan, Knowsley GHG Report, Liverpool Carbon Reduction Plan (Domestic), Liverpool Carbon Reduction Plan (Industry), Liverpool GHG Report, Liverpool Sustainable Development Plan, MAEI, Merseyside LTP3, National Statistic, REECH Programme, Sefton GHG Report, St Helens Carbon Reduction Strategy, St Helens Climate Change Action Plan, St Helens GHG Report, Sustainable City Indicators, Waste DPD, Wirral Affordable Warmth Implementation Plan |
| Granularity        | List        | National, Regional, Sub regional, Local Authority, MLOSA, LLOSA, Ward, Street, Site, Building                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Indicator Title    |             | 241- Individual title of indicators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Data Theme         | List        | Agriculture, Air Quality, Buildings, Cost, Domestic, Economic, Emissions, Employment, Energy, Environmental, Funding, Industrial & Commercial, Policy & Legislation, Project, Socio Economic, Transport, Waste, Water                                                                                                                                                                                                                                                                                                                                                     |
| Format             | List        | Indication of data file format (Excel, Word, PDF, CVS, Map)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Quality Assurance  | List        | Three quality assurance indicators: <ul style="list-style-type: none"> <li>• Externally Verified</li> <li>• Internally Verified</li> <li>• No Verification</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                     |
| Indicator ID / REF | Free text   | Original Data Unique Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Indicator          | Free text   | Indicator Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Description        | Free text   | Free text description of indicator and relevant information on                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| SEAP Activities    | Free text   | Drop down menu option to indicate potential use of indicator ie, baseline, planning and targeting actions/ activities, policy                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Field       | Data Format | Description                                                                                                              |
|-------------|-------------|--------------------------------------------------------------------------------------------------------------------------|
|             |             | analysis or                                                                                                              |
| Data Issues | Free text   | Free text summarising the key issues identified in associated guidance documents and / or supporting text to data files. |
| Contact     | Free text   | Contact details of technical experts that can provide guidance and / or further detail on data                           |
| Link        | Free text   | Electronic hyperlink to data file or webpage containing links to download files.                                         |

## E2 Development of an evaluation and risk process

The next stage involved the development of an evaluation and risk process. The brief required that outputs of this project are built up from existing data sources that provide a simple, efficient and targeted set of indicators that can be collated and updated at minimum or no extra cost to a local authority. To achieve this, a 3 stage process was developed to apply to indicators:

- Step 1: Determine the Importance and Suitability of Indicator(s)
- Step 2: Apply Risk Assessment on Indicator
- Step 3: Apply the principles of SMART (Specific, Measurable, Achievable, Realistic, Time – bound to the Indicator)

The 3 steps have been developed so that indicators can be assessed collectively (ie, all 3 steps being completed sequentially) or separately (ie, one or two of the steps and / or part of steps). This provides a flexible system for local authorities to apply should officers have a clear understanding of the indicators they want to use to monitor a SEAP, but only require a quick assessment on a specific matter to be completed.

### E2.1 Step1: Identifying the Importance and Suitability of Indicators

A series of key questions have been prepared to ensure the right indicators are considered from the start. Each question was developed to help and offer's judgement on the suitability of a indicator and / or set of indicators in terms of its technical suitability for measuring performance of a SEAP. The questions developed are based on a review of sources including on the CoM guidance and the Carbon Trust's Low Carbon Cities Programme, Briefing Note: Emissions Baseline Guide<sup>1</sup>.

<sup>1</sup> [www.lowcarboncities.co.uk/...City.../Emissions-Baseline-Guide.pdf](http://www.lowcarboncities.co.uk/...City.../Emissions-Baseline-Guide.pdf)

## E2.2 Step 2: Developing a Risk Assessment

The main risk identified is the incomplete and non compliant baseline (eg, with Covenant of Mayors guidance) which in turn would affect the robustness of a SEAP. The risk assessment involves the identification of threats, controls and consequences of a risk and will use a basic impact tool / traffic light system to measure and present the findings.

The risk assessment will help guide LCR and local authorities determine which indicators will be adopted for the development and implementation of a SEAP based on suitability / conformity with Covenant of Mayors and DECC requirements, suitability in terms of ability for resources to measure, monitor and report information and suitability in terms of meeting LCR and local authority needs.

## E2.3 Step 3: Developing SMART Indicators

The LCR SEAP will be developed using SMART (Specific, Measurable, Achievable, Realistic, Time – bound) objectives, actions, targets and indicators. To ensure indicators are informed by SMART principles a checklist has been developed based on CoM guidance.

Detailed templates of Steps 1, 2 and 3 are presented in Appendix C.

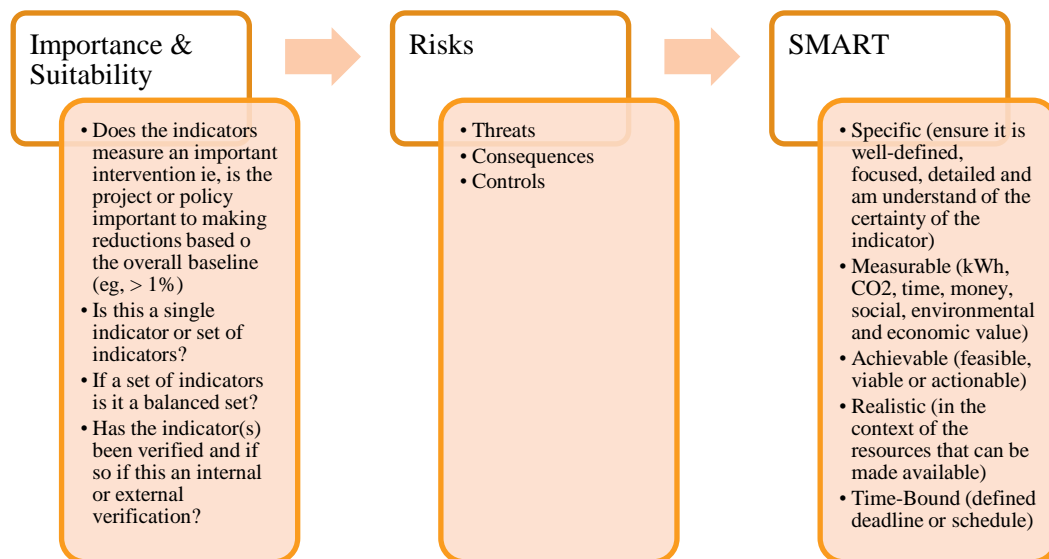


Figure 1 Summary diagram of evaluation and risk assessment process

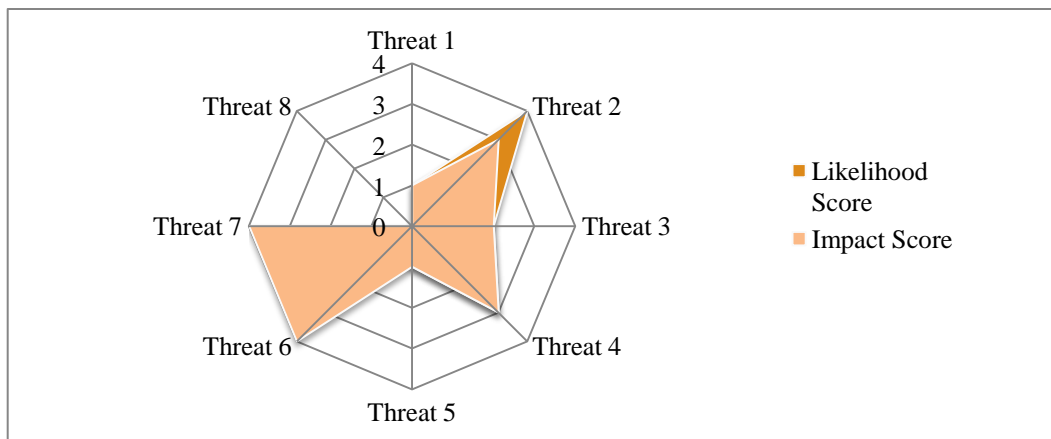
## E2.4 Indicator Key Questions

| Question                                                                                                                                                                | Response<br>(Y/N) | Note |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------|
| <p><b>Relevance:</b> Does the indicators measure an important intervention ie, is the project or policy important to reducing the overall baseline (eg, &gt; 1%).</p>   |                   |      |
| <p><b>Relevance:</b> Can the indicator be easily reported, understood and analysed so that there is clear evidence and reasoning to support the results?</p>            |                   |      |
| <p><b>Completeness:</b> Is this a single indicator or set of indicators?</p>                                                                                            |                   |      |
| <p><b>Consistency:</b> Is the set of indicators a balanced set? (ie, are all areas covered without an disproportionate focus on any one area)</p>                       |                   |      |
| <p><b>Accuracy:</b> Has the indicator(s) been verified and if so if this an internal or external verification?</p>                                                      |                   |      |
| <p><b>Accuracy:</b> Will the indicator be accurate enough to influence and improve confidence in decision making?</p>                                                   |                   |      |
| <p><b>Transparency &amp; Accuracy:</b> Can you get hold of the data needed to populate the indicator and do you understand what assumptions have been used?</p>         |                   |      |
| <p><b>Transparency &amp; Accuracy:</b> Is the data source reliable (ie, data made available at the right time, reported in the right way to relevant organisations?</p> |                   |      |

## E2.5 Risk Assessment

| Threats                                                                                                                                                                                                                                                                                   | Controls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Consequences                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Measuring of indicator ceases</li> <li>Reporting of indicator ceases</li> <li>Loss of resource</li> <li>Loss of finance</li> <li>Changes to policy and legislation</li> <li>Data capture is inaccurate</li> <li>Data capture incomplete</li> </ul> | <ul style="list-style-type: none"> <li>Developing lead times for monitoring and reporting</li> <li>Ensuring monitoring and reporting programmes are considered collectively and not in isolation</li> <li>Identifying any spare capacity for resources and budgets</li> <li>Where spare capacity is identified that an assessment is undertaken to identify capabilities for undertaking monitoring and reporting.</li> <li>Where monitoring resource is exposed a risk, develop trigger points that will enact a mitigation measure.</li> </ul> | <ul style="list-style-type: none"> <li>Data returns are delayed</li> <li>Monitoring is inaccurate</li> <li>Impacts on eligibility for EU funding and investment</li> <li>Claims made by investors</li> </ul> |

Figure 2 Example of Risk Assessment Tool for Threats



| Threat   |                                   | Likelihood Score | Impact Score |
|----------|-----------------------------------|------------------|--------------|
| Threat 1 | Measuring of indicator ceases     | 1                | 1            |
| Threat 2 | Reporting of indicator ceases     | 4                | 3            |
| Threat 3 | Loss of resource                  | 2                | 2            |
| Threat 4 | Loss of finance                   | 3                | 3            |
| Threat 5 | Changes to policy and legislation | 1                | 1            |
| Threat 6 | Data capture is inaccurate        | 1                | 4            |
| Threat 7 | Data capture incomplete           | 4                | 4            |



## E2.6 SMART Indicators Checklist

| SMART Component                                                                                                                                            | Key Question                                                                      | Note |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| <b>Specific (ensure the indicator is well-defined, focused, detailed)</b><br><br><b>Informed by Step 1 &amp; 2 Outputs</b>                                 | What are you trying to do with this indicator?                                    |      |
|                                                                                                                                                            | Why is this important?                                                            |      |
|                                                                                                                                                            | Who is going to do what?                                                          |      |
|                                                                                                                                                            | When do we need it done by?                                                       |      |
| <b>Measurable (the indicator can be measure with a specific unit kWh, CO2, hectares, time, cost, social, GVA)</b><br><br><b>Informed by Step 1 Outputs</b> | How will we know when an objective has been achieved?                             |      |
|                                                                                                                                                            | How can we make the relevant measurements?                                        |      |
| <b>Achievable (that indicator is feasible, viable or actionable)</b><br><br><b>Informed by Step 2 Outputs</b>                                              | Is this possible?                                                                 |      |
|                                                                                                                                                            | Can we get it done within the timeframe?                                          |      |
|                                                                                                                                                            | Do we understand the constraints and risk factors?                                |      |
| <b>Realistic (in the context of the resources that can be made available)</b><br><br><b>Informed by Step 2 Outputs</b>                                     | Do we currently have the resources and skills required to achieve this objective? |      |
|                                                                                                                                                            | If not, can we up skills and / or secure extra resources?                         |      |

| SMART Component                                  | Key Question                                                                                                                                | Note |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------|
|                                                  | Do we need to reprioritise the allocation of time, budget and human resources to make this happen?                                          |      |
| <b>Time-Bound (defined deadline or schedule)</b> | <p>When will this objective be accomplished?</p> <hr/> <p>Is the deadline clear?</p> <hr/> <p>Is the deadline achievable and realistic?</p> |      |