

# Leading the South East Region to achieve the Triple Dividend of sustainable economic development

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## A Key Role for the Diamonds

This paper provides an overview for a Diamond-led Action Plan<sup>1</sup> to deliver the 'Triple-Dividend' of improving the South East region's economic performance, its environmental assets, and quality of life for all those who live, work and invest in the region. While this represents a critical challenge, it is also a major economic opportunity to grow the value of businesses in the South East, including by reaching into global markets through the region as an environmental exemplar. Because of their ambitions for economic development, and the environmental risks growth brings, the Diamonds can and should lead the way, by the adoption of more challenging targets than other local authorities – either in scale or milestones. The Policy Group therefore recommends the adoption of an overall Ecological Footprint goal as well as aspirational indicators in relation to: Energy; Homes; Water.

### 1. Introduction

1.1 There is widespread consensus that 'business as usual' is not a viable strategy for building sustainable communities and economic success in the face of climate change, resource constraints, energy insecurity and environmental damage. Climate change is a global threat, but the consequences are felt locally, in communities. The economic drivers for not delaying action are strong, and the regulatory drivers likely to become more stringent (see Annex A).

1.2 The Local Government Climate Change Commission, reporting in December 2007, concluded:

'If we do not stabilise (carbon) emissions within eight years, we risk unpredictable climate change and with it, catastrophic consequences for our communities...Each council's vision must incorporate ... the challenges of delivering at least a 26-32 per cent reduction in carbon emissions by 2020 and at least a 60 per cent reduction by 2050; (and) building a low-carbon local economy.'

1.3 Cities and major urban areas are the most significant contributors to the unsustainable exploitation of the environmental infrastructure that supports life. Cities are responsible for using 75% of the planet's resources and creating 75% of its waste. Faced with this stark picture of un-sustainability, many cities globally have taken a lead on tackling ecological footprint. In the UK, Diamond Local Authorities have good work in hand. Some 23 of the 36 Local Authorities constituting the Diamonds have signed the Nottingham Declaration on Climate Change, which commits signatories to action on climate change mitigation and adaptation. Outside the South East, there is the Mayor's London Climate Change plan, and the eight Core Cities in autumn 2007 signed a common

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<sup>1</sup> A detailed action plan and suite of Guidance notes are under development by the Policy Group.

commitment to tackling climate change, with a range of measures – such as on energy efficiency, waste and water management.

1.4 However, the urgent risks to communities of continuing current profligacy in our use of energy, water and raw materials require a step change. Only accelerated and broadened activity, with a clear focus on both short-term and longer-term outcomes, will achieve a low-carbon regional economy and the necessary adaptation to the inevitable consequences of climate change.

1.5 The Diamonds' commitment to tackling climate change is essential given that the picture in the South East is particularly bleak. Climate change impacts in the South East will be more severe than in any other UK region in terms of weather, heat, and water – hence the importance of adaptation. Paradoxically, the region has the highest Ecological Footprint<sup>2</sup> in the UK. At 6.3 global hectares (gha) per person, we are acting as if we had 3.5 planets to use up.

1.6 Within the South East, the Ecological Footprints of each of the eight Diamonds (which account for some 44% of the region's population) all translate into resource consumption approaching the 3.5 planet level. (See Table 1 and Annex B). The region's Ecological Footprint is growing – latest estimates indicate an increase of 1.6% per annum. Other indicators include:

- **Electricity** consumed by the private sector is above the regional average;
- **Water** is a key issue for the South East overall and likely to become acute for many Diamonds, including flood risk which will worsen over time, especially with climate change and sea level rise;
- On average, the Diamonds produce 7% more **waste** per capita than the region as a whole, and household **recycling rates** across the Diamonds is slightly lower than the regional figure.

1.7 There is a potential conflict between tackling Ecological Footprint and delivering economic growth; such conflicts are more acute when addressed in relation to individual projects such as new developments. The Diamonds are well placed to look at action across a wide area to offset growth. For example, the inevitable increase in footprint from new development (more people using heat and appliances) can be 'offset' through an associated area-based retrofit programme to improve the energy/carbon performance of existing housing stock.

1.8 In the South East, we have a number of advantages to help achieve the shift to a low carbon economy. We have the companies, the research base and the innovation expertise to develop and deliver the resource-efficient products, processes and services which the UK and the rest of the world will need. The Diamond authorities have taken leadership on growth and creating the conditions for innovative solutions. The Diamonds are well placed to address the changes in attitudes and behaviour from producers and consumers that are needed alongside and to drive technological change. The Diamonds also have

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<sup>2</sup> Ecological Footprint – is a proxy measure of the sustainability of our economy and our current use of resources. It gives a measure of the equivalent productive area required to produce the resources consumed in an area and to assimilate the waste it generates

arrangements in place to provide mutual support and learning to assist with the challenges of tackling ecological footprint.

**1.9 If the Diamonds do not accelerate work to tackle ecological footprint, no amount of action elsewhere in the region will compensate. And it is vital that the challenge is addressed together across local authority boundaries – increasing housing and jobs in one part of a Diamond will inevitably increase footprint no matter how high the quality of build – and it will therefore need to be compensated by measures right across the Diamond, for example, through retrofitting and tackling city car use. Furthermore, as this is a national and global challenge, there is a ‘win-win’ for the Diamonds: finding and delivering low-carbon, resource-efficient solutions in the South East will create local jobs as well as provide the platform for exporting solutions, technology and skills internationally. A highly visible leadership role will, through providing publicity, help attract investment into the region and in turn assist with reducing footprint through technological means.**

*Table 1:  
Ecological Footprint (gha) and per capita Carbon Footprint (tonnes) in the South East Diamonds*

	Urban. S Hants	Brighton & Hove	Thames Gy/Kent	Gatwick	Reading	Oxford	B'stokes & Deane	MKeynes & Ay.Vale
EcoF/P (gha)	5.95	6.21	5.80	6.31	6.14	6.13	5.98	5.95
Carbon F/P (tonnes/capita)	12.96	13.58	12.61	13.31	13.18	13.42	13.10	12.93

*Data Source: Ecobudget UK 2006*

## **2. Focusing Action where it matters most for Diamonds' communities**

2.1 For the Diamonds, while all aspects of Ecological Footprint need to be addressed (see Fig 1), the key areas where action will be most effective are:

- **Home and Energy (19.5%)** – Domestic fuel, including gas and electricity, oil and biofuels. The building, maintenance and repair of dwellings. Alongside low energy and heat solutions, the use of renewable fuel.
- **Water** – Although not formally identified as a component of Ecological Footprint, the South East is already a highly stressed area. On average residents in the region use 10 litres more water per day than in other areas. The region will become more prone to flooding, and coastal issues.

2.2 The analysis of Diamonds' Ecological Footprint shows there are other key areas for action:

- **Food and Drink (18%)** – Food and drink purchased for home consumption, alcoholic drinks purchased in pubs and restaurants etc;
- **Transport (14%)** – car fuel, impact of purchasing and maintaining private vehicles, and public transport; (note: airport impacts are distributed across

- the region, rather than assigned to a particular local authority);
- **Consumables (14.5%)** – durable and non-durable items including newspapers, clothing, appliances, glassware, tools, medical products, etc;
- **Capital Investment (12%)** – investment in tangible fixed assets such as plant and machinery, transport, equipment, buildings and structures.

Figure 1 – key components of Diamonds' Ecological Footprint



Note: To these conventional categories of Ecological Footprint must be added water and waste.

2.3 In focussing action it is important that **interventions are in relation to activities that Local Authorities can influence**. Against that test, tackling the most critical elements of Ecological Footprint for the Diamonds would include the following heading (the detail of what actions are appropriate to Local Authorities is set out in Annex C):

- Energy** – demand reduction as part of community leadership; and use of renewable energy through public procurement.
- Homes and other buildings** – tackling energy and water in new build (through spatial planning; public procurement; and refurbishment).
- Other Water issues**– such as sustainable draining schemes; and flood risk management.
- Food** – through public sector procurement; and providing the conditions for local food supplies to thrive.
- Consumables**, by applying whole-life costing to procurement and purchasing decisions.
- Transport**, through action with public sector employees; spatial planning action; and community engagement.
- Green Space/Biodiversity**, through spatial planning action.

2.4 The benefit of action by the Diamonds is that these issues can be tackled in a joined up way in community strategies and place-making decisions, so as to deliver multiple benefits. Of course, action will not start with a blank sheet. There is already excellent work under way in many of the Diamonds. For example:

- PUSH plans for developing urban South Hampshire address the key strategic challenge to mitigate the environmental impact of the planned level of new housing and economic development, while introducing adaptation measures which factor in the anticipated effects of climate change.

- Crawley Borough Council has taken a comprehensive approach through adopting an environmental management system accredited under the European EMAS scheme. It has also helped to develop an emissions monitoring toolkit for local authorities.
- Brighton & Hove City Council last year approved a proposal to build a carbon-neutral, zero waste 'One Planet Living' community of 172 apartments. The first of its kind, it will be built to the highest environmental specifications. There will be allotments on the roof, and a biomass boiler in the basement. The Council also recently approved plans to produce a One Planet Living/Sustainability Action Plan for the whole city.

### **3. Proposed Targets for the Diamonds**

3.1 The Diamonds have already indicated an aspirational intent to achieve, by 2016, earlier implementation indicators, or a higher percentage. Thus:

- Earlier implementation of Level 4 homes
- Higher percentage of access to public transport/modal shift
- Earlier delivery of percentage reduction in water consumption
- Higher percentage increase in open space in urban areas

3.2 Setting an over-arching goal would enable the Diamonds to provide leadership within the region as a whole, and indeed to show this nationally. The Policy Group proposes the following:

**To stabilise the Ecological Footprint of each of the Diamonds by 2014, and to achieve a 30% reduction in Ecological Footprint by 2025, on a trajectory towards a 75% reduction by 2050.**

3.3 The 2014 target would be 2 years earlier than the RES target, and would demonstrate to communities the determination of the Diamonds to tackle quality of life. Beneath this overarching target would be targets focussed on what matters most for communities in the Diamonds, where the problems are most acute:

- Energy use across the Local Authority area, including working with business on energy consumption
- Homes
- Water

3.4 Not all Diamonds local authorities will be starting from the same position or baseline, so our proposed approach would be differential, to take account of the potential resource implications. First, to have a limited number of targets which apply to every Diamond. Second, within those, to prioritise key areas for action for each Diamond, reflecting the analysis of individual Diamonds' baseline.

3.5 Action will be supported through the Policy Group, assisted by regional action by SEEDA, SEERA and other regional bodies, for example to avoid the need for local authorities to devote resources to common tools required by all.

3.6 The Group proposes the following sub-set of targets:

**Energy****Reduce carbon emissions in each Diamond by 20% by 2012.**

*Critical to success will be to focus on reducing carbon emissions across the Diamond areas, including other public sector, not just in local authority operations. Priority should be given to reducing usage, improving energy efficiency and adopting low-carbon technology, both in housing and in industrial and commercial operations, where both energy use and CO2 emissions are currently above the regional average.*

**Alongside this, capturing the market opportunity by increasing the installed capacity of low-carbon renewable energy in each Diamond by 20% by 2012**

*Recognising the importance of renewable energy (including heat) in reducing carbon emissions; and anticipating the need to make a substantive contribution to a likely requirement for 30-40% of electricity to be derived from renewables in 2020, to meet EU targets*

**Homes and Buildings****Achieve Code for Sustainable Homes Level 4 by 2012 and zero-carbon new-build by 2014; and achieve improvements in carbon performance of non-domestic buildings;**

*Accelerating delivery of national targets for new homes by two years. Targeting non-domestic buildings in advance of a corresponding Code.*

**Water****Reduce water consumption in each Diamond by 20% by 2010**

*Improve water efficiency and reduce carbon emissions associated with the energy requirements of water management and distribution*

**4. Indicators and Measures of Success**

4.1 The intention would be for the measurement of progress to be taken from existing or planned work such as the Environment Agency's "State of the Environment Report for the South East". Other indicators would be through the LAA indicators. Measurement against LAA Target 186 (Percentage Reduction in CO2 from LA areas) will be particularly useful in showing the leadership impact of the Diamonds. A separate report on Indicators will be produced as part of the set of Guidance documents. In due course, further targets and indicators will be developed in partnership with the Diamonds to address other elements of their Ecological Footprint as set out in paragraph 2.2.

**5. The Commitment**

5.1 Diamond Local Authorities are asked to commit to the role of regional leadership, agreeing to adopt the overarching goal of stabilisation and reduction, plus the set of common targets proposed in paragraph 3.6 targeting the key elements of Diamonds' Footprints. The Diamonds are also invited to work together on cutting-edge practice and mutual support.

Ecological Footprint Diamonds Policy Group  
28 February 2008

## Annex A: National Policy Context

1 The framework of international, national and regional policy is clearly responding to the imperative to tackle global warming and climate change. Against the background of the IPCC's progressive refinement of its assessment of human-induced climate change and its likely impacts and risks, the UK and the EU have agreed short-term and long-term targets for reducing greenhouse gases and for the proportion of energy supply (including electricity) to be derived from renewable sources.

2 While the Government has accepted the need for a new nuclear power programme, it has recognised the need for a major 'push' on renewables, committing the UK to making its full contribution to the EU Target to derive 20% of energy from renewables by 2020, which, for the UK, could mean a requirement for as much as 30% - 40% of electricity from renewables.

3 The EU Emissions Trading Scheme, which combines progressive caps on emissions with tradeable permits, is being reviewed and extended. In the UK the Carbon Reduction Commitment, to be introduced under the Climate Change Bill's enabling powers, will impose a mandatory cap and trade regime on non energy-intensive private and public sector organisations consuming 6000MWh or more per annum; this will inevitably apply to some local authorities.

4 Under the Code for Sustainable Homes, it will be mandatory for all new housing to be zero carbon from 2016, with progressive milestones for 2010 and 2013. A recent report for CLG by the Green Building Council has examined the possibility of carbon reductions in all new non-domestic buildings, recommending a series of policy interventions to drive this forward in the absence of sufficient market response.

5 The Climate Change Bill will give legal status to the target to reduce CO<sub>2</sub> by 60% (on 1990 levels) by 2050; there is considerable pressure to raise this target to 80% or more, given better understanding of the serious global impacts of setting too low a target. The Bill will also introduce five-year national carbon budgets which, although no mechanism has been proposed, will inevitably need to translate into regional and/or sector-based targets.

6 The Commission on Environmental Markets (CEMEP), set up by Government to address what will be needed for UK industry to take full advantage of global opportunities for low-carbon technology, stressed the importance of a clear policy framework to drive investment and enterprise in environmental markets and highlighted the need for innovation support and market development through specification and procurement. It saw a major opportunity for the UK:

'A transition to a low-carbon, resource-efficient economy is needed to meet the global challenges of climate change and sustainable development. There will be winners and losers, but there are considerable opportunities for those countries and businesses with the foresight to seize them.

These exist not only for businesses competing for market share in providing environmental goods and services, but across all industry and commerce, as new approaches transform environmental performance and the way natural resources are used.'

## Annex B : Ecological Footprint and Carbon Footprint in the Diamonds

(Source: Ecobudget UK 2006)

	Ecological Footprint (global hectares/person)	Carbon Footprint (tonnes/person)
<b>Urban South Hampshire</b>	<b>5.95</b>	<b>12.96</b>
East Hampshire	6.19	13.60
Eastleigh	6.00	13.15
Fareham	6.06	13.28
Gosport	5.81	12.71
Havant	5.89	12.90
New Forest	6.10	13.42
Portsmouth	5.78	12.64
Southampton	5.88	12.86
Test Valley	6.07	13.32
Winchester	6.23	13.70
<b>Brighton &amp; Hove</b>	<b>6.21</b>	<b>13.58</b>
Brighton & Hove	6.25	13.74
Adur	5.94	13.01
<b>Thames Gateway/Kent</b>	<b>5.80</b>	<b>12.61</b>
Medway Towns	5.74	12.54
Gravesham	5.78	12.64
Swale	5.75	12.58
Dartford	5.86	12.82
<b>Gatwick Diamond</b>	<b>6.31</b>	<b>13.31</b>
Crawley	5.76	12.58
Horsham	6.23	13.71
Lewes	6.13	13.50
Mid-Sussex	6.19	13.59
Mole Valley	6.38	14.07
Reigate & Banstead	6.16	13.52
Tandridge	6.28	13.80
<b>Reading Diamond</b>	<b>6.14</b>	<b>13.18</b>
Reading	6.04	13.23
Windsor & Maidenhead	6.27	13.79
Bracknell Forest	5.93	12.96
Wokingham	6.20	13.59
West Berkshire	6.12	13.44
<b>Oxford Diamond</b>	<b>6.13</b>	<b>13.42</b>
Cherwell	5.99	13.13
Oxford	6.11	13.42
South Oxfordshire	6.17	13.55
Vale of White Horse	6.17	13.53
West Oxfordshire	6.09	13.39
<b>Basingstoke &amp; Deane</b>	<b>5.98</b>	<b>13.10</b>
<b>Milton Keynes &amp; A.Vale</b>	<b>5.95</b>	<b>12.93</b>
Milton Keynes	5.85	12.76
Aylesbury Vale	6.12	13.43

## **Annex C – Areas of activity that Local Authorities can influence**

### **(a) Energy – demand reduction as part of community leadership, and use of renewable energy through public procurement.**

- Initiatives to promote and encourage energy demand reduction (switch-off/eliminate stand-by) and energy efficiency (product performance standards);
- Business Resource (incl. Energy) Efficiency Programmes via local Sustainable Business Partnerships and Business Link.;
- Direct encouragement and support for renewable energy/low-carbon developments;
- removing planning barriers to renewable energy developments;
- Promotion and direct encouragement of combined heat and power (CHP) and District Heating schemes;
- Promotion of domestic energy monitoring/smart-metering to encourage behaviour change and improve energy management;
- Provision of home energy advice/discounts for residents;
- Addressing fuel poverty jointly with partners, including social housing providers

### **(b) Homes and other buildings – energy and water**

#### New Build

- requiring high-level minimum standards for all new-build, in advance of requirements of Code for Sustainable Homes and BREEAM equivalent, with particular emphasis on low energy and water efficiency
- local supply/high recycle content sourcing of materials, minimising waste.

#### Existing Stock

- Retrofitting existing homes and other buildings through
- improving standards of energy efficiency (insulation) and water efficiency
- meeting energy needs through renewables and heat;

### **(c) Other Water**

- Promoting take-up of water metering to encourage responsible use;
- Promotion/requirement for sustainable drainage schemes;
- Strict application of flood risk management measures in planning

### **(d) Food**

- Nutrition-based food policy
- Support for local food initiatives (minimise food miles and support for rural economy);
- Direct influence, through public sector procurement, on food and consumables;
- Information and promotion of local food to restaurant/hospitality sector;
- Applying whole-life costing to procurement/purchasing decisions;
- Facilities for energy recovery from food waste (eg anaerobic digestion)

### **(e) Consumables**

- Direct influence, through public sector procurement, on consumables
- Promoting/encouraging information on energy/carbon performance of consumables.
- Applying whole-life costing to procurement/purchasing decisions.

### **(f) Transport**

- Green Travel Plans;
- Minimising unnecessary journeys through greater use of video/telephone conferencing;
- Specification/procurement of low-carbon vehicles;
- Promotion and support for public transport/ improving modal integration;
- Spatial planning and service provision/location to minimise need for travel;
- Improve cycle lanes and pedestrian facilities

### **(g) Green Space/Biodiversity**

- Requirement for green infrastructure for biodiversity enhancement, recreation, heat sinks, and flood risk management, to be integrated in new developments;
- Planned wildlife corridors to accommodate adaptation to climate change.