



Learning Brief 3: How to... Develop Sustainable Transport Systems and Integrate Ecological Footprinting in Decision Making

Introduction

The Sustainable Scotland Network (SSN) exists to support information sharing and realisation of sustainable development across local authorities in Scotland¹.

This learning brief has been developed on the back of SSN's December Quarterly Meeting (13/12/07), which focussed on Sustainable Transport Systems and Ecological Footprinting. The meeting featured case studies from DISTILLATE, Dublin Transportation Office, Darlington Council and Glasgow City Council². The afternoon workshop featured an interactive session on ecological footprinting as a methodology for appraising transport policy interventions for sustainable transport systems. All presentations can be found at the Sustainable Scotland Network website.

Who is the audience for this learning brief?

The priority audience for this resource is SSN members and their local authority colleagues. It will also be of relevance to anyone working in a large public sector organization, and for whom sustainable transport is a concern.

What is the purpose of this learning brief?

- To collate information generated and ideas established at SSN quarterly meetings.
- To reinforce learning of participants.
- To provide a resource for members that can be distributed amongst their colleagues.
- To provide a baseline of information from which we can move forward in future network discussions.

What did we know prior to the event?

All Scottish local transport strategies are being delivered in the context of a renewed Government vigour for sustainable place-making and reduced GHG emissions reductions. The forthcoming Single Outcome Agreements are likely to strengthen the influence of climate change and environmental impact on decision-making.

Scotland's Climate Change Declaration³, and the forthcoming Scottish Climate Change Bill⁴, is sharpening minds: all policy will need to be working within the ambitious frameworks set by these documents, and local authorities will be accountable to the commitments made / targets set. The SSN-hosted Local Footprints Project⁵ is helping council use footprint methodology to quantify, and develop scenarios to reduce, their ecological and carbon footprints.

Transport must be a means to an end rather than an end in itself. We need to think about what kind of vision we have for our towns and cities, what quality of life we wish to have, and see our transport infrastructure as a means to deliver that vision.

Glasgow City, the host for the Quarterly meeting, has also prioritised sustainable transport in recent policy and project decisions. The main venues for the Commonwealth Games, for instance, will be low-emission zones, and carbon offsetting schemes - to be established between Glasgow City and other commonwealth countries - will be explored as a route to neutralise CO₂ emissions from the games. Glasgow City Council has also recently finalised a new contract for its fleet, which sets the standard for local authority vehicles: all exceed EU requirements, and the 300 saloon cars will emit just 100g/km CO₂ - far below the UK average of 167.2 g/km for

new vehicles. The Council has incurred additional capital cost for these vehicles, but will pay no vehicle tax due to the low emissions of these vehicles. This contract, agreed by Glasgow City Corporate Procurement, sets out the Council's stall on sustainable transport.

What principles were established as a result of the discussions?

The Importance of Accurate Appraisal

- The value of **options appraisal** in developing effective and sustainable transport policy has been demonstrated by the DISTILLATE project⁶. It is clear that such professional practice remains uncommon.
- Dublin Transportation Office has prioritised **options appraisal** in the complete redevelopment of their Strategy. Their experience leads them to recommend that a new strategy requires local practitioners to go back to square one, and assess all policy options / interventions robustly. **Don't rely on your outgoing strategy for your vision or direction:** refer to the present context (both the lived reality of your area and the strategic imperatives of central and local government.)
- Appraisal of projects following completion is an area that demands development. Clear **inconsistencies exist between targets set and the outcomes of appraisals** further down the line. This needs to be addressed; target-setting needs to be influenced by appraisal of results.

Assessing the value of sustainable transport initiatives

- Assessment of **social benefit needs to be quantified in addition to narrow VfM concerns**. Inconsistencies between value for money objectives and policy fit (i.e strategic sustainable transport objectives) are at the core of conflicts in the development of sustainable transport systems. This needs to be articulated and addressed, not brushed under the carpet, and additional benefits should be given full recognition.
- A number of **methodologies** are being developed to assess this inconsistency, and to **give weight to environmental, social, and wider economic benefits and costs**. Defra has recently devised a methodology – to be used by all Government departments – to assess the Shadow Price of Carbon⁷ of policies / projects. This shadow price should have implications on all decisions made and monies spent.
- Dublin Transportation Office is identifying a new methodology for addressing the fact that Value for Money provides a highly limited representation of transport infrastructure networks. The DTO is aware that **the value of a new project, and its role within a transport network, is demonstrated by assessing the cost of not including it**. DTO is developing this approach within their next strategy.
- Funding sources explicitly for sustainable transport are limited. However, through thinking holistically about the additional benefits of the project you seek to initiate. It is **important that transport professionals quantify the additional benefit of their projects** – such as place making or regeneration benefits – in order to access additional funding sources. There are a number of tools available to undertake robust assessment of added value, such as Social Return on Investment⁸.

Data, Data, Data

- **Accurate data** is essential if transport is to contribute to the delivery your local vision. In Ireland, for example, the most recent census data makes it possible to track respondents to within 250m². Therefore, **tracking commutes and other journey distances becomes more feasible**. This data has proven invaluable to the Dublin Transportation Office's transport and land-use planning process.
- With limited funding available for sustainable transport projects, **it is vital that every £ is invested as effectively as possible**. Not only does this best serve the community and encourage modal shift, but will persuade those that hold the purse strings of the value of such investments (routes will be well used).
- **Glasgow City Council's innovative work with GIS mapping** has demonstrated the most user-friendly and populated cycle routes. GIS mapping can identify the number of destinations that are located around proposed routes, thereby demonstrating the benefit. This enables planners to invest in the most useful routes.

- Darlington Council's 'sustainable travel town' and 'cycling demonstration town' projects⁹ have demonstrated the **value of generating local data from local people to inform local initiatives**. This ensures that projects developed are robust and well-focussed, and has the added benefit of being more meaningful to local politicians and other decision-makers.

Developing Professional Practice: Policy Interventions, Policy Integration and Social Marketing

- A **lack of policy integration** is at the heart of much of the UK's transport issues. This is particularly acute when it comes to **land-use planning**. Transport issues need to be factored in at the earliest stages for new developments to create viable, healthy communities that are not reliant on private transport and do not amplify the transport conundrums of the wider area¹⁰.
- Darlington Council's transport officers' **work with planning colleagues has proved vital to ensuring unsustainable transport habits are not further entrenched**. Transport or SD Officers need to **get proactively involved with the planning process as early as possible** to ensure new developments are planned with cycling and public transport infrastructure factored in at the earliest stage. Once in progress, these decisions are very difficult to undo.
- While reductions in private vehicle use might be the vision for transport planners, realism is essential in modelling travel reductions. **Car travel is a particularly intractable issue**; it is important not to urge people out of their private cars altogether, but rather to **emphasise the value of small behaviour changes**. Dublin's behaviour change campaign, 'One Small Step'¹¹ has focussed on encouraging commuters to change their mode of transport away from the private car for just one journey per week. The experience of Darlington Council emphasises the importance of being realistic about the kinds of modal shifts that transport planners / Sustainable Development officers seek.
- Many of the problems that present transport planners are dealing with are the result of "the unforeseen consequences of good intentions," says John Henry, Chief Executive, Dublin Transportation Office. Rather than focussing on the mistakes of the past, **transport planners today should focus on the legacy they are creating**.
- Darlington Council's efforts to gather meaningful local data (see endnote 9) has persuaded their transport team that they can have most impact on reducing private car travel through targeted campaigns. Specifically, **much of their work has been targeted at people whose decisions not to use sustainable modes of transport have been influenced by subjective factors** (such as status, perceived quality of public transport / cycle routes).
- Darlington's Local Motion campaign has proved effective as a brand. The project identified early on that **identification with the Council would prove problematic to people's engagement with sustainable transport issues**. The project's branding makes no reference to the Council.
- No matter how small, robustly researched and effective initiatives have the potential of raising awareness of sustainable transport amongst transport and land-use decision-makers, and budget-holders. **Darlington's Local Motion campaign has boosted awareness of sustainable transport not only amongst local communities, but also senior decision-makers**. The high profile of the campaign, for example the involvement of Ministers in launches, has encouraged local politicians and officers to take sustainable transport seriously.

Using Ecological Footprinting Software to Explore Transport Policy Interventions

- The REAP¹² tool provides a **database of ecological and carbon footprints of local authority areas**, and this data is based on resident consumption habits.
- REAP and footprint analysis provides a tool to assist with some of the issues mentioned above. REAP has a **scenario analysis function that can assist in benchmarking, monitoring, and options appraisal**.
- The footprints in REAP are calculated using national data and international standards. **The relevance of the database can be heightened and made more locally relevant by inputting meaningful local data**, such as that discussed above (and through the case studies on the events page at www.sustainable-scotland.net).

- Local authorities can develop transport scenarios using REAP. While the scenarios will generate a quantitative footprint, they have far more wide-reaching impact. The **process of creating a scenario can bring together services and raise awareness of the environmental impact of policy interventions, and the importance of fully appraising policy options** against such a methodology.
- In assessing the environmental impact of transport policies, **exploration of a range of policy interventions is necessary**. REAP scenario development functions can play a key role to play in this process.
- REAP demonstrates that a variety of policy interventions are necessary to reduce the footprint of local transport infrastructure and strategy. The **scenarios can also demonstrate the limitations of certain policy interventions**, such as improving the fuel efficiency of buses.
- The SSN-hosted Local Footprints Project is helping council use footprint methodology to quantify, and develop scenarios to reduce, their ecological and carbon footprints.

Where are there gaps in practice and knowledge?

- The **relationship between transport professionals and land-use planners** needs to be improved to ensure future transport problems are prevented. Supporting sustainable transport objectives through effective land-use planning and urban design is key.
- The importance of getting the longer-term **'joined-up' thinking right in the public policy arena more broadly**. There seems to be an acute knowledge gap among professionals concerned with strategic thinking about transport.

Where do we go from here: how can local authorities, SSN and others improve practice in this area?

- Local authorities can make **significant inroads in relation to all council-related travel** – for example, by developing, implementing and evaluating the impacts of a robust and sustainable business travel policy. This should be based on a hierarchy of travel options (reducing the need to travel; encouraging walking and cycling for short trips; supporting public transport wherever possible for longer trips).
- Local authorities can address transport issues through **focusing on specific, high-profile events / high-volume transport sectors**, such as:
 - managing the transport impacts of local events (e.g. festivals; concerts; sporting events; etc)
 - managing the transport impacts of in-bound and local tourism (e.g. hill-walking; mountain-biking; visitor attractions like castles; etc)
 - engaging the community in sustainable transport (e.g. through events; through community planning processes; through seminars; etc)
 - engaging businesses in sustainable transport
- **Gaining political support** for sustainable transport projects / measures is vital to success. The case studies from Darlington and Glasgow City both illustrated effective methods for engaging decision-makers and budget holders. Both were predicated on **linking transport initiatives to local issues, and to robust data** that demonstrated the effectiveness of specific actions.
- Transport planners and more critically transport engineers, who often carry out transport planning roles in local authorities, need to be able to **bring SEA, STAG and ecological footprinting together so that they themselves understand the results of the different policy interventions they plan to take**, and critically so that they can confidently present these findings to senior officials and councillors.
- It seems that sustainable transport is largely taken forward by focussed networks and that there is **relatively little cross-fertilisation between Sustainable Development Officers and Transport Officers**. This means

that there may be information/ideas/opportunities (from either direction) that don't reach the right people. Perhaps the role for **SSN should be to act as a sort of information broker** to our Transport colleagues and 'adding value' to their work where we can, rather than adopting a remit that already seems quite well established outwith the SSN. We would encourage transport professionals to contact us¹³ to access our monthly newsletter (incorporating sustainable transport news), and keep informed of Network activity.

¹ For more information on the work and priorities of the Sustainable Scotland Network, please visit www.sustainable-scotland.net

² All presentations from, and links to further information on, the case studies presented at the Sustainable Transport & Ecological Footprinting meeting can be located at

³ Scotland's Climate Change Declaration was formally signed by Leaders and Chief Executives of Scotland's 32 local authorities and the Scottish Government in spring 2007. Scotland's Climate Change Declaration acknowledges the reality and importance of climate change and is a means of demonstrating local leadership and commitment to action. The Declaration includes commitments both to mitigate our impact on climate change through reducing greenhouse gas emissions and to adapt to predicted climate change impacts. For more information on Scotland's Climate Change Declaration, please go to www.sustainable-scotland.net/climatechange

⁴ On June 21 2007, the Cabinet Secretary for Finance and Sustainable Growth, John Swinney announced that the Scottish Government would consult on a Climate Change Bill to set a mandatory target of cutting emissions by 80% by 2050. <http://www.scotland.gov.uk/Topics/Environment/Climate-Change/16327/Climate-Change-Bill/>

⁵ The Local Footprints Project was launched in May 2007 and will run for two years. It helps local authorities and schools make an effective contribution to reducing Scotland's global environmental impact through the use of footprint analysis to inform policy and practice, to raise awareness, and to change behaviour. See more details at <http://www.localfootprints.org>

⁶ The far-reaching DISTILLATE research project, managed by the University of Leeds, seeks to identify the barriers to organisational development of effective sustainable transport policies (including partnerships, indicators, targets and appraisal). Tools and policy guidance are being produced to support local authorities to overcome these barriers. The DISTILLATE project was informed by local authority practitioners across England, Wales and Scotland. Go to www.distillate.ac.uk for more details and research outcomes.

⁷ Defra has published full revised guidance on how to value greenhouse gas emissions in government appraisals. This is for use in all policy and project appraisals across government. The guidance adopts the concept of the Shadow Price of Carbon (SPC) as the basis for incorporating carbon emissions in cost-benefit analysis and impact assessments. For more information: <http://www.defra.gov.uk/Environment/climatechange/research/carboncost/index.htm>

⁸ SROI aims to help organisations understand and manage the social, environmental and economic benefits (value) that they are creating. It is a measurement approach, developed from traditional cost-benefit analysis that captures the economic value of social benefits by translating social objectives into financial measures and focuses on the most important sources of value as defined by stakeholders. For more information see http://www.neweconomics.org/gen/newways_socialreturn.aspx

⁹ Darlington Town (pop 100,000) has been awarded the status of a 'sustainable travel town' and a 'cycling demonstration town'. This short-term status was awarded through a competition run by the Department for Transport, and is supported by grant funding. See: <http://www.dothelocalmotion.co.uk/default.htm> or http://www.cyclingengland.co.uk/dt_darlington.php for more info. Many of the outcomes from Darlington's extensive research on travel behaviour and opinion can be found at www.darlington.gov.uk

¹⁰ Curitiba City, Brazil has been long recognised as an exemplar in integrated transport planning. Please see this short documentary for a brief insight: <http://www.youtube.com/watch?v=swQTTG3NcYY>

¹¹ <http://www.onesmallstep.ie/>.

¹² REAP is the Resource and Energy Analysis Programme developed by the Stockholm Environment Institute in York. For more information and technical reports on the software visit: <http://www.sei.se/reap/publications/technicalreapreports.php>

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