



**WWF Cymru Manifesto**

**2011 – A TIME TO DO**

**THINGS DIFFERENTLY** 

# GLOBAL CONTEXT

The recent downturn in the global economy is a stark reminder of the consequences of living beyond our means.

The social impacts of the recession are severe, yet they pale in comparison to the looming ecological credit crunch.

Whether we live on the edge of the forest or in the heart of the city, our livelihoods and indeed our lives depend on the services provided by the Earth's natural systems. We know we are consuming the resources that underpin those services much too fast – faster than they can be replenished<sup>i</sup>. Just as reckless spending has caused recession, so reckless consumption is depleting the world's natural capital to a point where we are endangering our future prosperity.

The ecological crunch is a global challenge. The Living Planet Index shows that over the past 35 years alone the Earth's wildlife populations have declined by a third<sup>ii</sup>. Yet our demands continue to escalate. Our global footprint now exceeds the world's capacity to regenerate by about 44 per cent. In 2008, the WWF Living Planet Report reported how for the first time in recorded history, the Arctic ice cap was surrounded by open water – literally disappearing under the impact of our carbon footprint<sup>iii</sup>.

We have only one planet. Its capacity to support a thriving diversity of species, humans included, is large but fundamentally limited. When human demand on this capacity exceeds what is available – when we surpass ecological limits – we erode the health of the Earth's living systems. The resulting deforestation, water shortages, declining biodiversity and climate change are putting the well-being and development of all nations at increasing risk.

There is a further context, unique to this election. Whichever party wins the next Assembly election will be faced with the major squeeze already taking place on central Government finances in order to reduce the national debt. All parties in the Assembly are committed to major cuts in carbon emissions over the next 10 years and are also committed to restoring sound public finances. This presents a major challenge. To get value for money from every penny of tax raised, we should be cutting any form of public spending which promotes a high carbon economy. We should also be challenging anomalies where high carbon economic activity still receives tax breaks or subsidies. There are many opportunities to find new money, but it requires us to think differently about the objectives we are really trying to achieve, and differently about the way we achieve them. Breaking the habits of expenditure patterns based on a very different world of boom without regard for ecological bust, will be one of the challenges the next Government faces. For this reason, Wales needs a cabinet committed to leading this transformation of thinking and practice in both Government and society.

If we continue with business as usual, by the early 2030s we will need two planets to keep up with humanity's demand for goods and services. However much of what needs to be done is already known, and solutions are available today. It is not too late to prevent an irreversible ecological recession setting in.

This manifesto identifies some key areas where we need to take transformative action in Wales in our lifestyles, economies and Government to put us on a more sustainable trajectory, to equip Wales for the future and to meet these global challenges.

**Anne Meikle**  
Head of WWF Cymru

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# 4 PRINCIPLES TO GOVERN BY

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**1 Living within Environmental Limits** is a fundamental necessity to sustain life on earth. This necessity must be treated as a fundamental pillar of sustainable development. It must be a cornerstone of all Government decision making. We must ensure that countering the impacts of Welsh consumption on ecosystems and the depletion of resources, at home and abroad, is a driver for policy making.

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**2 Measuring what matters** Reform the tools and the policy framework used to measure our progress towards well being and reducing our ecological footprint, ensuring, impact on sustainable development indicators is a key driver in decision making.

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**3 Tackle climate change** Recognise that tackling climate change needs immediate and unique prioritisation as the most threatening consequence of our failure to live within environmental limits.

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**4 One Planet Economy** Assert that the purpose of Wales' economy is not about 'growth' per se but about wellbeing and that our economic system needs to be compatible with environmental limits.

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# TOP 10 ENVIRONMENTAL COMMITMENTS TO DELIVER

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- 1** Maintain the current commitment to be a One Planet Wales by 2050 and commit to stabilise and then reduce Wales' ecological footprint by 3% per year.
- 2** Assess the impact of all policies, programmes and public expenditure on reduction of greenhouse gas emissions and Wales ecological/ carbon footprint.
- 3** Redirect public expenditure away from where it subsidises high-carbon and resource-inefficient aspects of the economy towards areas which are crucial to Wales' capacity to thrive, in the transition to a green world economy.
- 4** Recommit to reducing Wales' greenhouse gas emissions by 40% (on 1990 levels) by 2020, and set annual reduction targets that ensure the 40% cuts are delivered.
- 5** Maintain the current ambition for a decarbonised electricity supply sector by 2025, (but ensure at least 70% delivery by 2020), backed by a robust package of incentives to make this happen.
- 6** Set a target to reduce all carbon emissions from housing by at least 40% by 2020, supported by a nationwide housing retrofit programme to deliver it.
- 7** Run a sustainability vision through all transport strategies and plans, with a clear objective to stabilise traffic levels at 2001 levels, by 2021.
- 8** Ensure public sector food procurement is local, seasonal and only from sustainably certified sources by 2012 where possible.
- 9** Public sector performance management frameworks account for carbon and footprint reduction through delivery of associated mandatory targets.
- 10** Marine plans are produced by 2015 to cover all activities and secure sustainable resource use throughout Welsh Seas, co-ordinated across the land-sea interface and national and administrative boundaries.

# KEY PRINCIPLES RATIONALE

Addressing our patterns of over-consumption is central to securing a healthy planet. At national and local levels, governments have a central role to help understand the scale of our consumption impacts and ensure that policy decisions are influenced accordingly. If we are to make progress in tackling these issues WWF recommend:

## **Principle 1: 'Living within Environmental Limits' is a fundamental pillar that underpins the delivery of Sustainable Development.**

Wild species and natural ecosystems are under pressure across all regions of the world. The key drivers of biodiversity loss stem from the human demands for food, water, energy and materials. As the world population and economy grow, so do the pressures on biodiversity. The pressure can be alleviated by improvements in technology, resource efficiency and demand reduction.

Humanity depends on healthy ecosystems: they support or improve our quality of life, and without them, the Earth would be uninhabitable.

Ecosystems provide:

- Supporting services such as nutrient cycling & soil formation.
- Provisioning services such as the production of food, freshwater or fuel.
- Regulating services including climate and flood regulation, water purification.
- Cultural (including aesthetic, spiritual, educational and recreational) services.

As some ecosystem services are not bought and sold commercially (i.e. regulating / spiritual) they have no market value. When they decline they send no warning to the global economy. Economic markets lead to decisions about resource use that maximize benefits to individual producers and consumers, but often undermine the biodiversity and ecosystem services on which the production and consumption ultimately depend. The value of biodiversity to human well-being, while not readily quantifiable in monetary terms, could be the difference between a planet that can support its human population and one which cannot.

This was recognised by Defra in Securing the Future<sup>iv</sup> which placed living within environmental limits at the heart of the new strategy. The Sustainable Development Commission also supports in the five Sustainable Development 'principles' - key element in these principles is the recognition that – rather than being an end in itself – a 'sustainable economy' should be regarded as the means to reaching the more fundamental goal of a 'strong, healthy and just society' that is 'living within environmental limits'<sup>v</sup>.

As Jonathon Porritt states “**Living within ecological limits is the non negotiable basis for our social and economic development**”. Setting Wales on a development path that can live and cope within environmental limits must be the key basis upon which our SD plan is based.

**Principle 2: Measuring what matters:  
Reform the tools and the policy framework used to measure our progress  
towards human and planetary well being ensuring that sustainable  
development is the key driver in decision making.**

Living within Environmental Limits, requires a departure from the current course, it therefore requires different tools to measure progress.

The UK economy has a global environmental impact which is nearly three times larger than what is required for a sustainable world. On a global scale, the world's populations consume beyond environmental limits. If present patterns of production and consumption continue unchecked, the human economy will be double the available carrying capacity of the planet by 2050 and we would need the equivalent of 2 planet earths to support us.

What is required is not just a step change, but a transformation - an evolution of our economic system, our patterns of production and consumption and the tools that we use to measure the success of our nations' economies. We need to establish an economy which delivers human and planetary well being; an economy that operates within environmental limits, supports healthy ecosystems and provides a decent quality of life for all. We call this a One Planet Economy.

Wales's economic policy needs to achieve a broader purpose beyond economic growth where:

- It delivers wellbeing i.e. long term sustainable economic, social and ecological well being.
- GDP alone is no longer the dominant high level indicator of progress, driver of decisions and benchmark of Wales's prosperity.
- Sustainability indicators, which are currently quite weak and receive lower attention in decision making, are used to drive policy and decision making in the future.

Therefore greater priority must be given to additional measures beyond GDP to 'measure what matters' in making progress towards these goals – reflecting progress in increasing wellbeing and reducing our ecological footprint.

WWF advocates using a unique family of indicators – the Footprint Family. The role of the footprint family of indicators is to measure resource flows: the ecological footprint, the carbon footprint and the water footprint. Together, as a family of indicators, they are the most powerful and comprehensive tools we have to capture the full complexity of environmental limits. Set alongside indicators of social and economic development, they provide a comprehensive assessment of progress towards sustainable development and a One Planet Wales. It is important that this family of indicators is embedded and that crucially that they are used to actually drive policy.

**Principle 3: Recognise that tackling climate change needs immediate and unique prioritisation as the threatening consequence of our failure to live within environmental limits**

*“Climate change is a risk-multiplier. It has the potential to take all the other critical issues we face as a global community and transform their severity into a cataclysm. Reducing poverty, increasing food production, combating terrorism and sustaining economic development are all vital priorities, but it is increasingly clear how rapid climate change will make them even more difficult to address. Furthermore, because climate change is intimately connected with our systemic, unsustainable consumption of natural resources, any decline in the ecological resilience of one resource base or ecosystem increases the fragility of the whole”* **HRH The Prince of Wales addressing UN climate conference COP15, Copenhagen (December 2009)**

An urgent manifestation of the problem of living outside of those finite limits is the destabilisation we have caused to the Earth’s climate. We must find a way to live within the Earth’s natural capacity while still enjoying a high quality of life over the long term but we must also now make urgent emissions reductions before run away climate change presents an irreversible problem.

The cross party consensus committing the Welsh Assembly Government to a 40% greenhouse gas emissions reduction target by 2020 is a good example of attempts to live within safe environmental limits. This commitment must be maintained

**Principle 4: Government should review all public expenditure with the aim of redirecting it away from where it subsidises high-carbon and resource-inefficient aspects of the economy towards areas which are crucial to Wales’ capacity to thrive in the transition to a green world economy**

At the beginning of the year the Green Alliance published a document, ‘Cutting back on carbon spending’<sup>vi</sup> that examined ways for the UK Government to cut public spending and reduce support for a high carbon economy. If all the measures suggested in the report were undertaken then spending could be reduced by nearly £7bn over four years. Such measures would not solve the problem of national debt, but, the Green Alliance argued, would enhance the value for money of public spending by the additional benefit of supporting another important national objective, delivering the low carbon transition. For example: A two year moratorium on road expansion would save 2.4bn over two years; Reducing public sector energy and fuel consumption might save £1.5bn over four years

Stop Climate Chaos Cymru intends to look at similar options for Wales later this year, but the principle can be supported now. Public expenditure should be reviewed to ensure that every pound spent meets the key objectives of a sustainable Wales i.e. Reduces greenhouse gas emissions and ecological footprint and increases well being, both economic and social.



# THE PRESENT DAY AT A CROSS ROADS

The Welsh Assembly Government has been at the forefront of thinking on sustainable development since 1998, with its duty to promote Sustainable Development and more recently its aspiration to reach a One Planet Wales within a generation<sup>vii</sup>. However, real leadership must be maintained if this ambition is to become reality. It is Government's role to act in the interests of the greater good of society; not to shrink in the face of challenge at a job 'too difficult'.

The fundamental challenge that the next Welsh Assembly Government needs to demonstrate is that quality of life for the poorest people in Wales can improve while Wales' Ecological Footprint is reduced. ***This is the challenge of 21st Century development all across the globe.*** The whole of society, but most importantly the public sector, need to become stewards of our environmental assets – we all need to take responsibility for our planet in the choices that we make each and every day.

This cannot be done by a business as usual approach or from one committed Government department. This fundamentally challenges the current development model. It requires us all to think very differently. To reach a 75% reduction in the Ecological Footprint by 2050 requires a step-change right across the economy – a new system of production and consumption, where business success depends on resource efficiency and consumer value depends on quality rather than quantity. It also requires us politically, to think in terms of collaboration and consistency. We must truly de-politicise our response to this problem lest we spend more time arguing than doing. This will also involve a reframing of the debate by politicians for the public, so that the approach is not perceived to be one of sacrifice but of improvements in areas of health, security, risk management, resilience and strong social relations. For example,

- Sustainable food meaning healthy diets.
- Sustainable transport (more walking and cycling, less time commuting) meaning better health, more time, more community cohesion in cities with fewer cars.
- Renewable energy and energy efficiency meaning more stable prices, less environmental catastrophe and greater energy security.
- Resource efficiency meaning greater resilience to global commodity price fluctuations.
- Sustainable communities meaning more resilient local economies.

What follows is our blueprint for a sustainable future. We identify the key overarching challenges that Wales faces and some of the measures Wales can take to tackle its fair share of the problem.

# ONE PLANET ECONOMY

Although in the short term the global economic downturn may ease demands on the natural world, it is not good news for the environment. Major investment is required in the technologies and infrastructure to enable an urgent transition to a low-carbon and significantly more resource-efficient economy.

There is a huge risk that a focus on short-term economic recovery will overshadow concerns about the environment and that these short-term preoccupations will lock us further into an unsustainable path.

UNEP's report in May 2010, shows that Asia are pioneering an economic and employment recovery based in part on significant investments in a Green Economy. Over a third of China's stimulus package, equal to 3% of its GDP, is being spent on high speed rail to boosting its already impressive growth in areas such as wind and solar power and energy efficient lighting. Republic of Korea's (South Korea) green new deal plan is allocating 95 % of its fiscal stimulus or 3% of GDP into environmental sectors including low emission vehicles. UNEP recommends that one per cent of GDP be spent on green initiatives.

In Wales this would require a radical shift in resource allocation within the Welsh Assembly Government (in the context of a reduced overall budget as a result of measures to address the budget deficit). As a high greenhouse gas emitting country (in UK context) and energy producer, transition to low carbon economy could hit Wales particularly hard in the short term; but it is essential for our long term economic security. Fortunately, we have some assets to help offset this and achieve a just transition. We have abundant resources for renewable energy and an opportunity to harness strong community links and social enterprises to produce the kind of economy which has sustainability and well being at its heart.

If Wales wishes to be at the forefront of progress, then a future Welsh Assembly Government will need to:

REDUCE WALES'  
ECOLOGICAL  
FOOTPRINT BY  
75%  
BY 2050

- Stabilise and then reduce Wales' ecological footprint by 3% per year. To achieve a One Planet Economy, Wales' ecological footprint needs to reduce by 75% by 2050. It is expected that 50% of the required change must be delivered through resource efficiency, and 50% through changes in consumption.
- Produce a plan for the reduction of Wales' ecological / carbon footprint and monitor implementation to ensure we do not 'offshore' emissions in an effort to meet our climate change targets.
- Redirect public expenditure away from where it subsidises high-carbon and resource-inefficient aspects of the economy towards areas which are crucial to Wales' capacity to thrive, in the transition to a green world economy.
- Assess the impact of all policies, programmes and public expenditure on reduction of greenhouse gas emissions and Wales ecological/ carbon footprint. In September 2009 the Government produced a High Level Assessment' of the 2010- 11 Scottish Budget – an assessment of the

impact of Scottish Budget expenditure on global greenhouse gas emissions based on expenditure presented in the budget<sup>viii</sup>. The next Welsh Assembly Government should adopt and improve upon this excellent practice by:-

- Using carbon budget assessment of different spend options in an iterative decision making process, focussing particularly on high impact policies and infrastructure.
- Ensuring compatibility of the Welsh budget with assessment of policy measures required to deliver the minimum required emissions cuts of 3% per annum.

1. Professor Barbier, UN Environment Programme (UNEP) and Cambridge University Press (CUP) 2010: A Global Green New Deal: Rethinking the Economic Recovery

# CLIMATE CHANGE

## How much does Wales need to reduce by?

The current Government is committed to achieve annual greenhouse gas emissions reductions of 3% per year by 2011 in areas of devolved competence<sup>ix</sup>. The remaining emissions fall within the boundaries of the traded sectors which are included in the EU Emissions Trading Scheme.

In November 2009 the National Assembly for Wales voted unanimously to reduce emissions by 40 per cent by 2020 against the 1990 baseline, and to encourage other Governments to do the same<sup>x</sup>. This was in response to the Intergovernmental Panel on Climate Change (IPCC) which found that under pathways that are broadly compatible with warming of 2°C, industrialized countries need to cut their emissions by 25 to 40% below 1990 levels by 2020. In order to increase the probability of staying below 2°C of warming, industrialized countries should aim at the top end of this range. The Welsh Assembly Government adopted this target and remains one of the few nations globally, to have demonstrated this kind of leadership.

However, there is now a potential disconnect between the two Government targets. The extent to which 3% per annum from areas of devolved competence (coupled with the forecast performance of the ETS sector over the next 10 years needs), adds up to an overall 40% cut in greenhouse gas emissions needs to be understood to determine what level of shortfall needs to be accounted for.

Your party should ensure that in Government it will:

- Recommit to a 40% (on 1990 levels) greenhouse gas emissions reduction target by 2020 from total Welsh emissions.
- Recommit to the annual (at least) 3% greenhouse gas emissions reduction target.
- Recommit to measuring emissions from consumption.
- Commit to calculate the gap between the two targets and build in a delivery mechanism to ensure the 40% target is reached.

## The Climate Change Commission

Responding to climate change will require effort and compromise in every sector. Every norm we take for granted needs to be challenged, and this is impossible to achieve without full cross sector participation. While WWF Cymru supports the Climate Change Commission it has the following recommendations for improvement:

- The role of the Commission should be, to provide ideas and impetus for the future delivery of further cuts in carbon emissions, to champion action to mitigate and adapt to climate change in Wales, and to educate and inform the public about these issues.

RECOMMIT TO A  
**40%**  
EMISSIONS  
REDUCTION BY  
**2020**

- The Committee on Climate Change is tasked to provide independent advice to the devolved Administrations on how the UK can best achieve its Greenhouse Gas emissions reduction goals through setting and meeting Carbon Budgets and targets, as well as other issues on request. WWF Cymru believes the Committee should be requested to provide publicly accessible independent analysis on the Climate Change Strategy here in Wales, understanding the extent to which the 2011 target was achieved and advice for improvements to the next 5 year plan.

# ENERGY ELECTRICITY & HEAT

Energy is the key to the climate change agenda. The power sector is not only our biggest polluter – it is also the sector which can be decarbonised most quickly, and a low-carbon electricity system will pave the way to decarbonisation of other sectors such as transport and heat.

## Electricity

*“the power sector is not only our biggest polluter - it is also the sector which can be decarbonised most quickly”*

### Power down fossil fuels

The Welsh Assembly Government does not control consenting rights for installations over 50 MW in output. Therefore many of the decisions that will affect Wales’s ability to reduce emissions in the future will be out of their direct control.

The current position of the Welsh Assembly Government on fossil fuels with carbon capture and storage as part of its energy policy statement is as follows: “that any new fossil fuel plants should be carbon capture ready with fully developed plans for carbon capture and storage; and that these plants maximise efficiency through use of waste heat and co-firing where appropriate”<sup>xi</sup>.

- A new Government should object to the building of any fossil fuel power stations which do not meet an emissions performance standard of 300gCO<sub>2</sub>/kWh. This is the level which could be achieved by an efficient gas fired power station which makes use of waste heat or a coal plant which **uses** (not plans for) carbon capture on a substantial proportion of the plant.

### Power up renewables

Many renewable installations fall below the 50MW threshold and are therefore the responsibility of a future Welsh Assembly Government to nurture and harness benefit from. Whilst meeting renewable energy targets is crucial, in assessing the suitability of solutions, the same strong sustainability criteria must be applied to renewables as other forms of electricity generation, such as nuclear power and fossil-fuelled power plants. Ambitious renewable energy targets should be met in ways that minimise environmental impact by ensuring selection of suitable proposals only after robust environmental assessment of all alternative options.

The real opportunity for the Welsh Assembly Government is to start leading public opinion and attitudes to heating and powering their homes differently. We need a fully resourced education campaign to tackle more comprehensively the use of public misinformation about the performance of renewables and the perceived detrimental impacts on the amenity of an area taking into account national and global benefits.

Energy policy is reserved, yet this has not prevented a radical rethink around what is possible in Wales; with a current level of ambition to produce twice as much renewable electricity as we consume as a nation currently, by 2025 and

# 2025 ENSURE WALES HAS DECARBONISED THE ELECTRICITY SECTOR

stabilising demand by 2025 at current levels. The Feasibility Study into Tidal Power in the Severn Estuary provides a useful example of where the potential benefits of investigating lower impact, but innovative, alternative technologies cannot be ignored. There is often a bias towards traditional electricity generation proposals that are more fully developed without full and proper consideration being given to all reasonable alternatives. Promising embryonic technologies should be supported by providing funding and expert assistance to further develop and consider conceptual ideas that are potentially less damaging on the environment. Alternative, lower-impact options to exploit the Severn's tidal energy must be fully and properly explored within the ongoing Feasibility Study, and the Welsh Assembly Government's overall energy policy must be designed to deliver rapid uptake of lower-impact technologies in the Severn.

- Ensure Wales has a decarbonised electricity supply sector by 2025, (meeting a milestone of at least 70% by 2020), through a robust action plan that tackles the existing obstacles to delivery.
- Greater sharing of renewables targets with Local Authorities so that there is a joint responsibility to deliver renewable energy capacity linked to incentives. Apply sanctions to Local Authorities where Local Development Plans and development control decisions consistently fail to comply with planning policy such as TAN 8 which effectively set a presumption in favour of development within SSAs.
- Work with National Grid to guarantee delivery of the 400kV grid line and substation required to transport energy generated in mid Wales. This is currently a major obstacle to delivery of renewables targets and will seriously hinder TAN 8 target delivery until at least 2015. This should be fast tracked as a matter of priority.
- Revise TAN 8. Strategic Search Areas (SSAs) have been identified as areas suitable for development. There simply should not be delays in approving planning applications in these areas with the presumption clearly in favour of the development; the policy of refinement of the SSA boundary needs to be addressed as at the moment it is acting as a clear delay in the system rather than an aid; If the targets are to be modified up, rather than cramming more wind farms into the existing site selection, opening up MOD land or developing a new SSA is preferable. It will help neither local community nor business to saturate existing SS areas at this scale.
- In Scotland the Renewables Obligation Certificate (ROC) is set by the Scottish administration. There the wave and tidal industry is better incentivised than in Wales where the ROC, set by the UK Government, is lower. Wales' wave and tidal resource is more comparable to Scotland than England. Without intervention from WAG, fledgling industries such as wave and tidal, where Wales benefits from home grown industry will move to Scotland where the incentives are better.
- Continue the investigations into whether the power from the Severn Estuary can be harnessed in order to contribute to meeting the renewable energy objectives, but this must be done in full compliance

HEAT MAKES UP  
NEARLY  
**50%**  
OF UK ENERGY  
RELATED  
EMISSIONS

with the EU Strategic Environmental Assessment and Habitats Directives. Alternative, lower-impact options to exploit the Severn's tidal energy must be fully and properly explored within the ongoing Feasibility Study.

- Develop a planning system that only approves Sustainable Energy Infrastructure. The planning system should demand a clear assessment of the carbon impacts of energy proposals, and decision-makers must have a remit to refuse development that is likely to impede the achievement of targets for renewable energy and emissions reductions.

### Heat

The total heat market makes up nearly 50% of energy related emissions in the UK. Of this, three quarters – or 35% of total emissions - arise from direct combustion emissions, the remaining quarter indirectly from electricity use<sup>xii</sup>. These direct emissions are dominated by the use of natural gas with the remainder from fuel oil / 'burning oil' and coal.

The main opportunity for a future Welsh Assembly Government is in emissions reduction associated with the heat market in residential and small and medium enterprises (SMEs), since these emissions are outside the scope of the traded sector. Wales is likely to have a similar profile to that of the UK, though extensive rural areas off the natural gas grid may raise the relative importance of coal/oil heating fuels. Reducing emissions from heat markets can be achieved through one of two ways;

- fuel switching to lower carbon fuels; and
- demand reduction / more efficient use of heat.

Clear direction and support should be provided by Government for the provision of community heating as a priority. Direct experience from a community heating scheme in Wales suggests that while funds are available (via ROCs) to help fund a project once up and running, initial funds to establish the project and to engage the market (householders) are also required.

This clear direction can be provided in a number of ways:

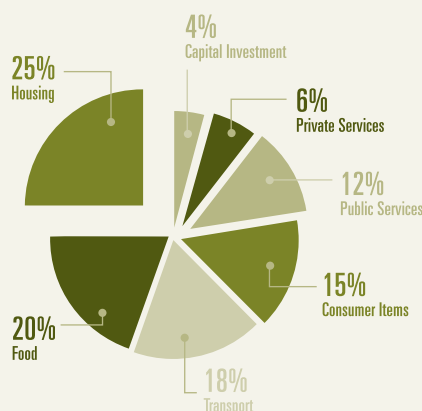
- Develop a heat sector decarbonisation plan for Wales that, supported by measures expected at UK level, can set the clear direction of travel as to how the emissions related to the way we use heat will be tackled over the next 30 years. This plan would ensure local authorities, using area heat maps, establish their own community heat plans and commit to conversion of community-owned facilities to community heat sources. This would provide the basis for replacing a significant percentage of current public sector heat load with renewable heat by 2020.
- Set up a support fund to help establish new renewable heat projects.



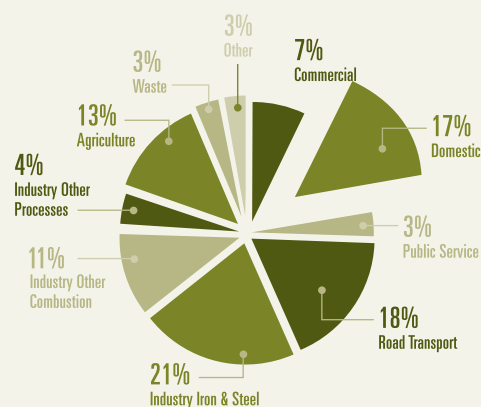


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# HOMES & BUILDINGS



<sup>xiii</sup> Ecological footprint of Wales by theme



<sup>xiv</sup> Wales End User GHG Emissions: 2007 (kt CO<sub>2</sub> -e)

It is clear the housing sector can more easily contribute to emissions reduction than other sectors such as transport – because it is cost-effective, popular with homeowners, and politically acceptable. It also helps meet the government’s target to eradicate fuel poverty, and will generate and maintain green jobs.

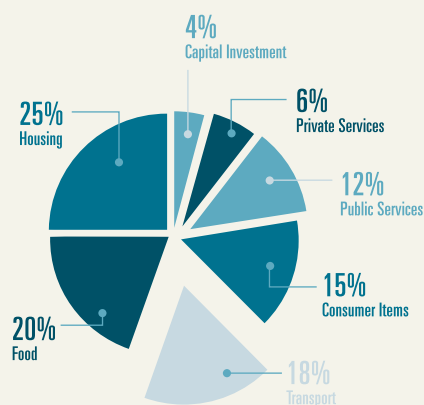
In order to achieve 40% cuts in greenhouse gas emissions by 2020, this sector will need to achieve emissions reductions of at least 40% but in reality more is needed, as other sectors such as transport will struggle to achieve as much as 40% by 2020. This would suggest the need for a policy that can reduce the emissions of every home in Wales by at least 40%, or policy interventions that can reduce the emissions of half of the homes in Wales by 80%, which begins to have implications for the use of gas central heating for example. A policy then that can achieve 40% emissions reductions by tightening the housing fabric substantially in every home in Wales, is the most realistic option.

Policies for reducing energy use are also policies for social justice. Efficient homes are warmer and drier, reducing respiratory illness, and generate smaller energy bills, reducing fuel poverty. In this economic slump, there is another benefit: boosting the economy. Publicly-funded energy efficiency measures are a quick way to get back some of the jobs lost since 2008 in the construction sector - stimulating the economy and creating skilled jobs that cannot be outsourced.

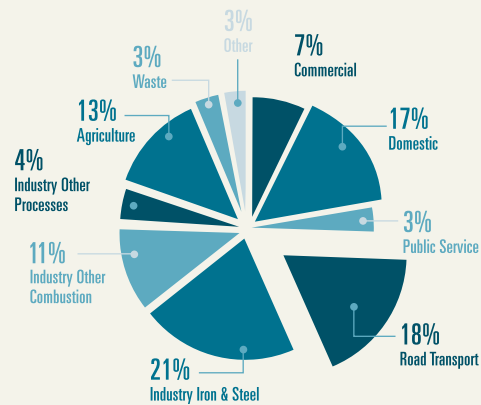
If we are to meet greenhouse gas targets, and ensure our communities are living in conditions appropriate to the 21st century, a substantial programme of energy efficiency intervention should be a priority for the next Welsh Assembly. The Government should ensure that its plans for the social housing sector in Wales and the Welsh Housing Quality Standard have emissions reductions explicitly as one of their goals and they are leading by example in their work.

- Setting a target to reduce all carbon emissions from housing by at least 40% by 2020 and 80% by 2050.
- This would be delivered via a nationwide housing retrofit programme, which will start to deliver energy efficiency upgrades and micro generation systems across Wales, by 2011. This would deliver:
  - Universal loft and cavity insulation as part of a whole-house eco refurbishment package.
  - Provide grants and cheap loans for more expensive measures.
  - A plan for every home to reduce its carbon emissions by 80% and delineating a stepwise approach to achieve it.
- Maintaining commitments to zero carbon new buildings via the tightening of building regulations.
- Activate building regulations to require a minimum energy efficiency standard for all private housing introduced by 2015. These standards will escalate over time, leading to a 'very good' standard by 2020 (inline with a 40% reduction per home). The backstop of forthcoming regulation will encourage householders to take action, thereby maximising CERT spend in Wales.
- Consequential improvements should be required in existing homes when people increased the carbon footprint of their home (for example by building a conservatory). Evidence from UK consultations show that there is wide support for this measure, which is vital to rein in future incremental growth of the carbon footprint of our existing stock, and will help close a blatant environmental loophole.

# TRANSPORT



<sup>xv</sup> Ecological footprint of Wales by theme



<sup>xvii</sup> Wales End User GHG Emissions: 2007 (kt CO<sub>2</sub> -e)

Despite decades of policy intervention, the transport footprint is growing and emissions from this sector are rapidly increasing. For any Government this needs to be a high priority.

The most environmentally sound transport strategy is also the most socially beneficial. Good planning and public transport can bring opportunities that are more equitable, have health benefits and reduce fear of crime. Yet the most socially and environmentally damaging options have been favoured. While the cost of train travel rises, bus travel remains static, motoring costs drop.

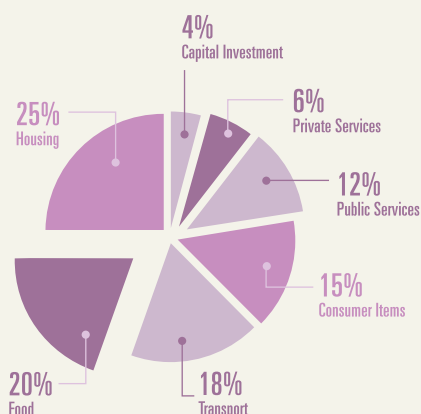
There is underlying conflict between ‘sustainable transport’ and conventional ‘economic development’, based on expanding markets, specialisation of businesses, lengthening of supply chains and widening of consumer choice. Development patterns need rethinking, in terms of how activities are spread out over space and time, and the challenges of sustainable transport

Evidence shows it is possible to reduce car use in urban areas by 20% by comprehensive and self-financing packages<sup>xviii</sup>. Habit in daily decision-making is one of the highest psychological determinants of travel behaviour. Interventions should focus on providing information at times when individuals might be developing new travel habits (house/job changes etc).

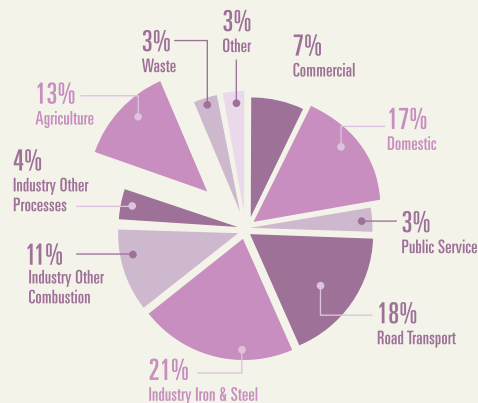
- A sustainability vision needs to run through all of the strategies with a clear objective to stabilise traffic levels at 2001 levels by 2021. Government must be clear that a key goal is reducing car miles to 2001 levels and this should be a very clear and dominant goal of transport plans.
- Support an Alternative fuel infrastructure & supply chain for urban / rural areas, supporting technological innovation to help achieve an aspiration that at least 10% of the car fleet are electric vehicles by 2020.

- The public sector car fleet to be entirely 100% electric vehicles by 2020.
- This target or measure of success needs to be as clear in the strategy as it is in the various delivery plans which should give priority to the following policies:
  - Low impact buses with responsive IT-enabled networks, promoted with 'green travel' schemes.
  - Low impact vehicles, promoted through incentives (parking, council tax, business fleets, public procurement, local business rates).
  - Priority and promotion for cycle and foot, on and off highways with provisions and services / reallocation of space to support active travel. Car clubs & soft measures.
  - Coordination of events, services, local distribution with train services.
  - Every business should have access to high capacity video-conference suite, supported by grid computing, less reliance on business flying and comprehensive travel planning.
  - Speed limits should be more rigorously enforced, perhaps through average speed cameras.
  - WAG should include aviation and shipping emissions in modelling impacts.
  - WAG should report annually on the cumulative impact of initiatives on emissions and footprint, and the scale of the intervention that is still required to meet clear targets.
- Stop subsidy of the north south air link and instead invest in video conference and other ICT facilities which will reduce the need for travel.
- Introduce a congestion charge in two cities creating an immediate financial incentive to choose active or public transport, and use the revenue generated for more ambitious alternatives<sup>xix</sup>.

# AGRICULTURE & FOOD



<sup>xx</sup> Ecological footprint of Wales by theme



<sup>xxi</sup> Wales End User GHG Emissions: 2007 (kt CO<sub>2</sub> -e)

Food and how it is produced impacts on our domestic environment in Wales but also internationally too. Food consumed in Wales impacts on freshwater sources in Wales but also on some of the most water stressed regions of the world (Mediterranean), and palm oil and soya, widely used in animal feed, are also direct drivers of deforestation in Borneo and Brazil.

At the same time much of our diet is high in fat, sugar and salt, leading to many conditions, such as heart disease and obesity which are not only bad for the health but expensive in terms of productivity and the cost to the health service. A long term aim to transform the Welsh diet and the practices of the food industry could cut greenhouse gases, improve the nation's health and save money all at once. A sustainable diet is a healthy diet.

The One Planet Food agenda sees transformation of the food system at each stage of the supply chain, with a sustainable production (agricultural-environmental) and consumption (healthy diet) approach. Both need to be tackled together. It is impossible to achieve required emissions reduction by production efficiencies alone.

The current Farming Strategy (2010) provides an excellent example of forward thinking, well researched and evidenced policy, with sustainable development and the notion of One Planet living firmly embedded in both its high level aims and its detail.

- Strengthen and update nutritional guidelines to support both nutritional and One Planet Food concepts, defining and publicising a sustainable diet.
- All relevant strategies and policies in Food and Agriculture –should have a footprint reduction and carbon assessment embedded into their development and published alongside the plans.

- WAG should report on the **cumulative** impact of its food and agriculture initiatives on footprint and emissions, and the scale of the intervention that is still required to meet clear targets.
- Commit to a target of 15-20% reduction in meat and dairy consumption by 2020. This target should sit within the context of a green house gas reduction plan for food which commits to at least 25% reductions by 2020 and 75% reductions by 2050. Research shows that efficiency improvements alone are not enough to meet the level of cuts required by our targets.
- Work with farmers to reduce the adverse impacts of agriculture on water through advice, guidance and funding for good farming practices.
- Ensure adequate research and development within this sector, particularly that which focuses on sustainable, low carbon agriculture for example bio-digestion.
- Ensure public sector food procurement is local, seasonal and only from sustainably certified sources by 2012 where possible. This should use the full range of sustainability certification schemes, including 100% Marine Stewardship Council (MSC) fish and specifying RSPO certified palm oil (Round Table on Sustainable Palm Oil) down supply chains.

# PUBLIC SECTOR

80%  
OF EMISSIONS  
TAKE PLACE AT  
SUB-REGIONAL  
LEVEL

Local authorities are in the best position to show leadership in providing sustainable development within the community and beyond. 80% of emissions take place at the sub regional level. Yet Local Authorities in Wales

are consistently poorly targeted on climate change and wider delivery of sustainable communities, and where they are, it's almost exclusively around housing, meaning that they don't develop the expertise or resource consistently to deliver real change throughout a community. The potential to catalyse action at this level is being missed, here are few examples:

**Performance Indicators** Only one of the 22 Local Authority Performance Indicators relates to climate change and that is specifically related to buildings missing the wider picture.

**Local Service Board delivery Agreements** No policy deliverables for footprint or carbon. Of the 90+ priorities identified across Wales since 2008, only 6 deal with collaboration between local organisations on climate change, carbon reduction or foot printing.

**Local Authority Outcome Agreements** pitch reducing carbon emissions against waste management as choice. It should be a requirement. Local Authorities want clear direction from WAG that climate change is not just one of number of competing priorities.

**Community Strategies** contain no requirement on local authorities to drive this into their local policy making, or have these as shared performance indicators at a local level.

**Local Health Board 5 year Strategic Plans** no reference to carbon / footprint reduction in the NHS Operating Framework 2010/11.

**Local Government Measure** There are no specific requirements on authorities to reference carbon abatement or footprinting. Authorities are able to interpret and define sustainability measures independently.

From this evidence a familiar pattern is emerging of: encouraging good practice; failing to mainstream sustainability into extremely important, strategic collaborative work; and an absence of sustainability measures in the performance management requirements. To this end the following recommendations are designed to help unleash the potential:

- Living within environmental limits should be embedded as a key principle within all of the work with the public sector, local government, AGSBs and Health sector requiring each division to report annually.
- Public sector performance management frameworks in Wales must account for carbon and footprint reduction through policy and delivery of services. There must be a requirement on the public sector to report on delivery of associated targets. This would ensure a minimum standard of action whilst maintaining local flexibility of delivery. It would also provide a national benchmark and require all local authorities to make an



**30,000**  
**TONNES PER**  
**ANNUM - THE**  
**AMOUNT OF CO<sub>2</sub> THE**  
**AVERAGE COUNCIL**  
**PRODUCES**

assessment of their carbon emissions. This will be the baseline from which to plan improvements and provide transparency on performance and demonstrate to the electorate that they are serious about carbon reduction. The average council produces at least 30,000 tonnes of CO<sub>2</sub> per annum, whereas its community generates just over 1.8million tonnes. The ecological/carbon footprint can be used to identify how service provision by community planning partnerships influences peoples everyday decisions and behaviour through plans, policies and engagement with the community.

- Commit to retrofitting all council buildings and council properties. Local authorities should be leading in retrofitting their current building stock, taking a whole house or building approach. This can help tackle fuel poverty, an electorally popular move, and re-skill local people.
- Ensure public sector food procurement is local, seasonal and only from sustainably certified sources by 2012 where possible. This should use the full range of sustainability certification schemes, including 100% Marine Stewardship Council (MSC) fish and specifying RSPO certified palm oil (Round Table on Sustainable Palm Oil) down supply chains.

**£350  
MILLION**  
PER ANNUM -  
THE COASTAL  
TOURISM INDUSTRY  
CONTRIBUTES TO  
THE ECONOMY

## MARINE & FISHERIES

The Welsh coastal and marine environment supports (directly and indirectly) 92,600 jobs, contributing £2.5 billion of GDP to the economy of Wales. The coastal tourism industry contributes over £350 million each year to the economy, largely due to the attraction of Wales' stunning coastline. Yet our demands for energy, transport, recreation and food, compounded by the challenge of climate change, are putting the marine environment under increasing pressure, and measures to protect marine biodiversity are falling short.

Effective protection and management of our coasts and seas is urgently needed to address declining biodiversity and to ensure a sustainable future for marine industries. Many industries and coastal communities depend upon healthy seas, therefore ensuring their effective protection and sustainable management will have widespread benefits.

In our view, the need to ensure a sustainable marine environment and not go beyond the environmental limits of our seas is crucial to sustainable development. As such a **healthy, functioning marine ecosystem** that continues to deliver marine goods and services and protect marine biodiversity **should be a cross-cutting objective or priority principle** rather than a sectoral objective.

### Marine Act

The UK Marine Act provides clarity for the management of Wales' marine environment and gives important new powers to the Welsh Assembly Government for marine planning, nature conservation and fisheries. For the first time, the Assembly Government is in a position to take an overview of all the activities affecting our seas, and place the environment at the heart of management. To secure long-term biodiversity we must ensure that:

- The implementation of the Marine Act in Wales is adequately resourced and delivered quickly and effectively as detailed below.
- The Welsh Assembly Government co-ordinates with the other UK administrations to deliver a joined up approach to the implementation of the Act.
- An ecosystem-based approach is at the heart of our attempts to manage the marine environment and is a tool to achieve sustainable development.

### A Network of Marine Protected Areas

A large proportion of Welsh seas are already protected under European legislation but this is not halting the decline of our marine wildlife. Research has shown that many of the habitats and species that should be afforded protection within these areas are not in a favourable condition. Furthermore, much of our nationally important wildlife is not taken into account in the management of most of these areas. To reverse this decline, WWF are calling for:

- Improved management of existing Marine Protected Areas (MPAs) and new Highly Protected Marine Conservation Zones (HPMCZ) designated as part of an ecologically coherent network of well-managed MPAs by 2012.
- Identification of sites should be based on scientific criteria, with socio-economic considerations secondary and sites should protect the whole range of common or 'typical' habitats found in healthy seas, as well as rare, threatened or vulnerable habitats and wildlife.
- MPAs have strong, proactive conservation objectives that are effectively enforced.
- The network boosts the health of the marine environment as a whole, allowing damaged, degraded areas to recover whilst building resilience against current and future pressures, such as climate change.
- A review is undertaken swiftly following the completion of the HPMCZ project in order to identify the need for further action to ensure Wales' marine biodiversity is adequately protected.

### **Marine Planning and Licensing**

WWF believes that at a time of ever increasing pressures on the marine environment, Wales needs a strategic, plan-led approach to managing marine space. This will help to avoid or minimise conflict, to identify and permit appropriate and compatible developments, to manage marine resources sustainably and to protect and enhance important environmental and social assets from inappropriate development. Marine planning is fundamental to deliver both WWF's and WAG's vision for Welsh seas and the Assembly Government must ensure that:

- Marine plans are produced by 2015 to cover all activities and secure sustainable resource use throughout Welsh Seas, co-ordinated across the land-sea interface and national and administrative boundaries.
- Adoption of the UK Marine Policy Statement (MPS) provides an appropriate overarching framework for the development of marine plans and leads to consistent and transparent decision-making in the marine area.
- Marine planning should be based on an ecosystem-based approach to the management of human activities at sea, which ensures that the marine environment is in a healthy, productive and resilient condition so that it can provide the goods and services we need.
- Marine planning should be a strategic, proactive, forward-looking approach that brings together all the stakeholders and policies that effect the management of the marine area to develop a coherent and sustainable approach to the use of marine resources and space, while protecting valuable marine assets.

- Marine planning takes full account of other WAG plans and policies, e.g. the Wales Spatial Plan, the Wales ICZM Strategy and the Wales Environment Strategy.
- The streamlined marine licensing system takes account of cumulative impacts and, in tandem with the marine planning system, ensures that sustainable development is the priority consideration of the new consenting system.

## **Fisheries**

WWF wants to see a sustainable fishing industry that supports livelihoods and promotes and delivers conservation outcomes. We ask that the new Government subscribe to the long-term vision of the Wales Fisheries Strategy (WFS) and ensure the development of ambitious annual Implementation Plans to underpin the development of viable and sustainable fisheries in Wales. In addition to delivering the WFS's objectives for developing sustainable fisheries as a part of healthy and productive ecosystems the Assembly Government must:

- Every fishery should be subject to long-term management plans (created by stakeholders) which integrate with an overall regional plan to deliver ecosystem-based management of fisheries.
- Lobby for improved governance through reform of the Common Fisheries Policy, by bringing management down to the lowest practicable level and the establishment of regional management bodies.
- Ensure capacity is matched with the resource by using rights-based management. This system allocates fishing rights to fishermen, which fosters a culture of stewardship and responsibility, characterised by long-term interest in the protection of the resource.
- Promote a partnership approach to fisheries management in Wales which is transparent, accessible and accountable with clear roles and responsibilities for WAG and the stakeholders involved, with clear information provision and reporting procedures.
- Actively promote Marine Stewardship Council certification as a credible means of encouraging sustainable fishing practices.

# FRESHWATER

Demand for water in the UK is growing at a time that sees a greater threat of water scarcity than ever before. The UK has less available water per person than most other European countries and with the latest emissions

scenarios predicting even more extreme weather events there will not only be less water available for all but an increase in the need for our homes to be protected from droughts and floods.

Our rivers and lakes are extremely valuable as they not only supply our drinking water but also support a thriving biodiversity of plants and wildlife. But many are suffering the impacts of pollution from agricultural chemicals and run-off, over-abstraction and physical modifications such as concrete banks and barriers to fish migration. The Water Framework Directive is the most important piece of environmental legislation ever passed for our rivers and should be the cornerstone of sustainable freshwater management for decades to come. WWF has been working for over a decade in the UK and Europe to ensure Government fully implements the Directive, which requires them to restore the vast majority of our rivers, lakes and wetlands to good health by 2015.

6% of UK's greenhouse gas emissions are associated with pumping and treating water and heating it in the home. Washing, cleaning and cooking is responsible for over 25% of home energy use. Therefore it is vital that measures to reduce water usage are included in action to retrofit homes for increased energy efficiency.

Using less water is not only good for our rivers and streams; it is good for our efforts to combat climate change too.

6%  
OF UK'S EMISSIONS  
ASSOCIATED WITH  
PUMPING AND  
TREATING WATER  
AND HEATING IT IN  
THE HOME

- By 2012 ensure that climate change policies include specific policy interventions to reduce water consumption in both new and existing homes to put Wales on a path to reducing average level of consumption by 20% by 2030.
- Introduce universal water metering, with a pricing structure that provides an incentive to be water efficient, without penalising vulnerable households.
- Upgrade the sewage system to reduce the impacts of discharging sewage into the natural environment.
- Create a modern urban drainage network that can mitigate surface water flooding and trap pollution.
- Meet the requirements of the Water Framework Directive and ensure local stakeholders are fully involved in the delivery.

<sup>i</sup> Living Planet Report 2008

<sup>ii</sup> [http://wwf.panda.org/about\\_our\\_earth/all\\_publications/living\\_planet\\_report/](http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/)

<sup>iii</sup> The Living Planet Report 2008, WWF's Living Planet Report has been published every two years since 1998 and has become accepted as a leading statement on the planet's health. It combines the Living Planet Index (LPI) - compiled by the Zoological Society of London (ZSL) - which uses animal numbers as an indicator of the state of nature, with a series of Global Footprint Network (GFN) comparisons of Ecological Footprint and available Biocapacity at global, national and individual levels. For the first time it also includes new measures of global, national and individual water footprints

<sup>iv</sup> <http://www.defra.gov.uk/sustainable/government/publications/uk-strategy/documents/Chap5.pdf>

<sup>v</sup> [http://www.sd-commission.org.uk/publications/downloads/prosperity\\_without\\_growth\\_report.pdf](http://www.sd-commission.org.uk/publications/downloads/prosperity_without_growth_report.pdf)

<sup>vi</sup> <http://www.green-alliance.org.uk/> 'Cutting back on carbon spending' Feb 2010

<sup>vii</sup> <http://wales.gov.uk/docs/desh/publications/090522susdevsdspage0115en.pdf>

<sup>viii</sup> More detailed briefing on 'Carbon Accounting and the Scottish Budget' available on request.

<sup>ix</sup> One Wales A progressive agenda for the government of Wales An agreement between the Labour and Plaid Cymru Groups in the National Assembly 27th June 2007

<sup>x</sup> National Assembly for Wales: Record of Proceedings Wednesday, 18 November 2009

<sup>xi</sup> A Low Carbon Revolution –The Welsh Assembly Government Energy Policy Statement March 2010

<sup>xii</sup> Welsh 3% Study E3 International Pty Ltd Environment, Economics & Ethics March 2009

<sup>xiii</sup> Stockholm Environment Institute – Wales' Ecological Footprint: Scenarios to 2020 - 2008

<sup>xiv</sup> AEA – End user GHG Inventories for England, Scotland, Wales and Northern Ireland: 1990, 3003 to 2007.

<sup>xv</sup> Stockholm Environment Institute – Wales' Ecological Footprint: Scenarios to 2020 - 2008

<sup>xvi</sup> AEA – End user GHG Inventories for England, Scotland, Wales and Northern Ireland: 1990, 3003 to 2007.

<sup>xviii</sup> Conclusions and Key Findings Wednesday 28th May 2008 Workshop 2 Changing Behaviour in Passenger Transport Gerd-Axel AHRENS Dresden University

<sup>xix</sup> Congestion charging in both London and Stockholm enjoy huge public support because the public have seen them in operation. A political party will need to show leadership on this issue; the evidence is that such leadership will be recognised longer term.

<sup>xx</sup> Stockholm Environment Institute – Wales' Ecological Footprint: Scenarios to 2020 - 2008

<sup>xxi</sup> AEA – End user GHG Inventories for England, Scotland, Wales and Northern Ireland: 1990, 3003 to 2007.



100%  
RECYCLED



# WWF Cymru in numbers

40%

emissions reduction by 2020

75%

reduction in Wales' ecological footprint by 2050



2025

ensure Wales has decarbonised the electricity sector

30,000

tonnes per annum - the amount of CO2 the average council produces



**Why we are here.**

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

[wwf.org.uk/wales](http://wwf.org.uk/wales)