



Cornwall Sustainable Community Strategy STRATEGIC ISSUE PAPER

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Strategic issue identified: **Unsustainable lifestyles that degrade and diminish natural environmental resources**

Strategic aim to address this issue: **Living within our environmental means**

1. Strategic issue summary

During the lifetime of the Strategy, we need to develop modes of living which secure a healthy natural environment and a resilient, low-carbon economy based on responsible stewardship of depleting finite resources.

2. Summary of existing evidence that demonstrates the importance of this issue

See for example:

- Evidence on energy sustainability - Peak Oil: when demand outstrips resources will occur between 2010 and 2030 (page 25 of LINC evidence base), threatening all aspects of modern life. There is a growing consensus that the gap between oil production and demand is likely to be in the order of 1-2.5% year on year within the next decade. "Oil and gas supplies are concentrated in regions which include less stable parts of the world" (DTI). Page 27. In 2002, Cornwall's estimated annual energy bill was £579 million, of which 98% left the local economy (Page 28.) Gas and oil prices increasing rapidly.
- If progress is defined to incorporate environmental degradation and social wellbeing as well as economic growth, little to no progress has been made in the UK since the 1950s. Page 31.
- Resource consumption in Cornwall is 3.5 times the earth's capacity to provide. Page 23
- Food & drink and energy consumption together make up 40% of Cornwall's residents' ecological footprint. Page 24
- Correlation between personal expenditure and ecological footprint. Page 25
- Climate change impacts for the [SW](#) are multi-faceted, offering potential short-term benefits and opportunities as well as disbenefits. However, The Intergovernmental Panel on Climate Change [4th IPCC \(Synthesis\) report](#) makes clear that such predictions are too optimistic: climate change is happening much faster than the IPCC previously considered possible: urgent action is needed now. Average global temperatures forecast to rise between 1.8°C and 4°C (range 1.1 – 6.4°C) during 21st century.

With Cornwall's population set to increase by 115,000 (page 10) and increasing financial prosperity (both of which are strongly correlated with unsustainable resource consumption and greenhouse gas emissions) during the Strategy's lifetime, radical action is required to reverse current adverse trends.

Ecosystems are the planet's life-support systems. Ecosystem services are the benefits people and businesses obtain from ecosystems, e.g. they provide food, water, clean air, shelter and relative climatic constancy – see also

- **World Resources Institute** (2007) Restoring Nature's Capital: An Action Agenda to Sustain Ecosystem Services

- **Department for Environment, Food and Rural Affairs (Defra) (2007)** Conserving Biodiversity: The UK Approach
- **Defra (2007)** Securing a healthy natural environment: an action plan for embedding an ecosystems approach
- **Defra (2007)** An introductory guide to valuing ecosystem services.

Evidence documenting unsustainable lifestyles is captured by the wide variety of references which cover the DEFRA vision of One Planet Living: sustainable development, climate change, waste, local environmental quality, sustainable farming and food, and rural policy.

- **Government's Comprehensive Spending Review (CSR07) (Nov 2007).**

Sustainable development embraces objectives that are not purely financial and include quality of life.

- **Sustainable Development Commission (2007)** Living well – within limits.
- **Sustainable Development Commission (2003).** Redefining Prosperity
- **New Economics Foundation (2007)** European Unhappy Planet Index: An index of carbon efficiency and well-being in the EU
- **New Economics Foundation (2004)** Chasing Progress: Beyond Measuring Economic Growth

Energy supply: issues of cost and security illustrated in

- **Cornwall Sustainable Energy Partnership (July 2004)**
- Action Today for a Sustainable Tomorrow: The Energy Strategy for Cornwall and the **Department for Trade and Industry (2007)** Energy White Paper: Meeting the Energy Challenge.

The environment plays a key role in sustaining life (ecosystem services) and enhancing quality of life. "Environmental degradation is undermining development ... and threatens all aspects of human well-being" p5.

- **UN Environment Programme (2007)** Global Environment Outlook 4
- **Earthwatch Institute (2006).** Ecosystem Challenges and Business Implications.
- **Millenium Ecosystem Assessment (2005).** Ecosystems and Human Well-being. A Report of the Millenium Ecosystem Assessment
- **DLTR, 2002.** Green Spaces, Green Place. Final Report of the Urban Green Spaces Task force
- **Stepping Forward (2005).** A resource flow and ecological footprint analysis of the South West of England.
- **The International Climate Change Task force (2005):** Meeting the Climate Change Challenge
- **World Wildlife Fund (WWF) (2006)** Counting Consumption.

"Climate change must be at the heart every local area's ambitions & it is important to ensure infrastructure and services are resilient to climate change".

- **LGA Climate Change Commission (2007)** Interim Report
- <http://www.lga.gov.uk/Documents/Publication/strengtheninglocalaction.pdf>

Implications for the historic environment Homes with History 2003. English Heritage; Biomass Energy. 2006. English Heritage; Climate Change and the Historic Environment. 2006. English Heritage; Energy Conservation in traditional buildings. 2007. English Heritage; Energy Savings. 1997. English Heritage; Wind Energy. 2005. English Heritage

Improvements to the quality of both the built and natural environment help address issues of community safety and the fear of crime. The quality of Cornwall's natural environment is critical to the economy in terms of the performance of the agri-food, forestry and tourism sectors, which between them account for half of the county's economic output. Improving environmental quality in Cornwall has a particular impact on the quality of life of both residents (see Cornwall Quality of Life Survey, November 2007) and visitors, making a significant contribution to the 'competitiveness' of the Cornish economy, supporting both tourism and 'green' inward investment. Cornwall's unique environment is vitally important in underpinning added value to its products. For an exploration of the economic value that ecosystem services provide, see **Defra (2007)** [An introductory guide to valuing ecosystem services](#) Biodiversity, historic heritage, visual landscape, soil and water resources all form part of our "environmental capital". The processing, distribution and retailing sectors have an important role to play in terms of waste minimisation, effluent control and recycling.

In summary available evidence is sectoral and comes from many different sources.

3. Summary of what policies and/or legislation are particularly relevant to this aim

The following identifies some of the policy and legislative framework that exists to pursue a Sustainable Community Strategy that promotes 'Living within our environmental means'. This is not a comprehensive list but is indicative of the existing framework for this aim.

Global

The 2010 Biodiversity Target to reduce the rate of biodiversity loss was subsequently endorsed by the World Summit on Sustainable Development and the United Nations General Assembly at the 2005 World Summit. The work of the UN Panels on Climate Change and Sustainable Resource Consumption provide global overviews, evidence and policy guidance.

European

The European Sixth Environmental Action Plan adopted on the 22nd July 2002 sets the policy framework for Climate Change, Nature & Biodiversity, Environment & Health, Natural Resources and Waste (Europa 2007a).

10th January 2007 EC set out proposals for "Limiting Global Climate Change to 2 degrees Celsius: The way ahead for 2020 and beyond".

The European Commission proposed a Strategy on the 21st December 2005 for the Sustainable Use of Natural Resources.

Halting the loss of biodiversity by 2010

The Marine Strategy (IP/05/1335) for the protection and conservation of the marine environment aims to achieve 'good environmental status' of EU waters by 2021.

The Gothenburg Agenda sets out the EU's approach to incorporating environmental sustainability into economic development.

EU Waste Framework Directive and Landfill Directive

EU sustainable tourism: Action for More Sustainable European Tourism:

UK National

The Climate Change Bill, Energy White Paper, UK Waste Strategy and Air Quality Strategy set out the Government's approach in the UK.

Sustainable Development Commission's approach to developing new measures for progress that incorporates social and environmental measures alongside economic measures is set out in "Living Well – Within Limits".

Under the 2006 Natural Environment and Rural Communities Act (NERC) every public authority must exercise its functions with regards to the conservation of biodiversity.

The King Review provides an analysis of the potential for reducing CO2 impacts from cars and vans.

The New Performance Framework for Local Authorities and Local Authority Partnerships: Single Set of National Indicators, October 2007. This set of indicators is established in the recognition that effective local government is the backbone of strong communities and prosperous towns and villages. These national indicators will be the measures against which central government performance manages local authorities and their partners. www.communities.gov.uk/documents/localgovernment/pdf/505713.

The 2004 Children's Act and Every Child Matters set out the Government's approach.

Public Open Space and Place Shaping 'Agendas'.

Various Planning Policy Statements and Guidance provide national guidance, e.g. sustainable development .

Survey of public attitudes and behaviour towards the environment provides the most up to date analysis of public attitudes.

Regional/County Level

In 2004, the Energy Strategy for Cornwall, Action Today for a Sustainable Tomorrow, was signed by 72 public and private sector organisations.

Cornwall's Waste Plan provides strategic frameworks for waste minimisation and management.

Cornwall's Biodiversity Action Plans set out priorities for biodiversity.

Invest in Fish examines options for the future of fishing across the south west.

Strategy & Action sets out Cornwall's economic development plan.

Updated information on Convergence within Cornwall is provided. There are various relevant sector skills plans, eg LANTRA, SEMTA.

The Children and Young People Plan sets out Cornwall's aspirations.

The Local Transport Plan provides a wealth of evidence in relation to transport impacts and proposals.

Regional Spatial Strategy and Local Development Frameworks provide planning context and policy.

Regional: SWRDA Sustainable Rural Tourism
Regional: SW Tourism Towards 2015
Regional: SW Sustainable farming and food delivery
Cornwall Quality of Life Tracker Survey, 2007
Local - Parish Plans

See attached Appendix 1 for further information.

4. Considering the components of Egan's wheel, what are the causes and effects of the issue(s) related to this aim?

Governance

Cause Governance structures are not designed to adapt to meet a series of overlapping, rapid and fundamental challenges, entailing threats to agreed conventions, priorities, jobs, lifestyles. Short-term thinking and action with allocation of financial resources based upon previous activity and past performance adheres to old models of year on year economic growth with no recognition that the natural resource base is being diminished and undermined. Decisions on what to do – or not do – need to produce long term continuing benefits for the common good. Equal weight needs to be given to social, economic and environmental elements of a situation, supported by well constructed, criteria based planning policies, consistently interpreted.

Effect Slow adoption of adequate responses to complex, long-term requirements of the realities of climate change and oil depletion

Transport and connectivity

Cause Dispersed settlement pattern which no longer supports self-sustaining communities encouraging frequent travel for work, leisure and accessing services primarily founded upon the consumption of finite and decreasing fossil fuels; changing patterns of tourism (short breaks) increase journey numbers; consequent increasing greenhouse gas emissions. Insufficient options appraisal and evidential analysis of greenhouse gas emissions associated with transport and connectivity solutions in the context of low carbon ambitions. Current exclusion of air transport and shipping from carbon footprints / carbon trading-accounting is unlikely to continue and inclusion will adversely affect low carbon targets. Lack of equitable access to ICT infrastructure and services (note also that global greenhouse gas emissions from ICT have now overtaken those from aviation, so that ICT cannot be viewed as a simple climate change palliative.) Individual ambitions for car ownership and the personal freedoms provided.

Effect Increased traffic and congestion; expanding proportion of greenhouse gas emissions; pollution and locally poor air quality; lack of access for those without car in rural areas. Pressure on natural resources for land, aggregates etc. In terms of reversing the increase in greenhouse gas emissions, transport and connectivity is and will continue to be the most difficult area for Cornwall to tackle.

Services

Cause Service provision, especially in rural areas, is expensive to deliver due to high unit costs leading to increasing concentration of service delivery in the more urban areas.

Effect Poor environmental outcomes due to impacts of increased travel; social inequalities for rural dwellers.

Environmental

Cause Living beyond our environmental means (Cornwall's global footprint is 3.5 times planet's capacity); rising greenhouse gas emissions; loss of habitat likely to continue (3% decadal loss 1980s – 1990s).

Effect Climate change impacts – see Appendix 1; diminishing environmental goods (e.g. locally poor air quality) and services (e.g. reduced flood attenuation); declining biodiversity; declining resources (e.g. energy/oil, food); misuse of resources leading to scarcity, fragmentation and damage to ecosystems, and reduced local quality of life. Large numbers of species (potentially 30 – 40% globally during the next 50 years) may be unable to adapt to climate change and will be lost – habitats will change. Spread of animal and plant pathogens – blue tongue is topical, increased incidence of phoma stem cancer in oil seed rape (Royal Society Journal Interface (10.1098/rsif.2007.1136)). Reduced environmental resilience and availability of resources and quality environment. Long term challenges to food and water security and larger issues of social cohesion.

Equity

Cause Limited ownership of environmental issues by individuals and communities in Cornwall leading to increase in environmental damage. Inequalities regarding allocation of scarce resources between individuals and between communities.

Effect Climate change impacts disproportionately on the poor and vulnerable. Future generations denied environmental goods and services.

Economy

Cause Systemic market failure to incorporate environmental costs and fuel scarcity projections adequately in pricing policies and long term economic planning. As such the true economic, social & environmental costs of activities (and particularly their associated carbon emissions) are consistently externalised; reinforcing short-term perspectives and promoting the unsustainable consumption of scarce resources. Failure to fully value the role of high quality environmental goods and services in economic development undermines economic sustainability. Structurally weak economy that is over reliant on sectors, e.g. tourism, dependent upon dwindling resources, e.g. oil. Environmental impact of economic growth is seen as unfortunate collateral damage rather than a damaging long term threat to a healthy community and economy.

Effect Insufficient finance and reluctance to address market failures (particularly relating to market distortions reinforced by the historic lack of robust carbon pricing mechanisms) and deliver appropriate action/response. Reduction in environmental quality and resilience increases public costs (eg, health care), funding for which is not correlated with the originating markets. Increase in costs of goods and services and increased scarcity of essential resources. Reduced quality of life. Reduced productivity of land and sea resources. Economic opportunities ([R&D, innovation and entrepreneurship](#)) associated [with low carbon technologies](#) missed.

Housing & Built Environment

Cause Significant stock of buildings with poor environmental performance (e.g. inadequately insulated, energy inefficient, damp) but they contain embedded energy and thus conversion is frequently more sustainable than demolition and new build; poor quality post war housing with very poor environmental performance. Mismatch between house prices and income levels plus changing demographics and social change (more non-nuclear families, increased mobility) driving pressure for house building. Buildings and structures located within floodplains and at risk coastal settlements.

Effect Greenhouse gas emissions and resource consumption (increasing); increased impermeable surface area leading to increased water run off and combined sewer overload; fragmentation of

habitats; loss of rural character and distinctiveness for which Cornwall is known; villages (especially coastal) becoming dormitories and disproportionately holiday focused (including second homes). Long term, virtually all historic harbours and quays (including those in the World Heritage Site) will be damaged or destroyed as a result of rising sea levels. Structures and buildings (including those of historic significance) will suffer from increased storminess and flooding.

Social & Cultural

Cause Increasing urbanisation; decline of traditional economic activities intimately connected to natural environment (especially agriculture, forestry and fishing); “throw away” consumerism; local people having poor access to, knowledge of and involvement in environmental activities. Expectation of increased mobility and car ownership. Decline of shared community activity and a cultural framework based on collective good.

Effect Increasing lack of understanding and experience of environmental/ecosystem functioning and experience of acting collectively to address environmental challenges; loss of ecosystem management skills; increased waste; lack of understanding, engagement, respect and ownership of environmental issues reinforcing continuing damaging actions and behaviours; limited involvement in environmental activities.

5. What will be the impact on communities in Cornwall if this aim is not achieved?

NB – all predictions need to be treated with caution as, in the main, foresight scenario modelling is unavailable for most areas and simple straight-line projections do not take account of interactions with other factors. However, the following are based upon general trends underpinned by the most recent data.

The importance of the natural environment for the economy and quality of life in the SW is now widely acknowledged and celebrated. Action to sustain the natural environment is required since current patterns of economic development are unsustainable with development and resource use in the region threatening environmental resilience and economic performance. Not living within our environmental means will lead to a weaker local economy resulting from poorer air, water and land quality which reduces their productivity as environmental goods and services which support the economy. A reduced quality of life with increased health problems and associated increase in cost of health care, increased rural isolation and poverty; imbalance in appropriate land use, increased development in green spaces, busier roads with increased travel times and a compromised tourism industry as the quality of the visitor experience is eroded. There will be a compound effect of increasing demand (rising population and business immigration into Cornwall) versus decreasing supply of quality environmental support systems.

Waste – If present trends continue waste arisings will double by 2017 and future communities will bear the cost of high economic and environmental costs of waste management. Increases in waste generation are directly related to unsustainable consumption. If we are to slow waste production and decouple it from economic growth, there must be a complete shift in consumer consumption trends with a simultaneous shift in producer responsibility.

Greenhouse gas emissions – with present trends, emissions will continue to rise driving climate change (assessments for 2050s in supporting paper). Impacts depend upon global responses: whatever emissions pathway develops, Cornwall will need to adapt.

Health – Health effects of Climate Change in the UK include: more people will be hospitalised as a result of major emergencies; more frequent and severe heat-waves could result in an increase in heat-related deaths; cases of skin cancer and cataracts are likely to increase by 5,000 and 2,000 per year respectively; cases of food poisoning could increase by 10,000 per year; there will be a northward migration of disease (especially insect-borne, e.g. West Nile and Chikungunya) from

current near-tropics (UK Chief Medical Officer); a population under climatic stress is more likely to be prone to mental health problems.

Potential health impacts of oil scarcity in the UK include: *Transport*: Modern healthcare facilities are open systems that consume inputs and produce wastes. With few exceptions, almost none of the inputs are created on site and must be brought to the facility (usually by road); *Direct Content*: Many items used in modern medicine contain petrochemical derivatives. Some of the main categories are gloves (synthetic rubber), clinical disposables (like syringes), medications, sterile packaging (mainly plastic), high-tech equipment like CT and MRI scanners, and computers; *Embodied*: Many items that don't directly contain petrochemicals do have oil-based products embodied within them. Producing stainless steel or titanium joint-replacement components may require oil at several steps, including mining, refining, manufacturing, transporting, and packaging; *Energy Production*: There are two main categories - offsite (natural gas-fired power stations) and on-site (oil or gas for heating and steam generation); *Processes*: Activities within hospitals like laundering (hot water) and equipment sterilisation (steam, plastic packaging, ethylene oxide) might be oil-dependent; *Roads and Buildings*: Maintaining and constructing buildings and roads may include multiple oil-dependent processes; *Emergency Services*: Most emergency services in Western society are vehicle-based and run on petrol or diesel. The majority are cars and trucks but also (especially) helicopters.

Energy – Cornwall currently generates approximately 1/3rd of SW renewable capacity – future capacity is uncertain at present. Overall energy prices are likely to continue to rise well above rate of inflation (e.g. gas prices forecast to rise by 15% in 2008) leading to more fuel poverty, and increased pressure on land for bio fuels over food.

Water – without action, increasing per capita use and increasing population will lead to shortfall in supply. Without action, nitrate levels in rivers are likely to remain moderately high.

Traffic - The forecast growth in traffic in Cornwall between 2007 and 2021 is 16% (low estimate) and 27% (high estimate) per annum, leading to increased congestion and locally poor air quality. Transport is fastest rising source of greenhouse gas emissions. Ability to develop cleaner bio-fuels limited by need for land for food (issue not yet properly grasped by the financial markets) and lifecycle carbon costs.

Sea fisheries – on current trends, with no intervention, mix and availability of various seafood species will vary, with some, e.g. mackerel, showing downwards trends (40% reduction by 2018) and others, e.g. crabs, increasing.

Land use – current trends include amalgamation of holdings and increase in “hobby” farming. There is likely to be significant change in some cropping regimes with potential adverse impacts upon wider rural economy – reduced diversity in farm activities and food production. There is a need for longer term strategic land use decisions rather than short-term market driven responses. Continued loss of habitat undermines species resilience to cope with climate change so losses likely. Recent info on cost of food shows 6% average rise, with dairy leading at 11%, partly impact of biofuel boom, partly increasing global demand. Suggests agricultural land will rapidly become more valuable (end of hobby farming?). Set-aside has already gone in Europe. Poor decision making on the use of land for development – housing, industry, infrastructure - leads to poorly designed living spaces and loss of amenity.

6. What outcomes need to be achieved to reach this aim?

Waste

- Waste management focused at the highest level of the waste hierarchy – prevention
- Decoupling of waste arisings/generation from economic growth and population growth.
- Promotion of sustainable consumption and resource efficiency through developing:
- Innovative attitudinal campaigns at a community level

- Partnerships that cut across all sections of communities to offer sustainable products and services
- Innovative projects that promote local produce, self-sufficiency and community cooperatives
- Reduction in levels of waste per head of population being generated and collected
- Support business and community/social enterprises that reduce and/or make beneficial use of waste and/or create recycled products, composting schemes
- Increase in levels of waste which is re-used, recycled and composted by all sections of the community.
- Reduction in the levels of municipal waste being taken to landfill for disposal.
- Encourage sustainable business networking to facilitate good practice, local clusters of waste management service provision, knowledge transfer and waste exchanges
- Engagement of individual residents, businesses and local communities to take responsibility for adopting more sustainable practices
- Business reduction of packaging, increase in waste minimization, recycling and reuse (through technologies and practices which reduce waste emissions and/or manage their collection, processing and disposal)
- Encourage joint cluster working between eg farms and rural businesses such as tourism businesses to co-manage localised waste streams and energy requirements.
- Reduction in diffuse water pollution through implementing good practice in Cornwall regarding containment (e.g. current target in Agric Strategy is 5 new projects by 2010 to reduce diffuse pollution)
- Increase uptake of Integrated Farm Management for all farmers
- Reduce marine litter
- Reuse fish and shellfish waste to reduce landfill.

Energy

- Increase energy efficiency in all sectors (public, private, voluntary and business) to capture both environment and financial savings
- Preparation, adoption and delivery of greenhouse gas reduction and climate change adaptation plans by public, voluntary and private organisations and companies
- CO2 reduction from Local Authority and public sector operations (% to be agreed staged towards 80% by 2050; measured annually against a set baseline of 2008-09)
- Micro-gen installations; number and KWh (to be defined) of micro-generation installations in households, businesses, schools and community buildings
- Number (to be defined) of energy efficiency measures installed; number (to be defined) of benefit dependent households to receive insulation measures - assessed against an indicator that measures the proportion of households on income related benefit for whom an energy assessment has been carried out, and whose SAP rating meets the standard (e.g. a SAP of below 30).
- Install 50MW renewable energy generation on farms by 2015.
- Per capita CO2 emissions in the LA area (% to be agreed staged towards 80% reduction by 2050 (using the Community Climate Change Indicator against a baseline of 2005 and calculated using ONS population statistics) – informed by the emerging 'Cornwall Climate Change Strategy & Action Plan. Emissions from the following sectors will need to be assessed: Business & public, Domestic, Road transport
- The drafting, and delivery, of a 'Cornwall Climate Change Strategy & Action Plan' (2009)
- Number and/or percentage (to be agreed) of Cornish households to have undergone an energy assessment (to EPC level or indicative short-form of such e.g. HEC)
- To increase broad 'energy/climate friendly awareness' at all levels (individual, organisational, strategic) through 'carbon literacy' programmes, progress to be assessed through both qualitative and quantitative evaluation procedures.

- Support research, development and bringing to market of innovative technologies that provide positive contribution to sustainability agenda
- Encourage and support local processing , e.g. food, including fish, to reduce energy use associated with food miles

Biodiversity

- Updated land cover mapping to identify land use changes and habitat loss. Provide detailed trend analysis.
- Complete survey, condition assessments and management recommendations for all “[Local Sites](#)” to provide improved outcomes for biodiversity and improved access for public enjoyment where appropriate
- Engage with landowners, spatial planners and communities to identify and deliver coherent framework for connecting important areas (international, national, regional and local) for biodiversity providing room to adapt to climate change impacts and sequester CO2. Integrate with enhanced river catchment management to increase flood attenuation and reduce diffuse pollution risks.
- Deliver programmes for control of non-native invasive species where they present a clear threat of over-running important native habitats and species
- Increase the uptake of agri-environmental programmes by farmers which will yield biodiversity benefits. Focus higher-level agri-environment support to biodiversity-rich farmed landscapes, e.g. West Penwith, Bodmin Moor etc, where financially viable agricultural production is unlikely to sustain appropriate management
- Provide improved and enhanced opportunities for access to biodiversity for education and enjoyment
- Strengthen role and capacity of Environmental Records Centre for Cornwall and Isles of Scilly (ERCCIS) to provide data, monitoring and analysis of trends and opportunities for habitats and species
- Support and develop the work of the Marine Protected Areas Working Group on identifying Marine Protected Areas for Cornwall, including survey, condition and activity mapping
- Inclusion of economic costs of impact upon ecosystem services of development in all planning obligations/contributions

Rural areas and agri-food

- Strengthen current businesses through research into new opportunities to generate ideas and product development, added value, branding and marketing in successful sectors including: dairy, horticulture, fish, shellfish, speciality foods and organic production
- Improve competitive performance of land based sector to ensure its long term sustainability. Enable those who wish to remain in land-based industries by improving business performance and by supporting diversification for those who wish to move into new areas such as non-food crops (such as biomass, oils, hemp), forestry, food processing, tourism ventures, etc.; (e.g. current Ag Strategy goal is 500 businesses assisted with advice by 2010 and 25 new starts in the processing sector)
- Facilitate the exit of farmers and other land managers who wish to leave the industry and encourage new entrants into the industry.
- Facilitate the uptake of rural businesses of more sustainable practices and active contribution to the natural and managed environment including all resource use and impacts
- Encourage the long term sustainability of farmers in nationally important landscapes such as the Areas of Outstanding Natural Beauty, the enhancement of which depend upon commercially viable agriculture that conserves the special qualities of the landscapes.
- Increase the planting of trees through increased farmers’ and others’ uptake of Woodland Grants Scheme and Farm Woodland Premium Scheme

- Support coppice production for bio-mass power e.g. the Energy Crops Scheme – this technology is potentially CO₂ neutral and is based on a renewable energy source (also contribution to bio-diversity)
- Increase energy efficiency in all rural business sectors to capture both environment and economic savings.
- Encourage and strengthen markets for local sustainable food and drink produce across all communities of Cornwall, including public sector procurement and especially the tourism sector to ensure businesses and visitors contribute to a local food and drinks sector, developing quality standards and promotion of these
- Provide opportunities for self-reliance by strengthening links between market towns/villages and rural hinterlands, including one-stop shop access to public services, community energy generation schemes, community transport services etc
- Encourage and support local processing, eg food, including fish, to reduce energy use associated with food miles.

Public Open Space

- Provide appropriate green infrastructure to all communities and within all new built developments
- Develop a framework to establish common environmental quality standards across Cornwall
- Litter Reduction Programme –Focus on four key themes: Awareness and understanding of the impact of litter (Education); Campaigning to reduce the extent of littering (Reduction); Improved management of collection and disposal of litter (Efficiency); Active engagement of the voluntary and community sectors in both the reduction and collection of litter (Capacity)
- Provide increased environmental volunteering opportunities for individuals and communities
- Promotion of ‘local distinctiveness’, a sense of place and engagement of local communities
- Establish a common approach to environmental enforcement across Cornwall
- **Community engagement**
- Develop and deliver programmes to enable ownership and activity within communities on local environmental issues. Focus on reducing resource consumption and carbon footprint
- Provide increased environmental volunteering opportunities for individuals and communities
- Support for social enterprises working in the community delivering sustainability projects, goods and services
- Ensure that individuals have the opportunity to be included and engaged in positive environmental activities, including reinforcing local distinctiveness and ‘sense of place’
- Empower community networks , projects, groups and individuals to deliver local solutions

Clean, healthy, productive and biologically diverse inshore waters

- Support and encourage sustainable fisheries, aquaculture and technologies
- Develop a network of coastal and marine protected areas
- Improve appropriate onshore facilities for commercial and recreational use
- Reduce occurrence and impacts of diffuse and acute pollution entering coastal waters from land and sea
- Encourage and strengthen markets for local fish and shellfish across all communities of Cornwall, including public sector procurement
- Encourage research into and exploitation of marine renewable energy generation technologies
- Reduce marine litter, including support for Fishing for Litter project
- Develop and roll out environmental business support, networking and accreditation scheme for marine businesses, including accreditation of sustainable fisheries/aquaculture to (inter)national standards
- Support estuarine and coastal partnerships in developing and delivering sustainable management of the coast and inshore marine environment.

Access to goods and services

- Increase provision of accessible ICT facilities, powered by low carbon electricity and using thin client systems, for communities, particularly in deprived and remote areas
- Provide multi-agency one stop shops for communities, particularly in deprived and remote areas
- Increase provision of public transport solutions (including e.g. dial-a ride) and facilities (including e.g. bus shelters, real-time information) for accessing services
- Provide and promote non-car based (on foot, cycle or horse) access to goods, services, facilities and recreation
- Reverse the rate of increase in traffic.

Awareness, education, skills and training

- Provide training to raise environmental management and technical skills and awareness for businesses, employees, communities, VCS groups and individuals
- Develop curriculum-based courses for children and young people in environmental awareness and citizenship
- Provide opportunities for children and young people to take a lead role in developing projects, challenges and awards for sustainable environmental action and community projects
- Encourage and support businesses to improve business performance through implementing environmental management systems.
- Encourage and support innovative design solutions for new and existing products that deliver inherently low resource consumption, including packaging and energy
- Research, encourage, develop and support business models based upon sustainability principles. Support existing sustainability-driven business networks, e.g. CoaST and partnerships
- Encourage, support and utilise high-level R&D into innovative solutions and technologies to address sustainability challenges and deliver a low carbon, economy which is lean in its use of finite resource.
- Work to support and facilitate the development of community led activity such as the Transition networks.

Research and intelligence

- Adopt a well recognised measure of sustainable development which takes into account economic, social and environmental well being, e.g. The New Economic Foundation's Measure of Domestic Progress.
- Establish a well-resourced, publicly funded, strategic research and intelligence capacity within the public sector, working with key strategic partners e.g. CSP and thematic partnerships, Primary Care Trust, Local Authorities, CUC et al, which develops a rigorous foresight, scenario-testing impact model for Cornwall.
- Commission and source, analyse, interpret and monitor key socio-economic and environmental data applying the data to scenario-testing to inform policy response and development.
- Invest in research and development, innovation and entrepreneurship with regard to low carbon technologies, goods and services (ref. Strategy and Action and Convergence)
- Prepare an agreed multi-agency Sustainable Development Plan for Cornwall that integrates environmental, economic and social development based upon evidence and foresight models underpinned by spatial and land use planning. All development to be scrutinized against rigorous environmental criteria and assessment of need.
- Establishing a way of living which is compatible with the needs of the planet requires a move away from a primarily individualist and consumerist society. Work with innovators, creative and

cultural partners to begin to encourage a cultural shift which emphasises values other than material consumption and encourages community benefits.

7. Are there any geographic areas where there are opportunities or problems related to this aim?

Socially, impacts will disproportionately further disadvantage poor and vulnerable communities and individuals. Wealthier residents may find adapting to change more difficult to accommodate psychologically, but are likely to buy their way out of difficulties. More affluent communities have bigger negative environmental impacts, although their immediate surroundings frequently appear more benign than those of poorer communities

Core areas for enhancing prospects for biodiversity are suite of “Local sites” and nationally and internationally important designated sites and buffering areas. Pursuing this aim will provide particular opportunities for the AONBs and parts of the World Heritage Site. Maintaining commercially viable farming in the upland areas is increasingly difficult. The collapse of farming in these areas will result in a loss of amenity, habitats, species and archaeological assets as well as a loss of skills and a particular way of life.

Significant opportunities for reducing footprints lie in “growth areas”, e.g. Truro, CPR, St Austell, Falmouth and Penryn where careful, intelligent development can minimize adverse environmental impacts, as well as encouraging a vibrant rural economy

Communities at risk from increased flooding, storminess and sea-level rise. Inshore fishing communities particularly vulnerable.

Areas with high proportion of second homes and holiday lets, pose particular problems in terms of sustainable communities

Penwith has identified itself as a distinctive community that shares many of the ambitions of this Aim, e.g. a community that values and protects its distinctive landscape and environment; protects, enhances and celebrates its culture and heritage and is recognised internationally; and that makes best use of its resources. Carrick’s LSP has specific priority to reduce the volume of traffic in Truro and improve how essential traffic is managed.

8. Are there any particular groups of people who may be disadvantaged or discriminated against within this aim or the outcomes proposed?

The poor and vulnerable (infants, older people and the sick) will be least able to adapt to or invest in mitigating against impacts of climate change and other diminishing resource based challenges, from fuel, to food, to housing.

Householders in low-lying coastal settlements, floodplains and water catchments and on line of combined sewage outflows will be particularly vulnerable to some impacts of climate change. Coastal communities where a decision is taken not to improve sea defences but to allow for managed retreat. This could lead to a loss of homes / recreation facilities (e.g. coastal footpaths) and livelihoods..

If insufficient action is taken in the next 20 years, the problems will intensify in magnitude and affect an even larger proportion of the population and be far more expensive to resolve.

Focus on the more isolated rural settlements which have a strong community and links to other local communities. Where opportunities exist promote clusters of activity, through provision of workspace and homes.

9. What is being done already to address this aim at a strategic level?

Work of CSEP/CEP and others both now and planned within Convergence in relation to climate change and fuel poverty

Work of COAST network on sustainable tourism and CSBT on building techniques and technologies

Work of Cornwall Agricultural Council and Cornwall Rural Partnership in relation to farming and the rural economy

Work of AONB and World Heritage Site Partnership in influencing policy and encouraging sustainable development.

Environment Kernow's and Regional Environment Network's work on influencing policy

Environment Kernow's projects assessing resources (Enviro-Limits) skills needs (Workforce Development, CRESTA) and environmental strategies / information base (CRESTA, Enviro-Limits) is basis for future development

Many of the Cornwall LAA Outcomes, including work under Local Area Agreement Sustain 5, Econ 2, Strong 1 and Strong 2 to empower and involve local people and communities in addressing environmental issues

Work by Cornwall Waste Action and ReZolve Kernow on reducing, reusing and recycling waste

Work by the seven local authorities to reduce waste arisings and on re-use, recycling and composting.

Emerging CCC Carbon Management Plan and Sustainable Development Plan

Work by Sea Fisheries Committee and Marine Protected Areas Working Group

Work by Invest in Fish and Finding Sanctuary regionally, coastal and estuarine partnerships within Cornwall

Forthcoming Marine Bill

Forthcoming Climate Change Bill

Convergence and Strategy & Action aspirations for low carbon economy

Cornwall Region of Culture is set to explore the role of culture and creativity in developing sustainable rural communities

LSC approach to skills, e.g. Workforce Development and CRESTA Project under Objective 1

Work, both current and planned, of CUC on sustainability agenda

RDPE – potential to fund continued work of some of above agencies under e.g. sustainable tourism, resource efficiency and business support investment themes

Rural Cornwall & Isles of Scilly Partnership (RCP) in relation to sustainable rural communities and strengthening the local economy.

Existing LAA Outcomes - ECON 2 - Grow Cornwall's sustainable energy economy, reduce greenhouse gas emissions and reduce fuel poverty; ECON 3 - Demand driven, sector led workforce development: STRONG 1 - To empower local people to have a greater voice and influence over local decision making and the delivery of services; STRONG 2 - Increase the number of people from under-represented groups engaging in volunteering; STRONG 6 - To have cleaner, greener and safer public spaces; SUSTAIN 3 - Minimise the rate of growth in waste production per household; SUSTAIN 4 - Improved access to work, healthcare, education, food shops and recreation; SUSTAIN 5 - Improve the sustainability of tourism; SUSTAIN 6 - Develop Cornwall as a Centre of Excellence for the Natural Environment

10. What could be done to address this aim at a strategic level and how, if applicable, would the proposed actions be made sustainable? Please identify a preferred option if one exists.

A multi agency sign up: For the outcomes in section 6 to be delivered successfully a high level strategic Memorandum of Agreement (MoA) needs to be agreed and signed between the key agencies to provide high level endorsement and support for joined up, multi agency decision-making, design and delivery. This will establish the authority and confidence for people on the ground to work together. Agreement and support will be required at all levels from design through to delivery in the community (includes governance, education and volunteers, harnessing creative approaches to awareness raising and problem solving). The Cornwall Strategic Partnership, as owners of the SCS, could provide strategic overview and monitoring across all strategies (eg Strategy & Action, Children's Plan, Housing strategies, Health & Well-being Strategy, Older People's Strategy, etc) and outcomes to ensure compatibility with the need to move towards more sustainable lifestyles.

Capacity & skills: To deliver such a MoA it will be important to develop the capacity and skills of people delivering the outcomes and high level support for this outcome is needed.

Support existing partnerships to continue with local decision making and investment of resources.

Recognise the opportunity that the creation of sustainable rural settlements offers to urban areas in terms of provision of basic essentials of food, water and energy; recreational and environmental capacity; and development potential. The concepts underpinning the Market and Coastal Towns Initiatives of re-connecting rural hinterlands with their market towns could form an approach to the development of Community Networks under the One Cornwall proposals.

Environment Kernow believe that climate change, resource use and demographic change are the three key issues affecting Cornwall's economic, social and environmental well being. All three issues will affect the security of social infrastructure which is underpinned by decisions affecting economic development, land management, food, water, energy, waste management and housing. Cornwall is peripheral - geographically, economically and socially; this is what makes it unique and characterises the County. It also strongly influences the outcomes that EK wishes Cornwall's Sustainable Community Strategy to address (below).

Outcome 1 Knowing Its Sustainable Development Adopt the Measure of Domestic Progress (MDP) as referenced in the Evidence Base, (NEF, 2004). The SCS is an opportunity to adopt a well recognised measure of sustainable development which takes into account economic, social and environmental well being - see: Sustainable Development Commission "Living Well – Within Limits" & New Economic Foundation EU Un-Happy Planet Index (2007) & Chasing Progress: Beyond measuring economic growth (2004). In support of this one example is a reference from the Stern Review 2007, *"Ignoring climate change will eventually damage economic growth; tackling climate change is the pro-growth strategy."*

In addition to adopting measures it will be important to establish a well-resourced, publicly funded, strategic research and intelligence capacity within the public sector, working with key strategic partners e.g. Primary Care Trust, Local Authorities, CUC et al, which develops a rigorous foresight, scenario-testing impact model of Cornwall. Commission and source, analyse, interpret and monitor key socio-economic and environmental data applying the data to scenario-testing to inform policy response and development.

Improve opportunities for employment & training in rural areas and workspace for the above. Community and social enterprise businesses and services to be set up to fill the gaps left by market failure.

Outcome 2 A Sustainable Economy with Good Planning Strengthen the focus and authority of strategic spatial planning to provide the right development of the right quality in the right place. Where adverse environmental impacts are judged unavoidable, developer (public, private or third sector) contributions should fund compensatory environmental enhancements. Encourage and support the development of vibrant, diverse and environmentally sensitive rural businesses, including the promotion of financially viable and sustainable approaches to key industries, e.g. tourism, agriculture and fishing. Ensure that the ability of the natural environment to deliver quality goods and services is given equal weighting to socio-economic considerations in the development planning process. Identify, develop and implement agreed principles for the seas around Cornwall that sustains socio-economic use and interests without compromising environmental quality

Improve the access to and use of thin client ICT-based solutions powered by low carbon-generated electricity to deliver and access business, training and learning, services and community engagement. Introduce measures of progress and well-being that give equal weighting to social and environmental as well as economic factors when determining development progress.

A strategic determination to use existing resources to build a resilient infrastructure rather than simply attempt to “grow our way” out of it

Outcome 3 Address Climate Change Establish, resource, and empower a high-level ‘Climate Change Overview & Scrutiny Committee’ (within public sector, and where possible private and 3rd sector organisations) to identify, assess, and where appropriate encourage proportionate responses which address barriers to carbon reduction and climate adaptation initiatives within the relevant organisations.

Prepare and implement a comprehensive and effectively resourced delivery plan for adaptation and mitigation in relation to climate change that, at minimum, delivers emission reduction targets in line with the findings of UK Government Environmental Audit Committee – Beyond Stern: From the Climate Change Programme Review to the Draft Climate Change Bill. Identify the skills which will be needed to implement the delivery plan. Ensure that carbon accounting is applied to all decisions likely to have an appreciable impact on GHG emissions. Identify, negotiate and deliver catchment-based programmes to maximize the resilience of the freshwater environment to provide adaptation and mitigation to climate change impacts, especially flood risks. Work places, schools and leisure centres to become sustainable places through heating, design, wind turbines, travel plans, recycling of waste. “Climate change must be at the heart every local area's ambitions & it is important to ensure infrastructure and services are resilient to climate change” *Interim Report LGA Climate Change Commission July 2007*. Tackling climate change may become a statutory duty for local authorities - A climate of change: summary version of the LGA climate change commission report November 2007

Outcome 4 Natural Environment Identify, negotiate and deliver a coherent landscape-scale network of semi-natural habitats – including the provision of informal green space within towns and larger villages - to provide opportunities for biodiversity to adapt and respond to climate change impacts, sequester carbon dioxide and where appropriate provide improved opportunities for public enjoyment; improved biodiversity and habitat will deliver positive effects on quality of life for residents and deliver other recognised key ecosystem services; control non-native invasives; and contribute to healthy and long-term agricultural and tourism sectors.

Outcome 5 Transport Reverse the rate of increase in traffic; Identify and deliver an improved and coherent network of non-car based transport facilities, including affordable and reliable public transport, cycleways, bridleways and footpaths that connect people’s homes with service provision, including training and learning, employment and recreation opportunities; promote transport objectives in Obesity Strategy with safe walking/cycling routes to school and locally based health services and hospitals; increase travel awareness and travel planning; potential for alternative fuels; more sustainable road maintenance, e.g. aggregate reuse

Outcome 6 Sustainable Waste Management Further develop and extend (including use of wider reaching community based activity) work being undertaken to deliver the following key themes:

- Reduction in the levels of waste being produced per head of population in Cornwall.
- Increasing the levels of waste which is re-used, recycled and composted.
- Reduction in the levels of waste being taken for landfill for final disposal.
- Engagement of individual residents and local communities to take responsibility for adopting more sustainable practices and taking action to reduce waste.
- Enhancement of Cornwall's image and reputation through improved environmental performance relating to waste.
- Encourage sustainable business and community networking to facilitate good practice, local clusters of waste management service provision, knowledge transfer and waste exchanges
- Business reduction of packaging, increase in waste minimization, recycling and reuse (through technologies and practices which reduce waste emissions and/or manage their collection, processing and disposal)
- Encourage joint cluster working between eg farms and rural businesses such as tourism businesses to co-manage localised waste streams and energy requirements.

Outcome 7 Skills & Capacity Develop the skills to pursue a low carbon economy and climate change. Identify the skills which will be needed to implement a Climate Change delivery plan. Identify, resource and deliver multi-agency programmes to raise awareness, improve skills and learning in relation to the importance of the environment and responsible environmental management Develop inclusive actions to involve local people and communities in becoming active environmentally aware citizens. School curriculum to include sustainability to educate children and young people to understand the principles of sustainability.

Outcome 8 A High Quality Of Life For All Ages Improved environmental quality through improved management of public spaces and through improved management and awareness of waste. Improved management of public spaces will make a positive contribution to economic competitiveness, supporting both tourism and 'green' inward investment; be an improvement to the quality of both the built and natural environment; enhance Cornwall's image and reputation; be a positive contribution to community safety and reduction in the fear of crime; and reinforce promotion of local distinctiveness, a 'sense of place' and engagement of local communities. High quality local places to play to be developed using sustainable, natural materials wherever possible and using local natural amenities in Cornwall, e.g. Camel Trail, beaches etc.; children to take a lead role in promoting sustainable lifestyles and taking action in schools and the community with projects, challenges and wards to develop a sustainable environment and setting up local community projects. Sustainable transport to further education; sustainable decent homes in sustainable developments; easy access to local services; Green Travel Plans for schools and colleges; access to positive activities within a 30 minute bus ride (Integrated Youth Support Service, Youth Offer)

- (i) Establish a community engagement programme – to promote ownership and activity within communities on local environmental issues. Focus on reinforcing local distinctiveness and 'sense of place'
- (ii) Establish a Litter Reduction Programme – a continuation of the activities of the Cornwall Litter Partnership. Focus on four key themes:
 - Awareness and understanding of the impact of litter (Education)
 - Campaigning to reduce the extent of littering (Reduction)
 - Improved management of collection and disposal of litter (Efficiency)
 - Active engagement of the voluntary and community sectors in both the reduction and collection of litter (Capacity)
- (iii) Education and Enforcement Programme – work towards a standard approach to environmental enforcement across Cornwall with a robust and focussed regime to target key offences/offenders

- (iv) Environmental Quality Standards – develop a framework to establish common standards for environmental quality across Cornwall.

Outcome 9 A Sustainable Agriculture And Food Sector

Community Land Trusts/Energy Service Companies formed in collaboration with landowners/tenants; locally sourced foods for school and colleges in order to reduce road/air miles; Strengthen current farm businesses through research into new opportunities to generate ideas and product development, added value, branding and marketing in successful sectors including: dairy, horticulture, speciality foods and organic production.

Improve competitive performance of land based sector to ensure its long term sustainability; Enable those who wish to remain in land-based industries by improving business performance and by supporting diversification for those who wish to move into new areas such as non-food crops (such as biomass, oils, hemp), forestry, food processing, tourism ventures, etc.; (e.g. current Ag Strategy goal is 500 businesses assisted with advice by 2010 and 25 new starts in the processing sector); Facilitate the exit of farmers and other land managers who wish to leave the industry and encourage new entrants into the industry; Encourage the long term sustainability of farmers in nationally important landscapes such as the Areas of Outstanding Natural Beauty, the enhancement of which depend upon commercially viable agriculture that conserves the special qualities of the landscapes; Increase the planting of trees through increased farmers' and others' uptake of Woodland Grants Scheme and Farm Woodland Premium Scheme; Support coppice production for bio-mass power e.g. the Energy Crops Scheme – this technology is potentially CO₂ neutral and is based on a renewable energy source (also contribution to bio-diversity); Increase energy efficiency in all rural business sectors to capture both environment and economic savings; Encourage and strengthen markets for local food and drink produce across all communities of Cornwall, including public sector procurement; Provide opportunities for self-reliance by strengthening links between market towns/villages and rural hinterlands, including one-stop shop access to public services, community energy generation schemes, community transport services etc. Work proactively with the tourism sector to ensure businesses and visitors contribute to a localised sustainable food and drinks sector, and intergrate the need to do so into quality standards (green accreditation currently does this); specifically support and promote those businesses who are actively supporting a healthy agri-food sector.

Outcome 10 Clean, Healthy, Productive and Biologically Diverse Inshore Waters

Support and encourage sustainable fisheries and technologies; Develop a network of coastal and marine protected areas; Improve appropriate onshore facilities for commercial and recreational use; Reduce occurrence and impacts of diffuse and acute pollution entering coastal waters from land and sea; Encourage and strengthen markets for local fish across all communities of Cornwall, including public sector procurement; Encourage research into and exploitation of marine renewable energy generation technologies; Reduce marine litter; Develop and roll out environmental accreditation scheme for marine businesses; Support estuarine and coastal partnerships in developing and delivering sustainable management of the coast and inshore marine environment

11. What are the barriers to achieving this aim and how can they be removed or reduced?

Requires an understanding and acceptance by all, with a strong and exemplary lead on policy and action from the public sector, that:

- these issues are both real and important in the here and now
- without intervention, these issues will not go away or will increase in impact over time
- action now will be cheaper and more effective than action later

Silo thinking and lack of a multi-disciplinary approach to issues (which the LAA is beginning to overcome); need to improve the recognition that our social and economic infrastructure is underpinned by a healthy environment. Barriers include outdated planning 'beliefs'; short sighted vision of strategists; attitudes that 'business as usual' is deliverable.

Overcome barriers by:

- Increased knowledge of complex system thinking by professionals
- Increased appreciation that relevant information is changing fast and that issues are inter-linked
- Learning opportunities and activities to help people understand issues and deliver positive change
- Funding that allows different disciplines and communities of place, interest and practice to work together on common opportunities and problems
- Solutions through local plans (parish/towns) by identifying what are the local (especially isolated rural) communities (including businesses) priorities.

Dispersed settlement pattern necessitates innovative and imaginative solutions to overcome connectivity issues within a low carbon, resource-light framework.

Even with smarter, more efficient, effective and joined up partnership working, public sector budgets are tied to statutory duties, limiting scope for discretionary activity. Mainstreaming piloted innovation can be difficult to finance.

12. How would this strategic aim impact upon others identified to date?

Empowered residents

- Encouraging and supporting residents, individually and collectively, to improve physical neighbourhood environments, e.g. litter, graffiti, open spaces etc
- Enhanced positive opportunities for young peoples' participation in above
- Develop and support inclusive awareness/education (formal and informal) programmes and opportunities around sustainability agendas
- Develop and support community-based sustainability infrastructure, e.g. local waste management, renewable energy generation, community transport services etc.

Targeted, well-connected services

- Development of one-stop shops for multi-agency service provision, including rural outreach and mobile provision thereby reducing environmental impacts and strengthening cohesion and equity
- Improved connectivity (low carbon community-based and public transport, and ICT) solutions, especially in rural areas
- Sustainable building techniques and design in new buildings and developments, housing co-located with access to jobs, goods and services.

Effective transport and information and communication technology systems

- Improved travel awareness and planning with reduction in need for travel and the development of effective low-carbon transport infrastructure and systems
- Improved connectivity solutions (low carbon community-based and public transport – including dial-a-ride, real-time information - and lean client ICT architecture with enhanced video- and tele-conferencing promotion and facilities)

- Enhanced traffic management infrastructure in towns and road junctions
- Improved inter-modal linkages
- Develop and support local supply chains to reduce transport impacts and increase local economic benefits
- Develop and promote e-learning, -marketing, -networking etc.

Inclusion and strong communities

- Development of one-stop shops for multi-agency service provision, including rural outreach and mobile provision thereby reducing environmental impacts and strengthening cohesion and equity
- Improved connectivity (low carbon community-based and public transport, and ICT) solutions, especially in rural areas
- Sustainable building techniques and design in new buildings and developments, housing co-located with access to jobs, goods and services
- Develop and support inclusive awareness/education (formal and informal) programmes and opportunities around sustainability agendas
- Develop and support community-based sustainability infrastructure, e.g. local waste management, renewable energy generation, community transport services etc
- Locally sourced foods, including community growing cooperatives, especially where providing training opportunities for workless progression, rehab etc.

Independent older people and people with limiting issues

- Support oral history and older people's potential for mentoring/tutoring especially in traditional skills/knowledge
- Independent older people need focused support especially in terms of adapting homes (insulation, energy efficiency etc); applies equally to affordable and suitable homes

Employable, flexible workforce

- Develop environmental skills and learning/training opportunities
- Develop potential for home-working etc
- Provide opportunities for progression/employability via environmental opportunities/volunteering
- Develop improved health outcomes via access to natural environment, sport and recreation.

New, creative ideas in business, communities and services

- Support CUC Environmental Sustainability Institute creating links through to public, businesses and workforce awareness
- Encourage and support innovative design, technical, managerial solutions to environmental issues
- Showcase and value innovation
- Encourage and support multi-disciplinary teams to address environmental issues through innovation.

Breaking the cycle of poverty and deprivation in Cornwall

- Promote environmental awareness and engagement to raise aspirations for individuals, families, groups and communities
- Provide intergenerational volunteering opportunities, e.g. insulating homes, managing local public space, recording wildlife etc
- Provide away days for most disadvantaged families and communities.

Affordable and sustainable homes

- Sustainable building techniques and design in new buildings and developments, housing co-located with access to jobs, goods and services
- Target retro-fitting enhanced energy efficiency, insulation, water use in “poor” households/housing stock
- Neighbourhood regeneration/environmental enhancement projects/programmes in deprived wards/locations
- Improve access to jobs, goods and services locally.

Thriving towns and appropriate employment space

- Sustainable building techniques and design in new buildings and developments, housing co-located with access to jobs, goods and services
- Improved design, provision and management of public realm/open spaces to enhance environmental performance and reduce opportunities for anti-social behaviour
- Encourage ‘pride of place’ initiatives, local distinctiveness, citizenship
- Strengthen strategic and local transport links, “green” infrastructure and routes within and between towns and villages, promoting sustainability and healthy living
- Build on MCTI concept of linking towns and villages to rural hinterland for jobs, goods and services via Community Networks in the new Unitary Authority
- Encourage “transition communities” in response to climate change and resource depletion (including Peak Oil)
- Develop strategic, Cornwall-wide planning obligations/contributions from development to include funding for environmental sustainability.

Health equalities

- Sustainable building techniques and design in new buildings and developments, housing co-located with access to jobs, goods and services to reduce transport imperatives
- Target retro-fitting enhanced energy efficiency, insulation, water use in “poor” households/housing stock
- Neighbourhood regeneration/environmental enhancement projects/programmes in deprived wards/locations
- Improve access to jobs, goods and services locally
- Provide, encourage and promote opportunities for healthy living using the natural environment as resource for exercise and enjoyment, including development/enhancement of pedestrian, cycling, horse-riding routes
- Provide and encourage uptake of locally sourced food, including community-based activities e.g. allotments, cooperative growing etc.

Happy, healthy residents

- Thriving towns, villages and communities contributing to reducing adverse environmental impacts
- Health and citizenship agenda – contribution that environment makes to active, healthy lifestyles and vice versa. Healthy lifestyles, engagement with local community activity etc helps diminish negative environmental impacts of affluent consumerism
- Recognise and value environmental and community volunteering as positive contributions to society
- Provide, encourage and promote opportunities for healthy living using the natural environment as resource for exercise and enjoyment, including development/enhancement of pedestrian, cycling, horse-riding routes

- Provide and encourage uptake of locally sourced food, including community-based activities eg allotments, cooperative growing etc.
- Catchment-based management solutions to increased risk of flooding, minimising incidents of storm water combined with sewerage overflows
- Significant progress in adaptation and mitigation of climate change drivers and impacts over lifetime of SCS.

Culturally active citizens

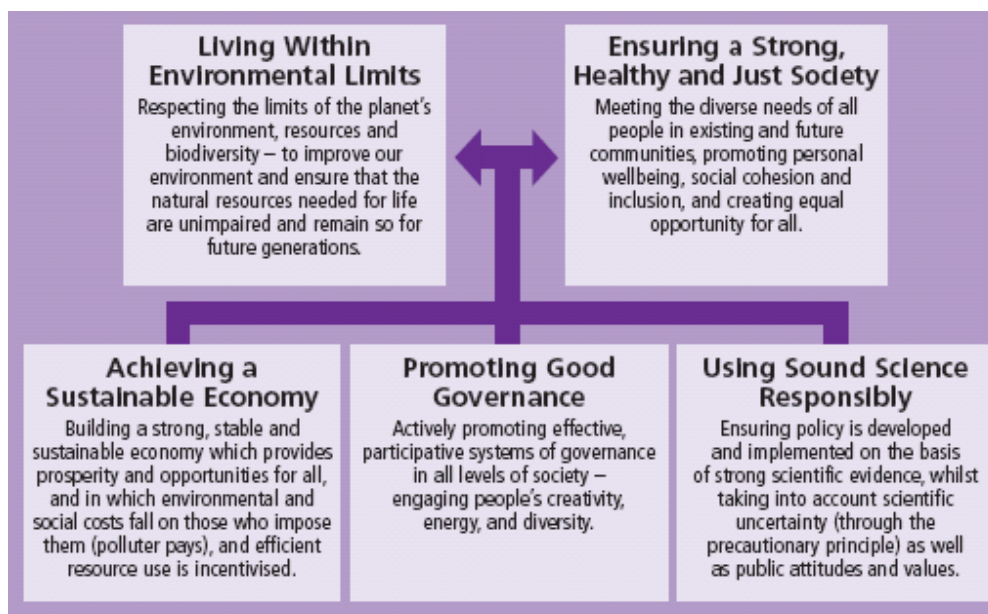
- Embed sustainability issues from school onwards in all cultural activity
- Celebrate non-materialistic goals and ambitions
- Increase engagement in recreational and cultural activities based upon enjoyment and challenge of natural environment.

Safer Cornwall

- Sustainable building techniques and design in new buildings and developments, housing co-located with access to jobs, goods and services
- Improved design, provision and management of public realm/open spaces to enhance environmental performance and reduce opportunities for anti-social behaviour
- Provide intergenerational volunteering opportunities, e.g. insulating homes, managing local public space, recording wildlife etc
- Provide away days for most disadvantaged families and communities
- Encourage 'pride of place' initiatives, local distinctiveness, citizenship
- Neighbourhood regeneration/environmental enhancement projects/programmes in deprived wards/locations
- Improve access to jobs, goods and services locally
- Locally sourced foods, including community growing cooperatives, especially where providing training opportunities for workless progression, rehab etc.

Appendix 1: Additional information for Template - perhaps info for Evidence Report

3. Policies and legislation relevant to the aim of: Living within our environmental means



UK Sustainable Development Commission: Principles of Sustainable Development

The New Performance Framework for Local Authorities and Local Authority Partnerships: Single Set of National Indicators, October 2007 Department for communities and Local Government. This set of indicators is established in the recognition that effective local government is the backbone of strong communities and prosperous towns and villages. These national indicators will be the measures against which central government performance manages local authorities and their partners.

NI 5 Overall/general satisfaction with local area CLG DSO

NI 6 Participation in regular volunteering CO DSO

NI56 Obesity among primary school age children in year 6 DCSF DSO

NI 110 Young people's participation in positive activities PSA 14

NI 163 Working age population qualified to at least Level 2 or higher PSA 2

NI 164 Working age population qualified to at least Level 3 or higher PSA 2

NI 165 Working age population qualified to at least Level 4 or higher PSA 2

NI 167 Congestion – average journey time per mile during the morning peak PSA 5

NI 175 Access to services and facilities by public transport, walking and cycling DfT DSO

NI176 Working age people with access to employment by public transport (and other specified modes) DfT, DSO

NI185 CO2 reduction from Local Authority operations PSA27

NI186 Per capita CO2 emissions in the LA area PSA27

NI187 Tackling fuel poverty Defra DSO

[NI188 Adapting to climate change PSA27](#)

[NI189 Flood and coastal erosion risk management Defra DSO](#)

[NI191 Residual household waste per head Defra DSO](#)

[NI192 Household waste recycled and composted Defra DSO](#)

[NI193 Municipal waste landfilled Defra DSO](#)

[NI194 Level of air quality – reduction in NOx and primary PM10 emissions through local authority estate and operations PSA28](#)

NI 195 Improved street and environmental cleanliness (levels of graffiti, litter, detritus and fly posting) Defra DSO

NI 196 Improved street and environmental cleanliness – fly tipping Defra DSO

[NI197 Improved local biodiversity- active management of local sites PSA28](#)

[NI198 Children travelling to school – mode of transport usually used DfT, DSO](#)

PUBLIC SECTOR AGREEMENTS AND DEPARTMENTAL STRATEGIC OBJECTIVES TO WHICH THE NATIONAL INDICATORS RELATE

- PSA 2 Improve the skills of the population on the way to ensuring a world-class skills base
- PSA 5 Deliver reliable and efficient transport networks that support economic growth
- [PSA12 Improve the health and wellbeing of children and young people](#)
- PSA 18 Promote better health and well-being for all
- [CLG, DSO Provide a more efficient, effective and transparent planning system that supports and facilitates sustainable development, including the Government's objectives in relation to housing growth, infrastructure delivery, economic development and climate change.](#)
- [Defra, DSO Climate change tackled internationally, and through domestic action to reduce greenhouse gas emissions](#)
- [Defra, DSO Economy and society resilient to environmental risk and adapted to the impacts of climate change](#)
- [Defra, DSO Sustainable patterns of production and consumption](#)
- [Defra, DSO A healthy, resilient, productive and diverse natural environment](#)
- [PSA27 Lead the global effort to avoid dangerous climate change](#)
- [PSA28 Secure and healthy natural environment for today and the future](#)

Question 5 – Climate Change Impacts on communities in 20 years time

NB: This is now out of date. These were conservative predictions. the IPCC now stresses that climate change is happening faster and to a greater extent than it previously thought possible – in some areas, changes thought likely by the end of the century are already happening

Climate Variable	Likely change by around the 2050s (from UKCIP02 low and high emissions scenarios)
Temperature	<ul style="list-style-type: none"> • Annual warming 1.0 to 2.5°C (1.5 to 4.5 °C by 2080s) • Greater night-time than day-time warming in winter • Greater warming in summer and autumn than in winter and spring • Greater day-time than night-time warming in summer • Years as warm as 1999 (+1.2°C become more common)
Precipitation	<ul style="list-style-type: none"> • Winters 5 to 15% wetter (10 to 30% wetter by 2080s) • Summers 15 to 30% drier (25 to 50% drier by 2080s) • Heavy rainfall in winter becomes more common • Greater contrast between summer (drier) and winter (wetter) seasons • Winter and spring precipitation becomes more variable • Snowfall totals decrease significantly • Summers as dry as 1995 (37% <average) become more common
Cloud Cover	<ul style="list-style-type: none"> • Reduction in summer and autumn cloud, and an increase in radiation • Small increase in winter cloud cover
Humidity	<ul style="list-style-type: none"> • Specific humidity increases throughout the year • Relative humidity decreases in summer
Soil Moisture	<ul style="list-style-type: none"> • Decreases in summer • Slight increase in winter soil moisture
Storm tracks	<ul style="list-style-type: none"> • Winter depressions become more frequent, including the deepest ones
North Atlantic Oscillation	<ul style="list-style-type: none"> • The North Atlantic Oscillation (NAO) tends to become more positive in the future, giving wet, windy and milder winters