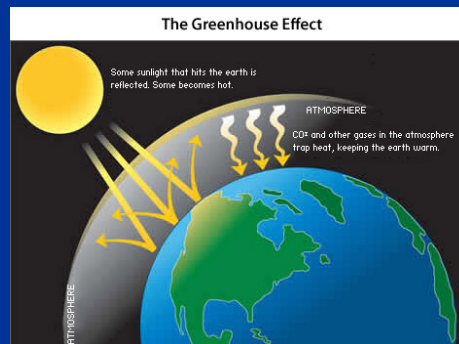


Chartered Quality Institute West of Scotland Branch Seminar

Sustainable Development

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Definition of sustainable development

Relevance to local government

Carbon footprinting

Ecological footprint

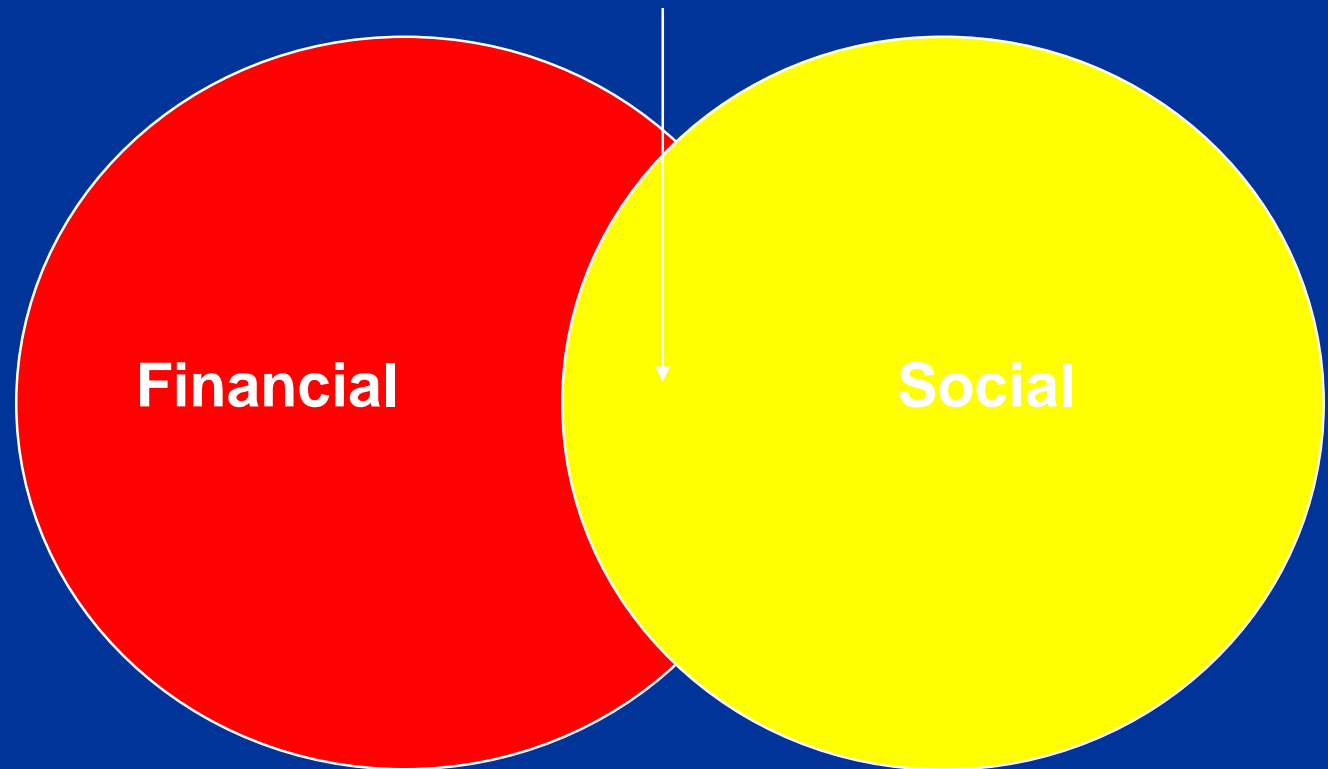


Definition

“Development which meets the needs of the present without compromising the ability of future generations to meet their own needs”

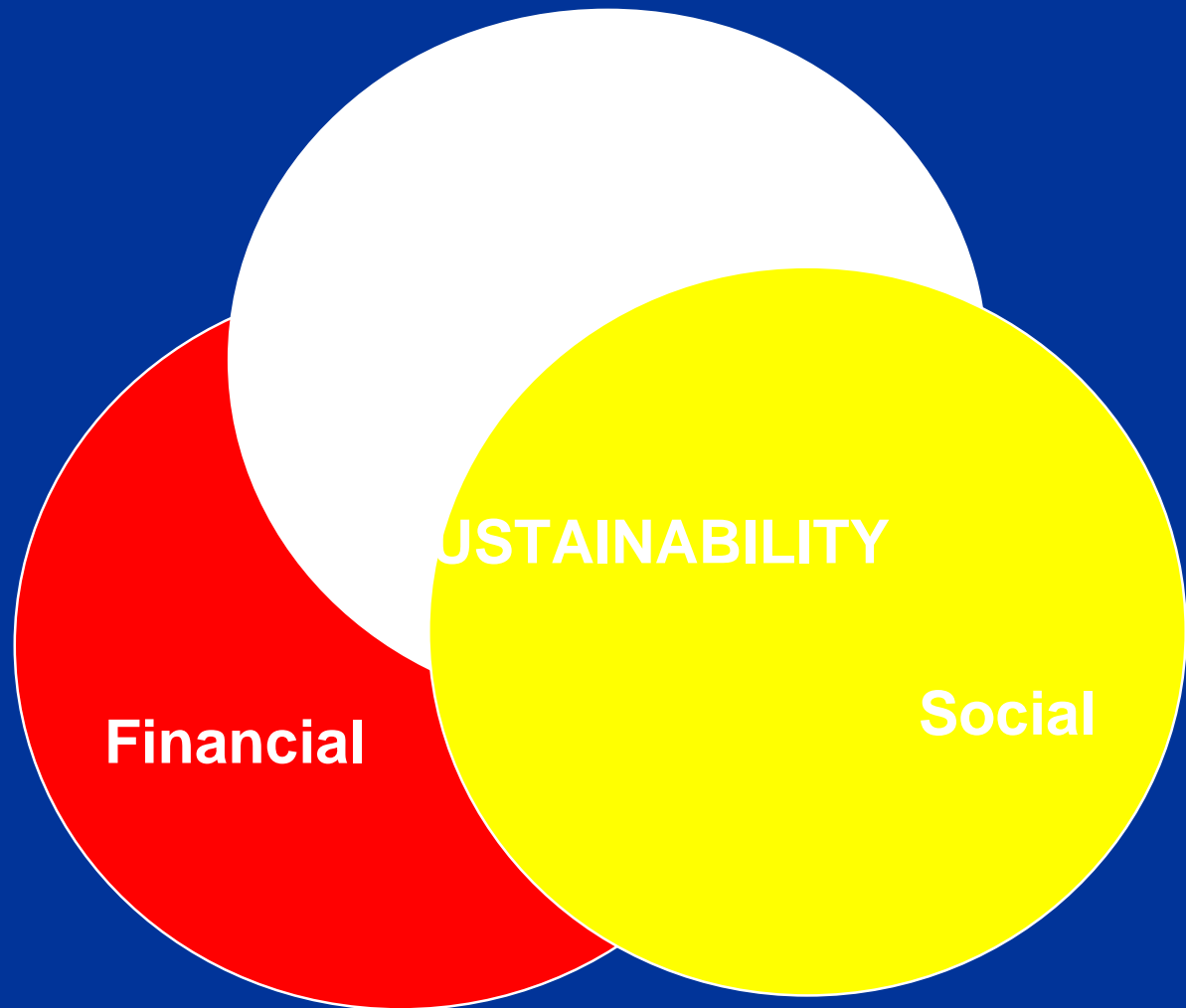
Brundtland Commission

Efficient public services



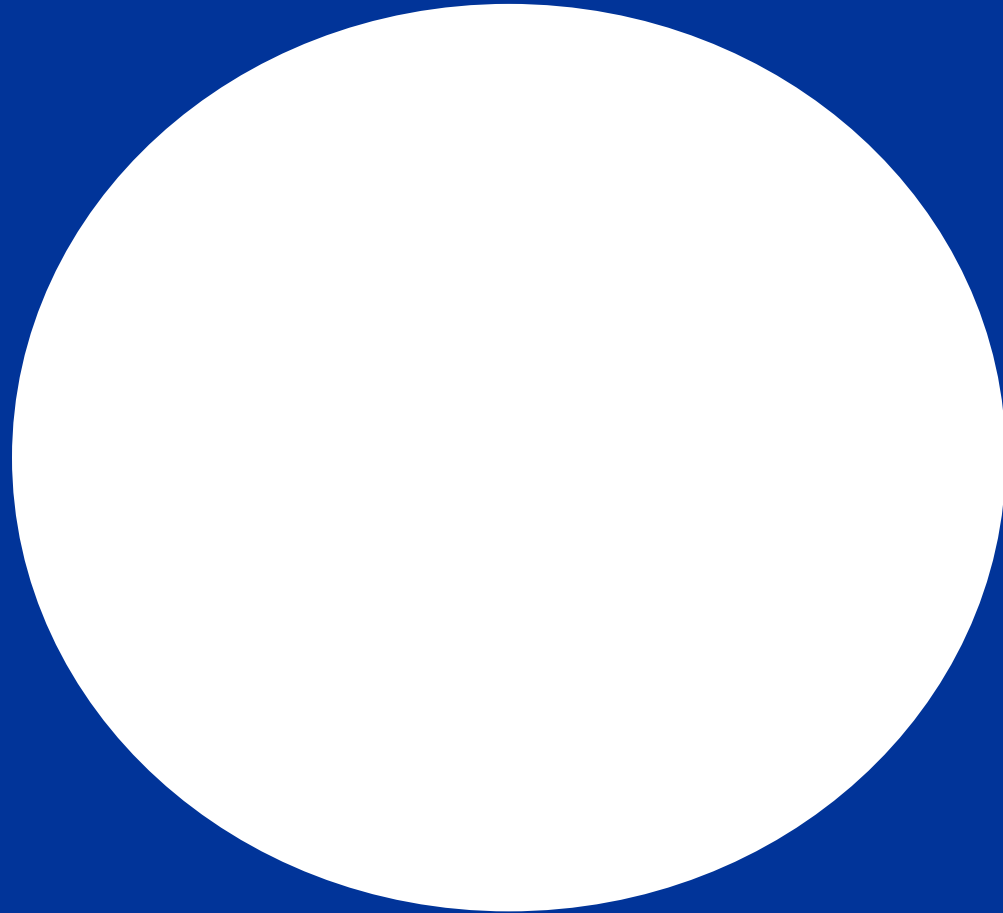
Best social outcome at economic cost

'Triple bottom line'



Considers environmental costs and benefits as well

Environmental limits

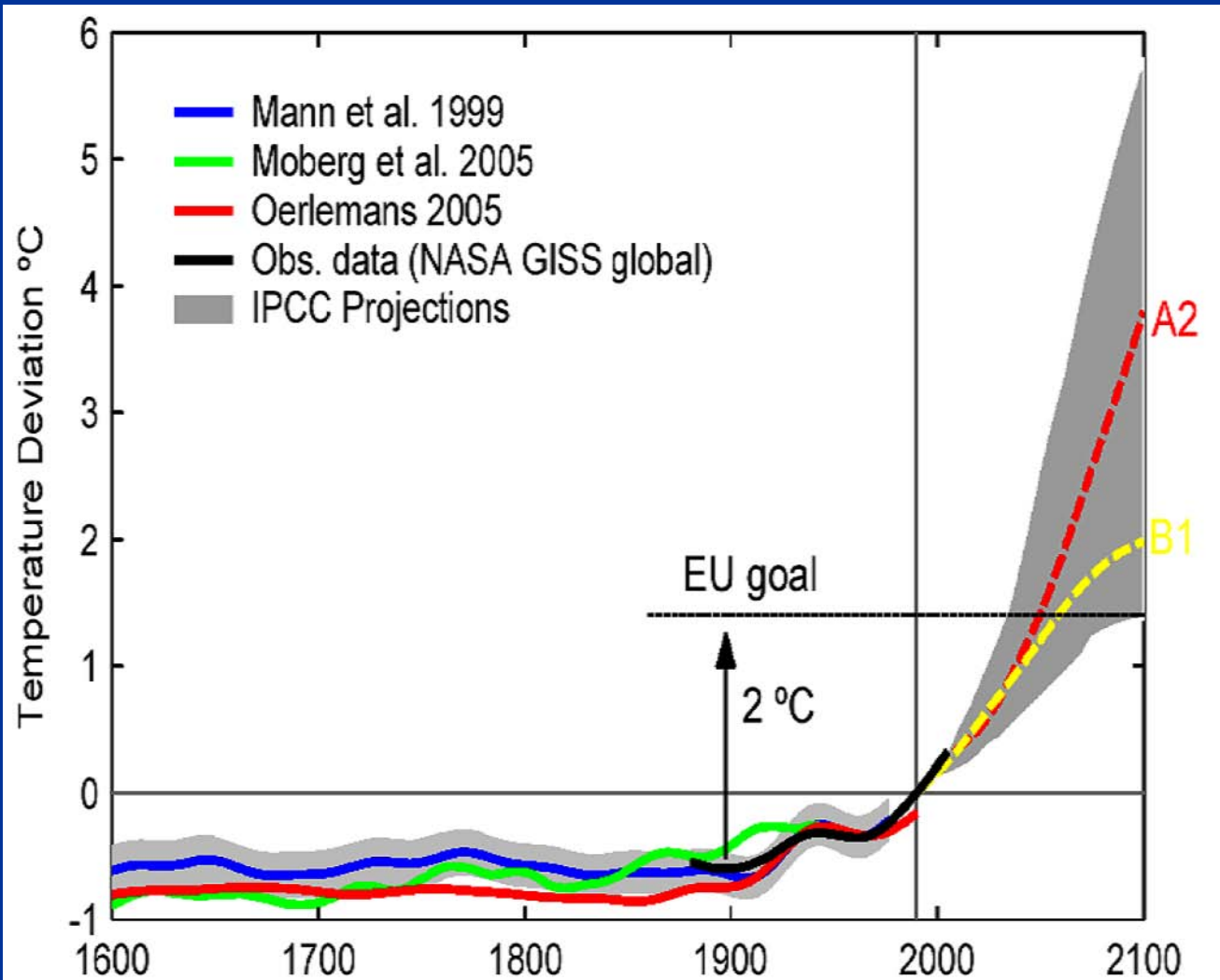


Climate change

- Pre-industrial CO₂ concentrations : 280 ppm
- Current CO₂ concentrations: 380 ppm
- Current GHG (CO₂ e) concentrations: 430 ppm
- Rate of GHG concentration increase: 2.5 ppm p.a.
- Current global average temperature increase since 1900: 0.7°C
- Target temperature increase for 'acceptable' climate change: 2°C
- Probability that this will be exceeded at 450ppm: 80%



Climate change predictions



Sustainable Development Policy Drivers

Moral/political

- Our local role in tackling a global problem
- Leadership and long-term planning role of councils
- Reputation of organisation

Legislative and regulatory

- Duty of best value
- UK Climate Change Bill
- European directives (e.g. SEA, EPBD)
- Building control/planning regulations
- Specific statutory functions (e.g. biodiversity)

Financial

- Carbon reduction commitment
- Increasing cost of fossil fuels

Risk

- Preparing for the impact of change on our business

The Duty of Best Value

Local Government in Scotland Act 2003

“The Local Authority shall discharge its duties in a way which contributes to the achievement of Sustainable Development” s1(5)

Guidance to the Act says this means:

- *Elected member/senior officer commitment to SD*
- *SD reflected in all plans and strategies*
- *Plans, priorities reflect communities' views*
- *Quality of life indicators reported to public*
- *Reviews take account of sustainability*
- *Procurement strategy takes account of SD*
- *A systematic approach to management of resources*

Councils are audited on their performance

UK Climate Change Bill

- New duty on UK government to assess nation's risks from climate change
- Creates statutory committee on climate change to advise government
- Binding carbon reduction targets of 80% by 2050
- Setting and publication of binding 5-year, UK-wide carbon 'budgets' (yet to be determined)
- Enables enactment of carbon reduction measures through secondary legislation e.g. Carbon Reduction Commitment
- NB also Scottish Climate Change Bill currently in legislative process

Carbon reduction commitment

- 'Cap and trade' scheme for high energy users in SME and public sector
- All organisations using 6,000 MWh on half-hourly electricity meters in 2008 included
- Permits to be bought to cover 90% of annual emissions from gas, oil and electricity use
- Overall reduction in emission will be brought about through a cap in total no. permits available
- Efficiency (in emissions reduction measures) within marketplace to be achieved via the trading of permits
- Nearly all payments to CRC are 'recycled' to participants - penalties and rewards will apply

Strategic environmental assessment

- Environmental Assessment (Scotland) Act
- Applies to (nearly) all public sector plans, programmes, strategies and policies which may have significant environmental impacts
- Impacts may be positive or negative
- Involves a process which seeks to improve environmental outcomes
- Environmental 'media' water, soil, landscape, human health, biodiversity, air quality, climate
- Consultation with Scottish Government bodies, public and stakeholders a requirement

SLC Sustainable Development Strategy

1. To improve effective use of **energy** in our buildings and transport in order to reduce **greenhouse gas emissions**.
2. To ensure efficient use of **material resources** and to increase recycling and develop more sustainable of waste management.
3. To develop responsible **procurement** practices.
4. To manage our impact on the **water** environment.
5. To protect and enhance our **natural environment, land and ecology**.
6. To secure **quality living and working environments** for health, wellbeing and prosperity.
7. To foster responsible **citizenship and awareness** of sustainable development.

Environmental issues

- *Local Plan and development management*
- *Building control and planning regulations*
- *Housing investment and renewal*
- *Domestic recycling performance and future waste strategy*
- *Energy efficiency and carbon management*
- *Design of new buildings*
- *Procurement*
- *Council waste streams*
- *Environmental protection duties*
- *Biodiversity and Greenspace Strategies*
- *Eco Award Programme in schools*
- *Employee Travel Plan*
- *Local and online access to services*
- *Strategic environmental assessment*
- *Community Planning*

Scotland's Climate Change Declaration

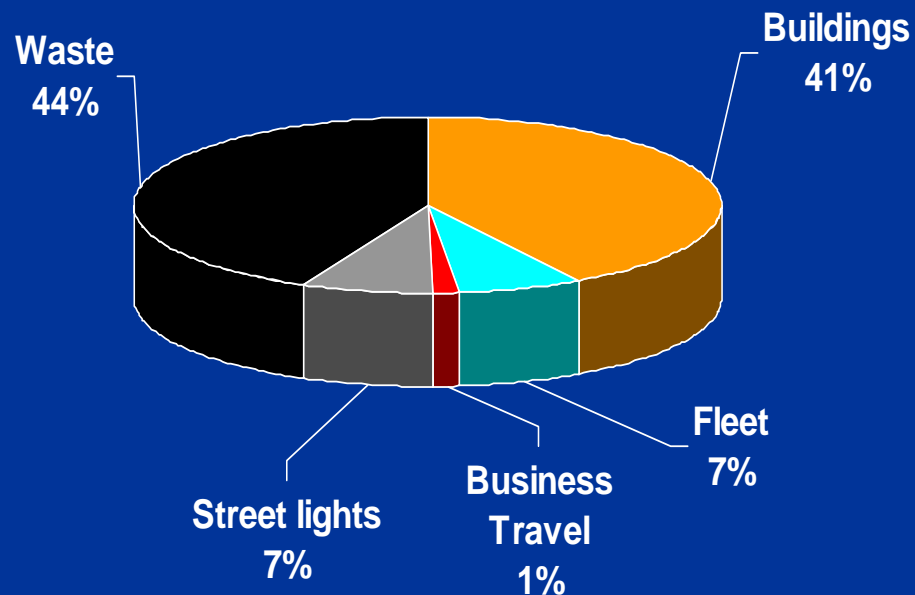
- Acknowledgement of man made climate change
- Commits signatories to take action to mitigate against climate change, and adapt to a changing climate
- All 32 authorities have signed the declaration
- Annual public reporting
- Addendum for community planning partners



'Carbon footprint'

- Carbon Trust's carbon management programme
- CO₂ emissions from fossil fuel use (energy use in buildings, road fuel, street lighting etc.)
- Estimated impact of methane emissions from land-filled domestic waste
- However excludes emissions from water use, staff commuting, purchased goods and services
- Main purpose: to enable the organisation to reduce its emissions through better measurement, governance, targeting and by learning from others

SLC Carbon footprint



CO₂ baseline 2005/06 142,394 tonnes

SLC Carbon footprint

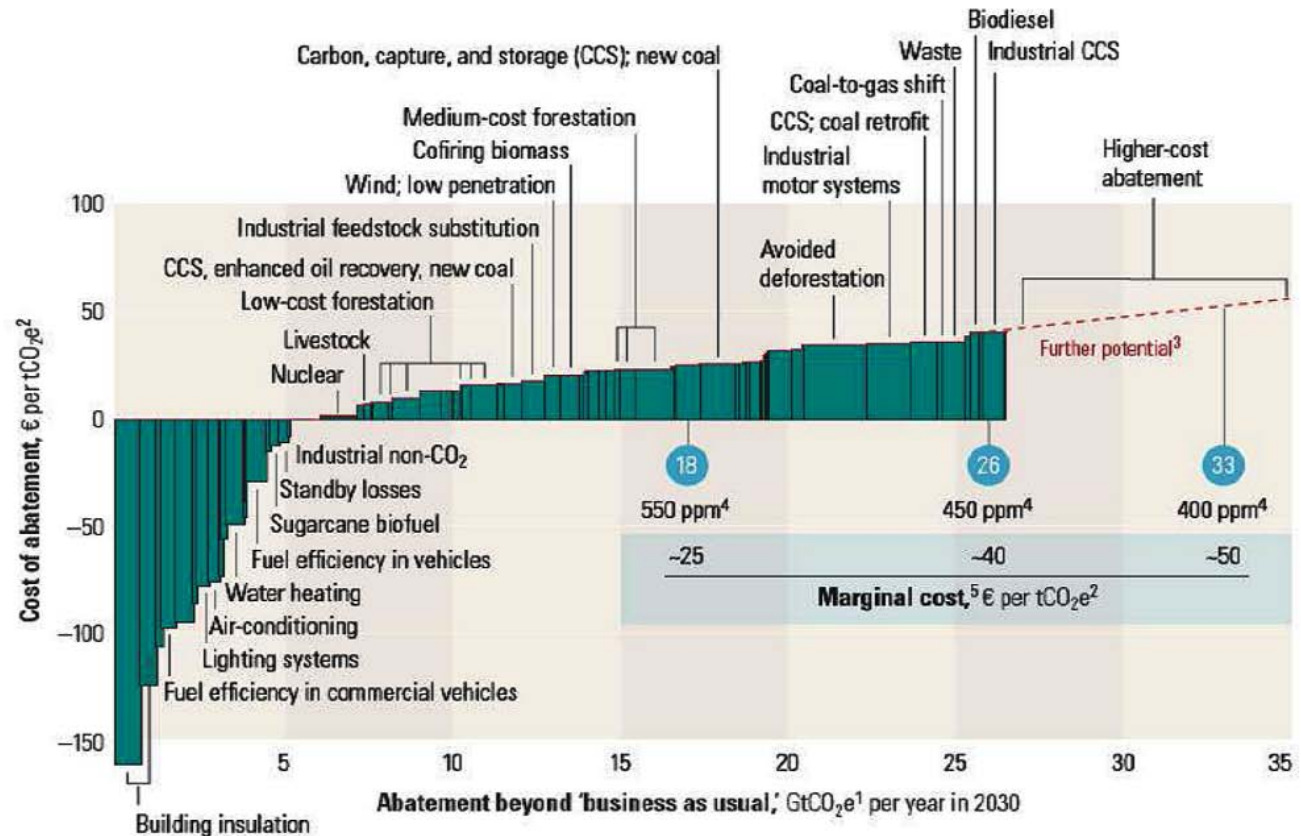
- Carbon management plan
- Target: reduce by emissions by 5% by 2011
- Actions include:
 - Appointed Carbon Manager
 - Increasing energy efficiency investment
 - BREEAM for new buildings
 - Examining renewables
 - Changes in vehicle procurement
 - Waste strategy
- Have achieved a reduction of 2.6% in first year – many challenges

SLC Carbon footprint

- Marginal abatement cost curve



Marginal abatement cost curve



¹GtCO₂e = gigaton of carbon dioxide equivalent; "business as usual" based on emissions growth driven mainly, by increasing demand for energy and transport around the world, and by tropical deforestation.

²tCO₂e = ton of carbon dioxide equivalent.

³Measures costing more than €40 a ton were not the focus of this study.

⁴Atmospheric concentration of all greenhouse gases recalculated into CO₂ equivalents; ppm = parts per million.

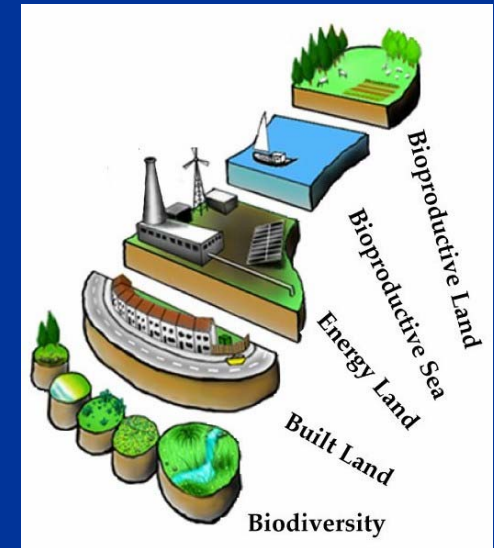
⁵Marginal cost of avoiding emissions of 1 ton of CO₂ equivalents in each abatement demand scenario.

Ecological footprint

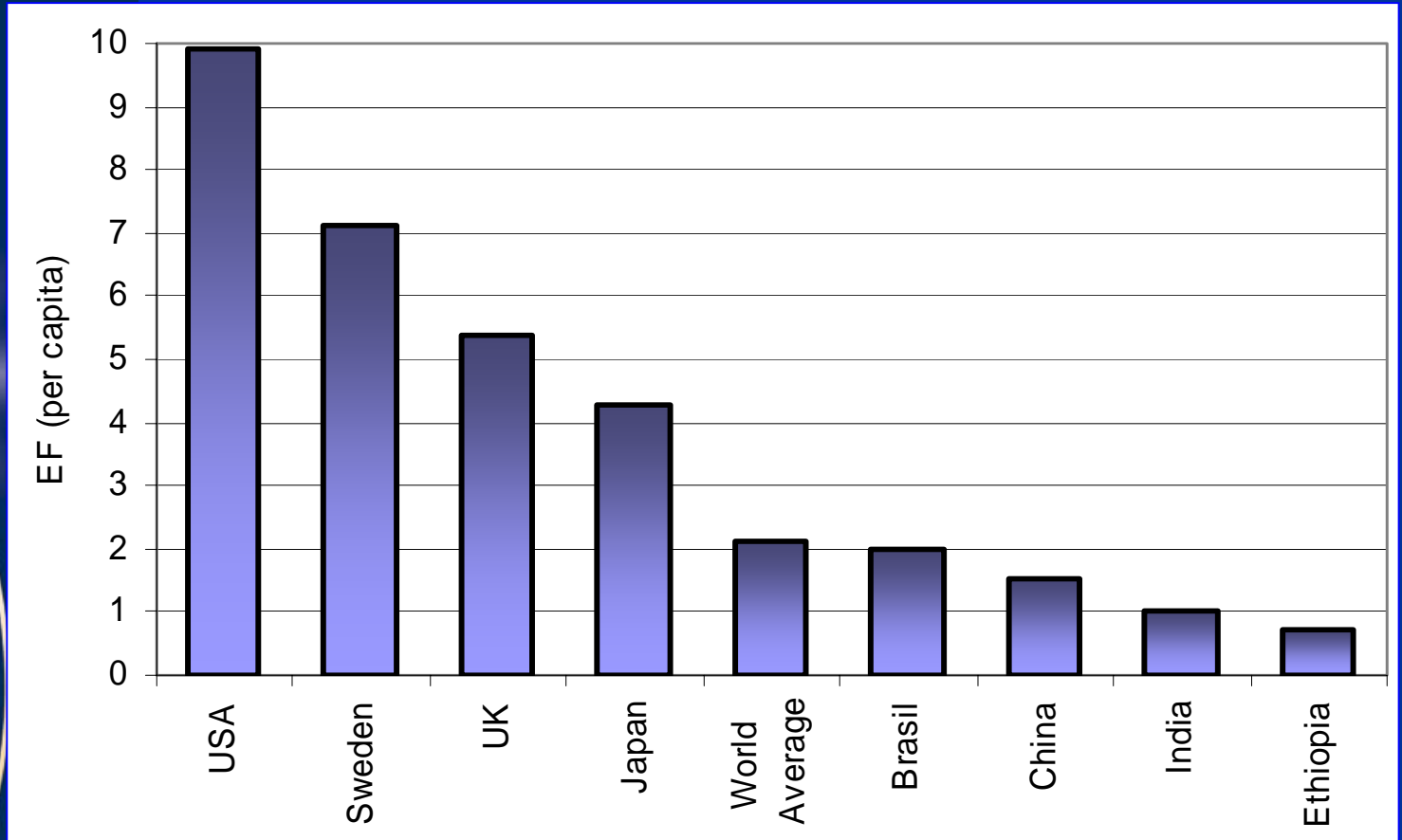
- Council carbon footprint only part of the picture
- Does not cover many aspects of consumption which give rise to emissions
- Misses wider influence that the Council has:
 - Provider of housing
 - Planning and building control
 - As community leader
 - Responsibilities for community planning

Ecological footprint

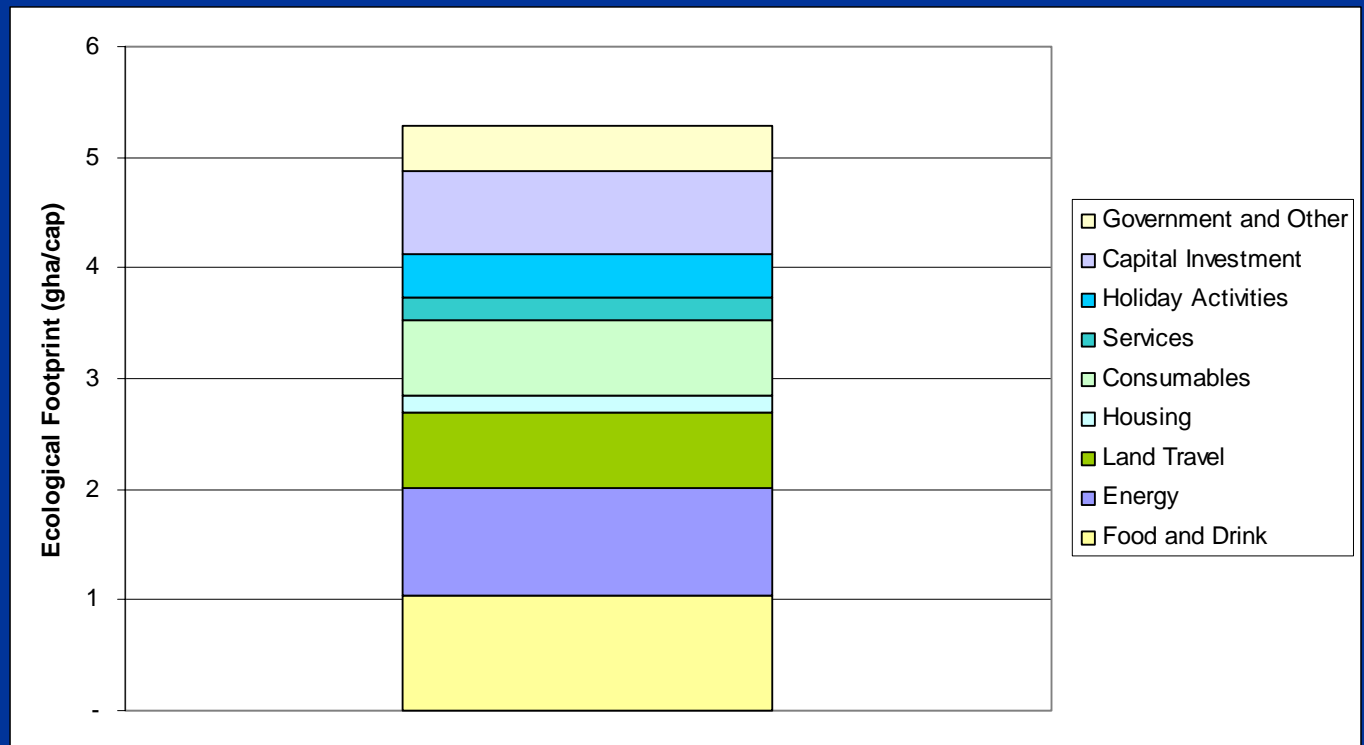
- Developed by the Stockholm Environmental Institute – REAP software tool
- Land and sea area needed to provide all the **energy, water, transport, food and materials** to support consumption patterns to absorb our **waste**
- A 'fair share' c. **2 hectares per person**
- Scotland = 5.37 hectares per person i.e. a three planet economy.
- Can be used to compare 'scenarios'



Ecological footprint



South Lanarkshire's ecological footprint



Ecological footprint

- Now an optional measure for council's single outcome agreements
- As a learning tool in schools
- Compare options for community growth areas
- Can be applied to other scenarios to test the sustainability of different policy options by estimating impacts of energy use, travel, food, use of resources

Carbon reduction commitment

- Rewards/penalties based on position in 'league table'
- First year league table performance to be based entirely on 'early action':
 - Installation of automatic meter reading, and/or
 - Energy management accreditation scheme (EMAS)
- Rest of introductory phase performance score based on a mix of factors:
 - (20%) Continued 'early action'
 - (60%) Absolute emissions/consumption relative to rolling average of 5 previous years
 - (20%) Growth i.e. emissions relative to overall Council revenue expenditure (in public sector)
- 'Early action' benefit will cease after introductory phase
- Reward/penalty to be increased each year: 1st year 10%, 2nd year 20% etc. until 2015 (50%). Government has said it may eventually increase to 100%