



London Sustainability Exchange

## UrbanBuzz Sustainable Tools

A feasibility report submitted by LSx to UrbanBuzz

### Indicators of Inequality: Identifying, evaluating, mapping and addressing environmental justice and health inequalities in the capital

This document summarises the findings of a short study, part funded by UrbanBuzz. The study provides an indication of how environmental and health inequalities can be addressed through the "Greener, Cleaner, Safer agenda" and local policy mechanisms in London. In order to support this work LSx held an event for London's policy makers and practitioners as part of its Motivate London series in November 2007 and used the findings as the

## 1. Aims and objectives

The overall aim is to develop the skills of built environment and other professionals so they can incorporate environmental and health inequalities into their planning and decision-making. There are a number of projects that are contributing to this, funded by a number of organisations.

In a small project funded by UrbanBuzz, LSx set out to:

- Identify what type of tool (or set of tools) are needed, which if taken up will effectively support the delivery of sustainable communities
- Bring planners, developers, policy practitioners, consultants and community groups together to devise a jointly held action plan to deliver the tools
- Identify a pathway and the skills sets required for the effective take up of tools

As we developed the study and planned the event we decided to focus on **measurement** and **evaluation**, given the need to drive the performance of a range of agencies to address these issues. Thus under the project for UrbanBuzz LSx

- Carried out basic desk research to identify current national activity and conducted a basic mapping exercise
- Held a workshop with sustainability professionals to examine the links between health and environmental inequalities with regards to indicators measurement criteria
- Subjected the deliberations and recommendations to the Pan-London Environmental Justice Policy and Practice group for comment

## 2. Background

### 2.1 The sustainable development framework for London

Sustainable development is simply the process of achieving a better quality of life now without compromising the future. The London Sustainability Development Commission's (LSDC) framework objectives to guide decision making for a sustainable community, outlines sustainability as taking **responsibility** for the impact of our actions, developing **respect** for London communities and the environment, managing **resources** effectively and within environmental limits and ensuring **results** achieve social, economic and environmental outcomes (The 4 R's).

According to the UK Government, sustainable communities embody the principles of sustainable development.<sup>1</sup>

### 2.2 A threat to sustainable communities: environmental and health inequalities

This study focuses on how policy and practise might best change to tackle two key issues, which currently present a barrier to communities becoming sustainable.

*Environmental inequalities* are a real and substantive problem within London and the UK today<sup>2</sup>. Many London communities suffer from inequalities including poor air quality, energy inefficient housing, lack of access to green spaces, and poor public transport links, and evidence exists to suggest that these issues can significantly impact on health and wellbeing. Up to 500,000 London residents suffer from fuel poverty<sup>3</sup> and respiratory problems in London have been found to concentrate in the poorest areas with the highest traffic.<sup>4</sup>

*Health and well-being inequalities* – the London Health Commission, London Health Observatory and others have amassed a wealth of evidence that suggest health inequalities are a major issue in London. Life expectancy declines by a year for each of the six stops you travel eastwards along the London Underground Jubilee Line from Westminster to Canning Town<sup>5</sup>. In respect to wider well-being issues, wider income differences lead to bigger social distances

<sup>1</sup> <http://www.sustainable-development.gov.uk/publications/pdf/strategy/Annex%20A.pdf>

<sup>2</sup> Lucas K et al, Environmental and Social Justice: Rapid Research and evidence review, SDRN, Dec 2004.

<sup>3</sup> Greater London Authority, Green Light to Clean Power, The Mayor's Energy Strategy, 2004.

<sup>4</sup> Stevenson, 1999

<sup>5</sup> London Health Observatory using National statistics

and increased discrimination. They lead to slower social mobility and increased residential segregation of rich and poor. People become less involved in community life, suffer more violence, and are much less likely to trust each other.<sup>6</sup>

### **2.3 Embedding Sustainable development in the planning process;**

In 2006 the London Health Commission published their Sustainable Local Economies Matrix, which identifies the role that organisations and policy makers can play in contributing to a sustainable community<sup>7</sup>. The tool supports professionals in identifying the sustainability implications of their decision-making and identifies the linkages between health, environment and place making.

Since then, the LSDC has done further work developing tools for organisations and project officers to support them in identifying the sustainability implications of their work through the LAA process. This work was piloted by LSx in Hounslow and provides a simple tool, which prompts questions to help assess a project and visual representation of the sustainability impact of the user's project.

### **2.3 The importance of developing reflective practice**

There is considerable political will for a step-change in strategies to address these issues. In the climate change section of the Further Alterations of the London Plan the proposed wording was agreed: *"He (the Mayor) will participate in efforts to redress the effects of environmental inequality such as the impacts of higher summer temperatures on the elderly and the problems of fuel poverty."*<sup>8</sup>

Even with the political will, built environment and other professionals will need the skill sets to 'do things differently', so that environmental and health inequalities would actually be reduced rather than increased by future regeneration work. Whilst there are pockets of expertise and good practice, practitioners find the social and environmental aspects of planning complex, to say the least. One particular aspect of the complexity involves measuring progress in reducing environmental and social inequalities, and includes establishing a baseline or where 'we are at'. Critically, there is an issue and a need to develop the capacity of professionals to understand what inequalities mean to the people who experience them.

### **2.4 Measuring progress**

Indicators are essential in determining the overall effectiveness of project delivery. They are necessary for enabling and empowering professionals to address issues of environmental injustice and inequalities strategically, and implementing appropriate action that promotes sustainable communities and leaves a lasting legacy. They are further essential to practitioners to evaluate change, both spatially and in relation to time and support strategic decision-making and project implementation.

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<sup>6</sup> Richard Wilkinson The Impact of Inequality PA102/05 — June 22 2005

<sup>7</sup> <http://www.londonhealth.gov.uk/regen2.htm> .

<sup>8</sup> <http://www.london.gov.uk/mayor/strategies/sds/further-altts/docs.jsp>

Collecting new data can be expensive, so making use of existing data regularly collected is essential. For data to be comparable over time and between areas, it also needs to be collected consistently. Thus for this project we have concentrated on establishing the data that is regularly collected and sought to establish gaps in this programme and influence information that is collected.

There are a number of programmes and bodies that measure progress in relation to defined quality of life indicators. They include:

- London Health Observatory
- London Health Commission
- London First's Sustainability
- London Sustainable Development Commission

There is also a significant amount of statutory monitoring ongoing across the Boroughs. Statutory monitoring includes:

- The Mayor's State of the Environment Report
- The London Plan indicators
- The London Boroughs National Indicators (formerly BVPI, see below)

In October 2007, as part of the Comprehensive Spending Review (CSR), the Government announced a new single set of 198 national indicators for English local authorities and local authority partnerships including Local Area Agreements (LAAs). It is understood that these indicators would replace those collected by the Audit Commission in the form of Best Value Performance Indicators. The new performance framework for local government, outlined in the White Paper *Strong and Prosperous Communities* is about improving the quality of life in places and better public services. It brings together national standards and priorities set by Government with local priorities informed by the vision developed by the local authority and its partners. This work is statutory and a key driver to public service delivery, thus influencing the framework to deliver against sustainable outcomes is important.

The new Comprehensive Area Assessments<sup>9</sup>; CAAs are attempting give local people an independent assessment of the prospects for their local area and the quality of life for people living there. The assessments are intended to cover issues like improving access to healthcare, increasing the availability of affordable housing, reducing the fear of crime, improving educational achievement, attracting investment and reducing the area's carbon footprint. The issues assessed in each area will reflect local priorities for improving quality of life. Thus the CAA should be a catalyst for better quality of life for people and better value for public money.

The first CAA discussion paper was published in April 2007 and sent to a wide range of public sector and partner stakeholders. The paper outlined a broad vision for CAA. In

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<sup>9</sup> <http://www.audit-commission.gov.uk/caa/caanewsletter/issue1/#what>

the summer of 2008 the inspectorates will publish a second joint consultation document setting out our detailed approach to the framework and the methodologies underpinning it. Trialing will continue alongside this. The last round of annual Comprehensive Performance Assessments will be published at the end of 2008 or the beginning of 2009. The final CAA methodology will be published as early as possible in 2009. The first set of CAA results will be published in October 2009.

The new style LAAs and CAAs provides an ideal opportunity to embed sustainable development at the local level, to demonstrate real and active environmental leadership and to tackle the huge challenge of climate change. To help facilitate this, GOL's Environment & Sustainable Development Unit<sup>10</sup> (ESDU) has produced guidance to provide helpful direction on how sustainable development can be integrated and environmental outcomes maximised in the new LAAs.

The guidance recognises that environmental improvement priorities will not cover the entirety of the environmental agenda, the document:

- Sets out possible local outcomes and targets, such as climate change adaptation, flood management and biodiversity, to deliver Defra outcomes in London LAAs.
- Sets out possible environment cross cutting themes to achieve "win-wins" across themes such as the environment and health.

GOL also indicate that a sustainability appraisal can help a Borough and its Local Strategic Partnership (LSP) to assess the sustainability of the LAA. A good practice example of a sustainability appraisal model is included for your reference.

### **3. Methodology**

LSx conducted background research on available information regarding indicators on Environmental Justice. LSx, Capacity Global and London 21 have conducted the most recent work in London. Through that work London 21, LSx and Capacity Global were able to influence the Climate Change section of the Further Alterations of the London Plan. It was not clear at that stage how the GLA would identify and measure good practice.

In an initial attempt to identify specific indicators needed to support the delivery of sustainable communities, LSx brought together professionals from a range of backgrounds and expertise through a seminar held on the 16<sup>th</sup> of November 2007 at City Hall, London (See Appendix 1 for a list of delegates).

Through expert presentations and workgroup activities, delegates looked at how environmental injustice and health inequalities can be addressed through the

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<sup>10</sup> <http://www.sustainable-development.gov.uk/advice/local/documents/AdviceNoteOnSustainabilityAppraisal.pdf>  
[GOL-SUSDEV@gol.gsi.gov.uk](mailto:GOL-SUSDEV@gol.gsi.gov.uk)

'Cleaner, Safer, Greener' agenda, and local policy mechanisms. Delegates identified a range of indicators for environmental and health inequalities and how to innovatively measure against them, and empower communities to improve local health, wellbeing and overall quality of life.

The event outcomes also contributed to the Greater London Authority (GLA)'s work in measuring success in relation to environmental justice and health inequalities and the work around supporting vulnerable communities in relation to adaptation to climate change.

Discussions evolved around two main areas:

1. Health inequality determinants
2. Evidence data gathering and mapping

#### 4. Summary from the seminar

A number of the 198 national indicators (see section 2.4) could help establish the ability to adapt to climate change and other environmental inequality issues.

Detail from the seminar discussions is outlined below in table 1.1. The outcomes indicate clearly that there is a gap in current monitoring **from the national and regional indicators** in relation to four specific areas:

1. Specific measurement in relation to responsibility and respect, the broader social aspirations that are not easily measured
2. Little or no quantification and measurement of vulnerability to environmental issues such as impact of climate change
3. A clear gap in indicators related to quality of open space
4. A measure of how behaviour is being influenced
5. How the plethora of indicators would work to contribute to an integrated sustainability plan.

**Broader social aspiration indicators:** The human or social elements of sustainability, including community cohesion, are complex and therefore difficult to monitor and evaluate. While the signs of community breakdown are well-recognised, measuring positive progress is less developed.

There is currently little or no quantification and measurement of **vulnerability to environmental issues** such as impact of climate change. As part of the London Climate Change Strategy and the Water Strategy the GLA have commenced an assessment of areas most likely to suffer from the heat island effect<sup>11</sup>. The

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<sup>11</sup> The Urban Heat Island Effect is a term used to describe the fact that the temperature of London at its centre is several degrees higher than at its edges; this is because London is a fairly dense, urban settlement and heat emitted from buildings and the characteristics of the airflow contribute to this *temperature profile*.

current decent homes<sup>12</sup> criteria do have a priority relating to thermal comfort, however this is currently evaluating winter warmth and not specifically summer cooling. Considerably more mapping and data collection will be required in order to ensure that the most vulnerable communities do not suffer disproportionately the effects of climate change.

**Indicators of open space:** There have been several studies underlining the need for good quality, safe open spaces for health and well-being, and to help protect the environment. For example, green spaces may be particularly important as part of climate change adaptation strategies. However, the “cooling” benefits of open spaces have not been well documented. There was general agreement from participants that the current national indicators seem inadequate here. Current GLA guidance on green spaces states: prioritise design: first enhance; second avoid harm; third mitigate; last, and only when unavoidable, compensate for biodiversity losses. However this doesn’t as yet give specific comment regarding availability of open spaces that could be readily incorporated into the National Indicators.

**Influencing Behaviour:** Human behaviour is one of the most complex but crucial aspects of communities. The group felt that the current suite of indicators did not attempt to evaluate the more explicit properties that contribute to sustainable behaviour. DEFRA, LSx, Global Action Plan and others have conducted studies of elements of explicit properties that contribute that could contribute to good built environment design.

**Integration of indicators:** Sustainability cannot be delivered through “trade offs” between environmental, social and economic objectives. People planning projects must act as “reflective practitioners”, meaning that they take a broad, long view of impacts. The London Sustainable Development Commission’s Framework and Guide have been used successfully as tools to help guide the decision making process. There is a risk that the pursuit of indicators in isolation may lead to trade offs and unsustainable outcomes

## 5. Conclusions and Recommendations

There are number of pieces of work informing policy and strategy in London. The evaluation of this would be enhanced if there were a consistent monitoring mechanism similar to the Mayor’s State of the Environment Report, but encompassing broader sustainability issues.

Evidently if a number of boroughs are regularly gathering information to support the delivery of their LAA, it would be useful if some of that data gathered informs progress on quality of life, health inequalities and issues of environmental justice. We have identified some of the National Indicators that if collected consistently

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<sup>12</sup> [http://www.londoncouncils.gov.uk/upload/public/attachments/292/briefing\\_decenthomepublicv2002.pdf](http://www.londoncouncils.gov.uk/upload/public/attachments/292/briefing_decenthomepublicv2002.pdf)

across London would provide the evidence for pan London delivery on environmental justice.

There are gaps in relation to environmental justice and monitoring adaptation to climate change, in particular measuring the impacts of climate change on those most vulnerable. It would be beneficial to develop indicators to fill those gaps.

**Recommended next steps:**

- ***Establishing a series of tools that supports project officers and planners to reflect on the broader sustainability indicators of projects at inception and then supports them in their monitoring role***
- ***Support the development of indicators, which are understood to measure progression on broader sustainability themes including specific data collection on those most likely to suffer from the effects of climate change. This data should be collected centrally and relate to indicators such as those published by LSPs the LSDC and the London Plan and DMAG teams***
- ***Communities are empowered to work within the LAA and CAA process to lobby for the change that they want***

***In terms of a sustainable tool;***

LSx have been working with partners the LSDC, LHC, GOL Shared intelligence and the LB Hounslow to create an integration tool, with prompt questions to support reflective practice. A copy of this tool is in the annex of this report.

The tool is being road tested by the London Borough of Hounslow.

**Indicators**

**Broader social aspiration indicators:** The human or social elements of sustainability, including community cohesion, are complex and therefore difficult to monitor and evaluate. While the signs of community breakdown are well-recognised, measuring positive progress is less developed. GOL have made a series of recommendations to boroughs as part of their LAA and CAA process.

Possible NI indicators that indicate broader sustainability;	
NI 4	% of people who can influence decisions locally
NI 23	Perceptions that people in the area treat each other with respect and dignity
NI 50	Emotional health of children
NI 137	Healthy life expectancy at age 65
NI 186	Per capita CO <sub>2</sub> emission in LA area
NI 188	Adapting to Climate Change
NI196	Improved Street and environmental Cleanliness - Fly-tipping
NI197	Improve local biodiversity – active management to local sites

**Those vulnerable to effects of climate change;** There are a number of projects, most recently CREW<sup>13</sup> project under the management of Cranfield University. This project will be developing a suite of tools to support policy makers in improving the resilience of communities to extreme weather.

NI 158 % decent councils homes (assuming that this includes thermal comfort in relation to overheating – better if it were extended to all homes)  
NI 188 Adapting to Climate Change  
*Percentage of the community suffering from the London 'heat island' effect*

**Indicators related to quality of open space;** there are a number of projects proceeding in relation to open space, most advanced are the GLA environment team's work on equalities and open space. However there is currently no clear metrics to support planners in their decision-making. This will become increasingly important in considering adaptation to climate change; flood storage and providing cooling.

The Big Lottery Funded Well London Partnership headed by London Health Commission has a remit concerning health determinants in London. Groundwork has the remit of open space in the partnership. LSx will be managing the food elements of this project. The work will be benchmarked and evaluated by University of East London. This evaluation project will contribute to the overall measurement of well being in London.

Some possible indicators could be;  
NI 197 improved local biodiversity – active management of local site  
*% of local wildlife sites audited*  
*Ratio of accessible open space to population*  
*Increase in the use of parks by children and young people*

**A measure of how behaviour is being influenced;** there are some current and future projects that are of interest, these include the London Councils funded project on Ecoteams (GAP) and audits (CEN). The EST funded Energy advice Centre (CEN). DEFRA funded behaviour change project of which LSx Diverse London is one.

*Possible indicators*  
**NI 191 Residual household waste per head** Defra DSO  
**NI 192 Household waste recycled and composted** Defra DSO  
Resource use; % reduction of energy or water consumption  
Increase % waste recycled  
Reduction in Kgs waste collected to  
Increase % commercial waste recycled  
Improving energy efficiency in the domestic sector, resulting in carbon saved

<sup>13</sup> <http://www.extreme-weather-impacts.net>

Community groups signing up to individual carbon or waste saving schemes  
ecoteams or similar

**Annex Table 1.1:** Summary of seminar discussion outcomes

Potential outcomes that could be achieved to address community issues	Current planning and policy agendas and personnel that need to be included/taken into consideration for sustainable planning	Indicators  (Indicators that are currently available for use are indicated by a *)
Improved access to public transport	The London Plan needs to address reducing the need to travel.  Safer neighbourhoods teams should be included in planning and policy. This is important because community actions are often dependent on their perceptions of safeness eg: use of public transport and subways maybe reduced due to safety/ issues of perceived safety.	PTAL (Public Transport Accessibility Level)*. However there is a need to ensure that these are appropriate to a Super Output Area (SOA) level to reflect the needs of the community.  Public perceptions of accessibility.  Public perceptions on safety – mapping areas where people <b>feel</b> safe. This could link back to access to public transport and other issues.  GNHappiness – an index of happiness  Community awareness of responsible authority/organisation dealing with issues at a local level.  <b>NI27: Understanding of local concerns*</b>
Improved street cleanliness		
Safer neighbourhoods – real and perceived.		
Better access to open space	to Section 106 planning application	No net loss of open space
Better quality of open space	Lack of metrics on open space.	Areas deficient in open Levels of physical activity

Potential outcomes that could be achieved to address community issues	Current planning and policy agendas and personnel that need to be included/taken into consideration for sustainable planning	Indicators (Indicators that are currently available for use are indicated by a *)
Less litter in open spaces/streets	<p>Communities empowered to feed into consultation and their ability to pressure policy changes appropriate at the local level.</p> <p>Ensure that <b>perceptions</b> of the community are accepted as an important indicator and that they are addressed.</p>	<p>related to open space</p> <p>Levels of open space engagement. Eg: number of organised groups using open space.</p> <p>Supply and demand of allotments</p> <p>Biodiversity (proxy for amount and health)</p> <p>Amount of litter.</p> <p>Green Flag Awards*</p> <p><b>NI196: Fly-tipping*</b></p> <p><b>NI197: Biodiversity*</b></p>
<b>Indicators discussed particularly in relation to health inequalities</b>		
Reduced amount of unhealthy food, particularly in restaurants and fast food outlets	<p>Restaurants and fast food outlets could reward healthy food options.</p> <p>Strive to get athletes to promote healthier foods.</p> <p>Strengthen the local economy for food and drink small and medium scale enterprises (SMEs)</p> <p>Ensure market forces are brought to bear.</p> <p>Possible local legislation</p>	<p>Number of Green Chilli Awards to fast-food outlets.</p> <p>Changes in choices in menu. Can be monitored by mapping current behaviours, delivering a campaign and then tracking any changes in choice on the menu.</p> <p>Fast-food restaurants/restaurants selling 'healthier' versions of unhealthy food.</p>

Potential outcomes that could be achieved to address community issues	Current planning and policy agendas and personnel that need to be included/taken into consideration for sustainable planning	Indicators (Indicators that are currently available for use are indicated by a *)
	<p>on trans-fats</p> <p>Cook and eat classes/community feasts as a mechanism to promote healthier eating.</p>	<p><b>NI: Child obesity, heart disease etc*</b></p>
<p>Mitigating future climate change/Adaptation to climate change</p> <ol style="list-style-type: none"> <li>1. Increased walking/cycling</li> <li>2. Improved special planning</li> <li>3. Air conditioned space powered by renewables</li> <li>4. Properly ventilated buildings</li> <li>5. More action to tackle traffic across London rather than just central London.</li> <li>6. Healthy, local, seasonal food options.</li> </ol>	<p>Mechanisms need to be outlined in the upcoming Mayor's Climate Change adaptation strategy.</p> <p>Linkages modelling is required. Eg: PM<sub>10</sub> NOx</p> <p>Data collection across a cross section of London.</p> <p>Evaluation of how programmes interrelate to achieve composite goals.</p> <p>Creating an environment / increasing awareness for walking and cycling. Look into the potential of implementing a 20 miles per hour speed limit.</p> <p>Raising awareness on measures needed</p>	<p>Number of 20 miles per hour roads/area.</p> <p>Engagement in practical activities in the community.</p> <p>PM10 emissions/air quality*</p> <p>Soil and water quality SOx, NOx levels</p> <p>Incidents of cardiovascular disease, diabetes and obesity.</p> <p>Access to green space</p> <p>Quality of green space</p> <p>Reports on how safe people feel.</p> <p>Incidents of drug users etc</p> <p>Deaths brought forward due to poor air quality</p> <p>CO<sub>2</sub> / EURO4 combination.</p>

Potential outcomes that could be achieved to address community issues	Current planning and policy agendas and personnel that need to be included/taken into consideration for sustainable planning	Indicators (Indicators that are currently available for use are indicated by a *)
		<b>NI: Percentage of decent homes*</b>  <b>NI: Green space</b>

## Appendix 1: List of delegates

Name	Surname	Position	Company
Helen	Beck	Research and futures advisor	Commission for Architecture and the Built Environment (CABE)
Sara	Giorgi	Senior Researcher	Brook Lyndhurst
Helen	Pearce	Sustainability Researcher	Transport for London
Jenny	Bates	Friends of the Earth London Campaigns Co-ordinator	Friends of the Earth
Charles	Secrett		London Unlimited
Adrian	Gurney	Associate Director	Arup
Laya	Taheri		Talk Action
David	Strachan	London Development Manager	BTCV
Dr Matt	Overd	UK Strategy Implementation Manager	British Red Cross
Laura	Gyte		Friends of the Earth
Susie	Morrow	Campaigns Coordinator	Wandsworth Cycling Campaign
Marie-Barbe	Girard	Policy Unit	Transport for London
Adrian	Young	Principal Officer, Air Quality, Health & Transport	Environment Agency
Mark	Johnson	Operations Director	London Leader
Ben	McArdle	Principal Officer, External Relations	Environment Agency
John	Merivale	Grants Officer,	The City Bridge Trust
Steven	Hoang		Waltham Forest Council
Iara	Iudicissa		Capacity Global
Giulia	Mininni		
Alys	Dunn		Waste Watch
Pardeep	Singh Rai	Coordinator,	Environment Advisory Group of the Panjabis in Britain All-Party Parliamentary Group
Otuawe	Moro	Intern Researcher Climate	Future Consideration Limited

		Change/Carbon Project	
Tom	Phipps	Data team leader	Environment Agency
Rachel	Cook		Natural England
Mohamed	Khan	President	Basara Elderly Center
Ahmad	Ali		Basara Elderly Center
Ayaz	Khan		Basara Elderly Center
	Mr Rana		Basara Elderly Center
David	Lewis		London Forum of Amenity and Civic Societies
Madhurima	Wagmare	Intern	LSx