



for a living planet

Ecological Footprints

The journey so far



Lesson sharing and case studies
of local authorities in the UK

Ecological footprint: the journey so far

*Lesson sharing and case studies
of local authorities in the UK*

Andrew Ross

May 2006

Acknowledgements

This report is based on interviews with the respective project officers who took part in the Ecological Footprint Programme, and is written by Andrew Ross¹ (Final Draft Consultancy). WWF thanks everyone for their input to this report which provides local authorities with practical case studies on one of the fastest growing concepts in sustainable development – the ecological footprint.

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1. The journey so far

This section introduces the concept of ecological footprint and sets out the guidance, tools and support that are available for anyone who is beginning the task of developing ecological footprint in their area.

This case study based guide is the latest in an ongoing series published by WWF-UK to help local authorities and regional organisations implement ecological footprint reduction strategies in their areas. It follows on from two publications:

- *Ecological footprints: a guide for local authorities* (published 2002)
- *Ecological footprints: taking the first step* (published 2006).

This guidebook is aimed at those who are responsible for developing ecological footprint reduction strategies (which we call generically ecological footprint practitioners or coordinators). It draws on eight ecological footprint projects in the UK that are at different stages of completion. The guidebook is based on interviews with officers involved in each of these projects (see Section 2).

WHAT IS ECOLOGICAL FOOTPRINT?

Ecological footprint is a measure of the impact of human activities on the natural environment that sustains us. With the help of data and resources generated by the WWF Ecological Budget UK project,² governments, regional assemblies and local authorities throughout the UK are learning how to use the ecological footprint to help measure progress towards sustainable development and to inform policy.

The footprint expresses the area of land and sea that is required to feed us, provide resources, produce energy, assimilate waste, and to re-absorb the greenhouse gases produced by our use of fossil fuels. This approach uses land as its ‘currency’, and provides a notional figure – the global hectare (an area equivalent to a normal hectare but adjusted for average global productivity) – to quantify the area required to support an individual, a community or a nation’s population at its present standard of living.

² For more information about this Biffaward funded project and to access resources and publications, go to the website www.ecologicalbudget.org.uk

WHAT THE FOOTPRINT CAN DO ³	WHAT THE FOOTPRINT CANNOT DO
<p>An ecological footprint:</p> <ul style="list-style-type: none"> • tells us about our impacts upon the natural world that sustains us; • provides us with a 'time-bound' snapshot of our demand upon nature; • allows us to compare footprints around the world; • tells us about our available global biocapacity (productive land and sea area); • tells us whether we are meeting the minimum requirements for sustainability. 	<p>An ecological footprint:</p> <ul style="list-style-type: none"> • cannot tell us what to do; • tells us nothing about our quality of life – although it can indicate what our conditions may be like in the future if we continue on our 'business as usual' trajectory; • does not account for pollutants; • does not tell us whether land is managed in a sustainable way.

HOW DOES ECOLOGICAL FOOTPRINT FIT IN WITH EXISTING STRATEGIES/ACTIONS?

Ecological footprint can help local authorities, and devolved and regional administrations to:⁴

- 1 provide baseline data to inform policies and projects;
- 2 analyse different policy scenarios to determine targets and predict footprint reductions based on taking alternative courses of action;
- 3 integrate commitment to sustainable development within community strategies/plans;
- 4 assist in preparing sustainable development and environmental strategies;
- 5 measure environmental performance through adopting footprint as a key performance indicator;
- 6 provide powerful information for public awareness and education.⁵

COUNTING CONSUMPTION

WWF has recently published the findings of the Ecological Budget UK project, funded by a Biffaward, that was set up to calculate the UK's ecological footprint.⁶ This research found that:

- the total ecological footprint per person in the UK is 5.4 global hectares;
- the highest footprint of all devolved administrations and English regions is south east England (6.3 global hectares per person);
- the lowest footprint of all devolved administrations and English regions is Wales at 5.2 global hectares per person.

The research also found that if everyone in the world lived like we do in the UK, we would need three planets to support our current lifestyles.

³ Taken from *Ecological footprints: taking the first step* (2006) WWF-UK

⁴ Cited in *Step change – an analysis of the policy and education applications of the ecological footprint* (2004) WWF Scotland

⁵ For more detailed information about how ecological footprint relates to the wider work of local authorities see the summary in *Ecological footprints: taking the first step* (2006) WWF-UK, pp 13–17

⁶ *Counting consumption: CO₂ emissions, material flows and ecological footprint of the UK by region and devolved country* (2006) WWF-UK

As a result of this research, ecological footprint data is now available for the first time at local authority level.⁷

The Stockholm Environment Institute (SEI), in collaboration with The Centre for Urban and Regional Ecology (CURE) based at Manchester University and Cambridge Econometrics, is currently developing the Resource and Energy Analysis Program (REAP). This will be an integrated resource-environment modelling tool to help local authorities make decisions, based on policy scenarios, about how to reduce their footprint.

The SEI is already working with a number of local authorities around the UK so that they can use ecological footprint to:

- link with their current quality of life indicators;
- develop and assess policy scenarios to evaluate the best ways to reduce ecological footprint;
- educate and communicate with partners and local communities;
- analyse and assess the impacts of different lifestyles and socio-economic groups..

WHAT LOCAL AUTHORITIES AND REGIONAL ORGANISATIONS NEED TO DO NOW

In early 2006 WWF-UK published its guide for local authorities called “*Taking the first step*”. This guide suggested that ecological footprint practitioners need to work through five different stages:

- Gain support;
- Make the links with corporate, community and departmental strategies;
- Use footprint as a monitoring tool;
- Undertake the footprint analysis; and
- Devise an action programme or strategy.

In Section 4, we use these five themes to highlight what local authorities and regional bodies are learning as they take their next steps in implementing ecological footprint across their councils and organisations.

Section 5 goes on to describe some of the challenges that are emerging for practitioners as they work with ecological footprint, so that those who are at earlier stages in the process can prepare for these as they arise in their own work.

Finally, in Section 6, we summarise the main lessons for ecological footprint practitioners based on the experiences so far of those involved with footprint projects.

But first, in Sections 2 and 3, we introduce the case study projects and summarise what practitioners like about working with ecological footprint.

⁷ To access your local authority's ecological footprint go to www.ecologicalbudget.org.uk and click on 'Access your local authority footprint'

2. About the case study projects

This section describes the projects on which this guide is based.

Ecological footprint is a relatively new addition to the tools available to local authorities and regional organisations as they find ways to fulfil their obligations to promote and implement more sustainable policies. WWF-UK's promotion of ecological footprint is based on pioneering projects that are paving the way for others to follow. We interviewed officers involved in eight projects around the UK (see below). This section is based on a summary of these interviews.

Wales

- Cardiff (Alan Netherwood, Cardiff City Council)*
- Gwynedd (Dewi Wyn Jones, Gwynedd Council)
- Welsh Assembly Government (Charles Coombs, Welsh Assembly Government)

Scotland

- Aberdeen (Sibylle Frey, Aberdeen City Council and Aberdeenshire Council)*
- North Lanarkshire (Amie Fulton, North Lanarkshire Council)

England

- North East region (Steve Bhowmick, North East Assembly)
- West Midlands region (Charles Jackson–Houlston, Wolverhampton City Council)
- South East region (David Payne, South East England Regional Assembly)

* These officers have since moved on to work in different organisations

WALES

Cardiff City Council

Cardiff City put ecological footprint on the map of mainstream media when researchers there calculated the footprint of hosting the 2004 FA Cup final, including every journey to Cardiff, every pie consumed, every light switch turned on, and even every trip to the loo (the answer, by the way, amounted to the equivalent of more than 3,000 football pitches).

Cardiff City Council was the first authority in the UK to publish its own footprint and has used its involvement in the Ecological Budget UK project to work with its partners and across departments to embed an understanding of ecological footprint and develop scenarios to assess how to reduce the footprint.

The Sustainable Development Unit has a network of sustainability 'advocates' throughout the different service areas of the council, and they have been involved in the Ecological Footprint project from the start.

Gwynedd Council

Gwynedd Council is a largely rural authority located in north west Wales. It was one of two (with Cardiff) councils from Wales that participated in the Ecological Budget UK project. When the ecological footprint project began it was located within the council's environment section.

Following a council restructure during the course of the project, the environment and sustainable development work (including ecological footprint) was placed within the policy and performance unit, which is linked directly to the policy and performance directorate (chief executive's department).

One of Gwynedd's corporate level indicators is that the area's ecological footprint has been measured in the past three years – this makes it a corporate level indicator.

Welsh Assembly Government

The Welsh Assembly Government is the only national government in the world to adopt ecological footprint as a headline indicator of resource use. The Assembly is therefore at the forefront of devising ways of turning policy and aspiration into practice that can be monitored and replicated.

Ecological footprint work is led by the Strategic Policy Unit, which is responsible for co-ordinating work on sustainable development and on joined-up government, and for improving the policy-making capacity of the organisation. Knowing the Welsh footprint means that the Assembly can better assess its priorities. The Assembly Government's *Sustainable Development Action Plan 2004-2007*, and the new *Environment Strategy for Wales*, launched in May 2006, both reflect this.

The Assembly's involvement in the Biffaward funded Ecological Budget UK project has highlighted the scope for action through public sector procurement, for instance of food. This has been reflected in some of the initiatives the Assembly has supported. The Assembly is looking to develop its approach to policy testing, and to improve its capacity to model the effects of its policies on sustainable consumption and production.

SCOTLAND

North Lanarkshire Council

North Lanarkshire is located in central Scotland, close to Glasgow. Traditionally home to mining and steel manufacturing, the area suffered significant deprivation following closure of the last steel manufacturer in 1995. However, but it is now starting to be seen as an attractive place to live for people in both Glasgow and Edinburgh, being cheaper than in either of the cities and with good access to beautiful countryside.

This is one of two Biffaward projects in Scotland, both of which employ a part-time ecological footprint officer to work within local councils to develop a footprint reduction strategy.

Having initially raised awareness about ecological footprint, North Lanarkshire is now beginning to develop scenarios. Ecological footprint is being taken seriously at a corporate level and there are four projects that include a footprint dimension:

- Ravenscraig: this is one of biggest brownfield sites in Europe, and there is a masterplan guiding its development over the next 20 years. The ecological footprint project hopes to influence this through being part of the consultation process and exploring how using more renewable energy on the site would reduce the overall footprint.
- Development of the local plan: the footprint project is working to insert sustainable design and construction criteria into the planning process.
- Community planning partnership: this includes members of the local authority and its community planning partners. The ecological footprint project is exploring how footprint

can be integrated into regeneration monitoring to ensure that environmental impacts are assessed alongside social and economic outcomes.

- Procurement: the ecological footprint project is looking at five products that the local authority buys and how a footprint approach can improve the sustainability of what the council chooses to buy.

Aberdeen and Aberdeenshire Councils

Aberdeen City – ‘the energy capital of Europe’ – is surrounded by Aberdeenshire. Aberdeenshire is predominantly rural with some towns. Land use here is mainly based on agriculture, forest and fishing industries, oil and gas exploration, and tourism.

Aberdeen is a prosperous city and the region offers a high quality of life for many people. However, the decline of the fishing and farming sector in north east Scotland, combined with a high dependence on oil exploration, has brought its own social and economic problems.

Prior to their involvement in the Ecological Budget UK project, both Aberdeen City and Aberdeenshire councils had already undertaken some sustainability work (especially LA21), but this hadn’t necessarily been fully integrated into the work of the whole of the authorities. Ecological footprint was introduced as a much wider programme, looking at resource consumption in the whole region with a more strategic approach to resource management and benchmarking sustainability.

The project aims to produce an ecological footprint for the area and develop policy scenarios ahead of a footprint reduction strategy.

ENGLAND

North East

Travelling through the windswept open spaces of Northumberland it is tempting to think that this region doesn’t have to worry about the problems that are associated with the ‘big smoke’ of south east England. But the region is keen to grow economically, albeit in a way which is different to that of the south east. It wants to avoid an ‘overheated economy’ with all the problems this can bring – a lack of affordable housing, congestion and so on.

The North East is one of two regions which participated in the Biffaward funded Ecological Budget UK research that both developed the regional footprint and assessed policy scenarios for future development. The region published its report in May 2006.

At a more local level in the region, the City of Sunderland has been developing a city footprint which will be placed at the core of the council’s community strategy and other policies. Residents have been involved in exploring how Sunderland can take its global responsibilities seriously and move towards living within a sustainable footprint area. This on-the-ground demonstration of community-led footprint reduction can be transferred to communities across the region.

South East

In the South East, both the South East Regional Assembly (SEERA) and the regional development agency – the South East England Development Agency (SEEDA) – have commitments to reduce the region’s ecological footprint. SEERA’s draft South East Plan (currently out for consultation and the subject of an Examination in Public from November 2006) has a reference to ‘stabilising and reducing’ ecological footprint – this is an aspirational

objective rather than a detailed target. This reference to ecological footprint was inserted because of Assembly member pressure.

SEEDA co-commissioned and published *Taking Stock: A mass balance study of the South East UK* in 2003. It has submitted a draft Regional Economy Strategy (RES), which includes a sustainability appraisal, for ministerial approval. The draft RES states that one of the three headline targets is to 'reduce the rate of increase in the region's ecological footprint (from 6.3 global hectares per capita in 2003, currently increasing at 1.7% per capita per annum), stabilise it and seek to reduce it by 2016'.

West Midlands

As the birthplace of the Industrial Revolution, this region is now looking to kickstart a low-carbon revolution. The West Midlands was one of two English regions funded as part of the Biffaward to assess its ecological footprint in detail and develop policy scenarios that could help to reduce this footprint. The project was managed by a steering group of regional representatives, and its final report was published in June 2006. The report defined a working target for environmental sustainability: a Factor Four increase in resource efficiency, or a 75 per cent reduction in ecological footprint, by 2050. This would equate to between 2.5 and 3 per cent growth in resource efficiency per annum in the region.

The Government recognises that future development must be more sustainable than previously, and published its sustainable communities plan in 2003. This is an ambitious plan to integrate social, economic and environmental criteria into new development and regeneration. To date, however, little work has been done to examine the sustainability of the environmental impacts of the plan. With this in mind, the West Midlands region has also undertaken a project to look at how sustainable the scale of proposed new building and rehabilitation might be. The study is asking questions such as:

- Is it better to rehabilitate or to replace and build new?
- Is it better to build from timber or brick?
- What are the top priorities in reducing the ecological footprint?
- How much difference does location make to the impact?
- Should we focus on individual houses or on neighbourhoods?

The results will be published in autumn 2006.

3. What practitioners like about ecological footprint

This section describes some of the factors which make ecological footprint a compelling addition to how a council, strategic partnership or regional organisation assesses, monitors and ameliorates its environmental impacts.

ECOLOGICAL FOOTPRINT IS INSPIRING

A common story from those who have been involved in ecological footprint projects is what an inspiring communication tool it is. The concept that the average current lifestyle in the UK requires three planets instead of one resonates with a range of different people – politicians, councillors, officers and residents.

“Ecological footprint creates a resonance – it gets through to people.”

Although the data behind the footprint calculation is complex, people understand its emphasis on ‘big picture’ messages. This creates many opportunities for using ecological footprint to explain the need for sustainable consumption and production, which is one of four priorities set out in the Government’s sustainable development strategy *Securing the future*.⁸ The concept of sustainable development has been criticised for being difficult to explain, meaning different things to different people, and getting weighed down by jargon. In contrast, ecological footprint seems to engage people in a way that sustainable development has rarely managed to do before. Those who have been working to raise awareness and understanding of ecological footprint among their colleagues speak very positively about them ‘getting it’.

ECOLOGICAL FOOTPRINT CHANGES ATTITUDES

Because ecological footprint presents issues like resource scarcity, waste and pollution, and resource conservation and efficiency in ways that people understand, it has created opportunities for debates that haven’t previously taken place. A number of ecological footprint practitioners have stories to tell about politicians and senior officers, who they would never have expected to push the council to think differently about future growth, actually urging their colleagues to take this issue seriously.

“Ecological footprint helps us to challenge the status quo.”

Unusually, ecological footprint is seen as a tool which both critiques current systems and ways of doing things, but also helps people to think about solutions. The scenario planning that should be a part of preparing any ecological footprint reduction strategy is an opportunity for a number of alternative futures to be considered and debated.

⁸ *Securing the future: UK Government sustainable development strategy (2005)*. You can download this at www.sustainable-development.gov.uk/publications/uk-strategy/index.htm

ECOLOGICAL FOOTPRINT IS EVIDENCE-BASED

Ecological footprint creates an evidence base that makes links between the environment and the economy, and demonstrates the scale of the shift that is required for ecological sustainability. While the methodology is subject to review and refinement, the broad messages to come out of the data are unlikely to change. This evidence base is persuasive and lends credibility to ecological footprint messages.

Ecological footprint practitioners have found that this credibility is useful when they are debating policy scenarios.

One practitioner did point out that this evidence base may also have implications for environmental policy more broadly – as the implications of the data become clear through scenario planning, it may force environmental lobbyists and policy makers to revisit what they have assumed to be the most effective actions for reducing environmental impact.

“Ecological footprint allows for more intelligent discussion because it is based on evidence.”

4. Steps on the footprint ladder

This section uses the five steps of the footprint ladder to demonstrate how local authorities can develop their own ecological footprint programme. It is based on case study interviews and also includes examples from regional organisations.

GET SUPPORT

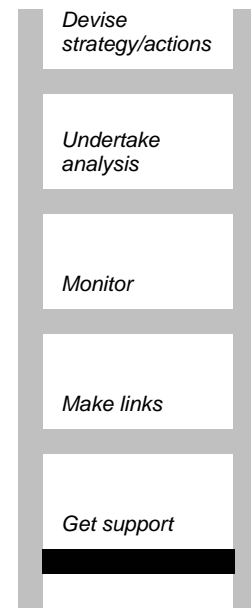
The importance of this theme is echoed by all who are responsible for introducing ecological footprint into their organisations. As one coordinator put it, “Local government moves when the top rung shakes.” This includes the chief executive, but also senior officers who will need to authorise the time for their staff to be involved in data collection and scenario planning. Interestingly, the experiences of local member involvement were varied. In some places, members have been advocates from the start. In others, developing a footprint analysis has been officer-led – although they recognise that the ecological footprint reduction strategy will need to be agreed by members, they have felt it has been important in the early stages to collate information that can then be used to ‘make the case’ for ecological footprint.

Frontline examples

The ecological footprint coordinator at **North Lanarkshire** sits within the chief executive’s department, although the position is line-managed by the planning and environment department. An important first step was telling people about the project and spending a lot of time doing presentations. This brought together people who hadn’t previously worked together and helped to make links across departments. Getting the corporate management team to calculate their own individual footprints was one way of raising their awareness of the links between individual behaviour and overall ecological footprint. It was also an important way of setting an example for the rest of the council staff.

Cardiff City has a sustainable development unit with six staff. Since 2000 the unit has cultivated a group of middle-ranking managers with budget holding responsibilities across the 22 service areas of the council. From the outset, this group of sustainable development advocates has been groomed to be ‘au fait’ with sustainable development, and this has included close involvement in the development of Cardiff’s footprint and subsequent actions. For example, staff from a range of departments/service areas provided and validated data, and selected and tested different policy scenarios.

Aberdeen City and Aberdeenshire are working jointly to implement ecological footprint. From the outset, the coordinator sought to ensure that ecological footprint was taken seriously by both corporate management teams. This happened through regular briefings, using formal council processes to require these teams to ‘sign things off’, and by building on the credibility achieved through previous environmental work in both councils. This took longer than anticipated, but by involving senior officers from the start it has been possible to gain their trust and commitment for both measuring ecological footprint and developing scenarios. This has included ensuring that they allocate sufficient officer time to participate in scenario planning.



From the notebook...

“Corporate directors with a hell of a lot of influence are now talking about how to decouple economic growth from environmental degradation. There are lots of reasons why this is now happening, but the evidence base underlying ecological footprint is a core part of this attitude change.”

Alan Netherwood, Sustainable Development Manager, Cardiff City Council

“I have seen corporate managers explaining to newly arrived corporate managers what ecological footprint means, and that has been completely unexpected and welcome.”

Sibylle Frey, Aberdeen City and Abderdeenshire

“Ecological footprint can be approached at a variety of different levels, and that has been very positive for getting the interest of a range of people. If somebody wants to get into the very minute detail they can, but it also has a resonance at a very simple level too.”

Dewi Wyn Jones, Sustainability Coordinator, Gwynedd Council

MAKE THE LINKS WITH CORPORATE, COMMUNITY AND DEPARTMENTAL STRATEGIES

Ecological footprint reduction strategies should connect with a number of other existing documents including:

- (sustainable) community strategies/community plans;
- climate change strategies;
- local area agreements/policy agreements/local outcome agreements;
- regional strategies.

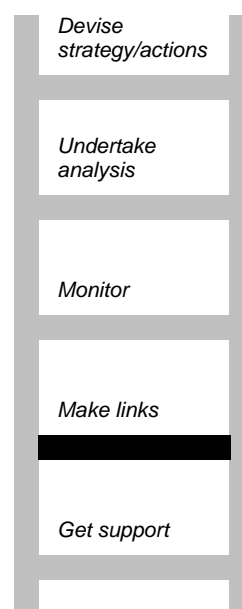
Making these links also means communicating with partner organisations about how ecological footprint integrates with the work they are doing.

Frontline examples

The work in **Aberdeen** to achieve corporate buy-in has helped to ensure that the foundations are now in place for ecological footprint to be embedded across the organisation, including being written into other plans. For example, ecological footprint appears in the corporate strategies of both councils. The Aberdeenshire corporate vision says that ecological footprint is a ‘valuable tool’ while the same vision for the city states that ecological footprint ‘can help us build more sustainable communities’.

By involving staff from the outset, **Cardiff** has ensured that they understand the links between ecological footprint and other policy areas. Policy officers have been involved in ecological footprint workshops on a range of themes – food, waste, transport, energy and infrastructure. The council is using scenario planning as part of developing proposals for regional solutions to reduce its waste, transport and energy footprints. The director of waste management is involved in this work. Ecological footprint has also been written into external partner strategies, including the Cardiff Local Health Board’s food strategy.

In the **West Midlands**, the region has recognised that local strategic partnerships (LSPs) provide a great opportunity for taking forward ecological footprint via their sustainable community strategies. LSPs are already used to dealing with data where the organisations



involved don't control all the outcomes, for example via quality of life indicators. Data are now available at the local level for both ecological footprint and CO₂ emissions. These 'cascaded down' sets of data will hopefully be used by LSPs in their reporting on the environment and quality of life.

To raise awareness for community strategy coordinators about the links between community strategies and ecological footprint, the **North East** held a regional event. It was very well attended and highlighted how ecological footprint will be able to help them deliver community strategies.

North Lanarkshire has made a point of looking for 'hooks' that connect ecological footprint to the work that officers are already doing. Interest by corporate managers has been driven by external pressures like complying with policy guidance and best practice. But for other officers the motivations are often different. One approach adopted by the ecological footprint coordinator to address this been to work with officers to identify ways in which ecological footprint can help them – for example by measuring the environmental outcomes of their work.

From the notebook ...

"Aside from any adoption of ecological footprint as a regional indicator, the greatest opportunity for developing ecological footprint lies with LSPs in the region and their preparation and implementation of sustainable community strategies."

Charles Jackson-Houlston, Wolverhampton City Council

"Ecological footprint doesn't need a huge budget because the aim is to try and influence other departmental budgets so they are spent more sustainably."

Amie Fulton, North Lanarkshire Council

"Involving our advocates for sustainable development within each service area in ecological footprint has been an important way of ensuring that it complements existing council work."

Alan Netherwood, Cardiff City Council

MONITOR USING FOOTPRINT

WWF-UK has recently published *Counting Consumption* (see Section 1) which, for the first time, identifies the UK ecological footprint by country, region and local authority area. This is an extremely useful benchmark, but its long-term value will be as a monitoring tool. Councils and others need to think about how they will commit to doing this, how often they should update their footprint, and how they will undertake this.

The Resources and Energy Analysis Program (REAP) is a monitoring tool which will provide local authorities with scenario, modelling and policy assessment on issues relating to sustainable consumption and production.⁹

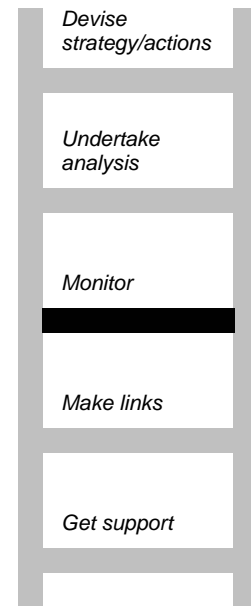
Frontline examples

Cardiff published its first ecological footprint in March 2005 and the council aims to update it every three years. The ecological footprint manager has found that it is the evidence base of ecological footprint that has been the most persuasive and captivating aspect for decision makers. It has moved officers on from knowing vaguely about environmental problems to having evidence about what is actually happening in their region.

The **South East** region has an objective to ‘stabilise and reduce’ ecological footprint in its draft South East Plan. For this to be implemented it will be necessary for the region to set up processes to monitor its footprint over time.

In **Wales**, ecological footprint has been one of the Welsh Assembly Government’s sustainable development indicators since 2001 – it is one of only a handful of top-level summary indicators. This means that footprint is a significant factor in shaping the decision-making priorities of the Assembly.

Ecological footprint was originally met with concern by some of **North Lanarkshire’s** partners because of its emphasis on monitoring environmental impacts. However, the ecological footprint coordinator persuaded them to see its benefits precisely because of this focus, and that it should be used alongside economic and social indicators.



From the notebook ...

“Knowing the size of each component of the Welsh ecological footprint has given the Assembly a better way of assessing priorities, and identifying which behaviours by which people it most needs to influence.”
Charles Coombs, Welsh Assembly Government

“Executive members and corporate members now get the message that Cardiff needs to ‘slow growth down’ – this is a significant change in thinking, and the monitoring aspect of Cardiff’s ecological footprint has been a crucial component behind this. As an indicator and a tool, ecological footprint has a ‘front row seat’ in the council.”
Alan Netherwood, Cardiff City Council

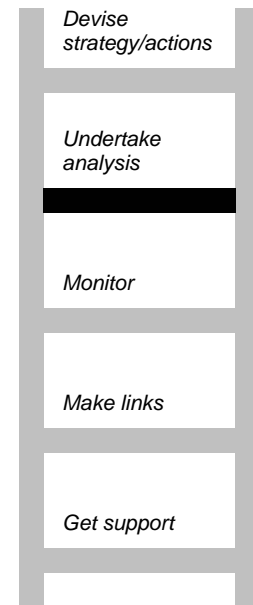
“Ecological footprint is a valuable benchmarking tool, but potentially the biggest challenge is yet to come: agreeing on, and implementing, reduction strategies based on the areas’ ecological footprint.”
Sibylle Frey, Aberdeen City and Aberdeenshire councils

⁹ If you would like to register your interest in learning more about REAP when it becomes available go to www.ecologicalbudget.org.uk/about/rap

UNDERTAKE THE FOOTPRINT ANALYSIS

The previous report in this set of guidance, *Taking the first step*, set out two ways of undertaking an ecological footprint analysis:

- The ‘top down’ approach: this uses aggregate economic input–output and household expenditure data to derive footprints for large-scale areas, such as the UK as a whole. It uses widely available national statistics and calculates accurate (albeit averaged) footprints for the areas or activities in question. One disadvantage is that it can overlook particular issues or variations around the average consumption pattern in a local area.
- The ‘bottom up’ approach: this uses locally specific consumption data in order to generate a picture of consumption within a smaller area. The bottom up approach can provide some useful localised information, but one significant drawback is that in many instances data on local consumption patterns can be difficult to find. Using local data also does not take account of the resource requirements of the economy as a whole or of the indirect resource flows associated with consumption.



The most effective approach to preparing an ecological footprint at a local authority area level is to combine both *top down* national data and *bottom up* local data: this combines the strengths of each approach and minimises the drawbacks. It is this hybrid approach that has been developed by the Stockholm Environment Institute (SEI) for use in local authority area footprint work throughout the UK.

The ecological footprint analysis projects undertaken so far in the UK have had to spend a considerable amount of time collating and generating data, as well as developing policy scenarios. The Ecological Budget UK project now makes footprint data available to all local authorities, and this should make the data gathering phase considerably quicker. However, local authorities and regional organisations still need to undertake scenario planning.

Frontline examples

The **North East** published the results of its footprint analysis in May 2006. The project was led by a steering group of regional representatives who took part in the scenario planning, with the hope that their involvement would help to influence policy in the region. The published analysis includes a baseline assessment of the North East footprint, highlighting both consumption and production factors. The analysis also sets out future scenarios for the North East, based on existing and proposed policies. The scenarios pay particular attention to the CO² emissions associated with energy, housing and transport policies, and have been developed through the Resource and Energy Analysis Program (REAP) software tool.

The **West Midlands** has also published an analysis of its regional footprint.

As part of the development of the ecological footprint analysis in **Aberdeen City** and **Aberdeenshire**, all key officers in strategic planning for environmental infrastructure were involved in scenario planning. They were firstly trained in scenario planning via two intensive workshops (in both councils). They learned what scenarios are, the method for calculating them, and how to identify key drivers and uncertainties. The participants were very enthusiastic as it

gave them a chance to explore what actually drives change by looking at underlying causes as well as consequences.

The **South East** published its first footprint analysis called *Taking stock* in 2003. Work has been commissioned to assess how the draft South East Plan can influence the overall footprint of the region. While the potential gains are small, the plan does have a role to play, for example in encouraging sustainable construction and transport choices. More research is necessary in light of the draft plan's commitment to stabilise and reduce ecological footprint.

The development of footprint analysis in **North Lanarkshire** has helped to broaden debates about future development. This is a disadvantaged area and so improving its economic performance is valued highly. However, ecological footprint analysis is challenging 'business as usual' planning and encouraging representatives from the economic and social sectors to think more broadly about what kind of development will most benefit the area. Ecological footprint is therefore encouraging sectors to work together to ask fundamental questions: why are we building this, what are we using to build it, can we achieve the desired outcome in other ways?

From the notebook...

"Obtain the best information you can because it is important to be sure that the scenarios are based on something that represents the reality."

Amie Fulton, North Lanarkshire Council

"Councils and regional groups should look to develop their own technical expertise in using REAP to use and interpret data so that they do not need to rely on third parties. The information has already been made available for free, it is only necessary now to train people to be able to interpret it so that the organisations can benefit and use it."

Charles Jackson-Houlston, Wolverhampton City Council

"Developing the footprint analysis enabled regional partners to understand the real impacts of their economic legacy, and to start to think a bit more about future opportunities and future directions."

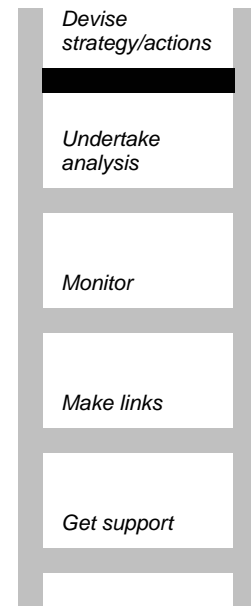
Steve Bhowmick, North East Assembly

DEVISE AN ACTION PROGRAMME OR STRATEGY

Once a local authority or regional organisation has undertaken an ecological footprint analysis, the data now exists to devise a footprint reduction strategy and actions to achieve these reductions.

This step on the ladder requires that all the ones beneath it have already been traversed:

- Without **getting support** in the initial stages, there may be a lack of political determination to introduce actions and policies to influence how people and organisations behave.
- Many of the actions will need to be cross-referenced through **making links** with other strategies and programmes.
- To identify whether the strategy and actions are having an effect on the footprint, it will need to be **monitored** and updated.
- The actions will not be robustly informed without completing a full **footprint analysis**.



Some of the footprint projects cited in this report are now at a point where they can begin to prepare reduction strategies and actions. These decisions will not be taken by ecological footprint practitioners, but by councillors and senior managers in local authorities. This is why it is essential that they have been persuaded of the importance of both measuring and reducing the ecological footprint of the local authority area. Without their commitment to lead on what is a new and potentially challenging policy area, lasting change will be difficult to achieve.

From the notebook...

"Ecological footprint now has a life of its own within Cardiff's political processes – it is being picked up by others without being pushed by the Sustainable Development Unit. Ecological footprint is something that the whole council is involved with and this is a great benefit."

Alan Netherwood, Cardiff City Council

"It takes time to develop a consensus among a wide range of people, and sensitivity when working with elected members."

Sibylle Frey, Aberdeen City and Aberdeenshire councils

5. Don't fall off the ladder – understanding the challenges of ecological footprint

This section sets out some of the challenges of working with ecological footprint, ways to overcome them, and pitfalls to avoid.

As well as learning more about what ecological footprint practitioners like about footprint, and how they have implemented it so far, we are also finding out more about the challenges of working with footprint and how to work to resolve or accommodate these.

ECOLOGICAL FOOTPRINT TAKES TIME

A common experience among practitioners has been that the pilot projects have generally taken much longer than anticipated. This is likely to be ameliorated to some extent now that the SEI has published ecological footprint data for all areas. However, it takes time to build capacity and support in an organisation and its partners: ecological footprint is a new concept which needs to be explained and debated so that people are willing to get involved. Ensure that sufficient time to gain support across your organisation is built into the timetable for developing ecological footprint – a common suggestion was 6 to 12 months.

MOVE FROM MESSAGES TO ACTIONS

Section 3 described how effective ecological footprint is in promoting 'big picture' messages. As one coordinator put it: "Ecological footprint is about broad messages, the big picture, our best guess."

While a footprint analysis can be incredibly useful as a communications tool, on its own it won't actually change very much. Some practitioners report, based on their experiences so far, that it is important to keep pushing for action planning so that generating an area's footprint doesn't become an end in itself, but the means for highlighting what needs to change and how.

There are many encouraging stories of political leaders being persuaded of the importance of the footprint analysis, and the theoretical need to reduce overall footprint. But, at the same time, some decision makers are baulking at the implications of implementing a footprint reduction strategy: despite liking the concept, they end up rejecting the message because of its emphasis on the need for change. The experiences of some areas suggest that communities are well ahead of politicians on understanding the importance of action and recognise that we can't continue with 'business as usual'. Tapping into this energy will be one important strategy for ensuring that a reduction strategy and actions are developed and implemented.

LINK ECOLOGICAL FOOTPRINT WITH SOCIAL SUSTAINABILITY

The link between ecological footprint and disposable income is clear. What is less clear is how a focus on reducing ecological footprint connects with social programmes in disadvantaged areas which are, in effect, trying to *increase* individuals' consumption in order to improve their quality of life. For example, they may live in housing with poor heating or be remote from public transport and so unable to look for work. This interplay between social indicators and

ecological footprint is starting to emerge as an issue in some of the areas which have been involved in the footprint projects, but it is raising more questions than answers at this stage. A number of projects hope to decouple environmental degradation from growth to ensure that future development ‘will be different’ (see Section 2), but this has not yet been put to the test in any meaningful way. As these projects develop, though, learning will emerge about how better to integrate footprint with social programmes like promoting health, training and skills, and so on. The best approach at this stage is to link footprint programmes and strategies as early as possible with other existing plans, strategies and area-wide strategic partnerships (see ‘Make links with corporate, community and departmental strategies’ in Section 4).

LOOK TO ACHIEVE SHORT- AND LONG-TERM CHANGE

Related to this is a growing realisation that ecological footprint lays bare a tension between awareness of the need for radical change and recognition that achieving such a change depends on complex interlinked decisions by consumers, governments and industry over a long time. Industry wants government to provide long-term signals so that it is assured that consumers will embark on the long-term behaviour changes that are going to be required to reduce overall footprint. Changes in production will be difficult to sustain without changes in consumption, and the role of government is to lead on setting the framework for these changes to take place. One of the four priorities of the 2005 sustainable development strategy is sustainable consumption and production and this will hopefully ensure that there will continue to be an emphasis on sending the right long-term signals to industry about the need to move to production processes and patterns that reduce ecological footprint.

One coordinator put it like this: “It’s almost as if one has to operate in two modes – part of the time saying ‘It’s all terrible, we need change now’, and at other times saying, ‘Let’s work out a step-by-step approach that will actually work’.”

CENTRAL GOVERNMENT SHOULD ENDORSE ECOLOGICAL FOOTPRINT

The endorsement of ecological footprint by the Welsh Assembly Government and the Scottish Executive has helped councils in both countries to push for ecological footprint to be taken more seriously. But this endorsement has not materialised into hard resources to help implementation. There is support in councils and regional organisations for ecological footprint to be made a statutory requirement, as a way of ensuring support for footprint corporately.

The Audit Commission recently noted the value of ecological footprint as an aggregate indicator. However, with so many other agendas and initiatives competing for attention, central government and devolved administrations need to do more than simply endorse ecological footprint as a tool. If footprint reduction strategies are to be implemented in earnest then they should be mandatory.

6. Summary – good advice for developing ecological footprint

This section summarises the key messages to have emerged so far from the work of ecological footprint practitioners. It is a reminder checklist for those who are setting up their own local or regional footprint programme.

SEEK ENDORSEMENT FROM SENIOR MANAGERS

- Attract commitment from the senior management team, including resource allocation (especially officer time).
- Get the corporate directors on board. Build a corporate working group that can monitor the ecological footprint project so that it can become part of the mechanisms of the council.

GET INDIVIDUALS AND PARTNERS INVOLVED EARLY

- Identify who needs to be involved as early as possible, and ensure that these people are allocated time by their line managers to participate. It should not just be an ‘add-on’ as they need to be involved to a high degree in working out scenarios, providing input and absorbing new material.
- Build up ‘belief’ in ecological footprint as a tool so that it will get buy-in. This means providing lots of information about ecological footprint, including the weaknesses, and involving officers so that they are persuaded of its value.
- Get a range of partners involved from the outset, engage with them throughout the process, and give them endpoints.
- Find the ‘hooks’ that connect ecological footprint to the work officers are doing – how can ecological footprint help them to do their job better?
- Secure agreement from all stakeholders about the brief and timetable.

GIVE IT TIME

- Familiarise people with the ecological footprint concept. This takes a considerable amount of time. It also takes time to develop a consensus among a wide range of people.
- Be realistic as things can take longer than expected.
- Allow 6 to 12 months to achieve consensus among significant regional or partnership groups. Clarify the amount of time that will be required by representatives of these groups and organisations to input into the ecological footprint process.

CULTIVATE THE BIG PICTURE

- Use ecological footprint to articulate broad messages – macro messages are what ecological footprint is best at.

- Bear in mind that ecological footprint is a summary tool. Its main benefit is being able to say what the ‘big hitters’ are in terms of resource use in an economy, and to provide a focus to address these. After that, work towards achieving a more detailed breakdown.

DON'T REGARD ECOLOGICAL FOOTPRINT AS AN ENDPOINT

- Be aware that ecological footprint is not the ‘be-all and end-all’: it has its own faults and ultimately it is a tool to inform policy development in conjunction with other tools and information sources.
- Ensure that ecological footprint is not an endpoint in itself. It is a useful way of assessing environmental impact and integrating this with the economy, but it is important to find ways of trying to connect it with social issues.

PRODUCE TANGIBLE OUTCOMES

- Think about how to prioritise ecological footprint. Is it possible to focus your efforts on footprint rather than lots of disparate activities?
- Obtain the best information you can because it is important to be sure that the scenarios are based on something that represents the reality.
- Try and ensure that the project delivers something tangible as soon as possible. People respond positively to actual information about their area, rather than ecological footprint in the abstract.
- Be clear about what you want ecological footprint to do. Focus on the parts that are within your influence to deliver and work with those who have the powers to implement other aspects.

KNOW THE LIMITS OF ECOLOGICAL FOOTPRINT

- Be aware of the limitations of ecological footprint. It is an aggregate indicator that shows environmental impacts – it doesn’t show social outcomes. It can help to make links but don’t use it to make correlations which can’t be substantiated.
- Understand the limits – distinguish between ecological footprint as a policy and as an aspiration.

KEEP INDIVIDUALS/ORGANISATIONS INFORMED

- Keep external groups (for example government agencies, universities, Non Governmental Organisations) up to date on what is happening so that the project has a broad base. Develop ways to reciprocate learning with them.
- Set up and maintain an ecological footprint users’ community of practice or network within your organisation that can discuss what ecological footprint is and what it isn’t, and that can explore how it can be used.
- Develop a communications strategy so that there is agreement about what information to disseminate to particular audiences, and in what form.

GET ECOLOGICAL FOOTPRINT INTEGRATED ACROSS THE ORGANISATION

- Invest in training across the organisation so that the whole administration is competent in using it. The more that is put into updating the data, the better the result will be.
- Build up internal expertise in interpreting ecological footprint data.
- Ensure that ecological footprint is well connected to other areas of policy and practice.

7. For more information

WEBSITES

www.ecologicalbudget.org.uk/localauthorities

The latest information and updates from WWF-UK on ecological footprint for local authorities – includes downloads of reports listed below

www.ecologicalbudget.org.uk/download-centre

The one stop shop for downloading general WWF-UK information on ecological footprint

www.oneplanetliving.org/

Highlights how to reduce ecological footprint from development, and showcases examples of good practice

www.scpnet.org.uk

This is the website of the Sustainable Consumption and Production Network (SCPNet) which has been set up to create an evidence base for sustainable consumption and production. It is funded by a partnership of the regional development agencies, the regional assemblies, the Environment Agency and WWF-UK

www.scotlandfootprint.org/

The home of news and views on ecological footprint in Scotland

www.walesfootprint.org/

The home of news and views on ecological footprint in Wales

REPORTS

General

Counting Consumption: CO₂ emissions, material flows and ecological footprint of the UK by region and devolved country (2006) WWF-UK

Reducing Wales' ecological footprint: a resource accounting tool for sustainable consumption (2005) WWF Cymru

The footprint of Scotland's diet: the environmental burden of what we eat (final draft) (2006) WWF Scotland

For local authorities

Ecological footprints: taking the first step – a 'how to' guide for local authorities (2006) WWF-UK

Counting Consumption: CO₂ emissions, material flows and ecological footprint of the North East (2006) WWF-UK

Counting consumption: CO₂ emissions, material flows and ecological footprint of the West Midlands (2006) WWF-UK

Reducing Cardiff's ecological footprint: a resource accounting tool for sustainable consumption (2005) WWF Cymru

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The mission of WWF – the global environment network – is to stop the degradation of the planet's natural environment, and to build a future in which humans live in harmony with nature, by:

- conserving the world's biological diversity;
- ensuring that the use of renewable natural resources is sustainable; and
- reducing pollution and wasteful consumption.

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