

Strategic Environmental Assessment of the EU Structural Funds Convergence Programme for Cornwall and the Isles of Scilly 2007-2013

Draft Environmental Report

**Fraser Associates
August 2006**

Introduction

The process of preparation of the EU Structural Funds Convergence Programme for South West England 2007-2013¹ is subject to a Strategic Environmental Assessment (SEA). SEA aims to ensure the Programme will deliver a high level of environmental protection and enhancement.

This document is the draft Environmental Report for that Strategic Environmental Assessment. Its purpose is to provide a description of the likely effects on the environment of the activities proposed in the draft Operational Programme, together with options and recommendations for enhancing likely positive impacts, and reducing potential negative impacts, as a basis for consultation.

The report takes account of the suggested structure and required content, in accordance with the EU Directive on SEA² and Government guidance³. The content of individual Chapters is set out below:

1. The first Chapter provides an outline and key contacts for the Operational Programme and SEA.
2. The second Chapter details the focus of the Programme, and factors in its development.
3. The third Chapter gives a description of the SEA process in theory, and explains the way it has been tailored to better reflect the requirements of the Operational Programme.
4. The fourth chapter provides a summary of the key environmental policy issues and environmental context in which the Operational Programme will be delivered, including lessons from previous Programmes and wider political changes. Specific assessment criteria for use in the SEA have been developed on the basis this information.
5. The fifth Chapter concentrates on the assessments of the detail of the Programme. Following convention, these assessments are presented in matrix format, and the conclusions summarised.
6. The sixth Chapter considers issues which flow from the findings of the assessment process, particularly in relation to the implementation of the SEA, and discusses in detail the approaches taken to consideration of alternatives

¹ The terms Convergence Programme, Operational Programme and OP are used interchangeably in this report

² Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment

³ A Practical Guide to the Strategic Environmental Assessment Directive, ODPM and Administrations in Scotland, Wales and Northern Ireland, 2005

and to mitigation. It also presents recommendations on monitoring of the SEA, and finally, some concluding comments.

Feedback received as a result of this consultation will be used to inform the subsequent development of the SEA. While comments are welcome on all aspects of this draft Environmental Report and on the draft Operational Plan to which it refers, responses are particularly sought in answer to the questions highlighted at the end of each Chapter.

This draft environmental report has been prepared by Fraser Associates on behalf of the Government Office for the South West.

1. Outline and Key Contacts for the Convergence Programme for Cornwall and the Isles of Scilly 2007-2013

1.1 Responsible Authority

Following the publication of the revised UK National Strategic Reference Framework, the Authority responsible for the Programme has changed from the *Government Office for the South West (GO-SW)*, and is now the *South West England Regional Development Agency*. Ultimate responsibility still rests with the *UK Government Department of Communities and Local Government*.

1.2 Lead Contact

Carys Sanders
South West Regional Development Agency
Carys.Sanders@southwestrda.org.uk

The lead contacts for the Programme are:
Gareth Grimshaw, Government Office for the South West.
Gareth.grimshaw@gosw.gsi.gov.uk

The lead contacts in relation to this SEA are:
Mark Yeoman
Cornwall and the Isles of Scilly Objective One Partnership Office
myeoman@cornwall.gov.uk

Andrew Faulk
Fraser Associates
Andrew@fraser-associates.com

1.3 Programme Title

The Programme Title is *The Convergence Programme for Cornwall and the Isles of Scilly, 2007-2013*

1.4 Programme Area

The Programme will cover whole of the County of Cornwall plus the Isles of Scilly, part of the South West of England region.

1.5 Purpose of the Programme

Structural Funds are used to promote regeneration and economic development in regions and areas of the EU which are lagging compared to the average. The Funds are delivered within the wider context of EU Policy, including those on the environment and sustainable development. Convergence funding is targeted at areas with per capita GDP less than 75% of the EU average.

Structural Funds Programmes provide only a proportion of total costs for projects. Individual projects can be led by public, private or voluntary organisations, but must contribute directly to the overall aims of the

Programme. A wide range of activities can potentially be supported, from a menu of possible activities which is set out by the European Commission and which is then focused by the Governments of individual Member States. The detailed decisions on which activities will be taken up are made by regional partners. More detail on the options and guidance for the 2007-2013 period is given in the next section.

The Cornwall & Isles of Scilly Convergence Programme sets the framework for resources available through the European Regional Development Fund (ERDF). However, it also has a strong influence on the way that the portion of the portion of the UK allocation of the European Social Fund (ESF), which is ring fenced for Cornwall and the Isles of Scilly, is delivered. The Programme will also be developed to complement activities which will be supported by other European Funds, most importantly the European Agriculture Fund for Rural Development (EAFRD), delivered through the Rural Development Programme for England (RDPE).

Cornwall and the Isles of Scilly are at present covered by an Objective 1 Programme, which runs from 2000 - 2006. The current Programme, in which the European element is worth around £350m, brings together elements of all of the above funds. The financial allocations for the new Programme are €406m ERDF (approximately £270m) and €174m ESF (approximately £115m).

1.6 Frequency of Update

Previous European Programmes have had a formal requirement to undertake two evaluations, the first at the Mid Term stage, and the second following completion of the Programmes. The new ERDF regulation is less clear on the requirements for evaluations. While it is beyond the scope of this SEA to decide on the approach which will be taken to evaluation of the Programme, the comments on monitoring do provide recommendations for areas which might usefully be examined.

1.7 Ex-Ante Evaluation and Relationship to SEA

All EU funded programmes are subject to a process known as Ex-Ante Evaluation. Ex-Ante evaluators are external consultants, who provide quality assurance and mentoring role to those developing the programme. Ex-ante evaluators are not responsible for writing material which will form part of the plan, but, rather, are responsible for commenting on it, or for producing guidance and checklists to which those writing the plan can refer.

The overall aim of this process is to ensure that the programme is clearly set out, that activities proposed are justified by reference to the evidence base provided, and therefore to reduce the time required for negotiation when the programme is formally submitted for approval to the European Commission.

In the past, Ex-Ante evaluation has included an examination of the environmental elements of the Programme in question, and the European Commission has indicated that, for this Programming period, single contracts bringing together ex-ante evaluation with SEA were preferred. The ex-ante evaluation will therefore apply the same standards to the SEA material as are relevant to other aspects of Programme development.

2. Focus of the Programme

2.1 EU Proposals for the New Programme

EU Structural Funds promote cohesion across Europe, by supporting economic development activities which will address regional disparities within existing and candidate Member States. A number of factors influence the form of the new Convergence Programmes across Europe, including the one in Cornwall & Isles of Scilly:

There is a concentration of available resources for mainstream economic development and basic infrastructure towards the new Member States – those in Central and Eastern Europe, Malta and Cyprus. These resources will be delivered through the Convergence objective, the successor to the current Objective 1 status, and at a higher per capita rate than is currently the case.

Fewer areas in other Member States are eligible for these higher levels of Convergence support.⁴ The resources available for regions covered by Competitiveness and Employment Programmes – the successor to the current Objective 2 status - are likely to be significantly lower than at present. Because of this, the range of activities which can be carried out under these Programmes is more focused.

The European Commission has emphasised the need for all Programmes to contribute towards the Lisbon agenda⁵. This refers to the aim of making the European economy more competitive at a global level, and the implementation of this agenda is taking the form of greater emphasis on support for innovation and enterprise.

At the same time, wider social and environmental EU policy aspects – the Gothenburg agenda – have also clearly influenced the range of possible activities which can be supported, including focuses on environmental issues as they relates to economic development, and on sustainable urban development, which highlights more socially based issues.

The Commission has adopted regulations on the use of Structural Funds on Community Strategic Guidelines⁶, which provide more detail on the range of activities which are eligible for support, and which target the areas outlined above. A wide range of revenue and capital projects is envisaged for Convergence areas, and a similarly wide approach to environmental issues will therefore be taken in this SEA.

2.2 UK Proposals

The UK Government has set out, in the National Strategic Reference Framework, its expectations for the coverage of the Cornwall & Isles of Scilly Programme. The text in the box below is reproduced from the NSRF. As the only part of England which qualifies for Convergence funding, Cornwall and the Isles of Scilly has a dedicated section in the NSRF.

⁴ Cornwall and the Isles of Scilly is the only part of England that qualifies for Convergence status in 2007-2013.

⁵ Competitiveness Programmes are expected to contribute a minimum of (75%) and Convergence Programmes (60%).

⁶ Adopted on October 6th 2006

STRATEGY FOR THE CONVERGENCE OBJECTIVE IN ENGLAND

Cornwall and the Isles of Scilly is the only English region with a GDP per capita below 75% of the EU25 average. It will therefore qualify for full funding under the Convergence Objective for the 2007-2013 Financial Perspective.

ERDF

The three main priorities for ERDF spending within the Cornwall and the Isles of Scilly Convergence Programme will be: first, to promote innovation and knowledge transfer; secondly, to stimulate enterprise and business development; and thirdly, to improve accessibility and connectivity.

Priority 1: Promoting innovation and knowledge transfer

This priority will focus on promoting innovation, knowledge transfer and the transition to a more knowledge-based economy. Examples of actions that may be supported include: supporting innovation networks, increased investment in research and development, improving Cornwall's capacity to capitalise on research and development by supporting knowledge transfer and spin-offs (for example, building on the Combined Universities in Cornwall and the Knowledge Spa centres of excellence in academic, science and business research); offering high-technology facilitates for incubators; supporting the development and exploitation of environmentally friendly technologies; and encouraging the use of renewable energy and promoting greater energy and resource efficiency.

These activities will support CSGs 1.2 (Improving knowledge and innovation for growth), 1.2.1 (Increase and better target investment in RTD), 1.2.2 (Facilitate innovation and promote entrepreneurship) and 1.1.3 (Address Europe's intensive use of traditional energy sources). They will also support NRP 3.51-3.67 (Innovation).

Priority 2: Stimulating enterprise and business development

The purpose of this priority will be to create the conditions for enterprise and the development of sectors with strong growth potential. Examples of actions that may be supported include: offering technical and business advice, consultancy and investment for SMEs; supporting the growth of high-value businesses and assisting them to access global markets; improving access to finance and encouraging business investment; promoting the awareness of entrepreneurship among young people; encouraging business internationalisation; providing the necessary infrastructure for enterprise; developing new areas of activity (for example, in environmental technologies, renewable energy, creative industries, food, tourism, the health sector and the maritime industry); promoting the sustainable use of environmental assets and natural resources for economic regeneration and jobs (for example, landscape, climate, and natural and cultural heritage); marketing Cornwall and the Isles of Scilly as a dynamic sub-region; and creating a more attractive environment for investors, including contributing to the Government's liveability agenda.

These activities will support CSGs 1.2.2 (Facilitate innovation and promote entrepreneurship), 1.1.2 (Strengthen the synergies between environmental protection and growth) and 1.2.4 (Improve access to finance). They will also support NRP 3.24-3.50 (Enterprise).

Priority 3: Improving accessibility and connectivity

The purpose of this priority will be to improve Cornwall and the Isles of Scilly's accessibility and connectivity. Examples of actions that may be supported include:

building on Cornwall and the Isles of Scilly's existing transport infrastructure to improve connections and reduce peripherality; building on Cornwall and the Isles of Scilly's ICT infrastructure and encouraging broadband usage; improving connections between key towns; improving the accessibility of public services in urban and rural areas; and regenerating town centres.

These activities will support CSGs 1.1.1 (Expand and improve transport infrastructures) and 1.2.3 (Promote the information society for all). They will also support NRP3.36-3.37 (Promoting use of ICT).

ESF

There will be two broad priorities for ESF spending in Cornwall and the Isles of Scilly under the Convergence Objective: first, to tackle barriers to employment, and secondly, to improve the skills of the local workforce, particularly ensuring that the workforce has the skills to take part effectively in the knowledge economy. These priorities will encourage the skills and jobs needed for an innovative, enterprise economy. These priorities will be incorporated within an England ESF programme that covers both the Convergence Objective and the Regional Competitiveness and Employment Objective. The ESF priorities of the two objectives are broadly similar and a multi-objective programme will avoid the additional administrative burdens and costs of a separate, small Convergence programme for Cornwall and the Isles of Scilly.

Priority 1: Tackling barriers to employment

The purpose of this priority will be to tackle barriers to employment and increase the rate of employment. Examples of actions that may be supported include: tackling the causes of worklessness, in particular for people on incapacity benefits and in the most deprived areas; increasing childcare provision; supporting community economic development; promoting diversity and equality and supporting social enterprise within deprived communities.

These activities will support CSGs 1.3.1 (Attract and retain more people in employment and modernise social protection systems) and 1.3.2 (Improve adaptability of workers and enterprises and the flexibility of the labour market). They will also support NRP 4.1-4.51 (Delivering employment opportunity for all).

Priority 2: Improving the skills of the local workforce

The purpose of this priority will be to improve the employability of local workforce, by addressing gaps in skills levels. Examples of actions that may be supported include: improving basic, vocational and technical skills; and increasing ICT, business, research, enterprise, management and leadership skills in small and medium-sized enterprises.

These activities will support CSGs 1.3.2 (Improve adaptability of workers and enterprises and the flexibility of the labour market) and 1.3.3 (Increase investment in human capital through better education and skills). They will also support NRP 3.77-3.90 (Skills).

The NSRF also notes that:

- Biodiversity issues are seen as more directly relevant to the Rural Development Plan for England (RDPE);
- The role of Environmental Sustainability Theme Managers (ESTMs) is highlighted as an aspect of good practice central to delivery of environmental aims under existing and future Programmes; and that

- Climate change is an increasingly important issue for the new Programmes.

2.3 Regional Economic Development Policy

The NSRF also emphasises the need for the new Programmes to contribute towards regional priorities, as set out in respective Regional Economic Strategies (RES). The South West has recently completed its RES. The RES is a comprehensive document, which identifies and addresses a wide range of generic, sectoral and spatial issues in the region under three Strategic Objectives:

1. Successful and competitive businesses
2. Strong and inclusive communities
3. An effective and confident region.

A strong sustainable development ethos underpins the RES, formalised in the concept of the Environment as an economic driver. This has six detailed components:

1. Conserving environmental assets
2. Environment sector business development
3. Attracting and retaining skills, business and investment
4. Environmental Management skills for business
5. Resource efficiency for convergence
6. Use of environment in branding and niche marketing

The implications for economic development of climate change and of the need for economic development to take place within environmental limits are both recognised as key issues in the RES.

2.4 Key Challenges for Programme Development

The current Objective 1 Programme, which runs from 2000-2006, has a combined ERDF, ESF, EAGGF⁷ (now EAFRD) and FIFG (now EFF) allocation of some £350 million in total. The Programme has supported, and continues to support, a mix of business development, capital, community economic development and training activities across all sectors, as well as projects more specifically aimed at the agricultural, food, forestry and fishing sectors.

The new Programme, to which this SEA relates, directly plans ERDF and strongly influences ESF. It has no EAFRD or EFF elements. Nonetheless, the scale of the Programme, as noted above, has increased.

The Cornwall and Isles of Scilly Programme is therefore likely to be very different from those in other English regions. Elsewhere, EU Funds will be

⁷ The European Agricultural Guidance and Guarantee Fund (EAGGF) has now been re-named the European Agricultural Fund for Rural Development (EAFRD), and will be distributed in England through the Rural Development Plan for England (RDPE). A SW Regional Implementation Programme is being developed in parallel with the Convergence Programme and will describe regional priorities and delivery mechanisms. EAGGF resources originally allocated under the 2000-06 Programme are described using the original name.

very limited in comparison to domestic resources, and are also more limited in the scope of eligible activities. The key challenge in other regions is to focus EU Funds where they can make the greatest difference, taking into account what is already being done.

In Cornwall and Isles of Scilly, the programme will be considerably *more* significant in comparison both to GVA⁸, and also to the available public resource. However, there is no guarantee that future funding will be available at significant levels – indeed, the aim of Convergence funding is to improve the economy of the sub region to the point where the levels of funding required are on a par with those in other parts of England and the South West.

This implies a focus on ‘transformational’ projects, and on activities to build the capacity of economic actors in the region to take advantage of the opportunities such projects will bring.

In the case of Cornwall and the Isles of Scilly, it is likely that environmental strengths will provide the focus for some of these opportunities; at the same time, it is recognised that environmental protection and enhancement is critical to maintaining the existing quality of life in the region, in the context of greater economic activity. This is particularly the case in connection with climate change – there is a strategic commitment in the Operational Plan to ensure economic development takes place in conjunction with a responsible approach to carbon emissions, and this is a strong theme throughout this draft Environmental Report.

The proposals, as set out in the draft Operational Programme, flow from the above, and are centred around four key areas:

Innovation and research and development will seek to increase the rate of innovation and the economic benefits arising from the commercial application of research and development and other intellectual assets. This Priority will aim to raise the productivity of companies through the application of a wide range of knowledge including product and process improvements. It will address the low levels of innovation evident in the economy, and will seek to provide the key infrastructure and support service needed to develop and sustain a culture of innovation.

Enterprise and investment will focus on accelerating the growth of businesses, with a focus on high value added companies and developing high value added sectors with growth potential. The Priority will focus on addressing constraints and barriers to growth including lack of exports, low levels of investment, and seek to accelerate the adoption of new opportunities arising from digital and ICT. While Cornwall and the Isles of Scilly has a good record of employment growth and enterprise formation, the focus will be on the quality of opportunities, rather than magnitude.

Learning and Skills – This priority will follow the national agenda for ESF, but with specific activity within Convergence relating to ‘the skills needed to foster an innovative, knowledge driven economy’, ‘upskilling the workforce’

⁸ Gross Value Added (GVA) in the Cornwall and Isles of Scilly sub region is estimated at £5,500 million pa. For comparison, the current programme, is worth some £350m over 7 years.

and the 'funding of research'. This Priority will seek to reduce the high level of worklessness and develop a much more highly skilled workforce, with a particular emphasis on graduate and post graduate level skills. This will complement and support the emphasis of Priorities 1 and 2 on a more productive and higher value added business base.

Economic Infrastructure and Placed Based Regeneration – This priority will focus on improving internal and external connectivity, with a focus on allowing people and business to access new opportunities. This will be complemented by addressing economic and business infrastructure constraints which inhibit new investment by the private sector. This will include ensuring that new investments is secured at a scale which suits the town and/or location, taking account of the need to protect and enhance the built and natural environment and the quality of life. With a distributed employment base and a number of key towns, there is an opportunity to capitalise on the quality of life as a key asset in attracting and retaining talented and enterprising people and new investment.

Consultation Questions

- Do you have any comment on the range and depth of background information provided?

3. Developing the SEA Process for the New Programme

3.1 Stages in SEA

The overall aim of SEA is to ensure a high level of environmental protection; SEA contributes towards this aim by providing the best possible information to decision-makers, so that they are able to take informed judgements. The SEA process involves a number of stages:

- Screening is undertaken to determine whether there are significant environmental effects⁹.
- Collation of baseline environmental information provides a background for further stages.
- Scoping determines the range and detail of information which will be needed, and the criteria to be used in assessment. A scoping report (this document) is produced for comment by the designated SEA Consultation Bodies.
- Assessing the likely effects of the plan, including alternatives, forms the main element of the SEA.
- This assessment, together with an explanation of the process involved and the results, are published in the environmental report, in parallel with the consultation draft of the Operational Programme itself.
- Public consultation on the draft Operational Programme and Environmental Report is undertaken to gather feedback from stakeholders.
- The plan and environmental report are finalised, highlighting changes made, taking into account the views expressed during the consultation.
- Monitoring and review are undertaken throughout delivery of the plan to help identify adverse effects and to provide information for the next programming iteration.

The SEA process has been developed, to a large extent, for use in informing strategic plans with a strong physical component, and which, like the RSS, have major influences on the region. In those cases, it is possible to describe in some detail the baseline situation with respect to the environment, and to consider different ways of meeting the aims of the plan against that setting.

While these principles clearly remain valid, there are detailed issues involved in following a similar approach in the case of revenue plans such as the Convergence Programme. In particular:

- Despite its relative importance, the Programme represents only a small proportion of the total public and private sector resource available in the area. Many other issues will affect the state of the environment indicators which provide the context in which the Programme operates. It is therefore necessary for the SEA to retain a clear focus on what the Programme can do.

⁹ Screening is not required in this case – the European Commission has issued guidance confirming that SEA is required.

- A significant proportion of the available resource, as described in the Operational Programme, is targeted at revenue based actions, the detail of which is not yet known. Only a small number of capital projects are specifically identified in the Plan. In this circumstance, it is possible to identify, for the bulk of the programme, only the range of and scale of impacts which might result, but not the impacts themselves. Detailed project selection which will to a large extent determine the environmental and economic impacts of the programme will take place at the level of regional decision making over the 7 years of operation of the Plan.

A tailored approach has been developed in order to meet both the detail and spirit of the SEA requirements in this context. Specifically:

The environmental context material has been expanded to cover the interaction of the environment and economy, including, for example data on energy costs, and emerging studies on the likely impacts on the economy of climate change. There is also recognition that key issues for the environment in the sub-region at times require translation, to ensure they are relevant to the activities which are likely to be supported by the Programme. The overall aim has been to reflect the approach, taken in the RES, of making explicit that the environment is an economic driver, not just the passive setting against which economic development takes place.

Although this is the first time that SEA has been formally required in the context of EU Structural Funds Programmes, it is important to note that very similar work to that required by SEA has, in practice, been undertaken and evaluated in the current 2000-06 programming period. Notably, this body of evaluation material shows that implementation and delivery arrangements are as important in determining eventual environmental impacts as are strategic aims. This finding has been reflected in the SEA approach, which examines and presents clear recommendations on these issues.

Monitoring indicators have been proposed which reflect the activities likely to be undertaken by the Programme, but which link to the strategic issues discussed in the context material. This has been done to ensure that the progress of the Programme in relation to SEA aims can be recorded clearly.

3.2 Process of Programme Development

The process of developing the OP is set out in the table below, with the relevant SEA steps set out in parallel. The process is expected to run from August 2006 until March 2007.

Steps in Programme Development	Steps in SEA Process
EC documents and the (then draft) NSRF set out the broad areas which can be covered by the OP, and also emphasise the need for connection to regional priorities as set out in the RES.	These documents provided context for the SEA Scoping Report.
The RDA and GOSW with CCC and regional partners co-ordinated the production of detailed socio-economic material, with support from Ekos Consultants. A number of Task and Finish Groups were set up and provided input into the draft Programme; a large scale consultation event was held in Newquay at the start of October which also helped develop the approach.	A Steering Group was been set up to contribute to the environmental aspects of the Convergence Programme, and also to oversee the SEA process. Representatives from GOSW, South West RDA, Environment Agency, English Heritage, Natural England, and the Objective One Partnership are all involved. In addition, wider consultation on the Scoping Report was undertaken with Environment Kernow.
The draft Operational Programme was developed, taking into account summary findings from the SEA process and the finalised NSRF.	This draft Environmental Report was produced, based on the actions set out in the draft OP, and taking into account responses on the Scoping Report.
Consultation on both the draft OP and Environmental Report is open until February 16 th 2007	
A revised OP, taking into account consultation responses, will be submitted to the European Commission.	The Environmental Report will be finalised, including an additional section on the feedback received from consultation and comments on that feedback from the responsible authorities.

3.3 Partnership Involvement and Consultation

One of the strengths of EU Programmes, often highlighted in evaluations, is the high degree of partnership involved. In line with this, a steering group has been established to oversee the SEA. It involves representatives of the Environment Agency, Natural England, English Heritage, South West RDA, and GO-SW. The group has commented on much of the material which has been used in this draft Environmental Report, and on the broad approach taken.

Consultation Questions

- Do you have any comment on the approach proposed to undertaking the SEA?

4. Environmental Policy Context

4.1 Approach to Determining Relevant Plans, Programmes and Policies

This section outlines the relevant plans, programmes and policies (PPPs) which provide the context for the OP. Its aim is to show how the OP has been developed, and the extent to which actions are informed, constrained or focused by that context.

It is not possible for this list to be exhaustive. The range of policies, plans and strategies which could potentially be relevant in some way to projects ultimately supported by the OP, could extend to virtually all of those with a bearing on economic, social and environmental issues affecting Cornwall and the Isles of Scilly. However, the extent to which many of those documents would influence the OP or individual projects supported by the OP, is likely to be marginal in many cases. Further, there would be considerable duplication between them, since many policies essentially focus on the same generic aims, albeit at different geographic or strategic levels, and many – for example the Regional Spatial Strategy – already summarise and take account of the considerable library of research and policy development in Cornwall and the Isles of Scilly. It is more appropriate for this SEA to refer to that work than to repeat it.

Accordingly, the documents below have been identified as the most directly relevant to the development of the Programme.

4.2 Key Strategic Documents

European Level

Lisbon (1997) and Gothenburg (2001) European Councils
Council Regulation (EC) on the European Regional Development Fund (ERDF), European Commission, 2006
Council Decision on Community Strategic Guidelines for Cohesion, European Commission, (2005)
6 th Environmental Action Programme (2002)
EU Sustainable Development Strategy (2005)
Water Framework Directive, European Commission, (2000)
Natura 2000: <ul style="list-style-type: none"> • Habitats Directives (92/43/EEC) • Birds Directive (79/409/EEC)
EU Landscape Convention

National Level

UK National Strategic Reference Framework (2006)
Securing the Future – delivering UK Sustainable Development Strategy (2005)
Climate Change: the UK Programme (2006)
Landscape Character Assessment: Guidance for England and Scotland (2002)

Regional Documents

Regional Economic Strategy for the South West (2006) and associated SEA
Regional Spatial Strategy (consultation draft, 2006) and associated SEA
Regional Sustainable Development Framework for the SW
SW Regional Environment Strategy & Implementation Plan
SW Regional Assembly Waste Strategy 'From Rubbish to Resource'
South West Biodiversity Implementation Plan (2004)
South West Nature Map
South West Historic Environment Strategy (2005)
The Way Ahead – Delivering Sustainable Communities in the South West (2005)
Just Connect – The Integrated Regional Strategy, SW Regional Assembly
Strategy & Action & Associated SEA

4.3 Environmental Context

As with policies, plans and strategies, a great deal of data is clearly available on different aspects of the state of the environment in Cornwall & the Isles of Scilly. However, much of the data is only indirectly relevant, to the aims and activities which will be influenced by the Programmes. The detailed context material is available in Annex 1. The material below summarises the key points which emerge, together with key policy points from the documents and strategies above.

SEA Topic	Data	Trends and Key Points
Population	Population estimates and trends will be included in socio-economic data, as will data on demographic structures and trends.	The population of the SW has been rising at the fastest rate of all English regions. This trend is also evident in Cornwall and the Isles of Scilly, and is expected to continue, driven in part by the high quality of life in the region. There is increasing demand for housing, for the use of transport infrastructure, and on environmental resources. Existing policy, as set out in the RSS, is to accommodate that growth in ways which minimise negative environmental impacts.
Human health	Data on life expectancy is included in the socio-economic profile, along with wider information where related to the aims of the OP. Some information on health and environmental quality is also included.	Life expectancy in the SW is among the highest in England. Studies generally show a positive relationship between employment (and voluntary work) and health. Local environmental improvements can also be linked to health improvements, and to a number of key health aims, especially around promotion of active lifestyles.
Biodiversity, Flora and Fauna	Data on designated areas are included, together with assessment data on their condition. Trend data on bird species, including farmland birds, is one of the government's headline indicators of sustainable development.	The proportion of SSSI's in target condition is continuing to increase, but a significant minority remain in poor condition. One of Defra's PSA targets is to have all SSSI's in favourable condition by 2010. The majority of current pressures on biodiversity (and on countryside landscape and water quality) are most directly associated with agricultural practices, and with demand for products from the food and drink sector. There has been a long-term decline in farmland bird numbers, although there is some evidence of populations stabilising more recently. Agri-environment schemes which have nature conservation (and landscape quality) central aims have been introduced and expanded in recent years.
Landscape & cultural heritage	Data on landscape designations such as National Parks and Areas of Outstanding Natural Beauty are available, as are data on the occurrence of historic and distinctive landscape features, and on landscape change. It is important to note that the built landscape, in terms of the use of local materials, building design and the layout of towns and villages, is also very distinctive in the county. Data are also available on the extent to which landscape, countryside and coast represent attractions for tourists.	In common with other parts of England, there has been a long term decline in a number of distinctive landscape features over the long term, largely associated with agricultural practice. The natural and historic landscapes of the SW are widely recognised as forming the primary attraction for tourists and are also a central aspect of quality of life in Cornwall and the Isles of Scilly. There is some evidence of landscape change which is out of character with existing features.
Soil / Change of land use	Soil condition in the Programme area is closely associated with agriculture, and direct effects from the Programme are therefore unlikely. However, increasing development and expansion of urban areas implies a wider change in land use. Data on the re-use of previously developed land is included.	The re-use of brownfield land for housing within the SW is at lower levels than in England as a whole. However, RSS acknowledges that, although the SW has large areas of brownfield land, much of it is located in areas where its re-use would worsen other environmental trends, particularly in terms of transport and climate change emissions. Existing policy, endorsed by the SSA / SEA of the RSS is to concentrate development in existing towns and cities, re-using land where possible in that context.
Water	Data are available on water quality, availability, and cost	Water quality has been improving, but there remain some poorer areas in terms of biological quality in particular. There is also increasing pressure on water use, and water availability may be a constraint on development in some areas in future. Water costs per unit have been rising in recent years, although standing charges have fallen.

Air quality	Local air quality data are limited; where problems exist, they are concentrated in urban centres, and are most closely associated with emissions from transport.	Local air quality has improved in recent years in line with technological advances in road transport engines and emissions. However, rising volumes of road transport and congestion mean that isolated issues remain, concentrated in urban centres.
Climatic Factors	Climate change emission data by source are available. Trend data on transport use, the fastest growing source of emissions, is available. Limited data exist on the generation of renewable energy in the region. Data are also available on the benefits from existing energy efficiency work, at both project and programme level, and on energy costs.	The twin issues of reducing climate change emissions and adapting to unavoidable effects of climate change are highlighted across all policies, from EC to regional level. The issues are also recognised in the RES. Existing trends at UK level show a slight fall in emissions from industry, but a consistent rise in emissions from transport, and these trends are thought similar in the SW. More detailed analysis was undertaken in support of the SSA for the RSS, which highlights the scale of change of approach that would be necessary to reduce emissions, especially in relation to transport (including air travel, where emissions are increasing rapidly). Experience elsewhere suggests that significant savings from more efficient use of energy are possible within business, more so in the context of rising energy prices. Discussion on the most effective ways to address climate change emissions in the context of the Programme is likely to be a major focus for the SEA, particularly in the context of the strengthened focus in the finalised NSRF and considering wider developments including changing political emphasis and the publication of the Stern Report.
Material assets	Data on waste arisings by source (domestic, industrial, commercial) are available, as are data on recycling. It is also hoped that data on the costs of waste disposal will be available. Data on the benefits from waste minimisation projects are also being sought.	Volumes of waste generated in the region are of comparable levels to those elsewhere in England. Construction waste forms the largest single component of all waste, and volumes are rising. Volumes of industrial waste are falling slowly. Landfill and recycling are the main method of disposal, and there is increasing pressure on landfill availability. Volumes recycled are rising. Costs of waste disposal are also rising, driven jointly by the need to meet higher standards and increases in landfill tax.
<i>The topics below are not included in SEA guidance, but have been added with the agreement of the steering group as being relevant to the aims and activities of the Programme</i>		
Environmental performance of business	Data are available on ISO14001 registrations, but may not be complete. Other data, for example, on registrations of BS8555 (environmental standard for SMEs) are being investigated.	No trends are available; there is a greater concentration of ISO 14001 registrations in areas with large manufacturing industry bases such as the Midlands, than in the SW. Registrations overall represent a very low proportion of the business base.
Local environmental quality	Information on the role of the environment as a component in local regeneration is being sought.	Case studies illustrate the contribution that environmental actions can make to local regeneration. Generally, activities focus either on improvements to the local environment, or on the development of social economy businesses which focus on recycling. Such projects are frequently undertaken as a focus for volunteering, training and work experience, and have can particular benefits in engaging those furthest from the labour market,
Skills, training & awareness		In the longer term, higher levels of understanding of environmental issues and solutions will be critical to delivery of a more sustainable economy.

4.4 Issues in Data Availability

Government guidance on SEA recommends that gaps in data should be highlighted, so that data collection can be improved to better inform future environmental work. The data on the broad state of the environment is generally good in most cases, and it has been possible to find at least some material on environment / economy drivers. However, as noted in the table above, data is much less consistent in relation to a number of areas where the Programme may support project activity. For example:

- Information on the relative environmental performance of, and issues facing, different industry sectors is not available, beyond very broad categorisations.
- Systematic data on the quality of, and access to, greenspace in urban areas is not available.
- Data on the outcomes from environmental activities is available, but generally on the basis of case studies, rather than from consistent, large-scale evaluations.
- Data on the integration of environmental issues within training content is very limited.

4.5 Past Environmental Performance of Past European Structural Fund Programmes

As noted above, considerable work has been undertaken in respect of environmental integration into economic development in the context of all EU Structural Fund Programmes during the 2000-06 period. In 2005, Fraser Associates undertook a large scale study¹⁰ for Defra, which looked at all Programmes in England and which analysed:

- The depth and quality of environmental integration in written Programme materials;
- Centrally, the extent to which the environmental aims of the Programmes were delivered by projects in practice; and
- Based on extensive consultation, the reasons for variations in performance between regions.

The Cornwall and Isles of Scilly Objective 1 and SW Objective 2 Programmes were, respectively, the first and second most successful Programmes in England in delivering environmental integration through the projects supported by the Programmes.

This integration was evident in two types of project:

Vertical projects are those with an environmental theme, but which also deliver economic and social benefits. In the Programmes in the South West, these included a number of green tourism projects.

Horizontal projects have a mainstream, traditional economic development focus, but were delivered in ways which incorporated higher environmental standards. Examples are business development projects which encourage better environmental performance as an integral aim.

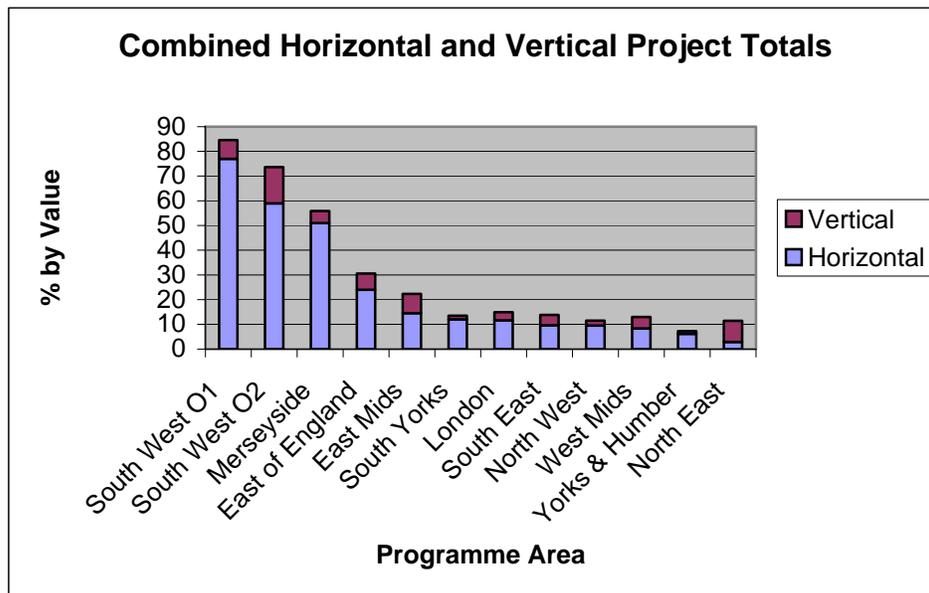
The graph below shows the incidence of vertical and horizontal projects in all English Programmes. A key point is that addressing issues like climate change in the context of climate

¹⁰ The Effectiveness of EU Structural Funds in Delivering the Government's Environmental Objectives, Fraser Associates with the Rural Development Company for Defra, 2005, <http://www.defra.gov.uk/rural/structure/default.htm>

change cannot be done by individual projects, but rather require smaller but more consistent actions – both South West Programmes have a strong track record in this respect.

Lessons from Other Regions

Notwithstanding the strong performance in the SW, the study found examples of other environmental project types which were more common in other areas, particularly around local environmental improvements and support for the (environmental) social economy sector. Depending on decisions taken in respect of the broad scope of the Programme, it may be appropriate to learn from experience elsewhere, particularly in relation to the increased focus on those furthest from the labour market.



Source: Objective One Website

Success Factors

The study found that the range of data used in preparing environmental profiles was similar in most Programme areas. While these data could provide a useful, if partial, outline of the environmental characteristics of Programme areas, the profiles were found not to have been a strong driver of Programme content.

Where integration in the aims of Programmes was more effective, it was generally as a result of the activities of environmental champions who understood the processes involved, and had promoted the greening of generic economic instruments.

Integration of environmental concerns into programme documents, application forms, specific guidance, monitoring indicators etc, was seen as a precondition for success, rather than being sufficient on its own. The findings from the consultation phase of the study, consistently across England, emphasised that the integration of environmental advice and expertise in decision-making processes, and during the development and delivery of projects, was the greatest single factor in achieving success.

This is consistent with the situation in the current Objective 1 and Objective 2 Programmes. Both employ in-house environmental specialists who are able to translate policy aims into

actions on the ground for those delivering projects, thereby helping them meet the overall aims of the Programme in environmental as well as economic terms. The posts are funded through Technical Assistance, with support from environmental agencies and other regional partners.

4.6 Developing SEA Criteria

Ultimately, the aim of considering the material above is to provide the best possible understanding of, in turn:

- The environmental situation in the region overall
- The likely areas of interaction between the environment and the Programme
- The extent to which past work around these areas of interaction has taken place.

Building on the above, SEA criteria have been developed which are used, below, in assessment matrices. Discussion with the SEA Steering Group suggested that two levels of criteria would be appropriate. These would assess:

Firstly, the likely impacts of individual elements and activities proposed. These will be linked to specific environmental issues, as developed above, and will be more closely related to SEA topics.

Secondly, and building on the above, the extent to which the overall proposals, and individual elements in combination, contribute towards agreed aims. These criteria should be closely linked to aims agreed in regional strategy material.

The criteria set out below were circulated in the Scoping Report, and reflect comments received. They have also been focused to reflect the conclusions from the policy review and profiling exercise.

The full list of specific criteria is presented in the table overleaf. In order to present the assessments in a more concise form, only the headline questions (those in bold, below) are reproduced in the individual tables; the full version is presented to make explicit the underlying aspects of the questions being asked of the Programme.

The following are proposed as criteria for higher-level assessment:

To what extent does the range of activities proposed within the Programme...

- Promote a sustainable approach to the use of environmental resources?
- Manage risks associated with future environmental change, especially in relation to climate change?
- Protect and enhance the natural environment?

Table 4.2: Detailed SEA Criteria

SEA Issue	Assessment questions
	<i>To what extent will the activities proposed under the programme...</i>
Climate change	<p>...address climate change by:</p> <ul style="list-style-type: none"> • Reducing emissions associated with organisations receiving support through the Programme? • Promoting the development and use of renewable energy? • Supporting projects which reduce emissions? • Affecting trends in transport use? <p>... include actions to mitigate the existing and predicted effects of climate change?</p>
Material assets	<p>...encourage greater efficiency in the use of materials by:</p> <ul style="list-style-type: none"> • Promoting the efficient use of materials in (particularly) new and existing industrial processes? • Encouraging organisations receiving support through the programme to move up the waste hierarchy? • Promoting the use of recycled materials in construction projects?
Water quality and management	<p>...contribute towards improvements in water quality and management, by:</p> <ul style="list-style-type: none"> • Promoting efficient use of water and improving the quality of waste water produced by organisations supported through the programme? • Ensuring capital projects incorporate technique to minimise pollution from run off, and capture greywater? • Contributing towards management of water catchments to reduce flood risks?
Climate change, air quality	<p>...reduce emissions and development impacts associated with transport by:</p> <ul style="list-style-type: none"> • Encouraging developments in locations served by public transport? • Promoting green transport plans as part of all developments? • Reducing the need to travel through the use of ICT? • Encouraging exports based on intellectual and high value, low bulk products and services? • Encouraging local supply chains?
Landscape	<p>...consider landscape impacts by:</p> <ul style="list-style-type: none"> • Ensuring built developments and their setting contribute to landscape character and local distinctiveness? • Promoting the economic re-use of historic buildings? • Managing tourism impacts associated with visits to historic sites and features?
Biodiversity, flora and fauna	<p>...contribute towards improvements in biodiversity, by:</p> <ul style="list-style-type: none"> • Ensuring the setting of built development, and local environmental improvements to incorporate habitat creation in line with biodiversity targets? • Developing, through the promotion of sustainable purchasing, the market for local agricultural goods produced to high environmental standards?
Development of the environmental economy	<p>...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?</p>
Raising awareness of environmental issues and solutions	<p>...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?</p>

Consultation Questions

- Do you have any comments on the range of environmental policies and data which have been used to focus the assessment questions?
- Do you have any comments on the assessment questions themselves?

5. Assessment of the Draft Operational Programme

5.1 Overview

This chapter presents, in matrix form and using the criteria described above, the assessment of the draft Operational Programme. The overall structure of the Programme is set out in the table below.

Table 5.1: Overview of the Convergence Programme

Priority	Sub-Heading
Priority Axis 1: Innovation and Research & Development	Research and Development
	Ideas, Innovation and Knowledge
	Specialist Infrastructure for Innovation and R&D
	Environmental Technologies and Renewable Energy
Priority Axis 2: Enterprise and Investment	Enterprise Culture
	New Starts
	Increasing ICT Take-up and Use
	Increasing Investment by the Private Sector
	Accessing National and International Markets
	Business Infrastructure for a Modern Economy
	Accelerating Business Growth
	Environmental Technologies and Renewable Energy
Priority Axis 3: Learning & Skills	Young People
	Worklessness
	Disadvantaged Groups
	14-19 Learners
	Adult Learning & Skills
	Workforce Development
	Higher Education & Skills
	Capacity Building
	Knowledge Infrastructure
Priority Axis 4: Economic Infrastructure and Place Based Regeneration	Connectivity: Transport Infrastructure
	Connectivity: Digital Infrastructure
	Place Based Regeneration

The assessment has been undertaken at three levels.

Firstly, there is an assessment of the broad environmental approach proposed by the Programme, as set out in the strategy and in the Environment Cross-Cutting Theme Chapter of the Programme.

Secondly, individual matrices are presented on the basis of each sub-heading in the table above.

The third level draws together the above, and assesses the overall likely impacts of the Programme.

Determination of 'Significance'

Conventionally, impacts are described in text, with impacts summarised by the use of symbols such as:

- ++** significant positive environmental impact
- +** limited positive environmental impact
- o** no impact
- limited negative environmental impact

- significant negative environmental impact
- ? impact to be determined, but likely to be limited
- ?? impact to be determined, and likely to be significant

The assessments show that the nature of likely impacts will vary depending on the precise projects supported, the detail of which is not determined during the OP process. Accordingly, some assessments combine symbols (? / + impacts probably positive but uncertain), and the 'mitigation' column in each matrix explores the conditions which would be necessary to ensure positive impacts at the delivery stage.

The extent to which an impact is significant or not, especially in the situation where detailed impacts are very difficult to predict in the first place, is obviously difficult. In practice, the findings reflect the combined judgement of the consultants and SEA steering group. These judgements have been informed by previous, project and programme level evaluation work in EU Structural Funds.

5.2 Assessment of the Broad Aims of the Programme

The Programme takes a strongly positive view of the integration of environmental issues at into objectives at the strategic level, which are (draft Operational Programme, p4):

- ***Transforming*** the economy to a more knowledge based, high value added economy with a broader range of sectors, and a reduced dependence on low paid jobs
- Supporting all sections of the community to ***access opportunities*** that meet their needs and aspirations
- ***Managing*** economic and population growth in a ***sustainable*** manner
- Take a leading role in ***aspiring to carbon neutrality***

These are expanded in more detail in terms of the 'distinguishing features' of the Programme (draft Operational Programme, p4):

- *This Operational Programme addresses the challenge of establishing a knowledge based, high value added economy in a peripheral and rural economy – if successful, Cornwall and the Isles of Scilly will be an exemplar for communities from all parts of Europe.*
- *The Programme puts knowledge, innovation and creativity at the heart of a responsible economy which values its environment as much as economic growth; it is a forward thinking Programme rooted in the talent and enterprise of its communities.*
- *The Programme sets out the most ambitious plans to develop environmental technologies and renewable energy sectors as a new wealth creating sector. This Programme will lead the way in developing responses which take account of the need to reconcile economic growth with the need to achieve carbon neutrality*

This approach is justified by a section on the environment in the profile material; in particular, 'key messages for the Programme' p28, include:

Environmental concerns will ensure that the issues surrounding sustainability are maintained as a policy making priority. However, more recent issues surrounding rising world energy prices and concerns regarding oil dependency have also promoted the sustainable agenda. Local energy initiatives, including commercial ventures such as wind farms, in addition to micro-generation facilities will help counter each of these issues. Cornwall and the Isles of Scilly is in a position to lead on more sustainable consumption and production measures such as SME energy efficiency measures and the enhanced role

of the environmental technologies sector. The Programme will aspire to carbon neutrality, for instance through energy efficiency and the development of renewable and sustainable energy sources.

Chapter 5 (p69) of the Programme covers Cross-Cutting Themes. Again, a strongly positive approach to the environment is set out, and there is a clear aspiration to move well beyond the minimum required, in order to help deliver the UK Government aims of a 'step change' in meeting – and exploiting opportunities surrounding – environmental challenges. In particular, this section seeks to promote eco-innovation, to future-proof economic activity against environmental impact, and to improve business environmental performance and efficiency. There is also clear recognition, following the discussion in the RES, that environmental limits have an impact on the type of economic development which should be promoted. Page 74 of the Programme (overleaf) summarises the environmental approach by Priority Axis.

A further section (p75) discusses Carbon emissions in more detail, around the aspiration of moving the Programme towards carbon neutrality. It acknowledges that further work will be necessary to explore this in practice, and that significant barriers exist at present.

Comment and Analysis

The approach described to environmental integration is strongly positive. There is clear reference to past work and evaluations of its success, but at the same time recognition that the debate surrounding environmental issues has moved on considerably, and that a significantly stronger approach is now required, particularly in relation to emissions of greenhouse gases. There is a high degree of consistency between the aims of this SEA, and the types of activity highlight against each Priority Axis.

However, past experience shows clearly that, in order for strategic commitment to flow through to delivery, it is necessary to thread environmental issues into all Priority Texts, and also to ensure that delivery mechanisms and structures take on board the aims set out in dedicated environmental sections. The following sections test the extent to which this is done at the levels of Priorities and sub-headings.

Environmental Actions by Priority (reproduced from the draft Operational Programme, p74)

Environment as Driver	Priority Axis	Impact on Environment	Response
Research, development and incubation of environmental goods and services, including Renewable Energies will result in new less resource and “green house” gas intensive technologies and the growth of emerging sectors.	Innovation, Research and Development	Environmental impacts associated with construction	Projects expected to be exemplars of environmental best practice in their design, construction and operation
The region’s HE/FE institutions hold specialist knowledge in some fields of environmental science and renewable energy. Better links with businesses operating in these fields will result in the commercial exploitation of this expertise		Environmental impact associated with new products and services identified	Incorporation of environmental management training – see Priority 2
The resource and energy efficiency and renewable energy strand of activity will support both existing and new businesses.			Proofing new technologies against their environmental impacts
Growth of businesses responding to greater demands for environmental technologies, goods and services – including the potential for growth in exports.	Enterprise and Growth	Environmental impacts associated with construction	Projects expected to be exemplars of environmental best practice in their design, construction and operation
Environmental management training resulting in more competitive sustainable businesses.		Environmental impact associated with new businesses	Incorporation of environmental management training early in the decision making process.
Social Enterprise models whereby local people learn skills to manage their local environment giving them the skills to enter employment or self employment.			Proofing business development activities against their environmental impacts
Learning and Skills represents an opportunity to deliver the environmentally literate workforce of the future.	Learning and Skills	Environmental impacts associated with construction	Projects expected to be exemplars of environmental best practice in their design, construction and operation
Learning and Skills represents an opportunity to deliver environmental training as part of a wider package of training within high impact sectors.		Environmental impact associated with new businesses	Incorporation of environmental management training
Re-invigoration of key towns will improve their attractiveness to investors, as long as care is taken to maintain the appearance and character of areas.			
	Economic Infrastructure and Place Based Regeneration	Environmental impacts associated with construction	Projects expected to be exemplars of environmental best practice
		Material use impacts associated with new ICT infrastructure and its use	Projects expected to be exemplars of environmental best practice
		Growth in use of airport leading in increased CO ₂ emissions	A package of measures to mitigate the carbon emissions, including energy efficiency targets, renewable energy systems and off-setting

Priority Axis 1: Innovation and Research & Development

5.3 Research & Development

Description	Likely Activities
Linking companies to University and HEI expertise and in assisting spin out from HEI in Cornwall and development of innovative businesses	<ul style="list-style-type: none"> • Increasing R&D capacity in HE, linked to high growth potential sectors • Increasing capacity for business research and development through R&D support and increased HE/business collaboration • Research Centres (Marine Renewable Energy, Peninsula Medical School) • Proof of concept funds

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	For all headings, environmental impacts will depend on the specific projects and businesses assisted, and the form of assistance given; support for the Marine Renewable Energy sector is ultimately likely to be positive.	Positive impacts are more likely where environmental support and advice is provided and taken up at an early stage of product and process development – this will require the integration of environmental expertise in appropriate peer group appraisal systems.
...encourage greater efficiency in the use of materials, including re-use of waste?	Likely significant, but uncertain impacts -- / ?? / ++	Likely impacts including mitigation measures ++
...contribute towards improvements in water quality and management?	In the absence of other factors, economic expansion is likely to be associated with a growth in transport.	Some expansion of transport is almost certain. Mitigation could include: <ul style="list-style-type: none"> - Local supply chain work - Use of ICT to reduce travel requirements
...reduce emissions associated with transport?	Likely negative impact of uncertain scale - / ?	Likely impacts including mitigation measures ? / ++
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	Impacts will depend on the demands of business in terms of resource use, and will be most significant in relation to the food & drink and extractive industries. There may also be impacts associated with the use of renewable energy in a marine context.	Promotion of environmental quality as a factor in food & drink business, or local / environmental sourcing in any sector, is likely to help deepen market demand for environmentally-friendly farming and for higher environmental management standards in other sectors. Appropriate consideration should be given to the (non-energy) impacts of marine renewable energy, for example through training for developers.
...contribute towards improvements in biodiversity?	Possible secondary impacts depending on business sectors supported - /? /+	Likely secondary impacts including mitigation measures ? / +

<p>...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?</p>	<p>Partial direct aim through the marine renewables centre; wider impacts will depend on the extent to which products generate demand for sustainable technologies through environmental proofing.</p>	<p>Positive impacts are more likely where environmental support and advice is provided and taken up at an early stage of product and process development – this will generate local demand for environmental technologies and expertise, and at the same time raise awareness of environmental issues.</p>
<p>...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?</p>	<p>Possible positive impact of uncertain scale ? / + / ++</p>	<p>Likely impacts including mitigation measures ++</p>

5.4 Ideas, Innovation and Knowledge

<p>Encouraging company led innovation, exploitation of Intellectual Property, product and process improvements</p>	<ul style="list-style-type: none"> • Knowledge networks and clusters • Building awareness/understanding of intellectual assets (workshops/seminars etc) • Specialist support for business on intellectual asset management and protection (intellectual property rights issues) • Intellectual Property Audits • Encouraging creativity and generation of new ideas in businesses • Using innovation drivers to provoke innovation behaviour in businesses including technology translation activities • Building HE (and FE) / business collaborations • Building capability of businesses to exploit R&D and other knowledge • Detailed market research for new products and processes • Financial advice and investor readiness programmes
--	---

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
<p>...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?</p>	<p>For all headings, environmental impacts will depend on the specific projects and businesses assisted, and the form of assistance given</p>	<p>Positive impacts are more likely where environmental support and advice is provided and taken up at an early stage of product and process development – this will require the integration of environmental expertise in appropriate IPR audits, peer group appraisal systems, workshop materials, scenario planning, and training.</p>
<p>...encourage greater efficiency in the use of materials, including re-use of waste?</p>	<p>Likely significant, but uncertain impacts -- / ?? / ++</p>	<p>Likely impacts including mitigation measures ++</p>
<p>...contribute towards improvements in water quality and management?</p>	<p>Likely negative impact of uncertain scale - / ?</p>	<p>Some expansion of transport is almost certain. Mitigation could include:</p> <ul style="list-style-type: none"> - Local supply chain work - Use of ICT to reduce travel requirements
<p>...reduce emissions associated with transport?</p>	<p>In the absence of other factors, economic expansion is likely to be associated with a growth in transport.</p>	<p>Likely impacts including mitigation measures ? / ++</p>
<p>...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?</p>	<p>Impacts will depend on the demands of business in terms of resource use, and will be most significant in relation to the food & drink and extractive industries.</p>	<p>Promotion of environmental quality as a factor in food & drink business, or local / environmental sourcing in any sector, is likely to help deepen market demand for</p>

<p>...contribute towards improvements in biodiversity?</p>	<p>There may also be impacts associated with the use of renewable energy in a marine context.</p> <p>Possible secondary impacts depending on business sectors supported - /? /+</p>	<p>environmentally-friendly farming and for higher environmental management standards in other sectors. Appropriate consideration should be given to the (non-energy) impacts of marine renewable energy, for example through training for developers.</p> <p>Likely secondary impacts including mitigation measures ? / +</p>
<p>...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?</p>	<p>Partial direct aim through the marine renewables centre; wider impacts will depend on the extent to which products generate demand for sustainable technologies through environmental proofing.</p>	<p>Positive impacts are more likely where environmental support and advice is provided and taken up at an early stage of product and process development – this will generate local demand for environmental technologies and expertise, and at the same time raise awareness of environmental issues.</p>
<p>...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?</p>	<p>Possible positive impact of uncertain scale ? / + / ++</p>	<p>Likely impacts including mitigation measures ++</p>

5.5 Specialist infrastructure for innovation and research and development

Innovation, research and development facilities and incubation units needed to nurture new idea and enterprises.	<ul style="list-style-type: none"> • Innovation Centres • Incubation Space • Support for spin out companies
--	--

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
<p>...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?</p> <p>...encourage greater efficiency in the use of materials, including re-use of waste?</p> <p>...contribute towards improvements in water quality and management?</p> <p>...reduce emissions associated with transport?</p> <p>...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?</p> <p>...contribute towards improvements in biodiversity?</p>	<p>The possible range of impacts from capital projects is well understood. Impacts will depend on the extent to which individual developments consider and address:</p> <p>Energy efficiency; Generation of power through on-site renewables Landscape and biodiversity impacts (through choice of materials, design and landscaping); Water efficiency and capture and use of greywater; Transport implications through site selection, provision of video conferencing facilities, and provision of facilities for non-car users; The re-use of land, where appropriate.</p> <p>All of these aspects (excluding ICT) are considered as part of the BREEAM assessment process, and there is clear commitment in the Programme to take this approach. Likely significant, positive impacts ++</p>	<p>All of these aspects (excluding ICT) are considered as part of the BREEAM assessment process. Commitment to BREEAM excellent as the mandatory standard for all new developments is the simplest way to deliver positive outcomes.</p> <p>Likely impacts including mitigation ++</p>
<p>...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?</p> <p>...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?</p>	<p>The extent to which this is delivered will depend on demand generated during construction processes.</p> <p>Likely positive impacts ++</p>	<p>The use of BREEAM standards (or their equivalent) will help develop the market for environmental technologies.</p> <p>In addition, the construction of all new buildings to BREEAM standards will act as an exemplar.</p> <p>Likely positive impacts ++</p>

5.6 Environmental Technologies and Renewable Energy

Services and facilities to support enterprises research and develop new products and processes	<ul style="list-style-type: none"> • Establish Wave Hub marine energy testing platform. • Innovation Centres and subsequent development to capitalise on the emerging intellectual assets.
--	--

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	The development of renewable energy will be positive in terms of climate change impact. Strong, positive impact ++	None necessary.
...encourage greater efficiency in the use of materials, including re-use of waste? ...contribute towards improvements in water quality and management? ...reduce emissions associated with transport?	Impacts will depend on the types of renewable energy developed, materials used and supply chains. These aspects of environmental management are as applicable to the renewables industry as to any other. Significant but uncertain impact - / ? / +	Provision and uptake of environmental management advice will help ensure impacts are minimised. Impact including mitigation +
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes? ...contribute towards improvements in biodiversity?	Impacts will depend on the technologies developed and their eventual location. Renewable industries based on biomass have implications for feedstock crops which should be considered. Significant but uncertain impact -- / ?? / ++	Since the Programme will support businesses, rather than individual projects, mitigation will best be accomplished by training developers in biodiversity aims and best practice, but impacts will still ultimately be beyond the scope of the programme. Impact including mitigation ? / ++
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	This is the central aim of this heading. Strong, positive impact ++	None necessary
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	Projects under this heading have the potential to act as exemplars for other parts of the Programme. Positive impact of variable scale + / ++	Active promotion will help deliver this aim. Impact including mitigation ++

Priority 2: Enterprise and Investment

5.7 Enterprise Culture

Raising the aspirations of young people, as well as stimulating new enterprise activity.	<ul style="list-style-type: none"> • Additional activities to encourage enterprise as a career option through schools, colleges and universities. • Activities that encourage innovation and enterprise amongst students and Further Education and University.
--	--

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	<p>The potential exists under this heading for very strong secondary impacts, depending on the eventual businesses developed by young people. These will depend on the extent to which a culture of sustainable development is embedded in the activities proposed.</p> <p>It is also important that students' surroundings reflects these aspirations, in terms of the behaviour and attitudes of the organisations delivering projects.</p> <p>Uncertain impacts, of potentially large scale ? / + / ++</p>	<p>The overall aim is to ensure that future generations of businesses, and of business leaders, develop in ways which take account of the changing limits and opportunities set by the environment and wider responses to the challenges posed.</p> <p>A range of activities might usefully be undertaken in support of this aim, including placement opportunities within existing environmental enterprises, and the use of current enterprise leaders as mentors and role models.</p> <p>Likely impacts including mitigation ++</p>
...encourage greater efficiency in the use of materials, including re-use of waste?		
...contribute towards improvements in water quality and management?		
...reduce emissions associated with transport?		
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?		
...contribute towards improvements in biodiversity?		
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?		
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?		

5.8 New Starts

Supporting and encouraging quality new starts with high growth potential in knowledge based sectors	Tailored services provided to high growth potential start-up businesses. Intensive support to include: <ul style="list-style-type: none"> • Business strategy, planning and marketing support; thorough market research; management capability.
---	--

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	Start-up businesses are unlikely to have significant environmental impacts given their scale, but may do so in the longer term depending on the extent to which they embed appropriate environmental approaches as they develop.	Including environmental advice appropriate to the level and sector of start-up businesses will help ensure their long term viability through reduced resource costs as well as lower environmental impacts. Advice should also incorporate discussion on local sourcing, consideration of environmental aspects appropriate to the sector and market, and the use of ICT. Impact including mitigation ++
...encourage greater efficiency in the use of materials, including re-use of waste?	Likely significant impact over time -- / ?? / ++	
...contribute towards improvements in water quality and management?	Economic activity is likely to generate increased volumes of transport; impacts will vary depending on the supply chains and local links developed, and the use of ICT and video conferencing. Possible moderate impacts over time - / ? / +	
...reduce emissions associated with transport?	Secondary impacts are likely, depending on the sector in which new businesses are operating. In particular, those in the food & drink and tourism sectors, or those depending on raw materials from other primary industries, have implications through the demand they create. Possible significant impacts over time - / ?? / ++	
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	The extent to which these activities will impact on this aim will depend on the demand generated by mainstream businesses. Possible, but uncertain, impacts ? / + / ++	
...contribute towards improvements in biodiversity?	Impacts will depend on the extent to which support incorporates environmental advice. Possible, but uncertain, impacts ? / + / ++	
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?		
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?		Take up of advice, as outlined above, will encourage the development of local markets for sustainable technologies, and will also promote awareness. Impact including mitigation ++

5.9 Increasing ICT take and use

Supporting businesses take-up ICT opportunities.	<ul style="list-style-type: none"> • Initiatives to target businesses based on sector, theme or geography. • Range of support mechanisms for businesses of different skills levels.
--	---

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	Impacts are likely to be positive, through reduced need for travel. Likely positive impacts + / ++	None necessary, beyond promotion of benefits.
...encourage greater efficiency in the use of materials, including re-use of waste?	Possible, but limited, positive impacts through use of computer modelling rather than physical development of products; potential generation of electrical waste as a secondary impact with associated cost. Limited, variable impacts likely - / ? / +	Possible secondary benefits from seeking to develop mechanisms for recycling old ICT equipment. Impact including mitigation +
...contribute towards improvements in water quality and management?	No direct impacts likely: 0	None necessary
...reduce emissions associated with transport?	Impacts are likely to be positive, through reduced need for travel. Likely positive impacts + / ++	None necessary
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	No direct impacts likely: 0	None necessary
...contribute towards improvements in biodiversity?	No direct impacts likely: 0	None necessary
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	Positive impacts so far as Information Technologies are sustainable in use where they reduce the need to travel. Limited positive impacts likely +	None necessary
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	No direct impacts likely: 0	None necessary

5.10 Increasing investment by the private sector

Addressing market failure in the provision of certain types of capital, and assisting SMEs to develop investor ready proposals. Promotion and marketing.	<ul style="list-style-type: none"> • Investor readiness schemes. • In cases of proven market failure, venture, seed capital, JEREMIE and JEREMIE like schemes. • Promotion of Cornwall and the Isles of Scilly as an investment location.
--	--

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	<p>Impacts will depend on the approaches to environmental management among the businesses supported, and the sectors in which they operate; in the case of inward investments, there may be significant secondary impacts through the development of new sites and associated environmental services demands over time.</p> <p>Likely significant direct and indirect impacts -- / ?? / ++</p>	<p>Evaluation evidence suggests that incorporating environmental expertise in investment decision-making processes is wherever possible the best approach, as it is difficult to predict the full range of issues which may arise in investment decisions.</p> <p>Promotion of the environmental quality of the Programme area is already a strong feature of investment materials, and it may be possible to emphasise also the aims of the region in developing the environmental sector to ensure that inward investment projects enhance those aims.</p> <p>Nonetheless, there will still be impacts generated by the Programme but outwith its control.</p> <p>Impacts including mitigation - / ? / + / ++</p>
...encourage greater efficiency in the use of materials, including re-use of waste?		
...contribute towards improvements in water quality and management?		
...reduce emissions associated with transport?		
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?		
...contribute towards improvements in biodiversity?		
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?		
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?		

5.11 Accessing national and international markets

Reducing barriers to international trade, particularly through international joint ventures and alliances.	<ul style="list-style-type: none"> • In-depth support for companies wishing to trade internationally. • Specific support to address cultural and language barriers. • Grants and loans to help companies overcome initial barriers to international trade.
--	---

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	International trade is likely to depend to a large extent on air transport, with associated CO2 emissions; the commitment to trade based on knowledge rather than bulk goods will reduce these impacts to some extent, but they will remain significant. Strong, negative impacts likely --	Significant mitigation in relation to air transport is only possible through carbon offsetting. The Programme acknowledges that further discussion around this issue is necessary. Impacts including mitigation - / ?? / +
...encourage greater efficiency in the use of materials, including re-use of waste? ...contribute towards improvements in water quality and management? ...reduce emissions associated with transport? ...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes? ...contribute towards improvements in biodiversity? ...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area? ...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	Impacts will depend (as with energy use relating to products and services) on the enterprises supported and the extent to which they take up available services. The wider commitment to developing the environmental sector means that some businesses exporting will bring environmental benefits elsewhere. Uncertain, but potentially significant impacts ?? / +	Provision of environmental management services as appropriate to all businesses will help reduce non-travel impacts. Impacts including mitigation ? / +

5.12 Business infrastructure for a modern economy

Addressing market failure in the property market.	<ul style="list-style-type: none"> • Beacon Technology Park, Bude Business Park, Indian Queens. • Workspace Strategy. • Rural Workspace.
---	---

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
<p>...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?</p> <p>...encourage greater efficiency in the use of materials, including re-use of waste?</p> <p>...contribute towards improvements in water quality and management?</p> <p>...reduce emissions associated with transport?</p> <p>...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?</p> <p>...contribute towards improvements in biodiversity?</p>	<p>The possible range of impacts from capital projects is well understood. Impacts will depend on the extent to which individual developments consider and address:</p> <p>Energy efficiency; Generation of power through on-site renewables Landscape and biodiversity impacts (through choice of materials, design and landscaping); Water efficiency and capture and use of greywater; Transport implications through site selection, provision of video conferencing facilities, and provision of facilities for non-car users; The re-use of land, where appropriate.</p> <p>All of these aspects (excluding ICT) are considered as part of the BREEAM assessment process, and there is clear commitment in the Programme to take this approach. Likely significant, positive impacts ++</p>	<p>All of these aspects (excluding ICT) are considered as part of the BREEAM assessment process. Commitment to BREEAM excellent as the mandatory standard for all new developments is the simplest way to deliver positive outcomes.</p> <p>Likely impacts including mitigation ++</p>
<p>...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?</p> <p>...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?</p>	<p>The extent to which this is delivered will depend on demand generated during construction processes.</p> <p>Likely positive impacts ++</p>	<p>The use of BREEAM standards (or their equivalent) will help develop the market for environmental technologies.</p> <p>In addition, the construction of all new buildings to BREEAM standards will act as an exemplar.</p> <p>Likely positive impacts ++</p>

5.13 Accelerating Business Growth

Support focussed on working with businesses with growth potential, aimed at improving competitiveness.	<ul style="list-style-type: none"> Targeted initiatives, likely to focus on accelerating the growth of higher value added companies.
--	---

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	Growing business may not have significant environmental impacts at the time of assistance, but may do so in the longer term depending on the extent to which they embed appropriate environmental approaches as they develop.	Including environmental advice appropriate to the level and sector of growing businesses will help ensure their long term viability through reduced resource costs as well as lower environmental impacts. Advice should also incorporate discussion on local sourcing, consideration of environmental aspects appropriate to the sector and market, and the use of ICT. Impact including mitigation ++
...encourage greater efficiency in the use of materials, including re-use of waste?	Likely significant impact over time -- / ?? / ++	
...contribute towards improvements in water quality and management?	Economic activity is likely to generate increased volumes of transport; impacts will vary depending on the supply chains and local links developed, and the use of ICT and video conferencing. Possible moderate impacts over time - / ? / +	
...reduce emissions associated with transport?	Secondary impacts are likely, depending on the sector in which new businesses are operating. In particular, those in the food & drink and tourism sectors, or those depending on raw materials from other primary industries, have implications through the demand they create. Possible significant impacts over time - / ?? / ++	
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?		
...contribute towards improvements in biodiversity?		
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	The extent to which these activities will impact on this aim will depend on the demand generated by mainstream businesses. Possible, but uncertain, impacts ? / + / ++	
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	Impacts will depend on the extent to which support incorporates environmental advice. Possible, but uncertain, impacts ? / + / ++	

5.14 Environmental Technologies and Renewable Energy

Develop an Environmental Technology/renewable energy initiative to create a major new industry.	<ul style="list-style-type: none"> • Capitalising on wave hub project to become world leader in marine energy. • Inward investment targeting. • Development of collaborative networks.
---	---

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	The development of renewable energy will be positive in terms of climate change impact. Strong, positive impact ++	None necessary.
...encourage greater efficiency in the use of materials, including re-use of waste? ...contribute towards improvements in water quality and management? ...reduce emissions associated with transport?	Impacts will depend on the types of renewable energy developed, materials used and supply chains. These aspects of environmental management are as applicable to the renewables industry as to any other. Significant but uncertain impact - / ? / +	Provision and uptake of environmental management advice will help ensure impacts are minimised. Impact including mitigation +
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes? ...contribute towards improvements in biodiversity?	Impacts will depend on the renewable technologies developed and their eventual location. Renewable industries based on biomass have implications for feedstock crops which should be considered. Significant but uncertain impact -- / ?? / ++	Since the Programme will support businesses, rather than individual projects, mitigation will best be accomplished by training developers in biodiversity aims and best practice, but impacts will still ultimately be beyond the scope of the programme. Impact including mitigation ? / ++
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	This is the central aim of this heading. Strong, positive impact ++	None necessary
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	Projects under this heading have the potential to act as exemplars for other parts of the Programme. Positive impact of variable scale + / ++	Active promotion will help deliver this aim. Impact including mitigation ++

5.15 Priority Axis 3: Learning and Skills

The majority of the resource under this heading is available under the (England-wide) European Social Fund. The activities which will be funded under the Convergence Programme are limited to the infrastructure necessary to deliver skills training. Nonetheless, the Programme has a high degree of influence on the detailed direction of ESF spend, and the broad areas of ESF activity to be supported are set out in the Programme and summarised below. From an environmental perspective, it is appropriate to set out the three broad aims which are relevant to all of the activities (including the ESF component), than to develop formal assessment matrices, since the majority of these would describe identical aims. These aims are:

- To ensure that environment (and wider sustainable development) issues are incorporated into the content of all mainstream training, as appropriate to the sector and training concerned;
- To seek to make available support for organisations, generally in the third sector, which deliver social and economic benefits through environmental activities, accepting that this wider focus may incur additional costs as well as benefits; and
- To ensure that good practice in terms of environmental management is mainstreamed across all organisations; without this, there is a danger of students and beneficiaries receiving mixed messages about the importance of the environment.

The impacts against this Priority will depend on the extent to which these approaches are adopted and delivered. In terms of the aims of this Priority as described, it is important to highlight that the people targeted are, in many cases, those quite far from the mainstream labour market, for whom activities delivered by bespoke, rather than bulk, training organisations are more important. Although the role of such enterprises is recognised, it appears only under the Capacity Building heading, with very limited resources.

It is also critical for the longer term delivery of the Programme's environmental aims that all levels of professional training incorporate appropriate environmental and social understanding, in order to underpin the wider aspirations towards sustainable development, in line with the Government's aims of promoting 'sustainable literacy'.

The Convergence Programme has most direct influence over the provision of high quality infrastructure for training, to be supported by ERDF. Where this involve new or refurbished buildings, a commitment to the use of BREEAM, as in the other parts of the Programme, would be very helpful. This will help ensure consistency between educational aims and the surroundings in which training is delivered. ***Impact associated with infrastructure and including this commitment ++***

It is accepted that the Programme has some, but less direct, influence on ESF spend. Where possible, the inclusion of environmental and sustainable development issues in the content of training would potentially have ***significant, long term, positive impacts ? / + / ++***

Priority Axis 3: Learning and Skills Overview

Tackling Barriers To Employment (Indicative Actions)	
Young people	Focusing on young people not in Education, Employment and Training (NEET) and those likely to enter the NEET group (preventative actions), as well as those aged under 25 on Incapacity Benefit or out of the labour market.
Worklessness	Focussing on those on Incapacity Benefit (27,300 in total) and addressing the multiple factors which make a return to work or training a challenge. Focus on those recently registered for Incapacity Benefit.
Disadvantaged Groups	Focusing on groups facing particular challenges in taking up training and employment opportunities, including lone parents.
Improving The Skills of The Local Workforce (Indicative Actions)	
14-19 Learners	Raising achievement, self-esteem and success levels for 14-19 learners
Adult Learning and Skills	Increasing choice and access to learning and skills training for Adults (19+)
Workforce Development	Raising workforce and business skills at all levels across all sectors in Cornwall and the Isles of Scilly to match the best in the UK. This will include joint actions with social partners to engage employers and support employees in learning and training.
Higher Education and Skills	Increase the number of HE students enrolled at the Combined Universities in Cornwall and increasing higher skills training by those in employment.
Improving The Skills of The Local Workforce	
Capacity Building	About 2% of the ESF Convergence allocation will be available for social partner capacity building projects. This will enable social partners to contribute to delivering the Convergence ESF priorities and outcomes. Joint actions with social partners, particularly, for example, with the TUC, CBI and FBS will be encouraged to ensure that this is achieved. This will include the support and development of social enterprises.
Technical Assistance ESF	Technical assistance funds will be available to finance preparatory, management, monitoring, evaluation, information and control activities of the operational programme, together with activities to reinforce the administrative capacity for implementing the funds. This will include the Programme's publicity and communication strategy, support for cross-cutting themes and development of Programme monitoring and evaluation systems. Technical assistance will be available to support partners in the non-governmental sector to participate in and deliver Programmes. In the Convergence region, technical assistance will also be used to invest in administrative capacity to facilitate programme delivery and strengthen capacity in impact analysis and evaluation
Knowledge Infrastructure ERDF	Supporting the development of new facilities critical to the further development of the research base and knowledge economy, as well as the provision of high quality training relevant to the up-skilling of the workforce.

Priority 4: Economic Infrastructure and Place Based Regeneration

5.16 Connectivity: Transport Infrastructure

Create a fully accessible and sustainable transport infrastructure	<ul style="list-style-type: none"> • Isles of Scilly transport improvements. • Newquay Airport and associated development • Feasibility and pre-development activity relating to medium term investment in strategic road network
--	--

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	The proposed activities, with the exception of those relating to water-based transport to the Isles of Scilly, are likely to increase significantly CO2 emissions, both directly and indirectly, from air and road transport.	No mitigation necessary in respect of the IoS in relation to ferry transport.
...encourage greater efficiency in the use of materials, including re-use of waste?		Mitigation of the increased emissions from airport activity is only substantively possible through carbon offsetting. Mitigation of local impacts can be undertaken through management of aircraft flight paths to some extent. Mitigation of the associate transport generated by the airport can in part be delivered by improvements in connections to the rail network.
...contribute towards improvements in water quality and management?	Impacts on landscape are also very likely (including, possibly, from noise), and impacts on biodiversity possible, in relation to the development of the road network and airport. These are likely to be negative due to the nature of the activities proposed.	
...reduce emissions associated with transport?		
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?		Limited positive impacts would be associated with delivery of the road upgrading aims incorporating best practice in terms of design, habitat (re)creation, water management to reduce pollution from transport, and the use of secondary aggregates in road construction. Mitigation of impacts from the use of the road in the longer term will be less straightforward, and is likely to depend on support for public transport, and probably carbon offsetting.
...contribute towards improvements in biodiversity?	Some potential also exists for positive impacts, discussed in the mitigation column. Very significant, probably negative, impacts likely overall -- / ??	In the absence of large-scale mitigation work, impacts are almost certain to remain negative to some extent, with some more positive aspects possible at the margins. - / ??/ +
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	No direct impact likely: 0	
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	No impact likely: 0	

5.17 Connectivity: Digital Infrastructure

Provide the technology to support trade locally, nationally and internationally	<ul style="list-style-type: none"> Infrastructure to be developed to enable Cornwall and Isles of Scilly to be a leading edge centre of broadband connectivity
---	---

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	Impacts are likely to be positive, through reduced need for travel, but it is also important to ensure that ICT users are aware of associated energy consumption and management issues. Likely positive impacts ? / + / ++	Awareness of energy management, and of the potential to use ICT to reduce travel, should be included in training and business support. Impact including mitigation ++
...encourage greater efficiency in the use of materials, including re-use of waste?	No direct impacts likely: 0	None necessary
...contribute towards improvements in water quality and management?	No direct impacts likely: 0	None necessary
...reduce emissions associated with transport?	Impacts are likely to be positive, through reduced need for travel. Likely positive impacts + / ++	None necessary
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	No direct impacts likely: 0	None necessary
...contribute towards improvements in biodiversity?	No direct impacts likely: 0	None necessary
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	Positive in so far as Information Technologies are sustainable in use where they reduce the need to travel. Limited positive impacts likely +	None necessary
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	There is potential to use ICT to deliver advice and support on environmental management in a cost effective and low impact way. Possible positive impacts ? / + / ++	Awareness of energy management, and of the potential to use ICT to reduce travel, should be included in training and business support. Impact including mitigation ++

5.18 Place based Regeneration

<p>Develop towns and settlements with the business infrastructure to support economic growth</p>	<ul style="list-style-type: none"> • Truro local transport package • CPR local transport package and investment in business infrastructure • Falmouth/Penryn local transport package • St Austell (local A391 scheme to open up development land) • Newquay Growth Area • Other key towns and developments (to be developed on a phased basis, taking account of need for intervention, economic benefits, and value for money, and links to the Programme objective of transforming the economy)
--	---

<p>To what extent will the activities proposed under the programme...</p>	<p>Likely Impact</p>	<p>Mitigation issues / comment</p>
<p>...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?</p>	<p>The proposed activities are likely to increase significantly CO2 emissions, both directly and indirectly, from road transport.</p>	<p>Limited positive impacts would be associated with delivery of the road upgrading aims incorporating best practice in terms of design, habitat (re)creation, water management to reduce pollution from transport, and the use of secondary aggregates in road construction.</p>
<p>...encourage greater efficiency in the use of materials, including re-use of waste?</p>	<p>Local impacts on landscape are also likely, and impacts on biodiversity possible, in relation to the development of the road network and airport. These impacts are likely to be negative due to the nature of the activities proposed.</p>	<p>Stronger positive impacts might result from the re-working of road use to enhance the built environment in villages and towns; impacts will depend on specific schemes supported ? / + / ++</p>
<p>...contribute towards improvements in water quality and management?</p>	<p>Transport developments in and around historic towns have the potential for both positive and negative impacts in relation to the built heritage.</p>	<p>Mitigation of impacts from the use of the road in the longer term will be less straightforward, and is likely to depend on support for public transport, and probably carbon offsetting.</p>
<p>...reduce emissions associated with transport?</p>	<p>Some potential also exists for positive impacts, discussed in the mitigation column.</p>	<p>Significant negative impacts are likely to remain in the absence of similarly large scale mitigation work - / ?? / +</p>
<p>...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?</p>	<p>Very significant, probably negative, impacts likely -- / ?? / +</p>	<p>Significant negative impacts are likely to remain in the absence of similarly large scale mitigation work - / ?? / +</p>
<p>...contribute towards improvements in biodiversity?</p>	<p>No direct impacts likely: 0</p>	<p></p>
<p>...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?</p>	<p>No direct impacts likely: 0</p>	<p></p>
<p>...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?</p>	<p>No direct impacts likely: 0</p>	<p></p>

5.19 Summary and Strategic Assessments

As discussed in section 5.2, the overall strategic approach to the Programme was found to be strongly positive. The aim of this section is to test the consistency of those strategic aims against the detailed findings from the individual assessments.

The use of the higher level questions provides an opportunity to summarise the above assessments and draw out key messages, taking into account the range, as well as the detail, of activities proposed. It is important to recognise that the NSRF provides the menu of options effectively open to the programme – it would not be appropriate to suggest the inclusion of activities which are environmentally beneficial but which fall outside that range.

To what extent do the Priorities and Programme overall...

- Promote a sustainable approach to the use of environmental resources?
- Manage risks associated with future environmental change, especially in relation to climate change?
- Protect and enhance the natural environment?

Innovation and Research & Development

The focus on the development and commercialisation of new technologies clearly recognises the opportunities associated with environmental change. However, there is at present less explicit recognition of the need to ensure that new products and services which are supported assess, and if necessary are assisted to improve, their environmental impacts. This will be particularly important in relation to energy use, in the context of the likely focus on reduction of carbon emissions. There are likely to be only quite limited, secondary opportunities to enhance the natural environment under this heading.

The assessments clearly show that impacts including mitigation will be strongly positive, but also that the achievement of those impacts will depend upon the extent to which the structures employed embrace environmental issues and provide appropriate support for the businesses and academic institutions concerned.

Competitiveness and Investment

Similarly, there is already a strong focus on the development of the environmental sector under this heading, but much less substantive mention of resource use and energy efficiency as issues for all mainstream businesses in the detailed texts. The key point here – as acknowledged in the strategic material - is to ensure that a strong emphasis is placed on business efficiency services which are:

- Targeted at those sectors which will benefit to the greatest extent, such as those with higher energy requirements, or which depend on large volumes of water, for example those in the food and drink sector; and, in a related point,

- Integrated within mainstream services, so that all business advisors are aware of both issues and solutions, and, in line with the above, able to recommend their use as appropriate.

The outcomes of these actions will include both more efficient mainstream business, but also an expanding market for the environmental technology sector. There may also be possibilities of supporting green procurement activities more widely, to further develop the market.

Some elements of this Priority also provide seek to encourage the development of new businesses, or to promote faster growth among those with the potential for rapid expansion. Advice on environmental impacts is often most effective at these stage; it is generally easier to incorporate recommendations while other changes are happening in any case, than to seek to address issues once they are embedded.

Learning & Skills

The emerging aim from the assessment here are:

- To ensure that environment (and wider sustainable development) issues are incorporated into all mainstream training, as appropriate;
- To seek to make available support for organisations which deliver social and economic benefits through environmental activities, accepting that this wider focus may incur additional costs as well as benefits; and
- To ensure that good practice in terms of environmental management is mainstreamed across all organisations, and that the environmental quality of training facilities complements the content of learning.

Again, these aims are reflected in the detailed environmental material, but are not well integrated into detailed text. Two key gaps are evident.

Firstly, there is only very limited recognition of the potential and actual role of the voluntary sector, including the environmental voluntary sector, in providing opportunities for volunteering, training and work experience, particularly for target groups who require intermediate activity before re-entering the labour market. There are numerous successful examples of such projects, supported by Structural Funds, in other UK regions.

Secondly, there is no commitment to the use of BREEAM – evident across other Priority Axes – in the development or refurbishment of training facilities. This is critical to avoid the possibility of incoherence between the content of training and the site within which it is delivered.

Place Based Regeneration

The majority of actions proposed under this heading relate to transport infrastructure, in particular to road and air infrastructure, and this is by far the largest ERDF Priority in financial terms, accounting for 40% of the total Programme. There are likely to be significant, negative impacts on climate change emissions as a result. Local landscape and biodiversity impacts will depend on the quality of design of specific projects.

Within the discussion at the start of this Priority Axis, there is a commitment to developing all transport infrastructure within a sustainable context. If this is to be delivered in practice, it will be necessary, particularly considering the scale of these activities, to present more clearly the implications in terms of the associated generation of carbon dioxide, and to link these activities to the approaches to carbon neutral discussed elsewhere in the Programme.

Comment on the Overall Coverage of the Programme

The strategic approach to the environment within the Programme is strongly positive. However, the integration of the detailed environmental aims within the Priority Axes is less consistent. In general, the Programme recognises opportunities much more clearly than it describes the need for, and long term benefits of, mainstream economic development moving to a more environmentally aware approach. The aspiration to discuss making the Programme Carbon Neutral is very strongly positive, particularly in the context of including activities under Priority 4, which are likely to increase CO2 emissions.

More specifically, there is little emphasis on the development of the social economy, both as a sustainable sector in its own right, and also as a source of training, volunteering and transitional employment opportunities for those dependent on Incapacity Benefit. This was the only significant area of weakness identified in the current South West Programmes in a recent (environmental) evaluation.

Transport congestion and associated emissions are recognised as a serious issue for the sub-region at present. It is not clear that the activities proposed will, in aggregate, help address this situation, and airport development, in particular is likely to make it worse. Although part of the aim of Priority Axis 4 is Place Based Regeneration, the majority of activities proposed relate to infrastructure, and not to local regeneration. There is very little recognition of the contribution made to economic development made by environmentally-related tourism or by regeneration based on re-use of the built heritage, both of which are seen as strengths under the current Programme.

Finally, it is worth emphasising that evaluation material shows consistently, and across all regions, that eventual environmental impacts are determined at the level of individual projects, whether in terms of designing a new product, delivering training, or building new infrastructure. The differences in the assessments above between the possible impacts and the predicted impacts including mitigation illustrate this point very clearly.

At the strategic level, the issues which emerge are clear, and can be summarised as:

- Encouraging and supporting energy and resource efficiency in business development;
- Ensuring that new products and services are better, in environmental terms, than those they replace;
- Promoting awareness of environmental issues and solutions in training and skills, particularly in sectors with a close relationship to the environment;

- Ensuring take-up of environmental good practice in all aspects of construction, from site selection to building quality and soft landscaping; and,
- Exploiting environmental opportunities to deliver social and economic gains, including those in the social economy as well as in mainstream business and technology.

While the method of delivery of the Programme is not yet clear, it is important to recognise that this will be an issue which will have to be addressed, and the final Environmental Report will comment on those aspects. They are also discussed more fully in the next Chapter, in the context of discussion of alternatives and of mitigation.

5.20 Evolution of the Environment in the Absence of the Programme

Climate Change and Resource Use

Although the relationship is weakening, there is still a close correlation between economic development, consumption and the use of energy and transport at global scale. The aim of the UK Government is to continue to develop the economy, but to do this in ways which increasingly have less environmental impacts.

Assuming this is successful, there is an implication that the absence of the plan, there would be likely to be lower economic activity, and also lower environmental impacts as a result. Emissions would also be affected positively if the aspects of the Plan associated with the expansion of air travel were not to go ahead; conversely, emissions would be affected negatively in the absence of work to promote the uptake of broadband and ICT.

However, reductions in emissions (and also in resource use) associated with business efficiency programmes would also not take place, resulting in higher emissions, and it is very likely that the development of renewable energy technology in would also be slower.

In the absence of clearer data on the respective scale of activities it is impossible to predict the overall impact with certainty, but it seems likely that, overall, net emissions may be higher as a result of the implementation of the Plan than would otherwise be the case. However, the commitment in the Programme to examine this issue in more detail is clearly very positive.

Land Use, Landscape and Biodiversity

In relation to land use, development would be controlled through the planning system. It is likely that there would be less interest among developers in construction on brownfield sites, since green field sites are generally less expensive to develop, and have fewer associated risks. Activities supported through the Programme will help bridge the gap in costs, and will very clearly promote the take up of best available environmental techniques.

Overall, it is likely that land use impacts would be negative in the absence of the Plan.

Environmental Awareness and Education

There is a lack of available data on the extent to which environmental awareness is included within training and education at present. However, it seems most likely (and in line with evaluation findings) that such integration is at present quite limited, with most effort being concentrated on the development of environmental skills as a sector, rather than as a cross-cutting issue. It is likely that the Programme will improve this position, and so the evolution of this field would proceed more slowly in its absence.

Consultation Questions

- Do you have any comments on individual assessments, on the likely range of impacts identified, and on the description of possible associated mitigation activities?
- Do you have any comments on the conclusions drawn on individual priorities, and on the Programme as a whole?

6. Implementation of the SEA

This chapter discusses the implications of the conclusions above, in relation to:

- Consideration of alternatives
- Mitigation; and
- Monitoring.

6.1 Consideration of Alternatives

The SEA process requires consideration of alternatives as an integral component. The aim is to ensure that different ways of meeting agreed aims are discussed, and the decision is taken on the option to be selected with full understanding of the environmental implications.

It is easiest to illustrate this process in the context of a proposal for the expansion of a transport network. Alternatives might include any, or a mix of, new road construction, improvements to public transport, or the re-location of services to reduce the need to travel. These have very different environmental implications, which can be modelled and discussed. This approach is relevant to the selection of activities under Priority Axis 4; however, it is important to note that those activities, plus alternatives, have already been considered in the context of Transport Plans locally,

Accordingly, there is less agreement about how this process might be translated into Structural Fund (or other economic development) Programmes. UK Government guidance, in line with the EC Directive, emphasises that the alternatives considered must be reasonable, and not simply constructed as an academic exercise. In practice, this does not always take place; for example, the alternatives considered during the SEA of the SW RES looked at the likely environmental impacts associated with different levels of economic growth, rather than different ways of delivering growth.

A different approach, in the context of this Programme, could focus on the balance of financial allocation between priorities, or on the broad selection of project-level activities under priorities. These approaches are realistic, but are still limited in scope, since the NSRF closely define the range of activities which can be included. The required minimum allocations towards activities focused on the Lisbon agenda also reduce the potential for variation between options.

Accordingly, an approach is proposed which, on the basis of the assessment process, comments on the range of activities, but which concentrates discussion on the basis of the depth with which environmental integration is delivered.

This, approach is in line with past evaluation work which shows that a great deal of the environmental impact of the programme, particularly in the longer term, relates to how individual projects are developed and delivered. For example, the quality of materials and energy efficiency incorporated into a building at the time of construction has considerable influence over its environmental impact over its lifetime. Structural Funds Programmes were

found to be very effective in improving environmental quality of mainstream projects in such cases.

This issue is particularly important to the broad aspirations, clearly highlighted in both Programmes, of moving towards sustainable economic development, in which the use of energy and material resources are addressed more clearly by all projects. The environmental context material prepared for the SEAs also highlights environment-economy factors, including rising costs of water, waste disposal and energy, which further enhance the business case for such actions.

In addition, there is a clear link between this approach and the section on mitigation. The assessment process shows clearly that mitigation in the case of most of the activities supported by the Programme relates to the depth with which environmental issues are embedded.

Proposed Options

Three approaches have been identified, and are set out below.

The first takes a hands-off approach to environmental integration, relying only the implementation of existing regulations, with any further activity confined to existing market demands.

The second take a more proactive approach to environmental integration within individual projects, effectively seeking the wider replication of existing good practice wherever possible. This corresponds most closely to the approach taken under the 2000-06 Programmes in the SW Objective 2 Programme, highlighted in national evaluation as best practice across England.

The third approach outlines what would be necessary to move beyond this in the new Programme, based on the agreed aim of seeking to make the new Programmes carbon neutral.

Table 6.1: Alternative Approaches to Environmental Integration

Outline of Approach	Delivery implications	Comment
<p>1. Environmental activity is limited to:</p> <ul style="list-style-type: none"> • that required by prevailing legal standards, i.e. planning permission, emissions control... • Except where the market demands otherwise (e.g. energy saving services) 	<p>No staff resource or additional administration required. Application questions would seek only confirmation of legal compliance.</p>	<p>Although possible in theory, this option would be out of step with Commission and UK Government guidance, as well as the stated aims of the SW RES. This is effectively the position which existed in EU Programmes in 1994-99 and earlier.</p>
<p>2. Higher levels of environmental added value are sought on a project by project basis, where these represent the mainstreaming of existing good practice, such as:</p> <ul style="list-style-type: none"> • BREEAM standards in building projects; • Integration of environmental advice into business development projects, where possible • Projects with a strong environmental theme are supported only where they, individually, generate social and economic outcomes. 	<p>A similar staff resource would be required to that under the current Objective 1 and 2 Programmes¹¹.</p> <p>As now, application processes would include consideration of environmental issues as part of the decision-making process, and environmental expertise would be integrated into (and developed within) those processes.</p>	<p>This is essentially the current model. Evaluations¹² show that it has been extremely effective in the SW and in other GB regions and nations, and that the staff resource is critical to delivery; programmes which relied only on administrative mechanisms were much less successful in embedding environmental sustainability in projects.</p> <p>The continuation of this approach in the new Programmes would represent consolidation, and possibly a limited progression compared to existing practice, especially if best practice lessons from elsewhere in the UK are replicated in the SW.</p> <p>It is worth noting that current Programmes which relied only on administrative mechanisms and which did not employ staff to work with partners, were considerably less successful in delivering environmental additionality.</p>
<p>3. The environmental impacts of the Programme as a whole are assessed and addressed; the most appropriate way to do this, given the focus of the proposed activities, would be to adopt the aim, if possible, of making the Programmes carbon neutral. In addition to the above activities, this would imply support for projects which explicitly deliver carbon positive activities.</p>	<p>In addition to the above, it is likely that some form of mechanism would have to be created to oversee projects which compensate for the carbon emissions of mainstream activity. More detail on what this might mean is provided below.</p>	<p>This approach would represent a considerable step forward for the Programme, and would be in line with the aspirations of the RES to develop economically within environmental limits. It is clear that emissions of CO₂ are already higher than is sustainable; the opportunity exists to seek to develop the Programmes in ways which meet the UK Government's aim of decoupling economic growth from environmental impact.</p>

¹¹ As a rough guide, the staff resource at present equates to 1 Full Time Equivalent per £100m funding available.

¹² The Effectiveness of EU Structural Funds in Delivering UK Government Environmental Aims, Fraser Associates & the Rural Development Company for Defra; executive summary at http://www.objectiveone.com/O1htm/01-cross-cutting/ES_intro.htm

6.2 Mitigation

Mitigation can, similarly, be discussed at two levels.

In the current programme, mitigation takes place at the level of individual projects, which are encouraged and supported to explore the range of environmental effects associated with their work, and to seek both to minimise negative effects and enhance positive impacts. This relates most closely to the second of the alternatives explored above, and the South West Objective 1 and 2 Programmes are recognised as market leaders in delivering this approach.

However, it is important to recognise that even this approach has limits in separating economic development from environmental impact. As an example, it is possible to consider mitigation at strategic level in relation to land take. It is accepted practice to set ambitious targets (perhaps 70-80% in urban areas) for the re-use of brownfield land in development, and there has been an increase in this proportion, following Government policy, in the SW in response. However, this still means that there is an ongoing loss of greenfield sites, and it is also clear that many existing brownfield sites are unlikely to be re-developed for economic end use.

Mitigation at strategic level might therefore seek to balance the loss of greenfield land by supporting the by environmental upgrading of an equivalent area of brownfield land, especially where that upgrading maximises social as well as environmental benefit, as is the case with the creation of community woodland and urban greenspace.

It is possible to extent this discussion to consider the carbon footprint of the programme.

Implications of Carbon Neutral Economic Development

Climate change is arguably the most important single environmental issue for the Programme for two reasons. Energy use, and therefore generation of CO₂ emissions, the main greenhouse gas, is common to all projects to some extent. More widely, the scale of the changes required, given the current trends, are of considerable significance at global scale, with cuts of up to 90% of existing emissions required in the longer term. By implication, a step change in the nature of the economy is necessary.

There is increasing political and media attention on reduction of emissions – during the period in which this SEA has been undertaken, all three main UK Political Parties have discussed the role of new technologies and eco-taxation as central aspects of their 2006 conferences, and the publication of the Stern report has also highlighted the future - very large - costs of inaction, when compared to the sizeable but much smaller costs of action at the present time.

Against this background, it is clear that the incremental approach to energy efficiency and exploitation of green technologies which took place under the 2000-06 Programme represents a sound basis on which to build, but will not be adequate in the longer term. For example, Devon County Council quote savings of some 15,000 tonnes pa from energy efficiency work with 250

businesses; meeting Government targets imply annual reductions in the county of nearly two orders of magnitude higher, albeit from a much wider range of sources.

The opportunity therefore exists to use the programme to pilot work on what would be required to make economic development carbon neutral – or, eventually even positive - in the South West.

There is not yet clear understanding about what that commitment might mean in practice. The discussion below explores some of the issues and possibilities. However, it is important to recognise that a greater focus on carbon is in line with many of the aims of the existing Programmes and RES. For example:

- Business efficiency work and the development of renewable energy technologies both address carbon emissions.
- Waste minimisation and the re-use of waste reduce emissions.
- The use of BREEAM standards reduces emissions during the life of buildings.
- The re-use of historic buildings has benefits in terms of embodied carbon.
- The use of local materials reduces emissions from transport, as well as maintaining distinctive built landscapes.

Moves towards Carbon Neutral should therefore be seen as a significant step forward, rather than a complete change of direction.

Defining Carbon Neutral

The majority of work under the carbon neutral heading has to date been focused on individual companies, government departments or discrete, high profile events (including, for example, BT, Defra, and the most recent Winter Olympics). In all cases, it is possible to describe clearly the boundaries of activity, and therefore quantify and address the associated emissions.

The process essentially follows three stages. For the organisation or event in question, the first step to assess the levels of CO₂ currently produced. Typically, sources of CO₂ are direct energy use (heating, lighting, operation of equipment, transport) and indirect sources, such as emissions associated with waste.

The second step is that these emissions should be reduced as far as possible. This is in line with the existing approaches to business efficiency already undertaken in the South West. The literature is clear that **carbon offsetting should be seen as a complement to energy efficiency work, not an alternative to it.**

However, it is clear that, even after efficiency gains, significant levels of CO₂ emissions will remain, as almost all economic activity is dependent on fossil fuel to some extent. Therefore, carbon neutral implies that other, carbon positive, activities must be undertaken, in order at least to balance the programme or event as a whole.

At present, offsetting activities take one of three forms:

- Development of new renewable energy generating facilities.
- Projects, usually in developing countries, which introduce technologies to reduce emissions (for example, upgrading street lighting) – these have wider social and economic benefits in the countries concerned. This is the largest group of projects.
- Projects which fix carbon by planting trees; such projects also have the potential to contribute to biodiversity aims, or to the creation of community woodlands.

At least two commercial organisations¹³ offer carbon offsetting services in the UK, along the model described above, and it is clear that such organisations will continue to provide a solution for individual companies of small scale, or for those for which direct mitigation work would be beyond their area of expertise.

There are also advantages in terms of global sustainable development from delivering projects in developing countries; often, the technologies employed in those countries are significantly less energy efficient than those commercially available, so the efficiency gains (and associated benefits) are correspondingly larger than they would be in the UK for equivalent cost. Correspondingly, there are disadvantages from using tree planting as a method of carbon fixing, largely because the approach does not address the cause of the emissions in the first place, but also because the areas of land involved are much larger than are likely to be available

However, a clear disadvantage from scaling up this approach to Programme level is that the fees paid are not retained within the South West, and would not bring any significant benefits to the region. The following approach is therefore suggested as basis for consideration in relation to the Programme.

Setting the Target for the Programmes

Current approaches, outlined above, determine the baseline by effectively including or excluding specific activities associated with an organisation's work. Activities are assessed on the extent to which they can be influenced by the organisation directly.

On this basis, it is clear that the establishment of a baseline for the Programme would be extremely complicated. However it was computed, it would involve numerous assumptions about the number of organisations involved, and the likely impact of each individual project on those organisations' emissions. To take an example, a single business support project might easily work with 50 SMEs, in different sectors, albeit to a limited extent with each one. A Structural Funds Programme might easily support 100 such individual projects. Assessing the carbon impacts of 5000 interventions would be extremely complex.

An alternative approach might be to take existing data on CO2 emissions for the SW and apportion an element of those emissions to economic activity, including a proportion of business-related transport, but excluding domestic emissions.

¹³ See <http://www.carbonneutral.com/> and <http://www.climatecare.org/index.cfm>

Since the headline aims of the Programmes are to increase economic activity, the extent to which they do so, based on past evaluations, could then be used as a guide as to the likely additional CO2 emissions. For example, if a region generated 1,000,000 tonnes of carbon associated with economic activity, and the programme aimed to increase that economic activity by 2% above projected estimates, the programme would have to demonstrate carbon savings from all projects of 20,000 tonnes.

This approach would have the advantage that lack of detailed baseline information would not be a barrier towards actions, outlined below, which are in most cases already well understood. However, it is recognised that this is an arbitrary approach, and that a more scientific version would be strong desirable. It will also be important to develop an agreed mechanism for allocating funding, associated with individual projects, towards the carbon reduction goal.

Whichever method is chosen, it will be important to have a set target for carbon reduction associated with the Programme if this is to be a meaningful aspiration.

Supporting Projects to Reduce Emissions

Some projects supported through the current Objective One Programme already deliver carbon reductions, and these activities should be emphasised and enhanced as a first step. However, they are unlikely to be sufficient, on their own, to move towards a carbon neutral target for the Programme as a whole – a parallel situation to that faced by individual companies.

Therefore, it will be necessary to develop a wider portfolio of activities designed specifically to reduce emissions. Early discussion with members of the SEA steering groups was clear that such projects should also deliver clear social and economic benefits to the Programme areas during their delivery. Examples of projects which would meet such criteria might include:

- Training & employment creation schemes (supported by ESF elsewhere) which deliver energy efficiency work to improve standards in social housing; similar schemes could be subsidised for private homeowners.
- Loan or grant schemes which bridge the gap for private sector developers, to ensure that (in line with the RSS) new developments are carbon neutral.
- Support for R&D and innovative products, techniques and services targeted at carbon reduction.
- Support for research to support the take up, in both public and private sector, of such techniques.
- To a more limited extent, the establishment of community woodlands associated with town and village regeneration – also contributing to local quality of life and healthy living aims.

In effect, the Programme would support a portfolio of projects which would, in turn, deliver 'carbon credits' to offset emissions from others. Quantification of this approach, taking on board the need to avoid large administrative burdens while retaining credibility, remains a barrier at present.

6.3 Consideration of Alternatives & Mitigation: Conclusions

The assessment process and discussion above show that the main, realistic, options which can be considered by the Programme relate closely to mitigation aims. More advanced options, in environmental terms, are associated with more emphasis on mitigation at both project and strategic level.

It is therefore suggested a process which sought to complement the existing, strong, approach to project level mitigation with a strategic aim of reducing the carbon footprint of economic development supported through the Programme, would have the greatest environmental benefits.

The Scoping Report, and the assessment process above, both highlight the importance of examining implementation arrangements as part of the SEA process. However, it is not possible to carry out that examination in this report, because the discussion around the management and delivery arrangements has not yet taken place. This will form an additional section in the final Environmental Report.

6.4 Monitoring the effects of implementing the OP

Ideally, it would be possible to use high level indicators, such as climate change emissions from industry, to monitor the environmental outcomes from the Programme. There are two clear difficulties in taking this approach:

- Context indicators are affected by a much wider range of activities than the OP alone. It would be very difficult to collect data on the emissions associated with projects – individual projects are only one influence among many on individual businesses. Further, even if those data were available, they would be difficult to interpret unless comparators were developed.
- There are significant lead times in establishing trends in the broad context indicators, together with requirements for large scale, primary research. This means that, in practical terms, it would not be possible to monitor the impact of the Programme until after its completion. This would make it impossible for Programme managers to implement recommendations which might emerge from the delivery of the SEA process.

These issues have been discussed in some depth in the context of the current Structural Fund Programmes, and a list of proven indicators developed which, for the most part, reflect environmental activities, rather than outcomes. On the basis of the activities described in the Programme, it is suggested that the following indicators might be appropriate.

It is important to note that it is not possible to construct indicators to monitor all of the proposed environmental activities; there is a continuing role for thematic monitoring and evaluation.

Knowledge and Innovation

- Number of new products and services in the environmental sector
- Area of brownfield land developed, and its proportion of the total
- Area of buildings constructed or refurbished to BREEAM standards

The wider aim under this priority is to ensure that all new products and services incorporate appropriate environmental advice. At this stage, no robust indicators have been identified to capture this activity.

Enterprise and Business Growth

- Number of Businesses in the environmental sector supported.
- Number of (mainstream) Businesses undertaking environmental management, and results in both environmental and economic terms.
- Number of businesses achieving recognised environmental standards.

A wider indicator would also be the proportion of all businesses assisted which undertake environmental management work.

Sustainable Communities

- Brownfield land developed with SEN support.
- Area of buildings constructed or refurbished to BREEAM standards or equivalent
- Area of urban greenspace improved for community benefit
- Number of environmental social economy businesses assisted
- Training & volunteering placements created with an environmental theme

A wider aim is to ensure that all locally-based regeneration partnerships take account of environmental issues during strategy development, and have appropriate environmental representation on steering groups.

These, or very similar, indicators and approaches have been successfully used in the context of existing EU Structural Funds programmes.

In addition, it is important to emphasise that thematic, one-off evaluation work is likely, in some cases, to be more effective than collection of data alone.

Monitoring Carbon Emissions

As discussed above, there are at present great difficulties in monitoring carbon emissions at the level of individual projects and the Programme. Some early work on this area, being led by Exeter University, is currently underway, and will be discussed in the final Environmental Report.

6.5 Conclusions

This is the first time that Structural Funds Programmes have been subject to a formal SEA process, and to some extent it is necessary to adapt the SEA process to ensure it is commensurate with the wider Programme development process. However, it is important to emphasise that a great deal of work has already been undertaken in response to the introduction of environmental sustainability as a horizontal theme in the 2000-06 Programming period. The South West programmes, including the current

Objective 2 Programme, have been externally evaluated as leaders in delivery of such integration.

It is also clear that the importance of the environment as an economic driver has increased considerably over the life of the current Programmes. In particular, the issue of climate change, and the consequent need to move towards a lower carbon economy, has moved much further up the agenda. Looking ahead, the new Programme will deliver projects which will continue to have impacts well past the formal end of the Programme itself, and that there will be a far greater emphasis on carbon reduction during that period.

Accordingly, this draft Environmental Report has sought to widen the discussion about what can be done in respect of mitigation. While the existing approach has been very positive by comparison with those taken elsewhere, it is suggested that, in order to maintain the SW's competitive advantage in respect of the environmental sector, a step change will be required in relation to energy and resource use.

Consultation Questions

- Do you have any comments on the approach taken to consideration of alternatives and to mitigation?
- Do you have any views on which of the alternatives should be adopted, or on the detail of the discussion around carbon neutrality?
- Do you have any comments on the proposed monitoring framework?