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***A Framework
for
Sustainable Development
for
Ireland***

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1 Introduction

1.1 Sustainable Development: What does it mean?

The most widely used term in attempting to define sustainable development is “*development which meets the needs of the present without compromising the ability of future generations to meet their own needs.*”¹ Sustainable development is a continuous, guided process of economic, environmental and social change aimed at promoting wellbeing of citizens now and in the future. To realise this requires creating a sustainable and resource efficient economy founded on a fair and just society, which respects the ecological limits and carrying capacity of the natural environment.

1.2 Sustainable Development is a priority for Ireland

In 2011, the economic situation in Ireland is dramatically different to the earlier part of the last decade. Measured against the standard indicators of GDP, GNP, trends for economic development, new housing output, tax revenues, and employment levels dropped sharply. We have also seen rising unemployment, a banking crisis and a collapse in the property market after a sustained, if unsustainable, boom in the property market. A number of factors drove these unsustainable trends, including: rapid growth in employment, large scale inward migration (annual immigration rose sharply from 52,600 persons in 2000 to peak at 109,500 in 2007), rapid natural population growth, fiscal incentives for the construction sector, rising car ownership and weakness in the strategic approach to spatial planning. At a time of rapidly rising prosperity and development, the existing structures and controls were insufficiently robust to withstand the pressures that inevitably arose.

This legacy leaves Ireland facing huge challenges in the period ahead, challenges that are all the more acute when set against the backdrop of a global economic downturn. The sustainability pressures on the economy continue to be high and while some progress has been made, there is still a distance to travel before Ireland can fully extricate itself from what is the most serious fiscal and economic crisis in the history of the State.

Despite the challenges, much progress has been achieved in embedding the principles of sustainable development across all policy areas in the years since the publication in 1997 of *Sustainable Development: a Strategy for Ireland*, progress which was facilitated and assisted by a prolonged period of economic growth which commenced in the 1990s and continued up to 2007. GDP growth averaged nearly 6% annually, well above the OECD and euro area rates over the period. This economic context has changed dramatically since 2007. On the one hand this has helped to ease some environmental pressures (e.g. traffic congestion, greenhouse gas emissions and waste management pressures). However, the very challenging economic outlook for Ireland also means that there is greater pressure on public resources. Protecting employment and enhancing competitiveness are vital priorities, particularly in the short to medium term, in line with current efforts to achieve economic recovery. There is a need to achieve positive economic, environmental and social outputs while at the same time ensuring equality and appropriate balance between the three pillars of sustainability.

The OECD Environmental Performance Review 2010 recognises that significant progress was achieved by Ireland since the last Review in 2000. Environmental policies

¹ From ‘Our Common Future (The Brundtland Report)’ – Report of the 1987 World Commission on Environment and Development.

have been improved, environmental institutions strengthened (particularly the development of a strong Environmental Protection Agency) and significant investments made in environmentally related infrastructure. As a result, Ireland generally has good air and water quality. In addition, energy intensity, or energy use per unit of GDP, is also the lowest among OECD countries.

However, despite this positive progress, the OECD indicates that the current economic crisis represents a challenge for maintaining environmental commitments. It also presents opportunities to reassess and reform those policies that are both economically costly and environmentally damaging. Environmental policy priorities include reducing greenhouse gas emissions in a comprehensive and cost-effective way, further enhancing water services infrastructure and waste management, and strengthening nature protection. To meet these challenges, Ireland will need to: strengthen its environmental management efforts; further integrate environmental concerns into economic decisions; and reinforce international co-operation on environmental issues.

Considerable Progress Over Two Decades

- Rapid economic growth and expanded labour force, although followed in more recent years by recession and rising unemployment.
- A rise in life expectancy
- Successive National Development Plans have transformed provision of public infrastructure, e.g. motorway networks and public transport, water services
- EU/National legislation introduced in areas such as environmental licensing, waste management, water resource management
- Environmental Protection Agency established

Ireland's population is projected to increase further which will bring additional challenges and there is still a distance to go before the aim of decoupling economic development from increased consumption of natural resources and environmental impact can truly be accomplished.

An October 2009 report² from the National Economic and Social Council described Ireland's crisis as five-dimensional - banking, fiscal, economic, social and reputational.

The NESC report stressed that a more integrated approach can be achieved by combining ideas and actions at three levels:

- A vision of the kind of society and economy that Ireland wishes to become in the decades ahead;
- Knowledge and ideas on aspects of economic and social development;
- A practical approach toward policy development, including compromise and problem solving.

NESC Recommendations

Economic/cyclical: The measures should, as far as possible, contribute to the revival of economic activity and employment

Developmental: The measures should, as far as possible, strengthen the foundations of Ireland's economic and social development;

Fairness: It should be possible to explain how the chosen tax, expenditure and other policies are as fair as possible;

Sustainability: The adjustment process must be sustained until Ireland comes through the crisis, must yield a sustainable public finance approach, and should, as far as possible, put Ireland on a path that is sustainable— economically, socially and environmentally.

² Next Steps in Addressing Ireland's Five-Part Crisis: Combining Retrenchment with Reform, NESC, No. 120 October 2009

Working in that way the report suggested that Ireland needed to fashion an integrated nationally supported response and, to this end, it recommended a number of criteria to be applied - economic/cyclical, developmental, fairness and sustainability.

This type of approach aligns well with the objectives of integrating sustainable development principles into policy making across all sectors as outlined in this *Framework for Sustainable Development for Ireland*.

In meeting the challenge, the national recovery agenda is focused on issues such as the transformation of public services, economic growth based on knowledge and innovation, an inclusive, high employment society, a greener low carbon economy and a good quality natural and built environment so that Ireland can once again prosper on a competitive global stage. Lessons must be learnt from our recent experience and Ireland will have to ensure structures and systems are in place that are sufficiently robust to withstand periods of pressure which might threaten to undermine sustainable growth and fiscal stability.

It is widely accepted that economic growth, social cohesion and environmental protection go hand in hand to meet the overarching goal of delivering wellbeing in a pluralistic society that promotes participation, a society in which everyone takes responsibility for the environment. The establishment of a more sustainable pattern of development for Ireland is one of the key challenges of government and ultimately for society.

As the Europe 2020 Strategy notes, Europe too finds itself at a 'moment of transformation'. There is a clear consensus at international, EU and national levels that a return to 'business as usual' is not an option.

The *Review of National Climate Policy* published in November 2011 places future climate policy development in a sustainable development context. While deep greenhouse gas reduction targets in the medium to longer term pose a real challenge, the Review notes that early and effective transition to a low-carbon, climate resilient future provides opportunities for Ireland to demonstrate its competitiveness in the emerging green economy in the EU and globally.

Implementation in Ireland of the *Europe 2020 Strategy*, which the EU adopted in 2010 as its successor to the *Lisbon Strategy on Growth and Competitiveness*, should assist in responding to our economic challenges by contributing to the creation of employment and *smart, sustainable* and *inclusive* growth, driven by an accelerated national effort to ensure that Ireland becomes a low-carbon, competitive, resource efficient and climate resilient country.

Europe 2020 sets five key targets for the EU over the period to 2020:

- *Employment*
 - 75% of 20-64 year olds to be employed;
- *R&D/Innovation*
 - 3% of the EU's GDP to be invested in R&D/Innovation;
- *Climate change / energy*
 - greenhouse gas emissions 20% (or even 30%, if the conditions are right) lower than 1990
 - 20% of energy from renewables
 - 20% increase in energy efficiency
 -

- *Education*
 - reducing school drop-out rates below 10%
 - at least 40% of 30-34-year-olds completing third level education
- *Poverty / social exclusion*
 - at least 20 million fewer people in or at risk of poverty and social exclusion.

It also contains seven new 'flagship initiatives' one of which centres on creating a resource-efficient Europe. This will be one of the key drivers for advancing the sustainable development and green economy agendas in Europe for the years ahead. It will provide a long-term framework for actions in many policy areas and supporting policy agendas for climate change, energy, transport, industry, agriculture, fisheries, biodiversity, leisure and tourism and regional development. A number of supporting policy documents, including a low carbon roadmap to 2050³ and a strategy on biodiversity⁴, and a roadmap for the resource efficiency initiative have already been published by the European Commission.

Under EU 2020, the EU has put in place a new coordination cycle in which the first part of each year is designated as a 'European Semester'. It is intended that National Reform Programmes which deal with macroeconomic oversight and structural reforms in the various Member States are addressed as part of the semester simultaneously with the fiscal surveillance in the Stability and Convergence Programmes. Given Ireland's current economic challenges, a strong performance under these EU arrangements will be critical as we continue the process of repositioning our economy in the period ahead.

A resource-efficient Europe – Flagship initiative under the Europe 2020 Strategy

A resource-efficient Europe is one of seven flagship initiatives as part of the EU 2020 Strategy aiming to deliver smart, sustainable and inclusive growth. The flagship initiative aims to create a framework for policies to support the shift towards a resource-efficient and low-carbon economy. The key objectives are to:

- Boost economic performance while reducing resource use;
- Identify and create new opportunities for economic growth and greater innovation and boost the EU's competitiveness;
- Ensure security of supply of essential resources;
- Fight against climate change and limit the environmental impacts of resource use.

This EU process is linked in with a world wide effort to promote the concept of 'green growth' and the 'green economy'. There is a growing consensus even in wealthier countries that our systems of production and consumption cannot be sustained without posing a huge threat to the environment and to human health. Water scarcity, air and water pollution, climate change, resource depletion and irreversible biodiversity loss are problems that have to be tackled as a matter of priority. The emerging consensus is now focusing around the need to put economies on a more sustainable, green growth path.

³ http://ec.europa.eu/clima/policies/roadmap/index_en.htm

⁴ <http://ec.europa.eu/environment/nature/biodiversity/comm2006/2020.htm>

The OECD identifies green growth as “fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. To do this, it must catalyse investment and innovation which will underpin sustained growth and give use to new opportunities”

The United Nations Environment Programme’s (UNEP) policy document “Towards a Green Economy” defines the ‘green economy’ as an economy that results in *improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities*. This definition aligns with the goals of sustainable development and the current drive towards the green economy and away from the ‘brown economy’ model with its emphasis on fossil fuel energy will be critical in delivering sustainability over the longer term; the measures outlined in this Framework for Sustainable Development for Ireland seek to reflect this policy priority.

€2 trillion: value of fuel saving between 2020 and 2050 from investment in low-carbon energy systems

22, the factor by which economic output has grown in the 20th century

30 years of extra life expectancy in most parts of the World due to human progress over the last 150 years

1.7 million, the number of avoidable deaths in the world each year from water pollution, primarily among children under 5 years old

25 % of the wealth in low income countries is vested in natural capital

€1.5 to €4.6 trillion potential commercial opportunities by 2050 related to environmental sustainability in natural resources sectors alone

Source: OECD

The OECD Strategy *Towards Green Growth* provides a practical framework and recommendations to help Governments to identify the policies that can help achieve the most efficient shift to greener growth. These policies would focus for example on green jobs, green taxes and regulatory approaches, fiscal consolidation and green technologies.

The prospects for Europe's environment are mixed but there are opportunities to make the environment more resilient to future risks and changes. These include unparalleled environmental information resources and technologies, ready-to-deploy resource accounting methods and a renewed commitment to the established principles of precaution and prevention, rectifying damage at source and polluter pays.

This *Framework for Sustainable Development for Ireland* (FSDI) acknowledges the progress made, seeks to identify areas where further effort is required and puts forward practical measures aimed at achieving added value in the key sectors. It also sets out proposals for the effective implementation of the FSDI and a framework for developing new performance indicators which will be critical in measuring progress on sustainable development and identifying outstanding weaknesses across the various sectors. This FSDI will ensure that we improve synergies across this very broad agenda, and identify and tackle policy conflicts and trade-offs as part of a coherent, joined-up approach to policy making on sustainable development.

1.3 Our Starting Point

The United Nations Conference on Environment and Development (the Earth Summit) in Rio de Janeiro in 1992 adopted a declaration calling for a comprehensive programme of action throughout the world towards achieving a more sustainable pattern of development for the 21st century and beyond. Despite significant progress since the concept of sustainable development entered international debate, the problems discussed at Rio still endure. Unsustainable trends in relation to climate change and energy use, land use, threats to public health, poverty and social exclusion, and biodiversity loss still persist, while new challenges have emerged. At the Millennium Summit in September 2000, world leaders adopted the UN Millennium Declaration, committing their nations to a new global partnership to reduce extreme poverty and setting out a series of time-bound targets, with a deadline of 2015 that have become known as the Millennium Development Goals. At the World Summit on Sustainable Development in Johannesburg in 2002 a further declaration and plan of implementation were agreed which together set the international context for sustainable development.

The UN General Assembly has committed to the organisation of a further UN Conference on Sustainable Development in 2012 to mark the 20th anniversary of the Earth Summit (Rio+20) and has renewed its call for political commitment to sustainable development. The two agreed themes for the Conference are '*green economy in the context of sustainable development and poverty eradication*' and '*institutional framework for sustainable development*'. The Conference will aim to secure renewed political commitment to sustainable development, assess the progress and implementation gaps in meeting already agreed commitments, and address new and emerging challenges.

The Treaty of Lisbon states that one of the European Union's objectives is to work for the sustainable development of Europe based, in particular, on a high level of protection and improvement of the quality of the environment. Although the idea of sustainable development was included in the existing treaties, the Treaty of Lisbon reinforces and better defines this objective. Sustainable development is also affirmed as one of the fundamental objectives of the Union in its relations with the wider world.

The EU adopted its first Sustainable Development Strategy in 2001 with revisions in 2006 and 2009. The strategy provides the overarching policy framework for all EU policies and strategies. The 2009 strategy recognises that significant additional efforts are needed in a number of areas, particularly in the effort to address and adapt to climate change, to decrease high energy consumption in the transport sector and to reverse the current loss of biodiversity and natural resources.

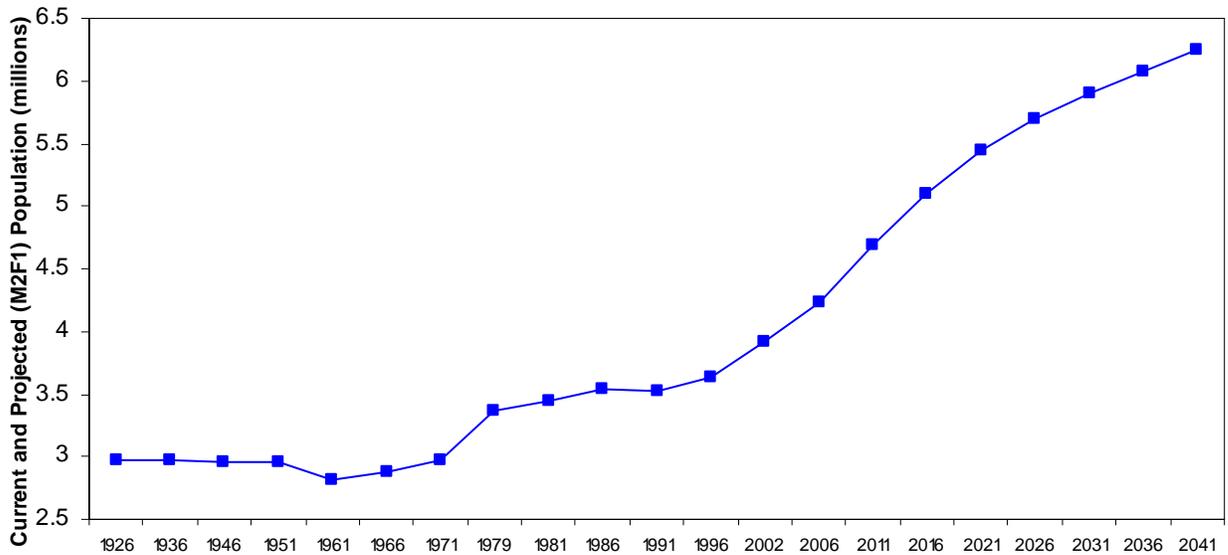


Figure 1: Current and Projected Population for Ireland (Source: CSO)

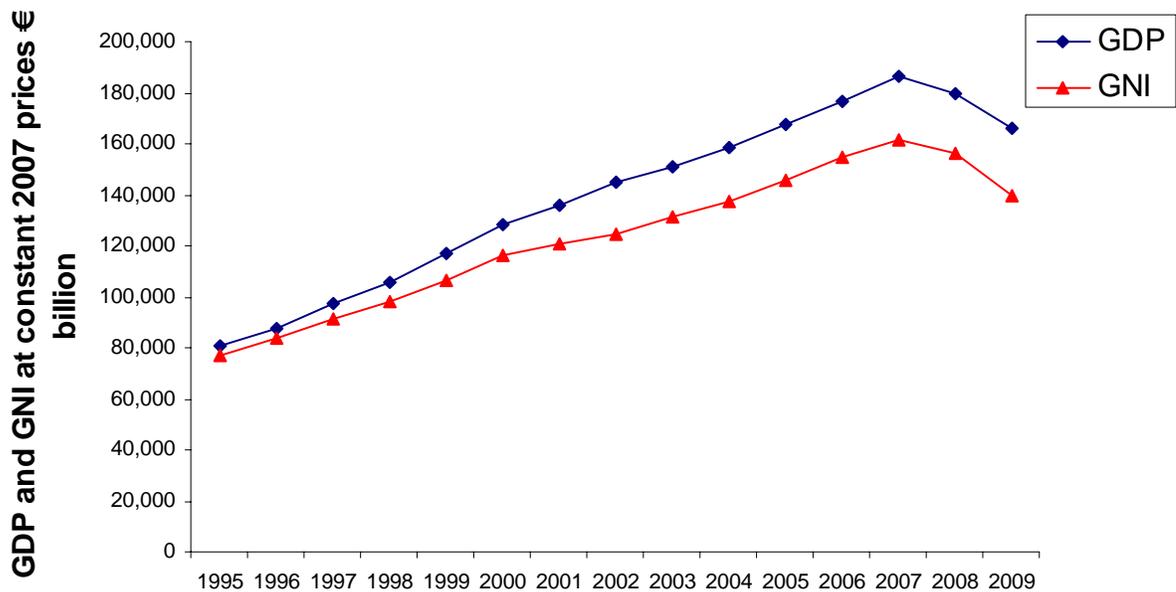


Figure 2: GDP and GNI for Ireland (Source: CSO)

At national level, the publication in 1997 of *Sustainable Development: a Strategy for Ireland* led to significant progress in the development and implementation of policies and action across most sectors. We need to build on this progress and respond to the significant challenges we face across a number of policy areas as well as issues in relation to governance, implementation mechanisms and measuring and communicating progress. In particular, we need to position ourselves to meet a range of challenging targets, including on energy, climate and biodiversity, at a time when people's main concern is economic recovery and enhancing employment opportunities. Our sustainable development approach will be designed to meet these challenges in an integrated way; it will be designed to achieve optimum economic, social and

environmental outcomes effective, recognising, as the OECD and others have done, that economic, environmental and social progress go hand in hand. This Framework for Sustainable Development will support this objective by identifying the policy gaps, policy conflicts, priorities for action and mechanisms for measuring progress.

Since the 2002 review of Ireland’s National Sustainable Development Strategy, we have seen a number of significant developments. For example, Ireland’s population has continued to steadily increase (figure 1); Ireland had a prolonged period of economic growth before the current decline (figure 2) and Government deficit as a percentage of GDP has increased (figure 3); we have also seen an increase in the standard of living as evidenced by a reduction in people at-risk-of poverty (figure 4). However, more recently, consistent poverty has increased - from 4.2% in 2008 to 5.5% in 2009⁵.

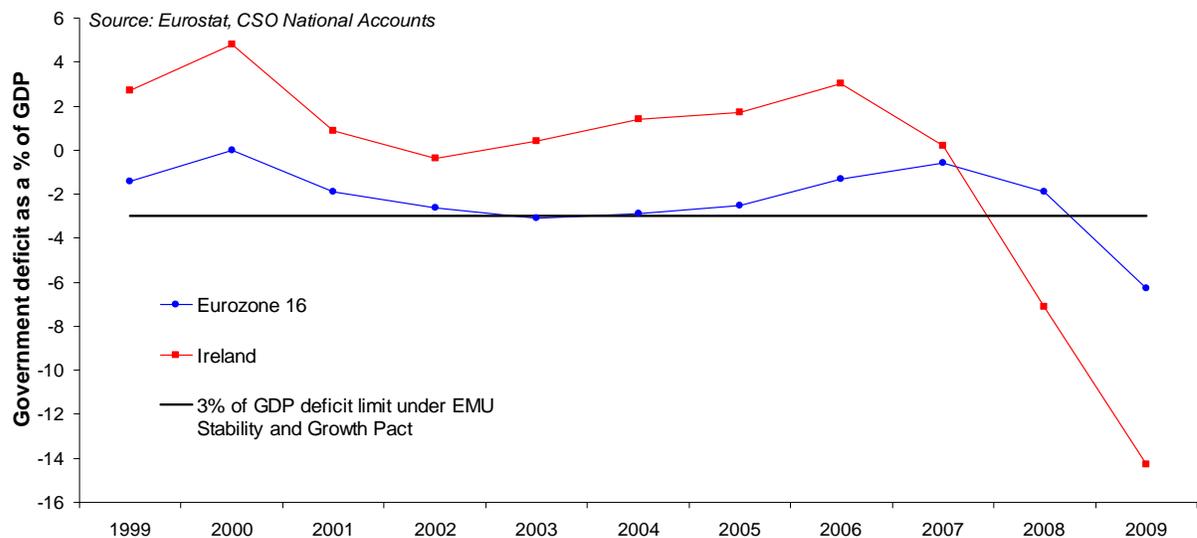


Figure 3: Government deficit as a percentage of GDP for Ireland and the EU (Source: Eurostat, CSO)

⁵ CSO. (2009). Survey on Income and Living Conditions. Retrieved from <http://www.cso.ie/releasespublications/documents/silc/current/silc.pdf>

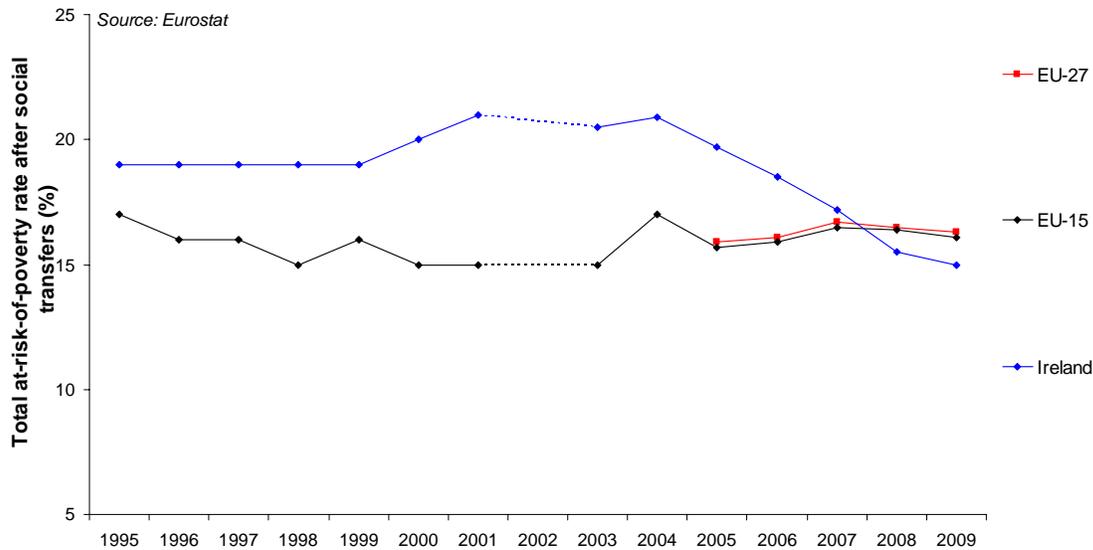


Figure 4: Total at-risk-of poverty rate for Ireland and the EU (Source: Eurostat)

1.4 Our commitments and principles

The Government's commitments on sustainable development arise from national policy objectives and from EU and UN inter-governmental processes. The policy agenda is integrated and cross-cutting across all levels of government, economy and society. The over-arching national policy framework for sustainable development is set out in this document but the detailed policy approaches and relevant commitments will be addressed in policy statements in individual sectors. Current relevant policy statements include the *National Climate Change Strategy*; *Smarter Travel – A Sustainable Transport Future*; *Actions for Biodiversity 2011-2016: Ireland's National Biodiversity Plan*; *the National Energy Efficiency Action Plan*; *the National Renewable Energy Action Plan*; *the National Spatial Strategy 2002-2020 (including the 2010 NSS Update and Outlook)*; *the Government Policy on Architecture (2009 – 2015)*; *the Energy White Paper (2007-2020)*; and *the National Action Plan for Social Inclusion (2007-2016)*. An overview of key international and national commitments is set out in Annex 1.

A central plank of Ireland's economic recovery will centre on the development of a green economy that recognises:

- the opportunities for investment and employment creation in emerging sectors such as renewable energy, energy efficiency and waste and water management, and
- that this sustainable approach to economic development complements the core strength of our economy in the use of natural resources in the agriculture, forestry, fisheries, tourism and energy sectors.

This Framework for Sustainable Development can support the achievement of a 'green economy' and 'green growth'. The OECD Strategy *Towards Green Growth* indicates that green growth is needed because risks to development are rising as growth continues to erode natural capital. If left unchecked, this would mean increased water scarcity, worsening resource bottlenecks, greater pollution, climate change, and irreversible biodiversity loss. If we want to ensure that the improvement in living standards over the past fifty years is maintained, we have to find new ways of production and consumption, and even redefine what we mean by progress and how we measure it.

The following set of principles for sustainable development have been developed for this Framework and have been adapted from the principles developed by the European Commission and by Comhar Sustainable Development Council. The principles and related themes take account of the traditional economic, social and environmental pillars of sustainability but recognise that integration is at the heart of sustainable development.

Framework for Sustainable Development for Ireland - Principles for Sustainable Development

Themes	Principles
Economy	Promote an innovative, competitive and low carbon economy with the aim of achieving smart, sustainable and inclusive growth
Satisfaction of human needs by the efficient use of resources	Prices should reflect the real costs to society of production and consumption activities and polluters should pay for the damage they cause to human health and the environment
Equity between generations	The needs of current generations should be addressed without compromising the ability of future generations to meet their needs
	Resources should be used within the capacity for regeneration
Respect for ecological integrity and biodiversity	The abundance of wildlife and extent of habitats should be maintained, improved and restored where necessary, through sustainable management
Social equity	⁶ Social inclusion should be promoted to ensure an improved quality of life for all
Respect for cultural heritage /diversity	The quality of landscapes, the heritage of the man-made environment and historic and cultural resources should be maintained and improved
Equity between countries and regions	Promote fundamental rights, by combating all forms of discrimination and contributing to the reduction of poverty
	Promote coherence between local, regional, national, EU and global actions in order to increase their contribution to sustainable development
Good decision-making	Guarantee citizens' rights of access to information and public participation procedures. Ensure access to review mechanisms. Develop adequate consultation with stakeholders, including citizens', businesses and social partners, and participatory channels for all interested parties

⁶ Social Inclusion: "The process which ensures that those at risk of poverty and social exclusion gain the opportunities and resources necessary to participate fully in economic, social and cultural life and to enjoy a standard of living and well-being that is considered normal in the society in which they live." (Source: Joint Report by the Commission and the Council on Social Inclusion, Office for Official Publications of the EU)

1.5 A framework for sustainable development

While a wide range of initiatives fall within the scope of sustainable development, this Framework for Sustainable Development for Ireland should not be seen as the sum of all relevant actions across Government. This Framework will be most effective by deepening and widening sustainable development through focusing on key challenges, identifying the gaps and committing to the actions that are needed to mainstream and deliver sustainable development.

This Framework takes the year 2020 as the timeframe for its outlook and outcomes. This is partly because 2020 is within the planning horizon of many existing policies such as the *National Spatial Strategy*, *Food Harvest 2020*, the Environmental Protection Agency's *2020 Vision* report on Ireland's future environment, the *Energy White Paper* and *Smarter Travel - a New Transport Policy for Ireland*. It is also partly because the year 2020 is sufficiently close to be directly affected by decisions made today but distant enough so that policy has a real chance to affect outcomes. In addition, it is the target date for major EU policy frameworks, such as the Climate Change and Energy Package which sets a timeframe of 2020 to achieve emissions reductions, renewable energy penetration and energy efficiency targets, and also aligns with the time horizon of the *Europe 2020 Strategy*.

A longer-term outlook is also necessary and in that regard, the renewed *EU Sustainable Development Strategy*⁷ aims to elaborate "a concrete and realistic vision of the EU on its way to sustainable development over the next 50 years". As an example, in the context of a transition to a competitive, low-carbon economy, EU climate policy development must address the need for greenhouse gas emission reductions of at least 80% by 2050 compared to 1990. Therefore, this Framework makes reference to the year 2050 in appropriate cases and commits to the development of a longer term vision for Ireland during the timeframe of this Framework.

The aim of this Framework is to provide for the integration of sustainable development into key areas of policy, to put in place effective implementation mechanisms and deliver concrete measures to progress sustainable development. The objectives of the Framework are to:

- Identify and prioritise policy areas and mechanisms where a sustainable development approach will add value and enable progress towards the strategy aims.
- Highlight and promote existing sustainable practices that, with the correct support, can underpin sustainable development more generally.
- Strengthen policy integration, coherence and co-ordination and bring a long term perspective to decision making.
- Set out governance mechanisms which ensure effective participation within government and across all stakeholders.
- Set out clear measures, responsibilities and timelines in an implementation plan.
- Set out how progress is to be measured and reported on through the use of indicators.
- Incorporate monitoring, learning and improvement into the Framework process.

⁷ Mainstreaming sustainable development into EU policies: 2009 Review of the European Union Strategy for Sustainable Development.

This Framework broadly follows the thematic approach of the *EU Sustainable Development Strategy* and proposes measures to help meet the overall goal of achieving continuous improvement of quality of life both for current and for future generations. The key challenges are categorised into a number of themes:

- Sustainability of public finances and economic resilience.
- Sustainable consumption and production.
- Conservation and management of natural resources.
- Climate change and clean energy.
- Sustainable agriculture.
- Sustainable transport.
- Social inclusion, sustainable communities and spatial planning.
- Public health.
- Education, communication and behaviour change.
- Innovation, research and development
- Skills and training
- Global poverty and sustainable development.

1.6 A partnership approach to delivery

The achievement of sustainable development depends on people acting together. Key stakeholders including business, community-based organisations and other civil-society groups must all play their part. In this Framework the Government provides for a collective approach which will require partnership with all key sectors and civil society for delivery. We recognise that stakeholders have a wealth of experience working at all levels of society on economic, social and environmental issues and want to harness that experience, knowledge and enthusiasm to deliver the commitments in this Framework.

The formation of a national consensus on sustainable development involves the bringing together of representatives from the State sector, economic sectors, environmental NGOs, social/community NGOs and the professional/academic sector. A very significant development in recent years has been the addition of an Environment Pillar to the social partnership structures which have played a central role in Ireland's development for the past two decades. The social partnership structures now comprise five pillars – Trade Unions, Employers, Environment, Farming and Community & Voluntary. Under new arrangements, from 2012, the sustainable development role previously performed by Comhar Sustainable Development Council will be integrated into the work of the National Economic and Social Council (and on which the Environment Pillar is now represented) as it develops its analysis of significant national challenges.

1.7 Priorities for action

The progress across key policy areas and sustainable development themes is detailed in Section 2 along with the many challenges that remain. A review of international experiences⁸ in framing sustainable development strategies identifies some common factors which act as barriers to progress. Within Government, these include a lack of effective co-operation between Departments and the different levels of Government. The tendency to prioritise sectoral policies and targets can make Government-wide action on sustainable development challenging to achieve in practice.

⁸ Peer reviews of German and Dutch sustainable development strategies: German Council on Sustainable Development (2009) Sustainability "Made in Germany"; and RMNO (2007) A New Sustainable Development Strategy: An opportunity not to be missed. RMNO Series A.10.

Within business, while many companies are progressive, others are less so and commonly there is a lack of an overarching business agenda which integrates sustainable development considerations into economic decisions. Sustained efforts to encourage business representative organisations / enterprise development agencies to continue to engage businesses on the need to integrate sustainable development considerations are crucial. Individuals and consumers require better information and measures that enable and encourage behavioural change. This is where this Framework for Sustainable Development seeks to bring real added value: by recognising the inter-linkages in the main thematic challenges and by mobilising support for action across sectors and society.

This Framework for Sustainable Development contains a range of measures to address the key challenges and priorities which will deliver change, and support the delivery of a sustainable development agenda. The global environment is changing rapidly. If Ireland is to harness the opportunities associated with implementing sustainable development policies, ensuring that governance and institutional arrangements act as drivers rather than barriers to progress, is key. These priorities for action cut across many of the key challenges and include:

- An effective framework for transition to an innovative, low carbon and resource efficient society.
- Identifying and adopting policies that can help achieve a shift towards greener growth.
- Protecting and restoring our biodiversity and ecosystems so that benefits essential for all sectors of society will be delivered.
- Protecting and enhancing Ireland's Green Infrastructure which can be defined as an *'network of green spaces that help conserve natural ecosystems and provide benefit to human populations through, for example, water purification, flood control, food production and recreation.'* Such spaces include woodlands, coastlines, flood plains, inland lakes and rivers, hedgerows and city parks.
- Securing health and social well being to enable full participation in society and economic development.
- Effective governance arrangements to ensure delivery of sustainable development
- A partnership approach to implementation of the strategy.
- Developing a set of indicators to measure and report on progress.

2 Key challenges for sustainable development

Sustainable development is an overarching objective for Government and must be integrated across all the main policy areas. The key challenges outlined here reflect those in the EU Sustainable Development Strategy with the inclusion of additional issues identified in the review of the Strategy such as the sustainability of public finances and economic resilience. While there are dedicated policies for many of these areas, new actions are needed in some areas, along with broader engagement and participation, to meet the challenges and to ensure that established policies are implemented fully and effectively.

2.1 Sustainability of public finances and economic resilience

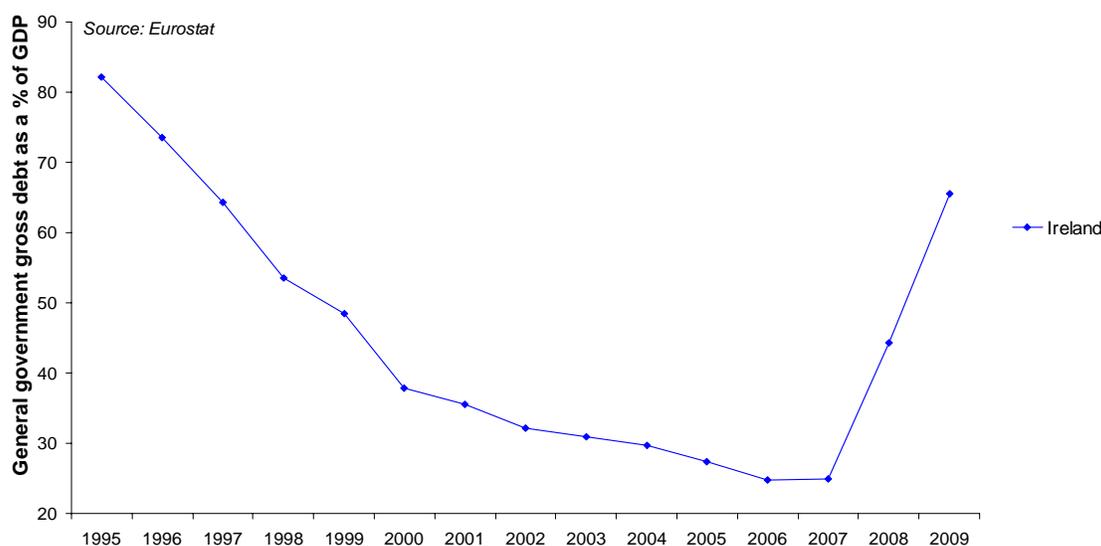


Figure 5: Government debt in for Ireland (Source: Eurostat)

Challenges

Sustainability of the public finances relates to the ability of a government to assume the financial burden of its debt currently and in the future⁹ and is, therefore, a key challenge for any government. The major drivers of public spending include public service pay and pensions; social welfare and public service programme spending; and public investment. Large budget deficits are unsustainable and must be addressed by closing the gap between public expenditure and revenue generation. Failure to do so involves increasing, and ultimately unsustainable, levels of debt.

Achieving economic growth that is environmentally sustainable is another major challenge. Conventional economic metrics do not take into account the social and environmental aspects of sustainability. The importance of integrating social and environmental dimensions into measures of sustainable economic performance is now well recognised internationally. Current economic indicators such as GDP were never designed to be comprehensive measures of societal well-being. Therefore, complementary indicators are also needed that are more inclusive of other dimensions of progress.

Developing economic resilience is also an important challenge in the management of our public finances. The world is facing into an uncertain future with peak oil, high energy prices, ecosystem degradation and a changing climate all key concerns. A systematic

⁹ European Commission (2009), 'Sustainability Report 2009'.

approach to managing this risk will be needed if we are to maintain our future prosperity and way of life. A stable investment climate to support our competitive position and enable Ireland to continue to be an attractive location for business will be of critical importance.

Commitments and targets

The *Europe 2020 Strategy* reaffirms collective determination to ensure fiscal sustainability, including by accelerating plans for fiscal consolidation. It supports a shift towards a resource efficient and low carbon economy and the European Commission has committed to using a range of financing and economic instruments to achieve this objective. These include:

- To mobilise EU financial instruments (e.g. rural development, structural funds, Research & Development framework programme, Trans European Networks, European Investment Bank) as part of a consistent funding strategy, that pulls together EU/national and public/private funding.
- To enhance the framework for the use of market-based instruments (e.g. emissions trading, revision of energy taxation, state-aid framework, encouraging wider use of green public procurement).
- To promote a substantial programme in resource efficiency (supporting Small and Medium Enterprises as well as households) by making use of structural and other funds to leverage new financing through existing highly successful models of innovative investment schemes, thereby promoting changes in consumption and production patterns.

A key challenge will be ensuring coherence and compatibility with principles of sustainable development. *National Reform Programmes* which EU Member States are required to submit to the EU Commission under the EU 2020 Strategy and other national policy statements across all sectors should be consistent with the objectives outlined in this Framework for Sustainable Development for Ireland.

Ireland is now adjusting to a difficult recession complicated by banking and fiscal crises which necessitated us having to avail of a programme of EU/IMF support. The *Programme for Government 2011* and the *EU/IMF Programme of Financial Support for Ireland* provide the blueprint for a return to fiscal stability and sustainable economic growth. Unsustainable public finances undermine the framework for economic prosperity and so the restoration of sound public finances has to be the cornerstone of economic planning.

In 2009, the Commission on Taxation put forward a number of recommendations for adoption by Government, including the introduction of a carbon tax on fossil fuels which was introduced in Budget 2010. All tax reforms should be based on principles of equity and the efficient use of resources and will have regard to the impact on people in or at risk of poverty. Dividends commonly associated with environmental tax reforms include: increased resource productivity and eco-innovation; increased employment; improved health of environments and people; a more efficient tax system; and a better sharing of the financial burdens of an ageing population (EEA, 2010).

Gaps

The current process of fiscal adjustment is focused on the need to get the public finances in order which is vital for the economy and in securing the financial wellbeing of the country. It is important that the requirement to run a sustainable fiscal position takes cognisance of the need to also consider short-term gains against what are longer-term objectives.

There are four types of interdependent capital that drive economic and social progress namely:

- Human or knowledge capital: the skills, knowledge, ingenuity and creativity of people.
- Physical capital: the stock of infrastructure that is used to produce goods and services e.g. machinery, buildings, transport and communications networks.
- Natural or environmental capital: naturally-provided assets and the quality of the surrounding environment within which people live and work.
- Social capital: the networks, connections, mutual trust and shared values and behaviours of the population.

Stocks of human, physical, natural and social capital need to be conserved and enhanced as they are the assets on which current and future development relies. In considering the sustainability of the public finances these assets should be considered in an integrated way, if they are to provide a basis for sustainable recovery.

Measures

1. Integrate environmental and social indicators into measures of economic progress

The Government will take account of the environmental and social impact of economic activity and building on the work of the Central Statistics Office (CSO), develop in consultation with stakeholders measures of wellbeing to supplement economic growth as a metric for prosperity.

2. Develop a framework for environmental tax reform

A gradual shift of the tax base away from taxing what we want more of, such as investment and labour, towards taxing what we want less of, such as pollution, would help contribute to the Government's objective of creating a resource efficient and smart green economy. The Carbon Tax already in place is an example of the effective use of environmental taxes for revenue raising purposes. A tax base that derives a greater proportion of revenues from consumption and less from labour will also provide a wider and expanding tax-base than present, thereby contributing to the response needed to offset the fiscal implications of a declining workforce and an ageing society. The environmental tax reform framework will also need to take into account issues of equity and competitiveness.

3. User Charges

Together with the introduction of domestic water charges as outlined in Measure 18, the Government will consider more widespread use of user charging. There is now a considerable body of academic work and international examples underpinning the introduction of these instruments, and this will assist in choosing the best instruments for achieving the objectives.

4. Shifting the fiscal focus towards the Green Economy

Over the longer term and in line with the recommendations of the OECD¹⁰, consideration will be given, in the context of advancing the green economy agenda in Ireland, to the development of appropriate fiscal measures and the gradual elimination of subsidies that have negative impacts on the environment and are incompatible with sustainable development and that create economic distortions and social inequity.

5. National Reform Programmes under EU 2020

National Reform Programmes implementing Ireland's commitments under the *Europe 2020 Strategy* will take account of the measures in this Framework for Sustainable Development for Ireland. These synergies will also be important in other policy making areas, including those relating to local government.

¹⁰ OECD (2010), *OECD Environmental Performance Reviews – IRELAND and*
http://ec.europa.eu/environment/resource_efficiency/pdf/com2011_571.pdf

2.2 Sustainable Consumption and Production

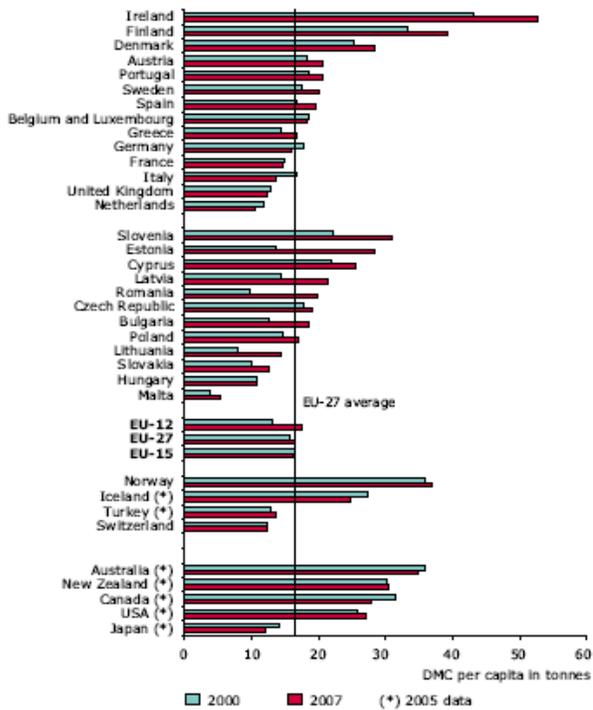


Figure 6: Resource use per person by country, 2000-2007 (Source: EEA, 2010)

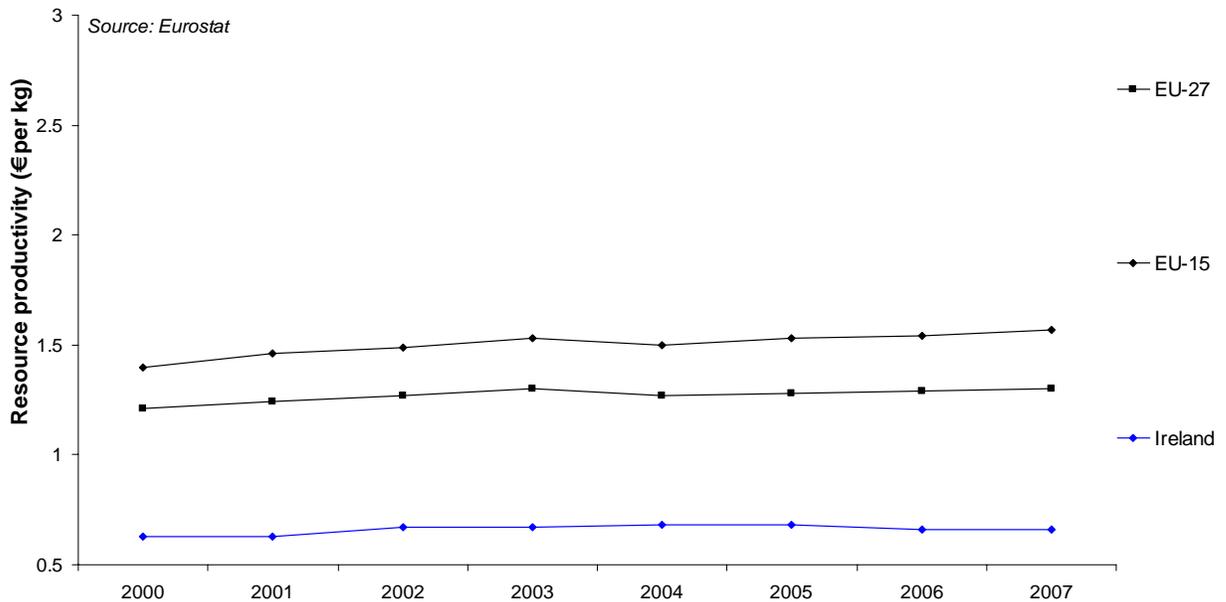


Figure 7: Resource productivity in Ireland and the EU (Source: Eurostat, CSO)

Challenges

Increasing prosperity, in Ireland and across the world, has allowed many people to enjoy the benefits of goods and services which were once available to just a few. While this shared prosperity represents huge progress, it does so at a cost of increasingly less sustainable patterns of consumption and production. The pressures on resources - raw materials, minerals, metals, food, water, soil, biodiversity, air, biomass and ecosystems - continue to increase.

This enduring, negative trend endangers the availability of natural resources and impacts negatively on the quality of our environment and on human health and biodiversity, both within Europe itself and globally. As noted in the 2010 EEA report¹¹ on the

European environment, resource use increased by 34% between 2000 and 2007 in the EU-12 and this is having significant environmental and economic consequences. Of the 8.2 billion tones of materials used in the EU27 in 2007, minerals (including metals) accounted for more than half, with fossil fuels and biomass accounting for the bulk of the remainder.

There is a growing interdependence between countries. In Ireland, we rely not only on our own natural resources, but also on those of the rest of the world. To sustain the Earth's population at the levels of consumption of the Irish population would take more than three planets' worth of resources¹². Ireland's Ecological Footprint has

continued to grow and in the latest assessment we had the tenth highest per person Footprint in the world¹³. Our over-consumption of resources in the developed world can have negative social, environmental and economic consequences for people living in developing countries.

Continuing resource use at existing levels is not sustainable and will act as a barrier to future economic growth as has been highlighted in the OECD report, *Towards Green*

Sustainable Consumption and Production: Progress in Ireland

- EU/National legislation on –
 - IPPC licensing
 - Waste Management/Environmental Protection
 - Producer Responsibility initiatives – Waste Electrical and Electronic Equipment (WEEE), End-of-Life vehicles (ELVs), Packaging
 - Eco-design
 - Removal of dangerous chemicals from products e.g. REACH, RoHS Directives
 - Strategic Environmental Assessment (SEA)
 - Emissions Trading Scheme (ETS)
 - National Waste Prevention Programme
- Introduction of environmental levies on plastic shopping bags and landfilling of waste
- EU/National Research and Development Initiatives
- Provision of recycling infrastructure
- Public awareness campaigns e.g. Race Against Waste, Power of One.
- New Market Development Programme for Recovered Waste Resources
- Green Public Procurement Programme to be published in 2011
- Motor Tax now based on carbon emissions
- Carbon Tax
- Introduction of water metering and conservation measures in 2014

¹¹ The European Environment, State and Outlook 2010

¹² Maguire, C. and Curry, R. (2008) *Island Limits. A Material Flow Analysis and Ecological Footprint of Ireland.* Environmental Protection Agency Ireland ISBN: 1-84095-258-X.

¹³ The WWF and Global Footprint Network. (2010). *Living Planet Report 2010.* http://www.footprintnetwork.org/en/index.php/GFN/page/Living_Planet_Report_2010_dv/

Growth. Conversely, embracing resource efficiency offers a path to economic growth and the creation of decent jobs. The challenge, then, is to manage our resources in a sustainable manner throughout their lifecycle, so as to avoid over-exploitation and to reduce the environmental and social impacts of their use. Essentially we must live, produce and consume within the physical and biological limits of the planet.

The *Europe 2020 Strategy* and its flagship initiative on “*A Resource Efficient Europe*” called for a roadmap “*to define medium and long term objectives and means needed for achieving them*”. This roadmap¹⁴, published in September 2011, aims to decouple the use of natural resources from economic growth and envisages a range of new policy measures dealing with raw materials, biodiversity and energy efficiency, as well as roadmaps to decarbonise the economy, energy and transport. It also advocates the stepping up of the use of market-based instruments, the phasing out environmentally harmful subsidies and the ‘greening’ of tax systems.

The initiative provides a framework for policies to support the shift towards a resource efficient and low-carbon economy aimed at boosting economic performance while reducing resource use. It also takes into account progress made on the 2005 Thematic Strategy on the Sustainable Use of Natural Resources and the EU *Strategy for Sustainable Development*.

As the Roadmap document notes, resources are often used inefficiently because the information about the true costs to society is not available, with the result that business and consumers cannot adapt their behaviour accordingly. The Roadmap calls for greater transparency and the inclusion of the costs of environmental externalities so that prices reflect the true costs of resource use to society and do not give rise to ‘perverse incentives’.

¹⁴ A resource Efficient Europe – Flagship initiative under the Europe 2020 Strategy, COM (2011) 21

Pressures and Possibilities

Europe relies on natural resources to contribute to its economic development. Most environmental impacts can be attributed to products and services we produce and consume. A European Environment Agency (EEA)¹ analysis of nine EU Member States found that the majority of key environmental pressures caused by total national consumption can be allocated to eating and drinking, housing and infrastructure, and mobility. These contributed approximately two-thirds of the consumption-related material use, greenhouse gas emissions and other air polluting emissions. A contributory factor to these negative impacts is that the external costs to society of the environmental and resource degradation are not adequately reflected in the price of goods.

Using natural resources more efficiently will allow Europe to achieve objectives set out in EU 2020. It will:

- be key to making progress to reducing greenhouse gas emissions by 80-95% by 2050;
- assist in preserving natural capital and the services that it provides;
- ensure that agriculture and fisheries sectors remain strong and sustainable;
- make Europe more resilient to future increases in global energy and commodity prices;
- contribute to the security of supply of food, energy and raw material supplies;
- contribute to food security in the developing world; and
- improve quality of life and well being for citizens.

It is not possible to assess progress unless you can measure it and the EU is developing a suite of indicators that will monitor and measure progress on resource efficiency – see Chapter 4. This process will include the development of a headline indicator - "Resource Productivity" - to measure the Roadmap's principal objective of improving economic performance while reducing pressure on natural resources.

Overall, Ireland's resource productivity has shown some slight improvement since 2000 (Figure 7). A key message from the European Environment Agency in its report - *The European Environment – State and Outlook 2010*, is that environmental regulation and eco-innovation have increased resource efficiency. This has occurred through a relative decoupling of resource use. Resource use declines relative to GDP but there is no absolute decoupling i.e. where growth does not outpace improvements in efficiency. This challenge persists.

Commitments and targets

At an international level, the Marrakech Process, which is a global process, led by the UN Environment Programme (UNEP) and the UN Department of Economic and Social Affairs (DESA), aims to support the development of a *10-Year Framework of Programmes* (10YFP) on sustainable consumption and production by 2013. This Framework proposes to strengthen international cooperation, increase exchange of information and best practices to facilitate the implementation of national and regional programmes to promote sustainable consumption and production.

Resource Efficiency: *Green Hospitality Programme*

Under Ireland's National Waste Prevention Programme, the Environmental Protection Agency have been operating a *Green Hospitality Programme* which has been developed to act as an umbrella brand for hospitality related prevention initiatives including the Green Hospitality Award (GHA), Green Caterers, Green Restaurants and Green Festivals etc.

Formal resource efficiency audits, resource consumption benchmarks, workshops, training, award level criteria and guidance are provided to each participating hotel or caterer to enable them to develop their own prevention programme to prepare for the different levels of award. These start at an entry Bronze (Eco-label) Award leading stepwise up to Silver, Gold and Platinum levels – the latter being equivalent or better than the EU Flower level of environmental performance.

The awards are based on independent inspections and gala award ceremonies are held regionally and nationally for successful businesses. Accredited auditors from Certification Europe in turn oversee the overall awards process. A similar programme has recently commenced in the Healthcare Sector.

The Programme now has 220 members with 124 Award holders, including 2 at Platinum and 21 at Gold level. Some of the largest and most prestigious hotels in Ireland are now members along with some progressive large catering organisations.

A survey of 160 members in 2010 showed annual recurring cash savings made of **€5.6m**, waste reduced by **6,400 tonnes**, water reduced by **352,000 m³** and energy by **38,748,000 kWh**.

The programme seeks to build on the success of existing and previous initiatives aiming to promote resource efficiency and the sustainable use of all natural resource. The programme is starting to produce outputs which could be used to examine the potential to develop key performance indicators for the different sectors and to look at possible resource efficiency indicators.

Further information can be obtained from www.greenhospitality.ie.

At European level, sustainable consumption and production is promoted in the context of the EU 2020 Strategy, which includes flagship initiatives on resource efficiency and industrial policy. It aims to boost EU competitiveness, generate new business opportunities, drive innovation and create green and sustainable employment. The policy framework is further elaborated in the Commission's *Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan* (2008). There is also a range of legislation focused on improving products¹⁵ and policies aimed at smarter consumption notably through greener public procurement.

At national level a number of Government policies and programmes are in place to support good practice as well as specific initiatives by other key stakeholders. Some Sustainable Consumption and Production (SCP) initiatives in Ireland to date include:

- the *National Waste Prevention Programme* (NWPP) run by the EPA; the scope of the NWPP has been expanded to include wider resource use including water

¹⁵ including the Ecodesign (EuP) Directive (2009/125/EU), Energy Labelling Directive (2010/30/EU), Energy Star Regulation, Ecolabel Regulation

- and energy. Projects include those focused at householders (Green Homes), industry (Hospitality Programme, Green Business) and local authorities.
- *Green Tenders*, An Action Plan on Green Public Procurement has been developed aimed at boosting the uptake of GPP which is an important tool in advancing the green economy agenda. It will highlight the many best-practice examples of GPP already taking place that could easily be emulated by buyers across the public sector and by their supply chain. The Action Plan proposes eight areas of procurement as particularly suitable for GPP in the first instance – these are construction; energy; food and catering services; transport; ICT; cleaning products and services; paper; and uniforms and other textiles.

 - The Market Development Programme for Waste Resources (rX3) aims to:
 - promote stable demand for recovered waste materials;
 - support the achievement of economies of scale in the production of products made from recycled materials; and,
 - support more recycling/reprocessing infrastructure in Ireland to reduce reliance on overseas markets.

Ireland has made considerable progress developing waste policy, legislation and infrastructure over the course of the last two decades. Framework legislation at EU and national level, the introduction of producer responsibility initiatives, the development of regional waste management planning and the roll out of modern infrastructure have helped transform national performance in this sector. From a low base of 9% in 1998 the national recycling rate had reached 39% by 2009. The 2011 Programme for Government commits to developing a national waste policy that will adhere to the EU waste hierarchy and favours a coherent approach to waste management that minimises waste going to landfill, and that maximises the resources that can be recovered from it. Work has commenced on the development of a new policy document to be concluded at the start of 2012. The policy will be informed by a number of principles including being consistent with the cornerstones of National and European policy, including the waste hierarchy, the principle that the polluter pays, sustainable materials management and the urgent imperative to reduce greenhouse gas emissions. Waste reduction will be prioritised through an examination of producer responsibility schemes. A Regulatory Impact Assessment of the proposal to introduce competitive tendering for local waste collection services where the private sector and local authorities can bid to provide services in an entire local authority area for a set time frame is also being undertaken.

Better at Recycling but.....

Ireland's national performance in waste management recycling has improved significantly over the the past two decades. The national recycling rate has risen from **9%** in **1998** to the current level of **39%**, while packaging recycling over the same period has risen from just under **15%** in **1998** to **70%** currently. Our WEEE recovery rates at **9kg per person** are running at more than double the statutory target set in EU legislation.

Yet, there is a significant challenge in developing reprocessing of recovered waste resources in Ireland with the bulk of recovered material going overseas for reprocessing. In 2009 69% of recovered waste, mainly metals, paper, cardboard and glass, went abroad for export. This high level of exports means that opportunities for added value from reprocessing in Ireland are being lost. An all-island study, The Irish Recycled Plastic Waste Arisings Study, published in 2011 highlights the scale of the challenge.

"In 2009 60-70% of plastic waste collected for recycling was exported and approximately 30% of plastic waste was reprocessed on the island of Ireland. However there is significant reprocessing capacity on the island where it is possible for greater quantities of plastic waste to be reprocessed. The study identified that many plastic reprocessors and manufacturers import plastic waste and recycle for their operations. This shows that there is demand for plastic waste to create higher value products."

A tonne of waste plastic bottles may be worth €200, whereas when the bottles undergo further processing, recycle such as flaked or pelletised plastic from plastic drinks bottles is worth €820 to €1,070 per tonne while a finished recycled product, such as new plastic bottles, is worth approximately €2,350 per tonne.

The recycling sector is labour intensive and with expanding waste recovery rates offers opportunities for sustainable jobs if increased reprocessing rates can be achieved in Ireland.

Gaps

A range of policies, including this Framework for Sustainable Development, refer to the importance of decoupling economic growth from consumption of environmental resources. However there are no targets relating to resource efficiency at European or national level¹⁶ though these will be explored in the context of the Roadmap on Resource Efficiency. The focus of European policy to date has been mainly on products.

A number of areas have been identified in its resource efficiency roadmap as priorities for further policymaking on sustainable consumption and production, including:

- Strengthening the requirements on Green Public Procurement for products with significant environmental impacts;
- Establishing a common methodological approach to enable Member States and the private sector to assess, display and benchmark the environmental performance of products, services and companies based on a comprehensive assessment of environmental impacts over the life-cycle;

¹⁶ The European Commission in its resource efficiency roadmap proposes to engage with stakeholders to develop potential targets by 2013.

- Addressing the environmental footprint of products, including through setting requirements under the Ecodesign directive, to boost the material resource efficiency of products and through expanding the scope of the Ecodesign directive to non-energy related products;
- Supporting the networking and exchange of best practice between agencies running schemes on resource efficiency for SMEs.

At a national level there is a need to move beyond cleaner production and waste prevention policy. We need to ensure the effective implementation in Ireland of initiatives at EU level under the Roadmap on Resource Efficiency that effectively supports the transition that is required in energy, industrial, agricultural and transport systems and in consumer behaviour. This transition will also boost green innovation across the economy through wider adoption of existing technological and behavioural innovations and through faster development of greener ways of delivering the goods, services and infrastructure that our citizens demand. Faster diffusion of existing technological and behavioural innovations is equally essential to improving resource efficiency.

Internationally, life cycle thinking is an important element to a growing number of instruments intended to enhance sustainable consumption and production. Among these instruments is eco-design, eco-labels, including carbon footprinting, environmental management, and life cycle-based indicators for monitoring sustainable consumption and production. Analysis on this basis can enable producers and consumers to be better informed and it may encourage them to take into account of the longer-term environmental, social and economic impacts associated with the supply, use and end-of-life phase of goods and services.

However, it must be recognised that life cycle costs are difficult to quantify in a transparent, objective and scientifically robust way. In Ireland, the Government's code on cost-benefit analysis and capital appraisals oblige public bodies to take into account the economically-useful life of the asset (product, infrastructure, vehicle etc). This obliges public bodies to take into account the purchase and all associated costs, operating cost and end-of-life (disposal) costs.

Measures

6. Completion of Policy on Waste Management

A new Waste Management Policy will be finalised by the start of 2012, adhering to the waste hierarchy and moving Ireland away from an overdependence on landfill, where a range of alternative treatments will have a role to play.

7. Resource Efficiency

In line with the development of the EU *Roadmap to a Resource Efficient Europe* under *EU2020*, the Government will work to ensure the effective implementation of this initiative in Ireland.

8. Green Tenders, An Action Plan on Green Public Procurement

The forthcoming Action Plan on Green Public Procurement, *Green Tenders*, will act as a driver in developing the green economy in Ireland.

9. Resource Efficiency Programmes for Business

The relevant agencies (e.g. IDA, EI, SEAI, and EPA) should continue to work to offer an integrated suite of resource efficiency programmes for business.

2.3 Conservation and Management of Natural Resources

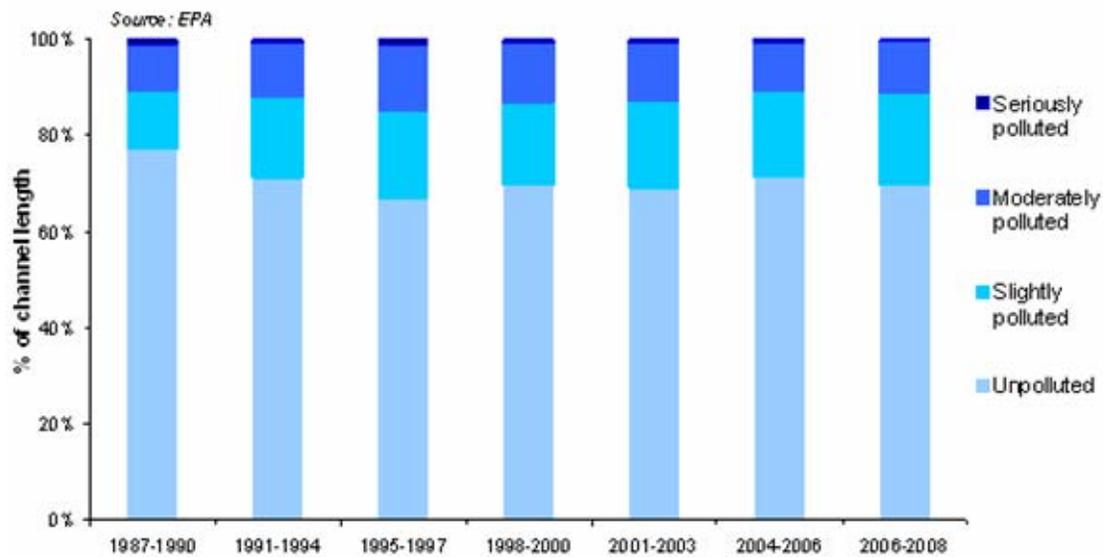


Figure 8: River water quality in Ireland (Source: EPA)

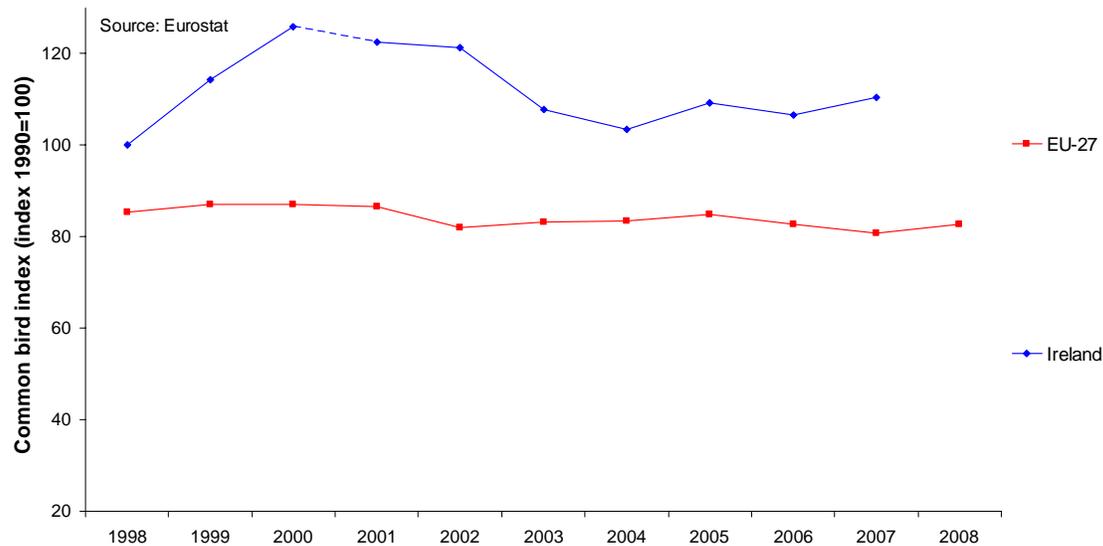


Figure 9: Common Bird Index in Ireland and the EU (Source: Eurostat)

Challenges

Biodiversity, ecosystems and natural resources are our natural capital. It is widely recognised that economic prosperity depends on maintaining and enhancing our assets, including natural capital. According to the United Nations Food and Agriculture Organisation, 40% of the world's economy is based directly and indirectly on the use of biological resources. This provides one of the most compelling reasons for the protection of ecosystems, habitats and species.

Ireland, along with the other EU Member States and the EU itself is among the 193 countries who are parties to the Convention on Biological Diversity. The Convention covers all ecosystems, species and genetic resources and recognises that they must be

used for the benefit of humanity, but insists that this should be done in a way and at a rate that does not lead to the long-term decline of biological diversity. Substantial investment is needed to conserve biological diversity but the Convention argues that conservation will bring us significant environmental, economic and social benefits in return.

Ecosystems provide a variety of services to us for free which bring many benefits to society and the economy. There are four main categories:

- Provisioning services (production of food and water etc);
- Regulating services (e.g. the control of climate and disease);
- Supporting services (e.g. nutrient cycling and crop pollination); and
- Cultural services (such as spiritual and recreational benefits).

The UN Millennium Ecosystem Assessment focused on the link between ecosystems and human wellbeing and concluded that approximately 60% of the Earth's ecosystem services examined are being degraded or used in an unsustainable way.

The global study, *The Economics of Ecosystems and Biodiversity (TEEB)* Initiative demonstrates the value of ecosystems and biodiversity to the economy, to society and individuals. It underlines the urgent need for action, as well as the benefits and opportunities that will arise as a result of taking such action. The study shows that the cost of sustaining biodiversity and ecosystem services is lower than the cost of allowing biodiversity and ecosystem services to decline. In an Irish study, an estimate of the value of selected ecosystem services was calculated for Ireland at €2.6 billion per annum and this is a conservative value as some important services were not included¹⁷.

One of the key messages from the European Environment Agency in its report *The European Environment – State and Outlook 2010* is that widespread alteration of landscapes, degradation of ecosystems and loss of natural capital mean that the EU will not meet its target of halting biodiversity loss by 2010. To improve the situation we must prioritise biodiversity and ecosystems in policymaking at all levels, particularly addressing agriculture, fisheries, regional development, cohesion and spatial planning.

In Ireland, as elsewhere, economic sectors such as agriculture, forestry, tourism, marine fisheries and aquaculture are reliant on the effective conservation and management of natural resources. A recent study has also drawn attention to the importance of water to the business sector and warns of the potential climate impacts that could affect its supply.¹⁸ Ireland's economic and social development is dependent on a healthy natural environment; therefore, resources must only be used at a rate which allows them to be replenished and must be preserved to ensure their long term use and survival.

As many ecosystem services are public goods, public policies have an important role to play in their protection and development. A key challenge is to recognise and integrate the value of natural capital into policy making. Green Infrastructure, which is the network of green spaces which enable ecosystems to provide services, should be viewed as critical infrastructure for Ireland in the same way as our transport and energy infrastructure. This means we need to proactively develop Green Infrastructure and ecological connectivity which will have the dual function of enhancing biodiversity and ecosystem goods and services and improving resilience and adaptation to climate change. Because the Green Infrastructure approach emphasises management and not

¹⁷ Bullock, C., Kretch, C. & Candon, E. (2008). The Economic and Social Aspects of Biodiversity Benefits and Costs of Biodiversity in Ireland. (<http://www.npws.ie/en/media/NPWS/Publications/Biodiversity/Media,6432,en.pdf>)

¹⁸ Forfas (2010). Adaptation to Climate Change: Issues for Business.

just protection, it has particular potential to assist in meeting the requirements of a range of European Directives including the *Habitats Directive (92/43/EEC)*, *Birds Directive (2009/147/EC)*, *Water Framework Directive (2000/60/EC)* and *Floods Directive (2007/60/EC)* through integrated cost effective actions.

Commitments and targets

In 2002, the Parties to the Convention on Biological Diversity, including Ireland and the EU, committed themselves to achieve, by 2010, a significant reduction of the current rate of biodiversity loss at the global, regional and national levels. However, despite some action, that target was not reached, and this led to new attempts globally to take effective action leading to the Convention's Parties agreeing new objectives at the 10th Conference of the Parties in Nagoya, Japan, in October 2010 in a strategic plan for the period 2011 to 2020. The Convention Mission now is to take "*effective and urgent action to halt the loss of biodiversity to ensure that, by 2020, ecosystems are resilient and continue to provide essential services, thereby securing the planet's variety of life and contributing to human well-being and poverty eradication*".

Ireland, as part of the EU, has also committed to a new vision for biodiversity and a target to halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the contribution to averting global biodiversity loss. There is also a long term vision that by 2050, European Union biodiversity and the ecosystem services it provides are protected, valued and appropriately restored. In June 2011, the EU produced a Biodiversity Strategy to 2020 aimed at meeting these objectives. However, this will be extremely challenging for Ireland, not least in the context of climate change.

The most important elements in the EU actions on biodiversity loss are the nature directives. The Birds Directive and the Habitats Directive require Member States to conserve valuable or threatened habitats and species, in particular by establishing the Natura 2000 network of sites. This network of protected areas form the core of biodiversity conservation and while substantial progress has been made in designating sites, further effort is needed to maintain and enhance the conservation status of protected sites. However, Ireland's latest report on the implementation of the *Habitats Directive* showed that many of our most important habitats and species are in poor conservation status. Therefore full implementation of these Directives, along with others, such as the Water Framework Directive and Marine Strategy Framework Directive, would contribute enormously to biodiversity conservation in Ireland.

A key event in this issue was the publication in November 2011 of *Actions for Biodiversity 2011-2016; Ireland's National Biodiversity Plan*. This Plan contains 102 actions under 7 strategic objectives, covering the conservation of biodiversity in the wider countryside and in the marine environment, both within and outside protected areas; the mainstreaming of biodiversity across the decision making process in the State; the strengthening of the knowledge base on biodiversity; increasing public awareness and participation; and Ireland's contribution to international biodiversity issues, including North South co-ordination on issues of common interest.

Under the *Water Framework Directive*, River Basin Management Plans for each of the 7 river basin districts in the state have now been adopted. The plans set out the current status of our waters, the objectives to be achieved by 2015, and the programme of measures to be implemented in order to achieve those objectives. The Programme for Government 2011 proposes the installation of water meters in individual households and the introduction of water charges based on usage above a free allowance. The

Department of the Environment, Community and Local Government is currently preparing proposals for Government in relation to these proposals. Public investment focused on increasing capacity levels and action plans to reduce leakage to acceptable levels should be a pre-requisite of Exchequer funding. The installation of water metering will facilitate enhanced network management by water services and a more sustainable approach to water use by domestic consumers. Water pollution from septic tanks and other on-site wastewater treatment systems is also being addressed through the introduction of legislation for their inspection and performance monitoring.

Ireland has signed and ratified the Council of Europe's European Landscape Convention (ELC), which came into effect on 1 March 2004. It obliges Ireland to implement certain types of policy changes and objectives concerning the management and protection of the landscape. It also requires 'landscape' to be legally defined. This was given effect through the Planning and Development (Amendment) Act 2010. This legislation also amended the Planning Acts to require the inclusion of a mandatory objective in local authority development plans and in regional planning guidelines to develop landscape policies.

Arising from our ELC commitments a draft National Landscape Strategy (NLS) is currently in preparation by the Department of Arts, Heritage and the Gaeltacht. The NLS will be used to ensure compliance with the ELC. The aim of the NLS will be to put in place a framework to achieve balance between the management, planning and protection of landscape. The draft NLS suggests principles and mechanisms for the development of policies, tools and methods at local and national level, involving local authorities, state organisations and civil society, for protecting and enhancing the landscape, positively managing landscape change, and providing the context within which the design of appropriate development can take place.

The key objectives to achieve a consistent National approach will be predicated on;

1. A "forward plan" led approach;
2. Active management and;
3. Best practice in protection and conservation principles.

The NLS framework aims to anticipate and avoid conflict between the present and emerging land uses. It will do this through the land-use planning process, which has traditionally been used to manage change and achieve a sustainable balance between conflicting demands. The National Landscape Strategy will be one of a suite of national strategies including the National Spatial Strategy (2002-2020) and the National Climate Change Strategy (2007-2012), which map out paths towards sustainable development and management of our national – human and natural – resources.

Gaps

The mainstreaming of environmental issues in policy making is of key importance to meeting objectives in this area. Environmental concerns must be further integrated across Government actions and the wider society with awareness increased and participation encouraged as much as possible.

At a national level, parts of the information and evidence base are not sufficient for policy development and measurement of environmental outcomes. A key gap is the absence of a national ecosystem assessment and the mapping of Ireland's natural resources (also known as natural capital) and this would make a substantial contribution to the evidence base for policy development and decision making. While the new *National Biodiversity*

Plan includes measures to do so for biodiversity, there are no dedicated systems for measuring, monitoring and reporting on our broader natural capital. Our national accounting systems and indicators should reflect the value of nature and monitor how natural assets depreciate or grow in value. In that context, satellite accounting, which accounts for the use of natural resources compiled alongside normal financial accounting, is proposed.

An integrated approach has not been taken to natural resource policy to date and this will be necessary to meet the targets to halt biodiversity loss and degradation of ecosystem services. The 2010 OECD environmental performance review report recommended that Ireland should strengthen its environmental management efforts and further integrate environmental concerns into economic decisions and reinforce international cooperation on environmental issues¹⁹.

This will require integrating biodiversity considerations and measures to enhance ecosystem goods and services across policy areas. It will also require the development of new approaches and tools for practical implementation of such integrated approaches. Further development and implementation of a Green Infrastructure approach will contribute to making progress on the OECD recommendations which included improved integration of biodiversity into sectoral policies and protection and enhancement of biodiversity outside protected areas through the creation of green corridors.

It will also be vital to ensure that current measures and incentives do not inadvertently contribute to biodiversity loss and degradation of ecosystems as well as developing positive incentives to assist in the conservation of natural resources.

There is a need for an integrated marine and coastal management process which would take account of other measures in the marine area such as the EU Marine Strategy Framework Directive, the main purpose of which is to protect and preserve the marine environment, prevent its deterioration and where practicable, restore marine ecosystems in areas where they have been adversely affected.

¹⁹ OECD (2010) OECD Environmental Performance Reviews: Ireland. ISBN 978-92-64-07949-6.

Measures

10. *Implementation of Actions for Biodiversity 2011 – 2016: Ireland's National Biodiversity Plan*

The Government will implement *Actions for Biodiversity 2011-2016: Ireland's National Biodiversity Plan* which will co-ordinate actions aimed at progress towards meeting national, EU and Global 2020 biodiversity targets. The Government will also support the integration of biodiversity concerns with climate change, economic and spatial planning policy. This will be taken forward through the governance arrangements outlined in section 3.

11. *Development of a National Habitat Map*

A National Habitat Map will be developed by 2016. This will be an important tool underpinning decisions on policies and action to protect biodiversity and a stepping stone to future, long-term measures, such as the development of ecosystem services mapping and a national ecosystem assessment.

12. *Development of an integrated approach to Green Infrastructure*

The Government will continue to develop an integrated approach to Green Infrastructure planning to improve the quality of our natural environment and support biodiversity at the national, regional and local level. This will be carried out in partnership with key stakeholders and will include raising awareness of the associated benefits.

13. *Effectively communicating the economic rationale for conservation of natural resources*

The Government will develop and communicate the economic rationale for investment in protection and enhancement of natural capital. This will strengthen the mainstreaming of biodiversity considerations across policy areas.

14. *Development of Indicators and Accounting Systems (satellite accounts) for natural capital*

The Government will develop and strengthen indicators and accounting systems for natural capital building on the environmental and material flow accounts produced by the Central Statistics Office.

15. *Development of a National Landscape Strategy*

A National Landscape Strategy, which has a major role in mapping out the path to sustainable management of our built and natural resources, is to be adopted.

16. *Development of an Integrated Approach to Marine and Coastal Planning*

The Government will develop an integrated marine and coastal planning process in order to maximise the potential for Ireland's coastline in fishing, aquaculture, ocean energy and tourism.

17. *Implementation of the EU Marine Strategy Framework Directive*

The Government will implement measures under the Marine Strategy Framework Directive to protect and preserve Ireland's marine environment including the completion of an initial assessment of marine waters in 2012.

18. *Introduction of Domestic Water Charges*

The Government will introduce domestic water charges following a programme of water metering (see also Measure 3).

2.4 Climate change and clean energy

Challenges

Climate change is one of the great challenges facing mankind. Global climate change trends are well documented in the assessment reports of the Intergovernmental Panel on Climate Change and the potential negative effects of climate change are widely acknowledged. The findings from the Fourth Assessment Report show that an 80-95% reduction in industrialised countries' greenhouse gas emissions from 1990 levels is required by 2050 in order to reduce the risk of dangerous and potentially catastrophic climate change materialising²⁰.

These trends present sustainability pressures not only for Ireland's environment, but also for our economy and society. Changes to mean temperatures, precipitation levels and greater frequency of more extreme weather events can all have adverse impacts on sustainable development. In addition to these trends is the challenge of peak oil, providing a secure and clean energy supply and being more efficient in our energy use. In addressing these challenges, competing policy objectives in areas such as climate change, food security and cost competitiveness need to be proportionately reconciled. A balance also has to be struck between the need to provide the right policy and regulatory environment in support of these objectives and at the same time ensuring that Ireland remains a competitive place to do business.

Commitments and targets

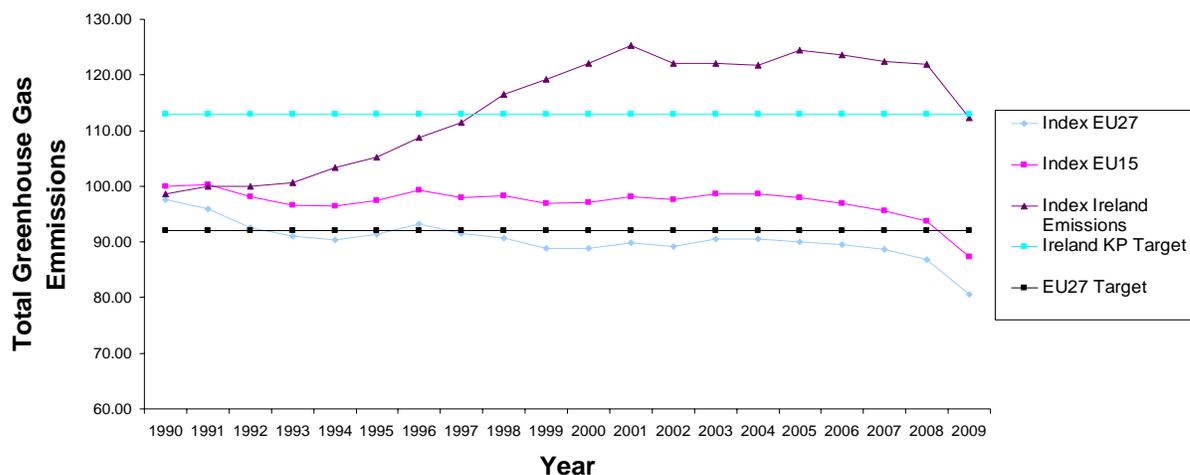


Figure 10: Total greenhouse gas emissions and Kyoto target in Ireland and the EU (Source: derived from EEA and UNFCCC data)

Ireland's international commitment under the Kyoto Protocol is to limit greenhouse gas emissions to 13% above 1990²¹ levels over the period 2008-2012 (Figure 10²² shows progress to 2009). At a European level, the '20/20/20' commitments agreed under the *EU Climate Change and Energy Package* set three new targets each to be achieved by 2020:

- a minimum 20% reduction in greenhouse gas emissions based on 1990 levels.

²⁰ http://www.ipcc.ch/publications_and_data/ar4/wg3/en/contents.html

²¹ The 13% increase is relative to 1990 for all gases except HFCs, PFCs and Sulphur Hexafluoride where a base year of 1995 was adopted in line with Art 3.8 of Kyoto Protocol.

²² The latest figures from the Environmental Protection Agency (EPA, 2011) show a current 'distance to target' of 1.3 – 1.6 Mtonnes CO₂e per annum. Retrieved from http://www.epa.ie/downloads/pubs/air/airemissions/EPA%20GHG%20Emission%20Projections_FINAL_April.pdf

- 20% of final energy consumption to be produced by renewable energy resources.
- a 20% reduction in primary energy use compared with projected levels to be achieved by improving energy efficiency.

The greenhouse gas emissions target is divided between those sectors involved in emissions trading (ETS) (mainly power generation and large industry) and those sectors outside of the scheme (mainly transport, agriculture, forestry, residential, waste and non-emissions trading scheme industry and commercial). For the non-trading sector, Ireland has agreed to reduce emissions by 20% compared to 2005 levels by the year 2020. The graph below illustrates the sectoral contribution (excluding forestry) to Ireland's greenhouse gas emissions into ETS and non ETS and highlights the degree to which agriculture and transport emissions dominate the non ETS profile. Carbon sequestered by approved forest sinks amounted to 2.32 MtCO₂eg²³ or 4.5% of gross emissions in 2009.

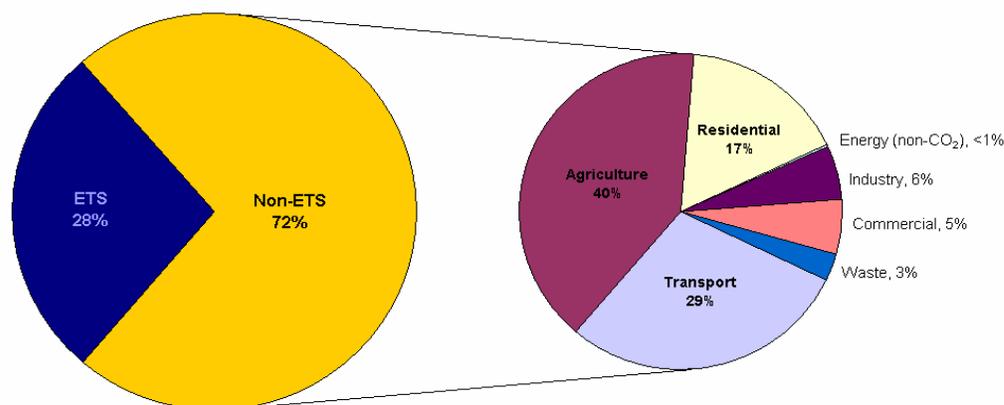


Figure 11: Greenhouse gas emissions in 2009 breakdown into ETS non ETS and Sectors (Source: EPA)

A Review of National Climate Policy was published in November 2011; this review has been undertaken against the background of existing and national greenhouse gas mitigation targets for the period to 2020. The outcome of the review will underpin the development of future climate policy in support of achieving these targets. The pathway to 2020 will require the development and assessment of sectoral policy options particularly in areas such as agriculture where projected national emissions show a growing proportion of emissions from that sector.

Under the *Renewable Energy Directive (2009/28/EC)*, Ireland agreed to a target for renewable energy to constitute 16% of final energy consumption by 2020²⁴. The Government has also committed to meeting a target of 40% of our electricity to be derived from renewable sources by 2020 and is committed to identifying and implementing energy efficiency measures that produce a 20% saving relative to 2001-2005 by year 2020. The Government has already published a *National Renewable Energy Action Plan* along with a *National Energy Efficiency Action Plan* which will be reviewed during 2011. The *Energy White Paper* which also contains goals and the actions for meeting them is being kept under review.

The Programme for Government 2011 commits to a three year retrofit programme, launched in May 2011 as *Better Energy*, which will be the main vehicle to bridge the gap

²³ Ireland's Greenhouse Emissions in 2009 (EPA, October 2010)

²⁴ The latest figures available for 2008 show Ireland currently at 4.5%.

of approximately 8,000GWh, identified under the National Energy Efficiency Action Plan in the achievement of our national 20% energy savings target between now and 2020.

The Affordable Energy Strategy sets out a vision for Affordable Energy in Ireland, which is *'the achievement of a standard of living whereby households are able to afford all of their energy needs and where individuals and families live in a warm and comfortable home that enhances the quality of their lives and supports good physical and mental health'*. This strategy will build upon the many measures already in place to protect households at risk from the effects of energy poverty.

The European Commission recently published the Energy Efficiency Plan (EEP) 2011 which outlines a number of key objectives intended to drive strategic change in energy efficiency policy throughout Member States, and to bring the EU closer to the 2020 target of 20% energy efficiency through national energy efficiency targets and programmes²⁵.

In addition to actions to address climate change challenges domestically, Ireland through its ratification of the UNFCCC is committed to playing its role in reaching global solutions to the climate challenge. As part of this commitment and subject to the terms of the Copenhagen Accord being met, Ireland will be expected to make its contribution to longer-term funding for developing countries in accordance with paragraph 8 of the Accord for climate actions in developing countries. Consideration needs to be given to how Ireland will meet its international commitments (see measure 58).

Measures

19. Review of National Climate Policy

The outcome of the Review will underpin the development of future climate policy in support of achieving existing and national greenhouse gas mitigation targets for the period to 2020. It involves a three-pronged approach:

- an independent study to be carried out by the Secretariat of the National, Economic and Social Council (NESC);
- a public stakeholder consultation to be undertaken in 2012; and
- sectoral mitigation progress to be pursued through the *Cabinet Committee on Climate Change and the Green Economy*.

20. National Climate Change Adaptation Framework and National Adaptive Capacity Assessment

The Government will publish a National Climate Change Adaptation Framework and a National Adaptive Capacity Assessment, which will identify the strengths and weaknesses in Ireland's ability to adapt to climate change and highlight areas where early action might be undertaken.

21. Ensure that critical infrastructure is climate resilient

As infrastructure plays a key role in the effective functioning of a society and economy and has long life-spans, efforts should be made in the context of sectoral adaptation measures to ensure that such critical infrastructure, whether in public or private ownership, is climate resilient.

²⁵ It should be noted that the EU Energy Efficiency target is expressed as a deviation from business as usual whereas the Irish target is expressed relative to average consumption in the years 2001-2005.

22. Publish appropriate legislative instruments

Appropriate legislative instruments will be published to underpin progressive national policy positions on mitigation and adaptation in the context for the transition to a low carbon, climate resilient future.

23. Emissions Trading

Ireland will continue to play an active role in the EU Emissions Trading Regime for greenhouse gas emissions.

24. Review of Irish Energy Policy

Ireland's energy policy is subject to peer review by the International Energy Agency in 2011. The lessons learned from this review process with regard to sustainable development will be identified and given full consideration.

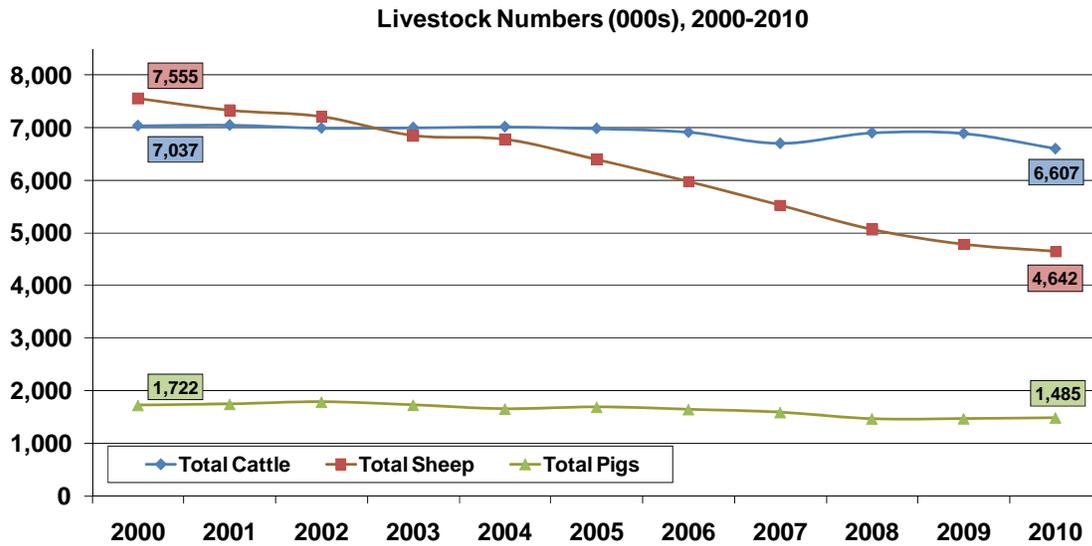
25. Implementation of National Energy Action Plans

Comprehensive National Energy Efficiency and Renewable Energy Action Plans and Affordable Energy Strategy are now in place. As part of the delivery of the Framework for Sustainable Development, the Government will maintain its commitment to the implementation of these plans with a view to achieving the targets which have been set.

26. Develop a communication and research plan

There is a need to educate society about the implications of meeting the required greenhouse gas emissions reductions and the role all individuals have to play. A societal change will have to occur and people should be helped to understand the different impacts of their lifestyle choices. Ireland has already funded a public awareness campaign and so a Communication Plan will be developed that is focused on key stakeholders and outlines the scale of the change that must take place, costs of inaction and the benefits and opportunities of transition. This will be linked to the development of Resource Efficiency policies and strategies (including Sustainable Consumption and Production) and the encouragement of behavioural change (see measures 7 and 44).

2.5 Sustainable Agriculture



Source: CSO June Livestock Surveys

Figure 12: Livestock Numbers (Source: CSO)

Substantial progress has been made in Ireland to integrate environmental considerations into agricultural policies and activities. Under the influence of the Common Agricultural Policy (CAP) changes in the incomes of farmers, the advent of new technologies and practices leading to enhanced productivity have resulted in the development of an efficient and increasingly sophisticated agricultural industry in Ireland. Further improvements in environmental sustainability are key elements of the delivery of the Food Harvest 2020 targets.

Challenges

Progress has been made under various modifications to the CAP system, for example, the Rural Environment Protection Scheme (REPS) or through the implementation of EU and national legislation to combat water pollution and biodiversity loss; however negative environmental impacts are still evident and form a significant challenge in the period ahead. Economic sectors, including agriculture, forestry, marine fisheries and aquaculture are reliant on the effective conservation and management of natural resources. These resources must be preserved to ensure their long term use and survival. At EU level, the *Climate Change and Energy Package* sets targets to be achieved by 2020 including a minimum of 20% reduction in greenhouse gas emissions based on 1990 levels. Under the terms of this package, Ireland faces a significant greenhouse gas mitigation challenge, particularly in relation to emissions from those areas not covered by the EU Emissions Trading Schemes (ETS), including agriculture. Further development of existing climate change policies and measures will be required to achieve domestic compliance. Further elaboration of climate change issues are in section 2.4 of this Framework, while issues pertaining to agriculture in the context of water management and biodiversity loss are dealt with section 2.3.

Historically, Ireland has high per capita emissions of greenhouse gasses. A significant factor contributing to this is the extent to which agriculture plays a prominent role in the

economy. There are 12.7 million head of livestock in Ireland with the majority of food produced exported to other Member States. Thus, the food demands and requirements from countries with lower agricultural capacity are a significant driver and contributing influence to the overall levels of agricultural emissions in Ireland. In relation to emission levels, the recently published European Commission Joint Research Centre *Evaluation of the livestock sector's contribution to EU greenhouse gas emissions* clearly shows that based on a life cycle analysis approach, Ireland is among the most emission efficient producers of food in the world.

Notwithstanding this, the Department of Agriculture, Fisheries and Food, in conjunction with Teagasc, has also carried out a very detailed analysis of the potential for, and costs of, emissions reductions in the agriculture sector. The analysis indicates that the sector can reduce emissions cost effectively by about 4% compared to business as usual. A number of measures have been identified and are being implemented through the advisory services. These measures will reduce emissions over and above the normal efficiency gains in the sector. In general improving production efficiency per unit of food produced will make the most important contribution from the sector to meeting climate change ambitions.

The CAP is due to be reformed by 2013. This latest review which is based around an EU Communication on CAP towards 2020²⁶, aims to build on earlier changes made to CAP to modernise the Programme and make it more market oriented. The new EU 2020 strategy places the current round of reform in a broader context through its approach to tackling existing and emerging challenges in the economic, environmental and social areas. The EU Communication sets three objectives:

1. Viable food production;
2. Sustainable management of natural resources and climate action, and
3. Balanced territorial development.

The reform of the CAP takes place in the context of EU 2020, with the latter's emphasis on building a smart, sustainable and inclusive growth for EU agriculture and rural areas. It is also premised on the need to ensure security of food supply and maintain income support to farmers. A strong agricultural sector is a vital element in transitioning Ireland's economy to a competitive and resource efficient future.

The sustainable management of our natural resources is essential to continued benefits of these resources for our citizens for the longer term. A reformed CAP must play a key role in promoting sustainable food production, while rewarding farmers for the goods that they produce. Family farms which can play a key role in maintaining Ireland's rural landscape, constitute a significant advantage in maintaining biodiversity.

Environmental sustainability is an essential requirement for food production in the decades ahead, in an era when there is an ever growing need for food security to combat poverty, the consequences of expanding world population and the impacts of climate change.

With lower temperature increases projected under Climate Change impacts and continued access to water resources, Ireland's food sector is likely to be in a strong position relative to many other countries. The national policy statement for the development of the Irish agri-food sector, *Food Harvest 2020*, states that Ireland must build on the strengths of its 'green' image and maintain its commitment to sound

²⁶ *The CAP towards 2020: meeting the food, natural resources and territorial challenges of the future*, COM (2010)672 final, 18.11.2010.

agricultural practices. Ireland needs to maximise the food production strengths that are intrinsic to the Irish agri-food and fisheries industry, particularly our grass-based production system and high quality marine environment. There is also a need for a better alignment with the increasing levels of environmental consciousness amongst consumers both in the domestic and overseas markets, to maximise renewable resources to reduce waste and input costs, and embracing audited, sustainable food production systems.

Ireland has invested in advisory services to ensure knowledge transfer and dissemination of information from researchers to farmers. The maintenance of an enhanced programme of knowledge transfer that builds upon existing programmes is an essential way of ensuring that research outputs reach the farming community and result in changes in agriculture in agricultural practice that minimise the environmental impact of agriculture, promote food security and contribute to sustainable development.

Commitments and Targets

The framework set out in the EU Multi-annual Financial Framework (MFF) for 2014-2020 envisages the CAP maintaining its two-pillar approach. The European Commission proposes that up to 30% of the available funding for Pillar 1 will go to the new 'greening' measures in relation to climate and environment. Ireland will press for the retention of a strong properly financed and 'greener' CAP based on the goals of competitiveness and sustainable development and on the need to ensure that such greening is simple to apply both for farmers and administration.

The Common Fisheries Framework (CFP) is the main policy driver for fisheries, seafood processing and aquaculture and is currently under review with a new CFP to come into force in 2013. The delivery of a supportive framework at EU level will be critical for the future of Ireland's seafood sector and for ensuring that it can retain access to and grow the resource base on which the industry is dependant.

The further development of Ireland's national forests has the potential to contribute to achieving economic objectives in a sustainable manner. There is scope to increase the contribution of forestry to the economy. Forestry has a significant role to play in the achievement of the European Union target of 20% renewable energy from final energy consumption by 2020 and the commitment to increase energy efficiency by 20% until 2020.

Accordingly, the application of sustainable forest management must continue to improve the health of the forest environment and, equally important, the development of a more innovative, value-added, competitive, market-focused wood processing sector providing sustainable solutions to a diverse portfolio of users. The sustainable management of the forest resource in a way that enhances its contribution to the environment and its capacity for the provision of public goods and service is also important.

Gaps

Efforts need to be focused on further improving sustainability and reducing reliance on fossil fuel energy sources. This will bring opportunities for the agri-sector if combined with labelling schemes and indicators, such as carbon and water footprints and efforts to reduce embodied greenhouse gas emissions in Irish produce. One of the first steps in improving the sustainability of our food will be reduce the amount of food wasted at the consumption end of the food chain. The issue of food waste has been receiving increasing attention and policies that aim to reduce food waste will contribute to meeting

targets for the diversion of biodegradable waste from landfill under the *Landfill Directive (1993/31/EC)*.

Measures

27. Continued support for sustainable agricultural development in Ireland

- The Government will actively pursue the implementation of environmental policies under *Food Harvest 2020* by: promoting sustainable pasture-based farming and soil management; contributing to sustainable energy requirements; contributing to the protection of biodiversity and ensuring environmentally sustainable production practices for seafood and aquaculture.
- A focus on and support for farmers to remain in farming and to increase productivity.
- A focus on maintaining the maximum number of active farmers in rural areas engaged in food production by ensuring that the necessary ingredients for the development and maintenance of sustainable communities are in place.
- The Government will identify measures to reduce food waste, including associated consumer awareness measures.

28. Research

The Government will identify research measures to ensure a focused approach in the agricultural sector nationally that:

- ensures environmental research relating to climate change and water quality is undertaken;
- has a greater emphasis on public/private partnerships in carrying out required research;
- ensures research bodies in food production will have a role to play in developing agri-food business opportunities and focusing measures to reduce GHG emissions from agriculture.

2.6 Sustainable Transport

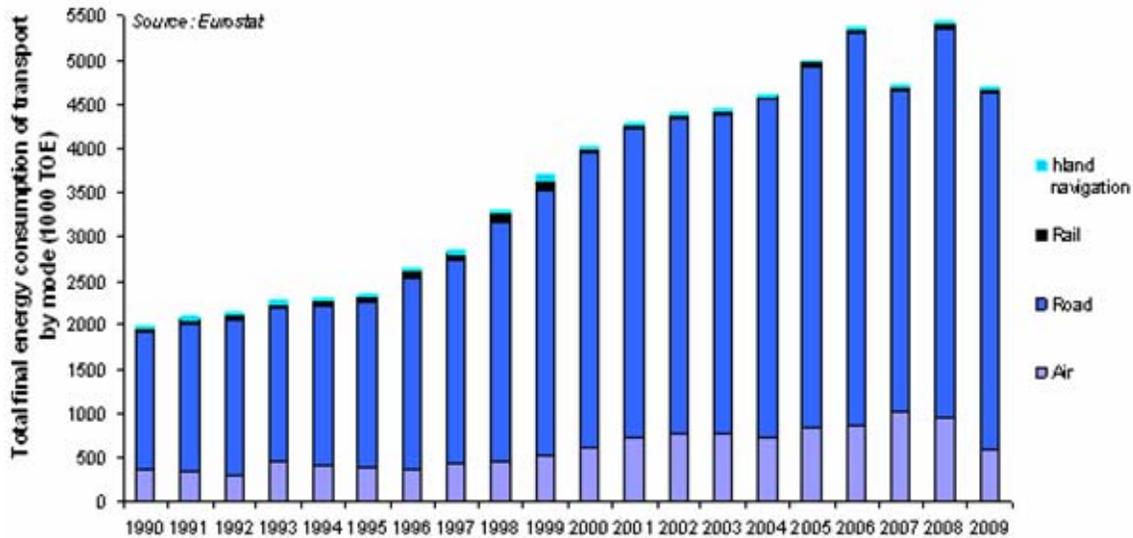


Figure 13: Total energy consumption of transport in Ireland (Source: Eurostat)

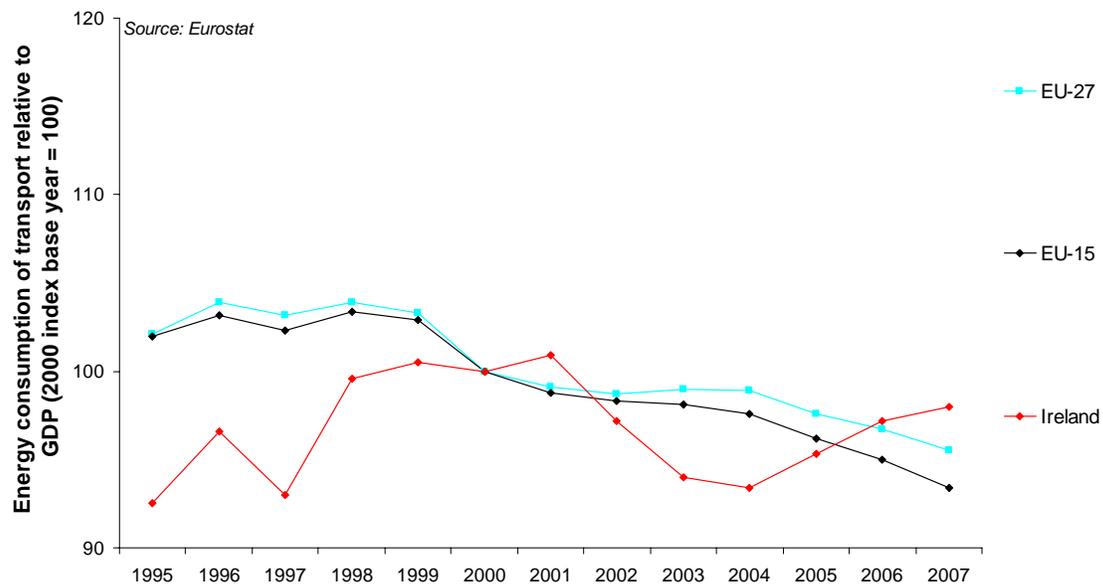


Figure 14: Transport energy consumption relative to GDP for Ireland and the EU (Source: Eurostat)

Challenges

Transport, which is a key element of a sustainable development strategy, should be closely aligned to land use planning and the need to create more sustainable communities. Sustainable transport is central to national efforts to combat climate change, air pollution and other negative environmental and social impacts.

EU White Paper on Transport 2011

The European Commission adopted a roadmap²⁷ of 40 concrete initiatives for the next decade to build a competitive transport system that will increase mobility, remove major barriers in key areas and fuel growth and employment. At the same time, the proposals will dramatically reduce Europe's dependence on imported oil and cut carbon emissions in transport by 60% by 2050.

By 2050, key goals will include:

- No more conventionally-fuelled cars in cities.
- 40% use of sustainable low carbon fuels in aviation; at least 40% cut in shipping emissions.
- A 50% shift of medium distance intercity passenger and freight journeys from road to rail and waterborne transport.
- All of which will contribute to a 60% cut in transport emissions by the middle of the century.

Transport trends in Ireland from the mid 1990's onwards have not been sustainable. The main problems associated with transport in Ireland are rising pollution – greenhouse gases and particular air pollutants which are detrimental to health and the environment such as nitrous oxides (NO_x) and volatile organic compounds (VOCs) – and increasing congestion on roads that lengthens journey times, adversely impacts on family and community life, contributes to the growing problem of obesity, and adds to pollution and costs at many levels including affecting our national competitiveness. Safety also remains a key issue despite the steadily decreasing numbers of road deaths.

A strong growth in energy use in transport over the past decade has been tempered by small reductions in recent years. While other sectors may have shown some decoupling of energy use from economic growth, transport has maintained a close relationship as illustrated in Figure 14. A key characteristic that distinguishes energy use in transport is the almost total dependence on oil as a fuel and on import dependency, over 99% in both cases.

The transport sector is the third largest contributor to greenhouse gas (GHG) emissions in Ireland, at 19.1% of the national total. Carbon dioxide (CO₂) emissions from transport have been on a growth trajectory over the period 1990 to 2007, with the road freight sector accounting for over 23% of transport CO₂ emissions in 2007 while the private car contributed over 37% of the total share²⁸. The years 2008 to 2010 saw reductions in transport emissions, mainly due to the economic downturn, with freight activity in particular being much reduced over the period. Specific policy measures taken to address demand and encourage energy efficient vehicle purchasing patterns have also had some effect with greenhouse gas (GHG) emissions for the transport sector down at 11.76 Mt in 2010 from a peak of 14.29Mt in 2007.

Notwithstanding changed economic circumstances and the success of certain measures in reducing emissions from and energy consumption of the vehicle fleet, transport and travel trends continue to remain unsustainable. From 1996 to 2006, road freight vehicle kilometres have increased by 115% to 2,523km per year. They have since fallen by over 40% to 1,457km in 2010²⁹. However, the vast majority of this reduction is due to the downturn in the construction industry, with lesser reductions in vehicle kilometres in

²⁷ Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system, COM(2011) 144 final of 28.3.2011

²⁸ SEAI (2009), *Energy in Transport*.

²⁹ CSO Road Freight Transport Survey 2010

other sectors of the economy. The amount of total freight traffic being carried by rail has declined to a share of only 0.6%. The number of private cars per 1,000 adults has also increased by 73% over the period 1990-2009³⁰ though these levels still remain below the EU15 and UK averages. Without intervention, congestion will get worse, economic competitiveness will suffer, quality of life will deteriorate and emissions from the transport sector will resume a growth pattern.

The EU *National Emissions Ceilings (NEC) Directive (2001/81/EC)* requires Member States to ensure that emissions for certain atmospheric pollutants, including oxides of nitrogen (NO_x), do not exceed agreed threshold levels from 2010. As stated above, transport, particularly road transport, is a major source of NO_x though the implementation of the full suite of measures envisaged to deliver compliance with the NEC Directive, has reduced emission from road transport by 17% between 1999 and 2009 and has made road transport more NO_x efficient. However, Ireland, along with many other Member States, will be challenged to reduce emissions below its NO_x emission ceiling from 2010 which is set in absolute terms. The challenge arises principally because previous vehicle abatement technologies did not deliver anticipated 'real world' NO_x emission reductions. In addition, improvements made to emission inventories, over the lifetime of the NEC Directive have tended to revise national emission estimates upwards away from the absolute emission ceiling. The NEC directive, in its current format, does not contain any provisions to take account of changes to technical or other assumptions which were made to inform the negotiation of the agreed ceiling. It is envisaged that future ceilings will contain such provisions.

Commitments and targets

At a European level, the *Renewable Energy Directive (2009/28/EC)* mandates each Member State to ensure 10% of transport energy by 2020 comes from renewable sources. Also, under the effort sharing agreement for the non-emissions trading sector (ETS), it is clear that transport will have a pivotal role in meeting Ireland's 20% reduction target. According to the EPA, transport will account for 36% of non-ETS emissions in 2020 under a 'with measures' scenario³¹. In this scenario, the projections for total non-ETS emissions for Ireland in 2020 are forecast to be 14% higher than in 2005, demonstrating the scale of the challenge ahead.

The *EU Climate Change and Energy Package* also resulted in binding targets being set to ensure that emissions from the new car fleet are reduced to an average of 120g CO₂/km³² by 2012 and 95g CO₂/km by 2020. In addition, the *Fuel Quality Directive (2009/30/EC)* places an obligation on suppliers to reduce greenhouse gases from the entire fuel production chain by 6% by 2020³³.

Nationally, the Government's policy approach is set out in '*Smarter Travel - a Sustainable Transport Future*' which is aimed at reversing current unsustainable transport and travel patterns, reducing the health and environmental impacts of recent trends and improving quality of life. Key goals of *Smarter Travel* relate to improving quality of life and accessibility to transport for all; improving economic competitiveness through maximising the efficiency of the transport system and alleviating congestion and infrastructural bottlenecks; minimising the negative impacts of transport on the local and global environments; reducing overall travel demand and commuting distances travelled by private car; and improving security of energy supply by reducing dependency on

³⁰ Energy in Ireland 1990-2009 SEAI (2010)

³¹ EPA (2010), *Ireland's Greenhouse Gas Emission Projections 2010-2020*.

³² This is with fuel measures included.

³³ A review in 2012 will consider increasing the ambition level to 10% greenhouse gas reduction by 2020 through the inclusion of international projects, carbon capture and storage as well as electricity for cars.

imported fossil fuels. The policy is based on a whole of Government approach, demanding actions from a wide range of Departments, agencies and local authorities.

Key policy targets for 2020 include:

- Future population and employment growth will have to predominantly take place in sustainable compact urban areas or rural areas which discourage dispersed development and long commuting.
- Work-related commuting by car will be reduced to a modal share of 45% from 65%.
- Car drivers will be accommodated on other modes such as walking, cycling, public transport and car sharing (to the extent that commuting by these modes will rise to 55% by 2020) or through other measures such as e-working.
- The total kilometres travelled by the car fleet in 2020 will not increase significantly from current total car kilometres.
- The road freight sector will become more energy efficient, with a subsequent reduction in emissions.
- Transport will make a meaningful contribution to Ireland's commitment in relation to climate change and real reductions on current levels of emissions will be achieved.

Additional Government targets in relation to sustainable transport include those for electric vehicles to constitute 10% of the Irish transport fleet by 2020 and for fuel suppliers in Ireland to include an average of 4% biofuels in their annual fuel sales from July 2010.

Gaps

The *Smarter Travel* policy document sets out a vision of where we want to be by 2020 in relation to sustainable transport in Ireland. Some of the key actions have already been delivered, including the introduction of a carbon tax, work on integrated transport modelling and continued investment in the public transport infrastructure programme, and a report on progress overall is to be made to Government every two years, the first one covering the period up to the end of 2010.

The alignment and integration of spatial planning with transport policy has a key role in ensuring the delivery of sustainable transport in the longer term. *Smarter Travel* along with the *Planning and Development (Amendment) Act 2010* attempts to address this by putting forward a number of proposals for how to better align spatial planning and transport. The achievement of sustainable transport will require careful and strict co-ordination between land-use planning and transport infrastructure investment. Also, the newly created National Transport Authority (NTA) has a key function in ensuring the effective integration of transport and land-use planning occurs through the Regional Planning Guidelines 2010, Development Plans and Local Area Plans. The NTA is also preparing a transport strategy for the Greater Dublin Area which has regard to the need to integrate land use and transport planning. As transport infrastructure has a long average life-span, planning also needs to take account of potential economic, social and environmental changes.

Measures

29. Ensure continued implementation of Smarter Travel

Smarter Travel puts forward a set of overarching and complementary actions for delivering a more sustainable transport system by 2020. These cover the areas of land-use and planning, use of fiscal measures, alternative travel modes such as public transport, improvement in vehicle fuel efficiency and strengthening of institutional arrangements. As a critical element in the delivery of a sustainable development strategy the Government will maintain its commitment and support the continued implementation of *Smarter Travel*. Specifically, *Smarter Travel* commits to implementing 49 actions grouped under the following overarching goals:

- Actions to reduce distance traveled by private car and encourage smarter travel, including focusing population growth in areas of employment, encouraging people to live in close proximity to places of employment and the use of pricing mechanisms or fiscal measures to encourage behaviour change.
- Actions aimed at ensuring that alternatives to the car are more widely available mainly through a radically improved public transport service and investment in cycling and walking.
- Actions aimed at improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative driving.
- Actions aimed at strengthening institutional arrangements to deliver the targets.

30. Examine feasibility of retrofitting gross polluter vehicles with NO_x abatement technology

In addition to the measures proposed under *Smarter Travel*, assessing the feasibility and effectiveness of introducing a scheme to retro-fit gross polluter vehicles, e.g. heavy goods vehicles and buses, with NO_x abatement technology will also be considered.

2.7 Social Inclusion, Sustainable Communities and Spatial Planning

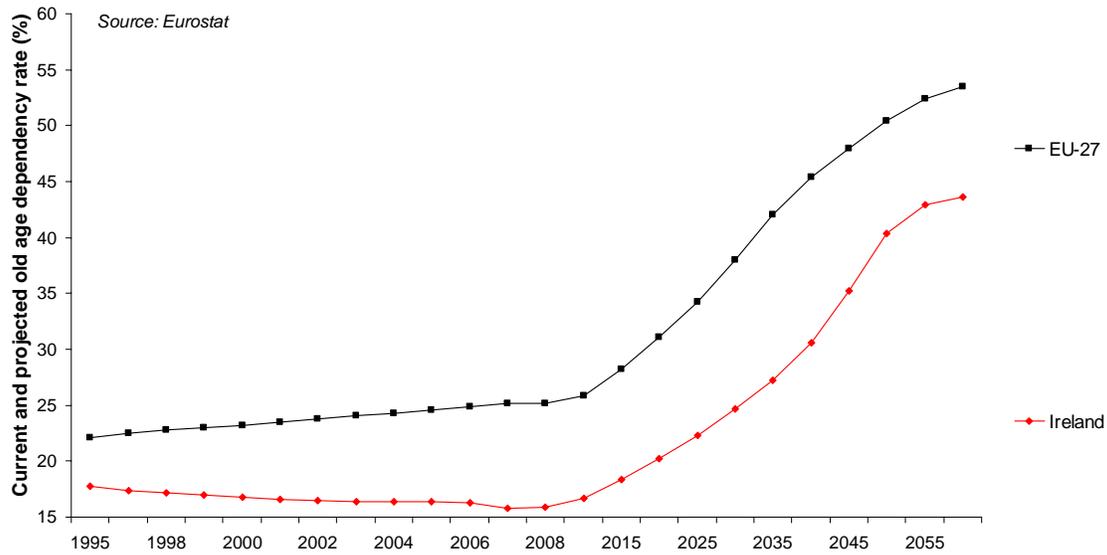


Figure 15: Current and projected old age dependency ratio in Ireland and the EU (Source: Eurostat)

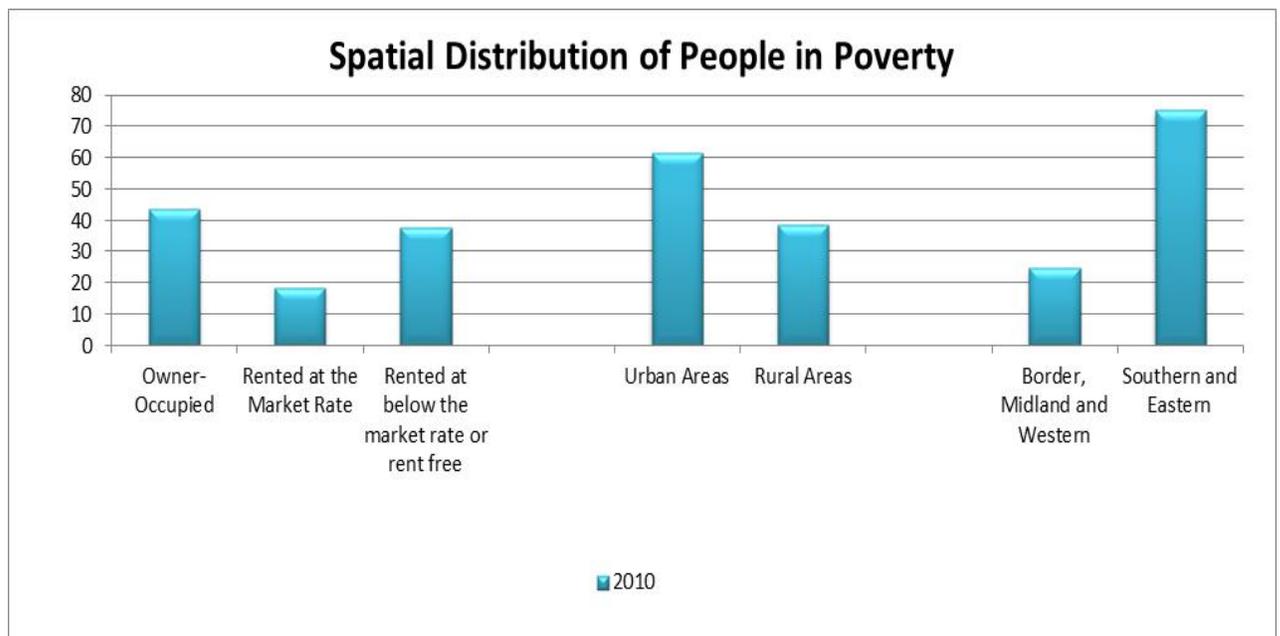


Figure 16: Spatial Distribution of People in Poverty

Challenges

An overarching goal of sustainable development is to improve our quality of life and developing sustainable communities will be a key mechanism to enhance our social capital and wellbeing. This is a complex challenge which cuts across many policy areas and requires consideration of the role of spatial planning in delivering sustainable communities and quality in the built environment alongside measures to improve social inclusion and the environmental sustainability of communities. Sustainable communities are places where people want to live and work, are environmentally sustainable and

contribute to a high quality of life for residents. They are safe and inclusive, well-planned, built and run, offer equality of opportunity and good services for all³⁴. The role of the historic built environment can be key to providing a desirable place to live and work.

Figure 16 illustrates the spatial distribution of people in poverty using the three categories of housing tenure, location and region, based on CSO Survey on Income and Living Conditions (SILC) 2010. Looking at housing tenure, those in social housing (i.e. accommodation rented at below the market rate or rent free) account for 38% of those in consistent poverty in 2010, though only comprising 15% of the total population. Those living in owner-occupied dwellings represent 43.5% of those in consistent poverty. This group accounts for 73% of the total population. Individuals living in households in the rented at the market rate sector accounted for 19% of those in consistent poverty, while represented 12.9% of the total population. Together, the private and public rented sectors have the majority (62%) of those in consistent poverty. Tackling this spatial concentration of poverty is a major challenge for public policy. The breakdown of the urban and the rural figures show that 62% of people in consistent poverty are located in urban areas while 36% are based in rural areas. This is broadly in line with the total population where 61% of people live in urban areas while 39% live in rural areas. The regional breakdown indicates that three-quarters of people in consistent poverty live in the Southern and Eastern region, in line with their population share of 73%. For the Border Midland and Western Region, the figures show 25% of people are in consistent poverty while representing 27.6% of the total population.

A micro analysis of the spatial aspects of poverty using surrogate deprivation indicators from the Census of Population has been developed by Haase and Pratschke for Pobal. See www.pobal.ie

Communities are at the heart of everything the State does and they must be enabled to identify and address social and economic issues in their own areas. In particular, we must support communities that are vulnerable, disadvantaged or under threat and adhere to the values of local participation. The key principles of the *White Paper on Supporting Community and Voluntary Activity*, the *Report of the Task Force on Active Citizenship* and the *White Paper on Rural Development* provide direction to the work led by the Department of Environment, Community and Local Government in this area. Community development seeks to challenge the underlying causes of disadvantage resulting from the effects of poverty and exclusion. It aims to offer new opportunities for those lacking choice, power and resources. Community development involves a bottom up approach with members of a community working collectively in assessing needs and identifying the changes necessary to improve conditions and making these changes happen.

Some of the key challenges facing community development and the community and voluntary sector engaged in this work, has been a lack of clarity regarding the elaboration of the policy objectives of community and local development programmes, the problems and issues being tackled and the anticipated outcomes due to a lack of evidence of impact. In addition, there has been a multiplicity of structures delivering local and community development programmes at a local level. There has also been the need to improve methods and mechanisms of communication and information sharing at regional and national levels.

Active citizenship involves people playing an active and responsible role together with others in their communities. It may involve being a member of a residents' association or

³⁴ <http://www.environ.ie/en/DevelopmentandHousing/Housing/HousingPolicy/>

lobby group, volunteering to help out in a local sports club or simply being active and caring about the local neighbourhood, the environment as well as larger global and national issues. Active citizens help shape strong, healthy, inclusive societies. This should be nurtured and encouraged because by looking beyond purely private roles and rights as consumers, to active roles and responsibilities as citizens, society as a whole benefits.

Development patterns can take long periods of time to become established as a result of complex interactions between economic, social and geographical factors. Movement towards the promotion of sustainable communities requires careful integration of policy considerations relating to land use, development and settlement patterns, the historic built environment, the natural environment and public and private investment in essential infrastructure over a sustained period. Such policy integration considerations involve the location of housing, employment, transport facilities, amenities (such as schools and community facilities), shops, water services and communications, in a structured way and in different areas and in a manner beneficial to quality of life, social inclusiveness and environmental quality as well as economic factors such as competitiveness.

Sustainable communities are typically more cost efficient from a public and private investment perspective and have a lower environmental impact. This can also enhance the attractiveness of the area for investment, business activity and economic progress.

Some aspects of the pattern of development that has emerged in Ireland over the last decade present major challenges from a sustainable communities' perspective. While such patterns are the output of the interaction of economic, social and geographical influences going back several decades, efforts are now underway to better steer future development on a more sustainable path learning from the lessons of the past.

A range of factors drove major unsustainable growth and volatility in the housing market. These factors included:

- the rapid growth in employment opportunities in Ireland during the 1990's and major net in-migration, mainly from the new EU Member States.
- rapid natural population growth;
- escalating house prices combined with imbalanced supply, demand and choice;
- fiscal incentives for the construction sector;
- a flexible non-strategic approach to spatial planning especially at local level;
- rising car ownership; and
- historical underinvestment in plan led provision of essential physical and social infrastructure such as public transport to lead development patterns.

In the meantime, the *National Spatial Strategy* (NSS) published in late 2002 centred on the need to focus future development in a network of nine Gateway city/large towns and nine medium sized Hub towns. While the NSS has influenced capital investment planning and the policies of employment agencies like IDA Ireland, momentum in the factors above furthered a development trend that would take time to change.

For example, many of the larger Gateway cities, as identified in the *National Spatial Strategy*, experienced population growth between 2002 and 2006 that was in many cases lower than the national average, while strong growth took place in the towns, villages and rural areas within commuting distance of the Gateways. This resulted in a more dispersed and less sustainable settlement pattern contributing to increased car dependency. In addition, Ireland's historic pattern of rural one-off housing has tended to continue due to both the strong social attachment to such living patterns and local

planning policies that reflected such social choices. Such dispersed development can have adverse impacts on environmental quality because it is more carbon intensive car dependent than more urban living patterns and because of its dependency on a proliferation of on-site wastewater treatment and disposal systems and tendencies to impact on the integrity of habitats in previously undeveloped and natural areas. In addition, extensive amounts of land had been zoned both prior to and after the introduction of the NSS, reaching a peak of more than 44,000 hectares for residential development in 2009 against a requirement of around 12,000 hectares in 2004 Regional Planning Guidelines. Excessive zoning makes integrated urban development difficult to deliver in practice.

Moreover, excessive levels of developer incentive driven development took place, especially in some remoter rural areas in the midlands, border and western parts of the country, which in recent years have presented significant difficulties in relation to managing problems with part completed and vacant housing developments.

The Government Policy on Architecture³⁵ provides the appropriate framework for architectural policy up to 2015 and beyond (statutory responsibility for which lies with the Department of Arts, Heritage and the Gaeltacht). The policy places an emphasis on sustainable development of the environment and urban design, incorporates architectural heritage in a holistic integrated manner, encourages and supports high quality modern architecture. The policy complements and supports the Government's wider economic strategy within the programme for Government in areas such as built environment research and qualitative place-making.

The residential sector is a major contributor to national greenhouse gas emissions. The EPA forecasts that the sector accounts for 11% of total national emissions over the 2008-2012 period³⁶. In Ireland, the total amount of primary energy used by the residential sector increased by 48% between 1990 and 2008. Residential energy is second only to the transport sector in terms of share of energy use. In order to meet our climate change targets, all housing will need to be designed or retrofitted to cost-optimal standards. The drive towards improved energy efficiency in the residential sector is supported by *Better Energy: the National Upgrade Programme* which aims to upgrade Ireland's building stock to high standards of energy efficiency, thereby reducing fossil fuel use, energy costs and greenhouse gas emissions. The programme builds on the Sustainable Energy Authority of Ireland's (SEAI) domestic grant programmes, which have upgraded over 95,000 homes through grant schemes to date, with a further 70,000 low-income homes receiving energy efficiency measures. This programme will contribute towards meeting our target of 20% energy efficiency savings by 2020 by delivering energy efficiency upgrades to 1 million residential, public and commercial buildings by 2020, realising 8,000GWh of energy savings over the lifetime of the programme.

Improved energy efficiency in the residential sector is also supported by the Social Housing Retrofit programme which forms part of the programme of *Improvement Works to existing Local Authority Housing Stock* and is aimed at achieving an improved level of energy performance, reducing emissions and yielding an important fuel poverty dividend for low income households. The retrofit works aim to increase Building Energy Rating of

³⁵ Government Policy on Architecture 2009-2015 Towards a Sustainable Future: Delivering Quality within the Built Environment <http://www.ahg.gov.ie/en/publications/heritagepublications/architecturalpolicypublications>

³⁶ EPA (2010) Ireland's Greenhouse Gas Emissions Projections 2010-2010. Available on http://www.epa.ie/downloads/pubs/air/airemissions/EPA_GHG_Emission_Projections_2010.pdf

the social housing stock to a C1 where practicable and since the introduction of the scheme in 2009 over 2,900 units were improved.

The need to take account of climate change adaptation within the policy system – particularly through planning measures and spatial policies – is a further key challenge. Early consideration can ensure that risks are minimised at least cost or that measures are cost-effective over the lifetime of the decision/policy.

However, developing sustainable communities is not just about the built environment but a range of social issues such as improving social inclusion and reducing poverty as well. Recent large scale research has demonstrated that many of the most serious health and social problems are worse in more unequal societies. Large income inequalities impact on quality of life and social cohesion for everyone in society³⁷. It is essential that the progress made in tackling inequalities and poverty does not regress in the current economic climate. Employment creation and investment in social protection are key strategies in reducing inequalities and eliminating poverty. Efforts to increase labour market participation of women and older workers, as well as groups such as people with disabilities and those migrants that are vulnerable to poverty, as set out in the *National Action Plan for Social Inclusion (2007-2016)*, must continue. Tackling child poverty is an important challenge. There has been a reduction of inward migration related to a decrease in job opportunities and a resumption of net outward migration³⁸ for both migrants and Irish nationals. However, Ireland is now significantly more multi-cultural and a challenge for Government and society is the integration of people of different culture, ethnicity, language and religion.

Commitments and targets

Recent developments in relation to spatial planning have sought to address some of the challenges outlined above and contribute to developing more sustainable communities. The *National Spatial Strategy Update and Outlook* represents both a re-affirmation of the Government's commitment to implementing the *National Spatial Strategy* (NSS) and a statement of new priorities and objectives taking on board experience since 2002.

Ireland has been responsive in recognising the factors that have given rise to difficulties in the past not only in relation to spatial planning but also in relation to dealing with unfinished housing development. A comprehensive review of planning legislation and national-regional-local co-ordination culminated in the Planning and Development (Amendment) Act 2010 which introduced a number of new measures including a core strategy system to better ground local planning around agreed national and regional estimates of future development requirements. In addition, a range of measures on managing and resolving unfinished housing developments is also being implemented.

The Government has also responded to address imbalances in the housing market through the publication in June 2011 of a new housing policy statement. This statement recognises the unsustainable growth in the housing market in recent years, highlighting over stimulation of the property sector generally and the extensive reliance on incentives to support home-ownership. The Government's vision for the housing sector is therefore based on choice, fairness, equity across tenures and on delivering quality outcomes for the resources invested and sets, as a high level objective, to enable all households access good quality housing appropriate to household circumstances and in their particular community of choice.

³⁷ Wilkinson and Pickett (2009) *The Spirit Level: Why More Equal Societies Almost Always Do Better*, Penguin, London

³⁸ Central Statistics Office (2009) *Population and Migration Estimates: April 2009*, Available on http://www.cso.ie/releasespublications/pr_pop.htm

The NSS, together with the Regional Planning Guidelines 2010-2022 and the implementation of the Core Strategy provisions of the 2010 Planning and Development (Amendment) Act, are creating a more effective policy framework designed to support economic renewal and continue the promotion of sustainable development by ensuring that the planning system supports targeted investment on infrastructure under capital programmes and by further modernising land zoning. This will encourage co-ordinated and consolidated development close to necessary social and physical infrastructure.

By the end of 2011, all county and city councils will have fundamentally reviewed their 34 county and city development plans to incorporate their core strategies and reform their approach to future development and zoning. Over 350 local area plans will be examined by the end of 2012 with many of these plans requiring substantial review to address the issues around historical over zoning.

The Guidelines for Planning Authorities also require the integration of comprehensive flood risk assessment into the statutory plan making process and preservation of riparian strips alongside river channels free of development and of adequate width to permit access for river maintenance.

The review processes above are also implementing relevant provisions of the EU Strategic Environmental Assessment and Habitats Directives and are taking place against the backdrop of much improved national guidance and information on future school and social infrastructure requirements published in recent years.

The review process is also able to take account of and benefit from recent significant investment in key enabling physical infrastructure such as the renewal of the national rail system, major investment in urban public transport particularly as well as improved roads, water services, housing regeneration and social infrastructure, especially in Gateway and Hub locations.

The approach outlined above will deliver more strategically and plan-led development, refocusing on our established urban and rural centres and moving against the recent sprawl of our city and towns which had been supporting unsustainable commuter driver and car-based development. Moreover, such development patterns are integral to the promotion of more sustainable travel choices and protecting the integrity of key environmental assets such as Ireland's natural and built heritage and water quality.

One of the headline targets included as part of the *EU 2020 Strategy* is to lift 20 million people out of the risk of poverty and exclusion. A flagship initiative has also been launched under the Strategy to create a European Platform against Poverty with the aim to ensure economic, social and territorial cohesion and to recognise the fundamental rights of people experiencing poverty and social exclusion, enabling them to live in dignity and take an active part in society.

The national poverty target in the '*National Action Plan for Social Inclusion 2007-2016*' is to reduce the number of those experiencing consistent poverty to between 2% and 4% of the Irish population by 2012, with the aim of eliminating consistent poverty by 2016. The plan also sets out 12 high level strategic goals across five lifestyle categories. This includes three high level goals in relation to building and supporting sustainable communities: housing, health and the integration of migrants with the overall aim to improve the lives of people living in disadvantaged areas and building social capital. Therefore, tackling disadvantage in urban and rural areas remains a key priority.

The National Reform Programme for the EU 2020 Strategy states that Ireland's contribution to the EU poverty target will be to lift 186,000 people out of the risk of poverty and exclusion by 2016 using the consistent poverty indicator.

The Government is undertaking a comprehensive review of the national poverty target, which was originally set out in the *National Action Plan for Social Inclusion 2007-2016* and further elaborated upon in *Ireland's National Reform Programme under the Europe 2020 Strategy* (2011). The purpose of the review is to enable the Government to adopt appropriate and achievable national poverty targets to meet Ireland's contribution to Europe 2020 and the commitments in the Programme for Government 2011.

A key objective to achieving sustainable communities as identified by the Department of Environment, Community and Local Government, is to actively pursue socio-economic development directly and in partnership with local government, local development bodies, state agencies and the social partners including the community and voluntary sector. This can be achieved through the new Local and Community Development Programme (LCDP) which supersedes two former local and community development programmes which had been implemented through the community and voluntary sector for many years.

The aim of the new programme is to tackle poverty and social exclusion through partnership and constructive engagement between Government and its agencies and people in disadvantaged communities. This is underpinned by four high level goals:

- To promote awareness, knowledge and uptake of a wide range of statutory, voluntary and community services.
- To increase access to formal and informal educational, recreational and cultural development activities and resources.
- To increase peoples' work readiness and employment prospects.
- To promote engagement with policy, practice and decision-making processes on matters affecting local communities.

The new programme preserves elements of good practice from the former programmes and will enable groups to objectively demonstrate the positive impacts they are securing for local communities through the prioritisation of key front-line services and supports and the minimisation of overhead and ancillary costs.

Migration Nation - Statement on Integration Strategy and Diversity Management outlines an integration policy for legally resident migrants in Ireland including adopting a partnership approach, having a strong link between integration and wider social inclusion measures and strategies and a having a clear public policy focus which avoids the creation of parallel societies. This integration policy will be continued and developed further.

Gaps

The current evidence base for policy and strategy development particularly in regard to social inclusion, sustainable communities and spatial planning issues needs to be strengthened. In this regard, recent innovations in establishing a National Housing Development Survey and geographical information system (GIS) based tracking and analysis of local authority development plans by the Department of the Environment, Community and Local Government is developing a much stronger basis for measuring

whether development patterns fit with agreed national, regional and local policies and legislative requirements.

More widely, decision making can be improved where it is informed by a more integrated evidence base that accounts for a range of issues including the economy, social cohesion, poverty, biodiversity, environmental sustainability, climate change, susceptibility to flooding, water and transport. In this regard, the 2010 Regional Planning Guidelines 2010-2022, as the key link between the national strategic planning frameworks of the NSS and development planning at the local level under the legislative framework of the Planning and Development (Amendment) Act 2010, provide the basis for developing such a comprehensive evidence base and implementation monitoring framework. The integration of a Green Infrastructure approach to planning, to allow for the incorporation of the value of biodiversity into business decisions in sectors such as agriculture and water supply, and also local and central Government decisions, will also help in this regard. Local development strategies are also key to evidence based policy implementation for social inclusion interventions.

The spatial planning system can only deliver some aspects of sustainable communities and there is a need for a partnership approach to be taken to developing initiatives to improve the environmental sustainability of communities and quality of life for residents. In 2009, the Environmental Protection Agency, the then Department of the Environment, Heritage and Local Government and An Taisce jointly hosted a conference on 'Greening Irish Communities'. This explored how to set targets and standards and how public, private, voluntary, social and cultural organisations can work together towards such a common goal. A Greening Irish Communities Network has since been established with an active work programme and representation from a wide variety of stakeholder groups. Further development of this initiative and other community related programmes such as An Taisce's Green Schools and Green Home programmes will also support the delivery of more sustainable communities.

The key is to ensure stakeholder involvement in decision-making processes, based on local, bottom-up consultative processes which focus on the most disadvantaged communities, building on their feedback in terms of what works best for their neighbourhoods. In that way, targeted, local, responses will be found for those who are most marginalised and for those most distant from the labour market.

Measures

31. *Developing sustainable communities*

- Effective implementation of the *National Spatial Strategy* and the *Planning and Development (Amendment) Act 2010* which will support the achievement of sustainable land-use and the development of sustainable communities.
- The implementation of Core Strategies in local planning. Zoning on a quantifiable consistent needs based approach (nationally and regionally) and a focus on resolving the difficulties with a stock of unfinished housing developments coupled to fiscal and taxation treatment of property and property related incomes.
- The tracking of local authority development plans, regional level monitoring through effective GIS systems and integrating the evidence from the national housing development survey
- The oversight by the National Co-ordination Committee on Unfinished Housing Developments of the implementation of the *Report of the Advisory Group on Unfinished Housing Developments, Resolving Ireland's Unfinished Housing Developments* together with the Government's response to the recommendations, *Resolving Unfinished Housing Developments*
- The development of an integrated approach to Green Infrastructure as outlined in Measure 12. The Strategic Environmental Assessment (SEA) and Appropriate Assessment processes under EU SEA and Habitats Directives will assist spatial planning processes integrate green infrastructure into the policy making and implementation processes. The *Planning System and Flood Risk Management guidelines* which are aimed at ensuring a more consistent, rigorous and systematic approach to flood risk identification, assessment and management within the planning system will be also implemented.
- The further development and support of the Greening Irish Communities Network aimed at improving quality of life in communities.

32. *Social inclusion: Key National and EU Strategies.*

The Government reiterates the key commitments in the *National Action Plan for Social Inclusion (2007-2016)* and will work towards the elimination of consistent poverty in the population by 2016 and contribute to the attainment of the Europe-wide target in the *Europe 2020 Strategy to lift at least 20 million people out of risk of poverty and exclusion by 2020*. Ireland's contribution to this target is to lift 186,000 out of the risk of poverty and exclusion by 2016. The Government is undertaking a comprehensive review of the national poverty target, which was originally set out in the *National Action Plan for Social Inclusion* and further elaborated upon in *Ireland's National Reform programme under the Europe 2020 Strategy (2011)*. The purpose of the review is to enable the Government to adopt appropriate and achievable national poverty targets to meet Ireland's contribution to Europe 2020 and the commitments in the Programme for Government 2011.

33. *Social inclusion: Housing*

- The Government will invest in the renewal, maintenance and management of social housing estates, including capital investment under traditional cyclical and planned maintenance programmes, as well as under the dedicated funding programme for retrofitting works to the existing local authority stock. A benchmark audit of the social housing stock will be undertaken to determine environmental sustainability and enable monitoring of quality.

- Measures will be introduced to improve housing for vulnerable groups. Systematic procedures for the management and maintenance of Traveller specific accommodation by local authorities will be supported. Working through the National Traveller Consultative Committee, priority will be given to determining how Travellers can develop self-supporting approaches to meet their own needs. The Senior Alert Scheme will continue to provide enhanced home security. Additional measures will be implemented to address energy conservation and other measures for vulnerable older people. The Housing Strategy for people with a disability, 2011- 2016 published in October 2011 will be followed by a detailed implementation plan.

34. Social Inclusion: Support for Local and Community Engagement

The Government will continue to support local and community engagement in tackling poverty and social exclusion, including greater alignment between local government and the wider public service to enable more integrated and cost effective responses to target the needs of communities, in particular the most vulnerable.

35. Social Inclusion: Guidance on Disability Impact Assessment

The Department of Justice and Equality will undertake a pilot project to develop guidelines to consider the impact on people with disabilities of all significant proposals submitted to Government.

36. Social inclusion: Migrant integration

The Government will continue to develop comprehensive, coherent and transparent policies on migrant integration issues.

2.8 Public Health

Life Expectancy at Birth

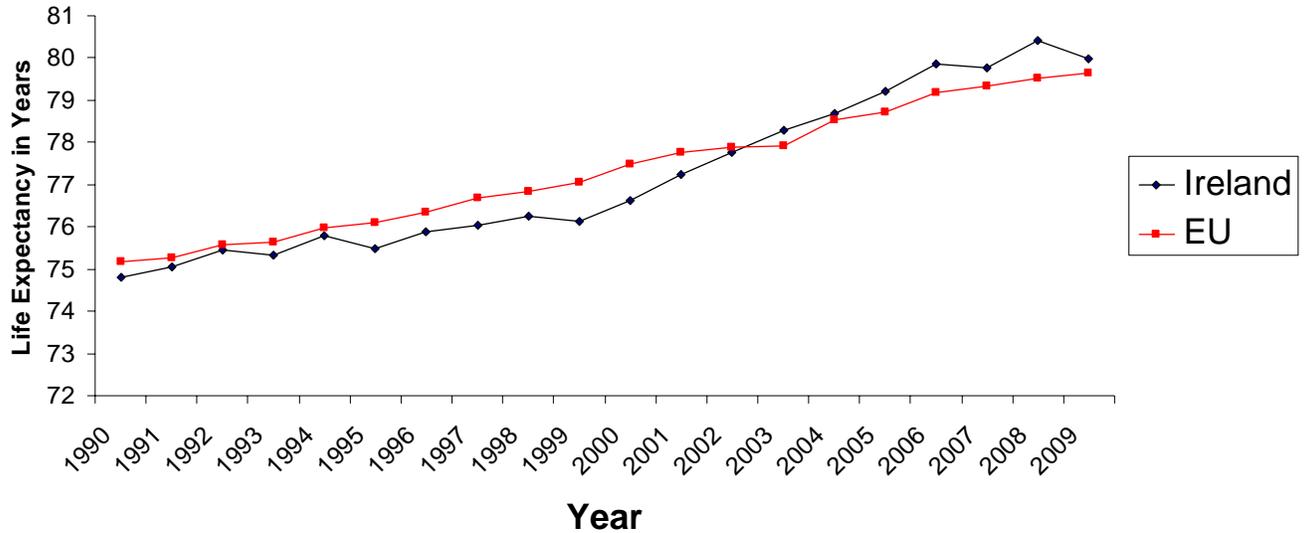


Figure 17: Life Expectancy at Birth for Ireland and EU-27 (Source: European Health For All Database, WHO Regional Office, Copenhagen, Denmark)

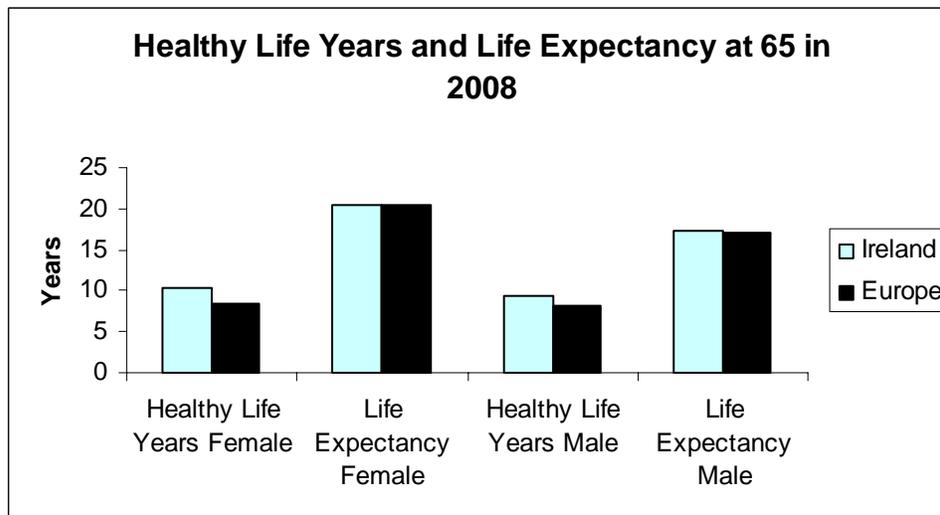


Figure 18: Life Expectancy and Healthy Life Years at Age 65 in 2008 (Source: Eurostat)

Challenges

Public health protection is an essential goal for society in delivering wellbeing and quality of life. Ireland has made significant progress in regard to the health of the population, but some key challenges remain. The rise in life expectancy in Ireland during the past decade has been unmatched by any other country in Europe (figure 17), with the greatest gains in the older age groups reflecting decreasing mortality rates from major diseases.

In overall population health terms, the past decade presents a clear picture of rapid decreases in mortality rates. Mortality from circulatory system diseases fell by almost 40% between 2000 and 2009 and cancer death rates reduced by 11%³⁹. Ireland remains somewhat (5.5%) above the EU mortality rate for cancer and for deaths from smoking-related diseases, many of which will, of course, be cancers. However, survival rates from cancer continue to improve and the gains are leading to a welcome reduction in the gap between survival rates in Ireland and other developed countries.

CSO projections indicate that the key statistic from a health perspective is the number of people over the age of 65 which is projected to increase from over 500,000 now to over 1,300,000 in the next 30 years with the greatest proportional increases occurring in the 85+ age group⁴⁰.

For many years, the health of Irish people has improved due to improved nutrition, better treatment and prevention from the major diseases. However, Ireland's ageing population, together with adverse trends in obesity, diet, exercise and other risk factors means that the level of chronic health conditions will certainly increase. There is much which can be done because approximately two thirds of the predicted disease burden is caused by risk factors which can be prevented. The primary healthcare sector will play a central role in the overall care that is required and will require a focus on prevention, as well as a new model of healthcare for patients with long-term chronic conditions. In Ireland, the main public health challenges including lifestyle factors contributing to health are:

- Smoking: smoking is the leading cause of preventable mortality accounting for 6,000 deaths every year. Smoking levels have plateaued but there is a cause for concern relating to increased smoking prevalence among young women.
- Alcohol: Ireland's rate of alcohol consumption per capita is well above the EU average. Irish children drink from a younger age and are drinking more than ever before. Alcohol is a contributory factor in half of all suicides and accounts for up to 10% of bed days in hospitals. Alcohol related road accidents cost an estimated €530million in 2007.
- Obesity: in Ireland, more than 60% of adults are overweight or obese and this trend is increasing.
- Physical activity: a little more than half of children exercise at least four times a week and, in adults, more than one in four have little or no physical activity.
- Environmental: While Ireland generally has good air and quality, in some instances, a variety of respiratory and gastrointestinal illness can be associated with poor air and water quality, while exposure to radon gas is a contributory factor in approximately 13% of lung cancer deaths. Continued action to enhance air quality, limit public exposure to pollution, hazardous chemicals, radon gas and noise are key priorities in reducing the impact of environmental factors on health.
- The recent H1N1 Pandemic, the emergence of new conditions such as vCJD and the ongoing outbreaks of traditional infections such as measles in Ireland and polio in Europe all indicate the requirement for good surveillance and response systems.

Many factors influence and determine health, whether at an individual or population level. A range of factors have been identified as social determinants of health, for example social exclusion, education, health services, the built environment and lifestyle choices. People who are less well off or who belong to socially excluded groups tend to

³⁹ Public Health Information System (PHIS), Department of Health and Children

⁴⁰ Central Statistics Office - Population and Labour Force Projections 2011-41

fare badly in relation to these social determinants. For example they may have lower incomes, poorer education, fewer or more precarious employment opportunities and/or more dangerous working conditions or they may live in poorer housing or less healthy environments with access to poorer services or amenities than those who are better off – all of which are linked to poorer health. Data from the recent All Ireland Traveller Health Study show a stark picture of health inequality. Traveller life expectancy remains at levels last experienced by the general population 60 years ago. Traveller men have a life expectancy 15 years less than the general population, and over 11 years less for Traveller women⁴¹.

A healthy environment is also inextricably linked to the health of our population which relies for survival on clean air and water and the crops we are able to grow in uncontaminated soil. Amenities such as forest parks provide opportunities for recreation and add to our understanding of the environment thus supporting healthier lifestyles while contributing to our well-being.

Commitments and Targets

A review of public health policy was commenced by the Department of Health in 2011 with the aim of developing a policy framework for public health for the period 2012 to 2020. The review will address the broad determinants of health and health inequalities and will describe the approaches and priority objectives and actions needed to protect and improve health, reduce inequalities, and reduce the cost burden of non-communicable diseases on the health system. Ultimately, this public health policy review will lead to a refocusing on the basic principles of health protection, including communicable disease control and environmental health, health promotion and health inequalities.

Gaps

In order to translate high-level policies into measurable achievements, Ireland needs to increase its reach outside the traditional health service areas, across government, into local government, the voluntary sector, and communities themselves. This requires a partnership approach and a commitment to maximizing the contribution of existing opportunities.

There is also a need to ensure that unintended negative impacts on health do not occur as a result of policies, plans and programmes in areas outside the health sector. Increased policy is necessary to detect these negative impacts.

Efforts to address inequalities in health must look at the way in which the social determinants of health are distributed. There must also be a focus on prevention, especially in terms of smoking, obesity and alcohol consumption.

⁴¹ http://www.dohc.ie/publications/traveller_health_study.html

Measures

37. Review of Policy Framework for a Sustainable Public Health System

To complete a review of public health policy with the aim of developing a policy framework for public health for the period 2012 to 2020.

38. Implement preventative interventions

The Government will implement an evidence-based programme of ill-health preventive interventions that are effective across the social gradient as follows:

- Continuing to tackle the harm caused to individuals and society by the misuse of drugs, the Department of Health will prepare the Report of the National Substance misuse strategy, including alcohol.
- The Department of Health will complete a policy to reduce tobacco consumption across the population.
- The Department of Health will publish revised healthy eating guidelines.
- The Department of Health will review a requirement for lifestyle surveys and develop proposals to progress these in the adult and childhood populations.
- The Special Action Group on Obesity established by the Department of Health will continue to focus on introducing a range of measures to tackle the issues.
- Meeting all commitments in terms of water, soil, hazardous chemicals and air quality, as well as additional measures outlined in this Framework within the specified timelines.

39. Improve availability of information on health inequalities

The availability of information on health inequalities and the health of vulnerable and socially excluded groups will be improved. A key deliverable is the establishment of indicators to monitor the effectiveness of existing policies in terms of access to healthcare and health services. The Department of Health will develop further indicators relating to lifestyle including alcohol, tobacco, diet and physical activity.

40. Health Information Bill

The Department of Health will prepare legislation for the Health Information Bill.

41. Disease Modelling

Building on the work of the National Cancer Registry, national registers of other diseases will be created and developed. The Department of Health will continue to revise the list of notifiable diseases and consolidate infectious disease regulations.

2.9 Education, Communication and Behaviour Change

Challenges

Education for sustainable development plays a crucial role in strengthening the capacity of individuals, communities, businesses and governments to make judgments and decisions that favour environmental protection and a fairer society. Therefore education for sustainable development needs to be embedded at every level of the formal and informal education system.

Public communication is vital in making sustainable development better understood and appreciated. Public authorities need to actively engage with citizens and stakeholders in the development and implementation of policy if we are to effect behaviour change and the transition to a more sustainable society and economy. However, raising awareness does not always lead to changes in behaviour and more sustainable outcomes. This is a challenge for policy makers and highlights the need to better understand how public policy can result in more sustainable choices.

Sustainable development cannot be addressed by public authorities alone without the involvement and support of a wide range of stakeholders including individual citizens and civil society organizations. Non-governmental organisations and civil society groups have a crucial role in advocating for a more sustainable society. There is a need to work in partnership to support the transition to a more sustainable society.

Commitments and targets

The *UNECE Strategy on Education for Sustainable Development* requires the preparation of national strategies in this area. In addition, the *European Union Sustainable Development Strategy* encourages Member States in their efforts to develop more strategic approaches to sharing knowledge and good practice in a bid to stimulate Education for Sustainable Development.

A number of different Departments and Agencies are already involved in promoting key messages on sustainable development and ongoing implementation of these and other campaigns will be informed by this Framework for Sustainable Development for Ireland.

Gaps

Although a draft *National Strategy on Education for Sustainable Development* was published for consultation in 2007, it has not yet been adopted. The consultation process involved a wide range of stakeholders and the adoption of this strategy would set the policy framework for Education for Sustainable Development.

The Aarhus Convention⁴² is designed, inter alia, to give ordinary citizens the right to have a say in decision making that affects the environment. While many of the principles of the Convention are already incorporated into Irish law, Ireland (although a signatory to the Convention) has yet to ratify it.

⁴² The Aarhus Convention consists of three pillars: Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters. www.unece.org/env/pp

Measures

42. Strategy on Education for Sustainable Development

A *Strategy on Education for Sustainable Development* developed under the direction of the Department of Education and Skills will be published in 2012. This strategy will provide the policy framework for the development of knowledge skills and values to encourage individuals, businesses and organisations to take action in support of a sustainable and just society, care for the environment, and responsible global citizenship. The Education for Sustainable Development Strategy will have four key objectives:

- Embed Education for Sustainable Development at every level of the education system.
- Promote public awareness of Education for Sustainable Development.
- Promote capacity building in support of Education for Sustainable Development.
- Promote high standards of environmental management in education institutions.

Specific actions in the Education for Sustainable Development Strategy will include:

- Integrate ESD into all areas of the curriculum in schools and encourage cross-curricular learning. .
- Support national media and awareness campaigns on sustainable development.
- Promote research in 3rd level institutions and encourage collaborative working and industry links.
- Enhance the work of the Department of Education and Skills' Building Unit to promote low energy sustainable buildings.

The University of Limerick together with other key stakeholders, will continue to provide logistical support for, and participate in, the work of the Regional Centre for Expertise on Education for Sustainable Development as a focal point for identifying research needs and best practice on Education for Sustainable Development

43. Communicating progress on sustainable development

Ongoing reporting on progress towards sustainable development will take place including progress on implementation of this Framework for Sustainable Development for Ireland.

44. Encouraging Behavioural Change

Altering behaviour is essential to promoting sustainable development and will require a coherent approach in devising suitable policies and strategies to address this issue.

45. Aarhus Convention

Ireland will ratify the Aarhus Convention and incorporate the spirit of the Convention in the development and implementation of sustainable development policy to ensure the necessary buy-in from stakeholders and the general public in the transition to a sustainable economy and society.

2.10 Innovation, Research and Development

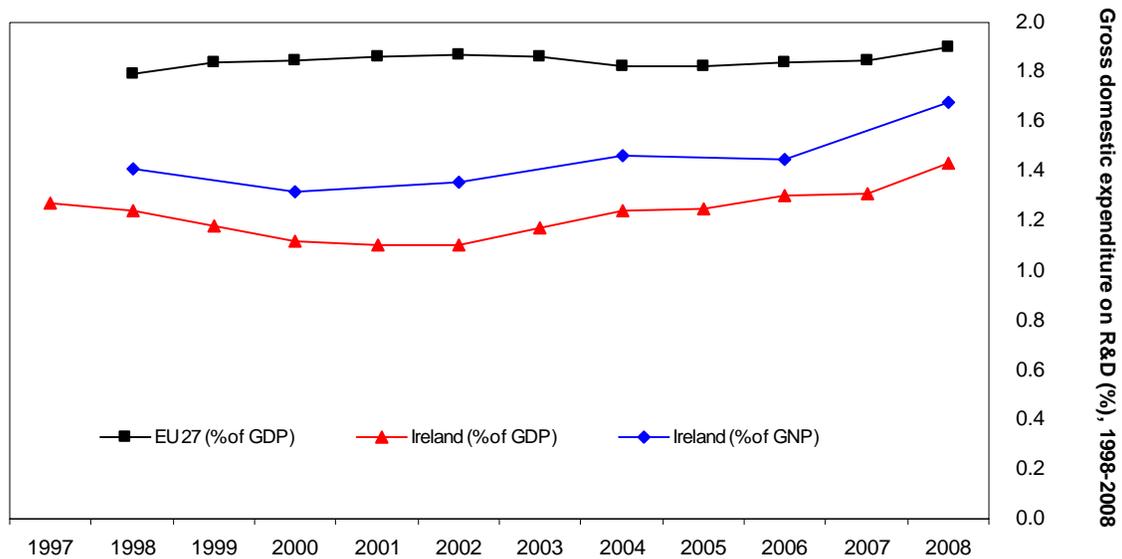


Figure 19: Gross domestic expenditure on research and development in Ireland and the EU (Source: Eurostat, Forfas, CSO)

Challenges

Sustainable development policy depends on many forms of knowledge from different fields of research and disciplines and, crucially, linking different disciplines. The application of knowledge ranges from providing the evidence base upon which to build policy, to providing insights from research about complex problems to policymakers. As a result, the research agenda can facilitate the meeting of other policy objectives across the sustainable development challenges identified in this Framework.

The EPA's *Science, Technology, Research and Innovation for the Environment (STRIVE)* programme is an example of an integrated research funding programme that also delivers important public goods. The programme has placed particular emphasis on new and improved technologies for the management of resources and to reduce the environmental impact of human activities as well as essential policy-supporting and 'public good' research. It is through these types of funded research programmes that new solutions and processes can be found, and the evidence base for policy developed, to support and underpin the move towards sustainable development.

Research on sustainable development issues being undertaken in Ireland particularly around climate change, water and resource efficiency should be developed and tailored for business. Enterprise development agencies and business representative bodies could assist in promoting this information to business.

The Green Economy⁴³ can provide opportunities for job creation in start-up and scale-up companies, with increased public demand for "green" goods and services in both the domestic and international markets. It is an area which could become strategically important for Ireland, given Ireland's "green" image internationally. Ireland has a number of strengths (such as an efficient and "green" food production system, excellent

⁴³ The "Green Economy" is a term which is used to categorise a range of economic activities which contribute to lower greenhouse gas emissions, better resource usage, and respect for the environment.

renewable energy and water resources, environmental R&D and ICT strengths) which can realise jobs and growth opportunities both domestically and internationally. Developing the Green Economy will require a coordinated approach with Departments and Agencies working together to maximise opportunities for sustainable growth.

Commitments and targets

Amongst the areas that the *Europe 2020* strategy is focused on is strengthening knowledge and innovation as drivers of our future economic growth, a process that will involve effecting improvements to education, strengthening research and generally promoting innovation and knowledge transfer throughout the European Union. One of the headline targets is to raise combined public and private investment levels in research and development to 3% of GDP. A Flagship Initiative, “Innovation Union”, has also been launched under the Strategy with a focus on targeting the key challenges facing society such as climate change, energy and resource efficiency, health and demographic change.

Ireland's *National Reform Programme* under the *Europe 2020 Strategy* affirms Ireland's headline target to improve conditions for research and development, with the aim of raising combined public and private investment levels to 2.5% of GNP (approximately equivalent of 2% of GDP). In this context, the Programme for Government 2011 outlines a significant set of Innovation and Commercialisation strategies and goals which confirms that this productive investment is seen as one of the key drivers of Ireland's economic recovery. Research has a significant role to play across a range of sectors including developments in the agri-food area, and in supporting policy developments to meet environmental and social objectives.

The Government aims to meet current targets by implementing existing policy measures and programmes. It is committed to additional measures in the Programme for Government 2011 and the National Reform Programme.

Measures

46. Deliver the right investment framework

To underpin the Framework for Sustainable Development for Ireland, appropriate levels of funding should be made available for research areas which are key to delivering sustainable development, such as in the energy agri-food and environment fields, as set out in the National Reform Programme. This includes improving the conditions for research and development, in particular with the aim of raising the combined public and private levels of investment in Research and Development to 2.5% of GNP (approx equivalent to 2% of GDP) maintaining designated environmental, policy-supporting research funding (e.g. the EPA's STRIVE programme and the Department of Agriculture, Food and the Marine's Research Stimulus Fund) which identify solutions to tackle key environmental challenges and promote job creation and investment in the green economy.

47. Bridge the gap in linking R&D to sustainable commercialisation and policy development

The Government will put in place measures to bridge the gap in terms of linking R&D and emerging technologies to commercialisation, by ensuring that the majority share of public funding supports R&D in the key areas identified in the National Research Prioritisation Report. As also identified in that report, research to support policy development and essential 'public good' research should also continue to be prioritised by Government, as a minority share of overall public R&D funding. Relevant Government Departments, Forfás, Teagasc, Enterprise Ireland, Science Foundation Ireland, the Environmental Protection Agency and other State agencies have a key role to play to ensure that research supported by public funds has an impact on the marketplace. Collaboration should be fostered between the funding agencies and between the business and research communities in Ireland, to the benefit of the economy as a whole.

48. Focused research on sustainable development

Although some Government Departments and agencies already commission much research directly, there may be scope for more explicit alignment between such research and the policy goals of sustainable development. To support this process a R&D strategy for sustainable development will be developed by the EPA which coordinates the work of existing research programmes and funders in the area. Where possible it will be important to enhance the knowledge transfer dimension of such research programmes so that research drives changes in practice.

49. Postgraduate Training

The further development of university programmes that focus directly on sustainable development or are at least informed by the key sustainable development challenges will be encouraged. The Higher Education Authority, Teagasc and the two Irish research councils – Irish Research Council for Science, Engineering and Technology and the Irish Research Council for the Humanities and Social Sciences – already work together to encourage the development and training of postgraduate students and researchers in all areas of science, engineering, technology, humanities and the social sciences. Teagasc work closely with third level institutes in the training and development of postgraduate students in the sustainable agriculture and food fields and the EPA provide scholarships to students to support the conduct of post graduate research (mainly at PhD level) in the environment field. Outputs from the EPA programme are used to inform decisions on environmental issues and also provide a valuable source of scientific information. This cooperation will be enhanced to promote further interdisciplinary research and training in sustainable-development themes.

50. Develop Ireland's green economy

Ireland's Green Economy should continue to be developed under the auspices of the Cabinet Committee on Climate Change and the Green Economy. A coordinated approach is required across Departments and Agencies in order to provide the right policy framework to take advantage of Ireland's exceptional resources in terms of natural and human capital. This should include the development of a clear vision, supported by research, of how Ireland can become a leader in the transition to becoming a low-carbon, resource efficient and climate resilient economy.

2.11 Skills and Training

Challenges

The need to move to a low-carbon and resource-efficient economy has been identified as a priority by the European Commission and by many Governments around the world. One key enabler in this regard is mobilising the skills and training required to take advantage of future employment opportunities in this area.

The role of skills and training is a crucial component in contributing towards sustainable development as it underpins other key policy areas⁴⁴. Unless Ireland has the right skills and training structures and programmes in place we run the risk of missing out on significant environmental and economic opportunities. Skills and training programmes are not just a matter for central Government - there are a wide range of other parties, such as industry, higher and further education institutions, local government as well as civil society organisations, that all have important roles to play.

Commitments and targets

The *Europe 2020* strategy has put forward an agenda for new skills and jobs as one of its seven key flagship initiatives. It aims to modernise labour markets by facilitating labour mobility and the development of new skills with a view to increasing labour participation and productivity rates and better matching labour supply and demand. A number of key actions are put forward for implementation at both an EU and member state level in order to advance this agenda.

Nationally, the Expert Group on Future Skills Needs published a report in 2010 examining the future skills needs of enterprise within the green economy. A number of recommendations are made in the report to ensure that the workforce needs of those enterprises engaged in the green economy are being met. The Programme for Government 2011 also commits to undertaking a number of specific strategies for job creation including the potential for green jobs and ensuring the labour market skills are in place to support this sector. The Government Policy on Architecture 2009-2015 commits to a number of actions relating to the development of skills in areas including sustainable energy construction and architectural conservation, maintenance and repair from continuing professional development for professionals to the training of skilled craftspersons.

Gaps

It is vital for sustainable development that people with the right skills are available in order to make sustainability-informed decisions, including good design decisions. For example, professionals concerned with buildings, including architects and civil/structural engineers, need a good understanding of building conservation and energy efficiency, and how best to design interventions to get best value for money in improving efficiency⁴⁵. Similarly, professionals involved in renewable energy, including electrical engineers and mechanical engineers, need a good technical understanding, and the ability to use it in both designing and operating renewable energy systems.

The public sector will also need a range of skills to support sustainable development objectives including green procurement, carbon accounting and energy management but

⁴⁴ This has been recognised in a recent report by Comhar SDC examining the skills and training needs for a Green New Deal and also the Government's High-Level Action Group on Green Enterprise.

⁴⁵ Fáilte Ireland recently published a guideline document recommending improved sustainability content for all tourism and hospitality education and training courses delivered throughout Ireland.

also in other sectors ranging from public health to social inclusion. A substantial continuing education and training intervention will be required to support this.

Measures

51. Ensure education and training provision is aligned with the skills requirements of the green economy

Education and training providers will seek to respond to the findings of the Expert Group on Future Skills Needs in relation to the skills requirements associated with the green economy, including putting in place measures to overcome potential key skills gaps identified for the sector.

52. Industry training networks for sustainability

Industry training networks will be supported where appropriate in order to deliver the required courses and skill sets needed for a resource efficient and low-carbon economy. The decision to provide resources to a network should be based on the need for training in the industry sector to progress the transition to sustainability in Ireland, and on the capability of the proposed network to deliver on meeting this need.

53. Public service training

The public service will be encouraged and facilitated to deliver new key skill sets in areas such as green procurement, carbon accounting, carbon management and energy management. How this should be achieved, and what bodies should take the lead in specifying, designing and organising the delivery of appropriate training will be considered by the Government following consultation across the key relevant Departments.

54. Graduate placements

Graduate placements will be made available for the unemployed to work in sustainability-focused roles in industry. Relevant government bodies will work with business representative organisations to develop a programme of graduate placements focused on sustainability and environmental management.

55. Role of Civil Society Organisations

Civil society organisations concerned with sustainability and the environment will be encouraged to continue to play an active role in education, training and informing the public on sustainable development issues.

2.12 Global Poverty and Sustainable Development

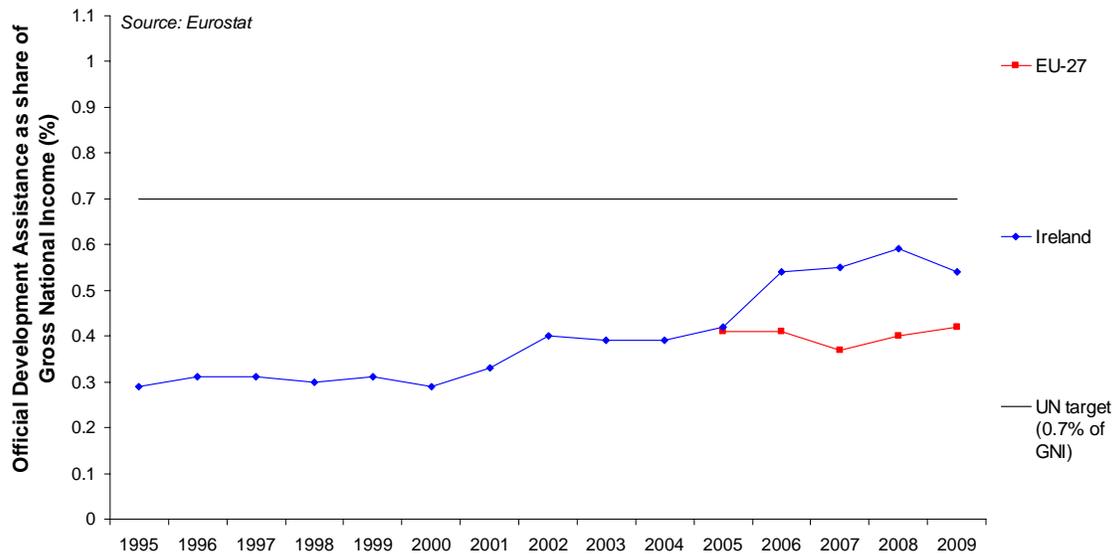


Figure 20: Official development assistance for Ireland and selected EU countries (Source: CSO)

Challenges

In an interdependent world, all countries have a role to play in achieving global sustainable development not just as actors in the international community but also through domestic policies. Consumption of resources in developed countries and the continued degradation of ecosystems are contributing to the persistence of poverty in developing countries. There is a need to align policies across sectors with the Millennium Development Goals. The eight goals are the world's quantified targets for addressing extreme poverty by 2015. All the members of the United Nations have committed to these targets on combating hunger, poverty, illness, illiteracy, discrimination against women and the destruction of the environment. The latest progress report showed mixed progress on the goals, that improvements have been slow and some gains have been eroded by the climate, food and economic crises⁴⁶.

Climate change reflects and increases social inequality in a series of ways. The first hit and worst affected by climate change are the world's poorest, who are least able to cope. This is especially true for people in developing countries where natural resource dependency is high. It is also significant that these countries have contributed least to climate change⁴⁷. Ireland, as a developed nation that has benefited from high emission growth in recent years, has a responsibility to cut emissions across all sectors in accordance with our European and international commitments and assist developing countries financially and otherwise. In addition to providing Official Development Assistance (ODA), it is important that funds are used to address the additional development challenge that climate change presents. Ireland should support developing countries' efforts to advance low carbon and climate resilient development approaches.

Ireland participates in a global market economy. Ireland also contributes to meeting its commitments in the international arena through ratification and implementation of Multi-

⁴⁶ UN (2010) Millennium Development Goals Report 2010.

⁴⁷ Global Humanitarian Forum (2009) Human Impact Report, Available on www.ghfgenève.org/Portals/0/pdfs/human_impact_report.pdf

lateral Environment Agreements (MEAs) in areas such as waste and chemicals. The economic globalisation process has been associated with significant environmental, developmental and poverty related challenges.

Trade is important in lifting under-developed countries out of extreme poverty. The World Trade Organisation (WTO) is fundamental in ensuring that consistent and transparent rules apply to global trade. For all of the organisation's 150 plus members, these are important in preventing discriminatory and unfair trading practices. A multilateral rules based system contributes to a global trading environment that supports the special and different stage of development of developing countries, particularly Least Developed Countries (LDCs) and supports the goal of sustainable development.

In order to be able to reap the full benefits of trade, developing countries need to have the freedom to choose trade and economic policies which are appropriate to their level of development. Ireland supports the development of trade in accordance with the WTO rules based system, to underpin economic and social development in developing countries, in particular in Least Developed Countries.

In addition, growing globalised trade merits greater global cooperation in relation to environmental protection and sustainable development. Ireland must continue to recognise the role of trade in assuring the livelihoods and well being of the majority of the world's poorest people and the need for greater environmental protection and sustainable development if the Millennium Development Goals are to be met.

Achieving global food security is also critical in tackling poverty. Food security refers to the availability of food and access to it. The UN defines food security as existing when *"all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life"*⁴⁸. Ireland is committed to achieving the hunger target of the first the Millennium Development Goal (MDG) of halving by 2015 the proportion of people who suffer from hunger. Ireland recognises that the realisation of all of the other MDGs will be undermined if food, the most basic of all human needs, is not available or easily accessed by all. Combating global hunger and food insecurity is a central pillar of Ireland's foreign policy and its development assistance programme, Irish Aid.

Commitments and targets

Responding to the pledge to reduce and then eradicate extreme global poverty, the Programme for Government stated: *'We are committed to the 0.7% of GNP target for Overseas Development Aid. We will seek to achieve this by 2015'*. Ireland's ODA has remained at a high level as illustrated in Figure 20. Achieving the UN target will be difficult in the current economic climate but Ireland remains closer to reaching the target than most EU member states. Ireland was also recognised by the 2009 OECD review as a champion in making aid more effective. Ireland must continue to lead in its international development efforts and remain committed to reducing poverty through sustainable development.⁴⁹ In addition to its importance in tackling poverty and securing the rights of people in developing countries, aid is also increasingly becoming recognised as a long-term investment in a more stable world which would benefit poor and rich alike⁵⁰.

⁴⁸UN Food and Agriculture Organisation FAO

⁴⁹ White Paper on Irish Aid, Government of Ireland

⁵⁰ Trocaire (2009) Trócaire Briefing Paper: Meeting Ireland's Aid Commitments, Available on <http://www.trocaire.org/aid-accountability>

The UN Conference on Sustainable Development 2012 (Rio+20) will aim to secure renewed political commitment to sustainable development, assessing the progress and implementation gaps in meeting already agreed commitments, and addressing new and emerging challenges.

Ireland is a strong supporter of global and regional efforts to improve food and nutrition security including, the *UN High Level Task Force on the Global Food Security Crisis*, its prioritised plan of action for addressing the global food crisis, namely the *UN Comprehensive Framework for Action, the Scaling up Nutrition or 'SUN' Framework for Action and Roadmap, the Global Agriculture and Food Security Programme, the EU-US Roadmap for Cooperation on Food Security, the EU Policy Framework to assist Developing Countries in addressing Food Security Challenges, and the African Union's comprehensive Africa Agriculture Development Programme.*

The Government's 2006 *White Paper on Irish Aid* identified hunger and food insecurity as fundamental elements of the global development challenge Irish Aid's overarching objective to reduce poverty and vulnerability and to increase opportunity. The Government's Hunger Task Force (HTF) was established in 2007 and its Report, published in 2008, identified three priority areas where Ireland can best contribute to combating global hunger, namely: sustainably increasing smallholder agricultural productivity in Africa with a particular focus on women farmers; targeting undernutrition, particularly in infants, children and mothers; and promoting governance and leadership action on tackling global hunger. The HTF Report provides Ireland with a strong framework to address global hunger and food and nutrition insecurity and significant progress has been made in implementing the Report's recommendations. The Special Envoy for Hunger issued a report in November 2010 commending the strong role that the Irish Government and civil society have played in implementing the HTF recommendations, and in galvanising international action to combat hunger. The Envoy also advised on how to further enhance Ireland's policies and activities to reduce hunger.

Ireland can play a role in contributing to food security worldwide. With its well developed and efficient food production systems, Ireland can be a role model for sustainable food production. Ireland is a world leader in terms of use of inputs to primary food production. Its grass based production systems contributes to the overall food supply by converting grass, inedible for humans, into nutritious food. Ireland can continue to provide leadership in the development and evolution of agricultural systems that will contribute to long term food security goals.

Gaps

Decisions, policies and practices that Ireland and other developed countries engage in can have negative effects on developing countries. There is a need for continued focus on policy coherence for development regarding aid and other policies. The EU Communication on proposed CAP reforms accepts that the measures proposed for the CAP post 2013 should respect the EU's Policy Coherence for Development commitments. This means that when the Impact Assessment of these proposals is undertaken, there is an explicit mandate to explore the impact on developing countries.

To this end in April 2007 the Government established an Inter-Departmental Committee on Development (IDCD). The purpose of the Committee is to strengthen coherence in the Government's approach to development; and make best use of the expertise and skills available across the public service in Ireland's development aid programme.

Ireland's development work is guided by the White Paper on Irish Aid (2006). The Government has committed to a Review of the White Paper, which will analyse the changing national and international context in which the aid programme is being implemented, assess progress in meeting the commitments made in the White Paper, draw on the lessons and experiences to date, and set out the policy direction for the way ahead.

The International Assessment of Agricultural Knowledge, Science and Technology for Development Report found that agricultural knowledge, science and technology '*can contribute to radically improving food security and enhancing the social and economic performance of agricultural systems as a basis for sustainable rural and community livelihoods and wider economic development. It can help to rehabilitate degraded land, reduce environmental and health risks associated with food production and consumption and sustainably increase production*⁵¹'. Ireland has invested in research in many aspects of agriculture including alternative production systems and ways of reducing the greenhouse gas intensity of the sector. Knowledge transfer is an important element of food security policy and places Ireland in a position to make a positive contribution in the global fight against hunger.

⁵¹ International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) Report (2008) Executive Summary of the Synthesis Report, p.7.

Measures

56. Official Development Assistance

Under the Framework for Sustainable Development for Ireland, the Government re-affirms its commitment to the Millennium Development Goals and the outcomes of the 2002 World Summit on Sustainable Development. We have committed to the 0.7% of GNP target for Overseas Development Aid.

57. Address hunger and food insecurity in the world's poorest and most vulnerable households

Ireland will continue in its efforts to combat global hunger, and food and nutrition insecurity, and to further enhance its hunger reduction policies and programmes including by:

- Prioritising support for hunger reduction activities in Irish Aid's programme countries.
- Continuing to support initiatives focussed on sustainably boosting the agricultural productivity of poor smallholder and women farmers in sub-Saharan Africa.
- Continuing to support nutrition specific interventions that combat the irreversible effects of chronic undernutrition in early childhood, and scaling up a nutrition sensitive approach to food security
- Developing and supporting multi-sectoral national nutrition plans in developing countries, as outlined in the UN-led Scaling Up Nutrition (SUN) Framework and Road Map, and encouraging the integration of nutrition across all sectors – agriculture, health, water and sanitation, social protection and education – to ensure improved nutrition outcomes.
- Supporting capacity building within local Agriculture Ministries in Irish Aid's programme countries.
- Prioritising support for in-country agricultural research and knowledge and technology transfer focusing on reducing food and nutrition insecurity and improving the resilience of local food systems, and working to ensure that poor smallholder and women farmers have access to and can benefit from such research, knowledge and technologies to help them to grow nutritious foods for their families.
- Providing leadership through the ongoing development of and improving the resilience of Ireland's food production systems.
- Ireland will work to improve research in the area of global food security,

58. Financing climate change actions in developing countries

Ireland has signed up to the UN Framework Convention on Climate Change (UNFCCC) and is required to help more vulnerable countries with the costs of addressing climate change in accordance with the Copenhagen Accord 2009 and the Cancun Agreement 2010. Ireland is committed to meeting its responsibilities as a Party to the Convention, and will support a global and comprehensive post-2012 agreement that includes, inter alia, the objective of providing sufficient, accessible and predictable financing for climate change adaptation and mitigation actions in developing countries.

59. Trade

Ireland will seek to ensure that the EU position in relation to trade is supportive of a rules based trading system to underpin economic, environmental and social development in developing countries and which recognises the need for special and differential treatment of Least Developed Countries and some developing countries.

60. Mainstreaming environment and sustainable development

The Irish Aid Programme will continue to integrate the principles of sustainable development into its activities. This will be done primarily through the existing *Environment Policy for Sustainable Development and Environment Mainstreaming*,⁵² the performance of which will be reviewed and revised if necessary. Ireland will maintain its strong commitment to mainstreaming environmental concerns in ODA, including supporting developing countries to advance low carbon and climate resilient development plans, including in the agriculture sector.

61. United Nations Conference on Sustainable Development

Ireland will participate at EU level to ensure a successful outcome to the United Nations Conference on Sustainable Development to be held in Rio de Janeiro in 2012. Ireland will encourage participation of all relevant stakeholders and major groups to contribute as appropriate, through relevant fora, to the national preparatory process for the UNCSD 2012.

⁵² <http://www.irishaid.gov.ie/Uploads/Environmental%20Policy.pdf>

3 Implementation

3.1 Governance

Sustainable development requires that Government policies are formulated, not in isolation, but with regard to other policies and priorities. While there are good examples of this practice, more needs to be done if transparent and inclusive methods of policy development are to become standard. This is essential to avoid duplication of effort or the adoption of policies that are contradictory. It requires integrated thinking and practice at three levels: across Departments and agencies nationally; across local level bodies; and between national and local levels.

At a European level, the EU 2020 Strategy identifies the need for a strong governance framework with a thematic approach being adopted. This includes the delivery of the five headline targets under the strategy such as those for climate and energy and the implementation of the seven flagship initiatives, including creating a Resource-Efficient Europe.

The *EU Sustainable Development Strategy* sets out an approach for better policymaking based on the principle that sustainable development should be integrated into policy making at all levels. It advocates the use of tools including *ex-post* assessment of policy impacts and public and stakeholder participation.

The European Environment Agency's Report, *The European Environment – State and Outlook 2010*, found that implementing environmental policies and strengthening environmental governance will continue to provide benefits. Better implementation of sectoral and environmental policies will help ensure that goals are achieved and provide regulatory stability for businesses. A broader commitment to environmental monitoring and up-to-date reporting of environmental pollutants and wastes, using the best available information and technologies, will make environmental governance more effective. This includes reducing long-term remediation costs through early action.

In Ireland, horizontal integration of the sustainability agenda across Government has been strengthened through mechanisms such as the Cabinet sub-committee on climate change and the green economy, the Oireachtas committee on environment, transport, culture and the gaeltacht and the addition of the environmental pillar to social partnership⁵³. Under new arrangements which will take effect in 2012, the sustainable development role previously performed by Comhar SDC will be integrated into the work of the National Economic and Social Council (NESCC) as it develops its analysis of significant national challenges.

In light of emerging environmental priorities at both EU and national level, supported by the measures set out in this Framework for Sustainable Development for Ireland, particular emphasis should also be placed on strengthening vertical levels of governance in regard to sustainable development. This requires better co-ordination and engagement between relevant Government Departments and their agencies at local level. The local government-led County/City Development Boards (CDBs), working with their relevant parent Government Departments and Agencies at national level, have a role to play in this regard, particularly through the implementation of their County/City Strategies for Economic, Social and Cultural Development. CDB strategies have a

⁵³ The Environmental Pillar was included as the fifth pillar of the Irish national Social Partnership in April 2009, and is made up of the 27 national environmental NGOs, acting together as one social partner alongside the Trade Unions, the Employers, the Farmers and the Community and Voluntary Pillars.

strong social emphasis and many have identified sustainable development actions for implementation.

Local authority Environmental Awareness Officers can also play an important part in improving linkages between national and local levels by increasing awareness in relation to current legislation, the promotion of sustainable waste management, litter control, supporting national campaigns and hosting a variety of practical and local environmental initiatives.

CDBs are representative of local government, local development bodies together with State agencies and social partners operating locally. The Boards facilitate interagency engagement and community involvement in improving co-ordination and delivery of public services at local level. However, there is still a need for improved awareness, training and capacity building on sustainable development within local authorities and other relevant public bodies operating locally.

Local Agenda 21 facilitates sustainable development at community level. It is an approach based on participation which respects the social, cultural, economic and environmental needs of the present and future citizens of a community in all its diversity. It is an approach which also relates that community and its future to the regional, national and international community of which it is a part. Local authorities, CDBs and local Community and Voluntary (C&V) Fora therefore play an important role in advancing Local Agenda 21.

3.2 Policy Coherence and Impact Assessment

Ex-ante assessment of policy options allows Government to identify the potential effects of decisions before they are taken and the most attractive implementation paths for policy proposals. Integrated impact assessment was introduced by the European Commission in 2002, and from 2005, all major EU Commission legislative and policy-defining proposals have been subject to impact assessment. Impact assessments are now compulsory in most EU member states.

The two main instruments that drive environmental appraisal in Ireland are Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA). EIA assesses the environmental impacts of projects i.e. development proposals. SEA involves assessment of the likely significant environmental effects of plans and programmes prior to their adoption. Poverty Impact Assessments are an important mechanism in assessing the impact of Government policy on groups in poverty or at risk of poverty. Guidelines to assess the impact on people with a disability of policy proposals being submitted to Government will also be developed following completion of a pilot project. Ireland also has a system of Regulatory Impact Analysis (RIA) which involves a detailed assessment of the impacts of regulation and involves consultation with stakeholders and citizens. Its purpose is not to substitute decision-making, but to help inform policy decisions.

The current system of RIA often involves environmental and social issues but the main objective is the evaluation of the costs and benefits for businesses and citizens in complying with proposed regulations. RIA extends beyond a sectoral evaluation but is not a comprehensive Sustainability Assessment (SA). There is therefore potential to develop an SA model that can be integrated with the RIA system. In this regard, Comhar SDC has undertaken some work to develop an SA methodology that ranks the potential positive and negative impacts of policies on a checklist of economic, environmental and social criteria.

3.3 A partnership approach to implementation and delivery

The role of Government is to set the framework and work with stakeholders and sectoral interests to achieve progress towards sustainable development. This will require a partnership approach to delivery. This Framework for Sustainable Development for Ireland sets out the Government's commitments, but contributions will be needed by others to achieve the strategy aims and actions. Only with the support of wider society and involvement of all stakeholders can this Framework deliver progress on sustainable development.

The local government system is critical to the delivery of a wide range of important services. In order to be sustainable, that system needs to be financially viable and capable of ensuring that resources are used as efficiently as possible. The implementation of the Report of the Local Government Efficiency Review Group will be crucial in that regard. The local government system must be transparent and open to scrutiny and decision making must take place at the most appropriate level.

The system must also ensure that funding resources are fair, support environmental sustainability and encourage a viable and dynamic local economy. A policy statement on local government reform is in preparation addressing these and other issues with the aim of making local government more coherent, efficient, effective and ultimately more responsive to its citizens. The policy approach and recommendations in this Framework, in particular the need for coherence/co-ordination between local authorities, will be taken into account, where relevant, in finalising this statement.

3.4 Strategy implementation plan

Progress on the delivery of this Framework for Sustainable Development for Ireland will be overseen by an appropriate Cabinet Committee. Annex 2 sets out a cohesive plan for delivery of measures. This plan identifies for each measure a lead Department, other Departments and agencies with responsibilities, and a timeline for delivery. Each Department will be required to report on delivery of these measures and this process should be affirmed in their Statements of Strategy.

The Department of the Environment, Community and Local Government will provide overall and clear leadership in regard to implementation of this Framework but it will also require working and close cooperation with other Departments and State Agencies. However a wide range of other stakeholders will need to be involved and we welcome that participation. **We hope that through the public consultation phase, organisations will not only comment on these measures but propose how they can partner with Government in delivering these actions and identify additional actions that they will undertake across business, industry, NGOs and communities.** An indicative timetable is included for implementation of measures: short-term (within 5 years), medium term (six to 10 years), longer term (beyond 10 years).

Northern Ireland has recently published its sustainable development strategy *Everyone's Involved* which stated "*we intend to work with the relevant sustainable development bodies throughout these islands, to build partnerships to promote and develop sustainable development practices into all we do and in the wider private sector.*" We will also explore synergies with colleagues in Northern Ireland between the strategies and their implementation.

3.5 Monitoring and reporting

The *EU Sustainable Development Strategy* advocates that, in order to ensure more efficient monitoring and enforcement by Member States, mechanisms used in the *Lisbon Strategy* and its successor *Europe 2020* could also be used to monitor the implementation of the *EU Sustainable Development Strategy*. Measures in support of both strategies, with visible positive results on growth, jobs and the environment, could be identified. In this context, this Framework for Sustainable Development for Ireland should have a review and reporting cycle and be complementary to and coherent with the arrangements for the *Europe 2020 Strategy*. Stakeholder participation is also an important part of the monitoring and reporting arrangements.

3.6 Looking to the future

This Framework for Sustainable Development for Ireland takes the year 2020 as the timeframe for its desired outlook but a longer-term perspective is also necessary. Success in a changing world will require Ireland to develop further as a knowledge and innovation based society, building on our national strengths: education, flexible workforce, technology, and effective governance, a high level of environmental protection and a sustainable approach towards the use of natural resources. Sustainable solutions to national and global challenges over the long term will require mutually supportive short, medium and long term policies at national, EU and international levels. Many current policies include targets to 2020 though in some areas, climate change being a clear example, a longer time horizon is envisaged. The shorter timeframes to 2020 are important in achieving a stepped approach to desired longer term objectives. Progress towards these will require planning models that are capable of ongoing modification to take account of changing circumstances and evolving scientific research. A 2050 perspective based on a vision for Ireland will provide a practical framework for guiding and reporting both on long-term broad development trends and promoting forward-looking reflection on sustainability.

The network of European Sustainable Development and Environment Advisory Councils (EEAC) has highlighted the challenges in policy-making for “the long way ahead⁵⁴”. This is due to the “*the almost impossible set of predictions of how policy, technology, managerial innovation and social outlooks may themselves shift by deliberate human choice. These adjustments may be the result of recovering from early mistakes, or consciously seeking to promote a sustainable future.*”

Notwithstanding these forecasting challenges, however, the evidence is now overwhelming that “business as usual” is not an option on a global level and that crisis and shocks are increasingly inherent in the existing model. The Stern Report⁵⁵ demonstrates that the economic costs of effective and timely international action on climate change would be far outweighed by the costs of inaction – potentially up to 20% of global GDP. “*Our actions over the coming few decades could create risks of major disruption to economic and social activity, later in this century and in the next, on a scale similar to those of the great wars and the economic depression of the first half of the 20th century. And it will be difficult or impossible to reverse these changes. Tackling climate change is the pro-growth strategy for the longer term, and it can be done in a way that does not cap the aspirations for growth of rich or poor countries. The earlier effective action is taken, the less costly it will be*”⁵⁶.

⁵⁴ Sustaining Europe for A long Way Ahead – Making Long-term Sustainable Development Policies Work EEAC (2009) www.eeac-net.org

⁵⁵ Stern Review on the Economics of Climate Change (HM Treasury, 2006)

⁵⁶ Executive Summary of the Stern Report – see http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/30_10_06_exec_sum.pdf

Similarly, the European Commission's *Europe 2020 Strategy* defines sustainable growth or "green growth" as being central to a resource efficient future for Europe, creating new green jobs, boosting energy efficiency and assuring energy security. The European Commission estimates that to achieve an 80% reduction in emissions in the EU by 2050, investment in clean and energy efficient technologies needs to be increased by 1.5% of the EU's GDP per year or around €270 billion⁵⁷. Apart from averting the economic dislocation caused by unchecked climate change, such investment would generate economic gains in areas such as air quality, human health and energy security, and commercial opportunities in markets for environmental goods and services. The Commission calculates that fuel cost reductions alone will amount to a saving of €175-€320 billion on average per year by 2050. In addition, improved air quality and a reduction in air pollution control and health care costs will amount to a further saving of €88 billion a year by 2050.

The OECD Report *Towards Green Growth* also highlights the need to look to the future and to find new ways of ensuring that the growth and progress we have come to take for granted are assured in the years to come. Strategies to achieve greener growth are needed as a return to 'business as usual' would be unwise and unsustainable involving risks that could impose human costs and constraints on economic growth and development. Green growth is an essential component of sustainable development and a way to pursue economic growth and development while preventing environmental degradation, biodiversity loss and unsustainable natural resource use. The report states that "*if we want to make sure that the living standards we have seen in the past fifty years does not grind to a halt, we have to find new ways of producing and consuming things and even redefine what is meant by progress and how it is measured.*"

The *Towards Green Growth* report provides a framework for the development of green growth strategies. A green growth strategy is centred on mutually reinforcing aspects of economic and environmental policy. It takes into account a range of factors including the full value of natural capital as a factor of production and its role in growth; the social issues and equity concerns that can arise as a direct result of greening the economy; and innovation which can help to decouple growth from natural capital depletion.

The UNEP report, *Towards a Green Economy – Pathways to Sustainable Development and Poverty Eradication*, extensively discusses the issues which must inform any long-term outlook for Ireland. The report points out that many simultaneous crises have unfolded during the last decade: climate, biodiversity, fuel, food, water, and more recently, in the global financial system. A key aim for a transition to a green economy is to eliminate trade-offs between economic growth and investment and gains in environmental quality and social inclusiveness. Critical to attaining such an objective is to create the enabling conditions for public and private investments to incorporate broader environmental and social criteria. In addition, the main indicators of economic performance, such as growth in GDP, need to be adjusted to account for pollution, resource depletion, declining ecosystem services, and the distributional consequences of natural capital loss to the poor.

The UNEP report also demonstrates how greening the economy is the pro-growth strategy in the longer term: "*The greening of economies has the potential to be a new engine of growth, a net generator of decent jobs, and a vital strategy to eliminate persistent poverty*". Moving towards a green economy has thus the potential to achieve sustainable development and eradicate poverty on an unprecedented scale. Green

⁵⁷ European Commission (2011), A Roadmap for moving to a competitive low carbon economy in 2050 – Impact Assessment.

investments will enhance new sectors and technologies that will be the main sources of economic development and growth of the future: renewable energy technologies, resource and energy efficient buildings and equipment, low carbon public transport systems, infrastructure for fuel efficient and clean energy vehicles, and waste management and recycling facilities. Complementary investments are required in human capital, including greening-related knowledge, management, and technical skills to ensure a smooth transition to a more sustainable development pathway.

A 2009 Dutch-Swedish foresight study⁵⁸ sets out a vision for 2050 that encompasses producing food for a global population of nine billion while minimising biodiversity loss; mitigating climate change while enhancing energy security for the EU; and practical and workable solutions for an EU transport system that is low carbon. The study outlines parameters that could be helpful in formulating an Irish long-term vision for sustainable development. Accordingly, Ireland's longer term perspective needs to take account of the linkages between the crucial themes of natural resources, energy and transport. Investments and policy choices made or not made in the next four to five years will still have impacts in 2050. For instance, infrastructure for transport and energy has long lead times in design and construction as well as operational life. From a policy perspective we must not lose room to manoeuvre to cope with the unexpected and avoid getting locked into solutions that are costly and inefficient in the long term.

These conclusions are echoed in the European Commission's recently published Roadmap for moving to a competitive low carbon economy in 2050⁵⁹, which states that it is imperative that global emissions are cut by 50% by 2050 compared to 1990. The roadmap sets out the need for a low carbon 2050 strategy to provide a framework for longer term action and the stated EU objective of reducing greenhouse gas emissions by 80-95% by 2050. It is expected that the power generation sector will almost completely decarbonise by 2050 in a cost-efficient scenario achieving the 2050 objective whilst transport, residential and industrial/commercial emissions in the EU will be less than half of their 1990 levels. In terms of the wider EU agricultural sector however, the analysis in the Roadmap shows that by 2050 this sector can reduce non-CO2 emissions by between 42% and 49% compared to 1990. The sector has already achieved significant reductions and more reductions are feasible in the next two decades. After 2030, the rate of emission reductions in the agricultural sector could slow down, in part because of increased agricultural production for a growing global population, estimated at around 9 billion by 2050. It is also expected that there will be increased demand for bio-energy, animal feed and timber.

Under the *Review of National Climate Policy* it is proposed to develop a Low Carbon Plan to 2050 for Ireland. The Secretariat of the National Economic and Social Council (NESC) has been asked to prepare some policy analysis to inform the development of the proposed plan. The analysis work being undertaken by NESC is expected to be completed by the end of 2012.

The Commission's recently published White Paper on Transport (see section 2.6) also takes a long term perspective, envisaging a transition over time from the current oil based dependency but without losing its efficiency or compromising mobility. Transport will have to use less and cleaner energy, better exploit a modern infrastructure, and reduce its environmental impacts.

⁵⁸ Getting into the Right Lane for 2050, Netherlands Environmental Assessment Agency & Stockholm Resilience Centre (2009) www.pbl.nl/en

⁵⁹ http://ec.europa.eu/clima/policies/roadmap/index_en.htm

The Convention on Biological Diversity has also adopted a long-term vision for biodiversity that “*By 2050, biodiversity is valued, conserved and restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people*”. Similarly the EU have also set out a vision that ‘*by 2050 EU Biodiversity and the ecosystem services it provides – its natural capital – are protected, valued and appropriately restored for biodiversity’s intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided*’. Current biodiversity plans and strategies are focused on 2020 targets; subsequent policies and decisions will be made in due course aimed at achieving the 2050 vision.

In looking to the future, other areas such as pension reform will be equally as important with a key consideration being to ensure the sustainability of the Irish pensions system over the longer term in light of demographic change and the adequacy of contribution levels and benefits. Demographic projections indicate that, by the middle of the century, there will be less than two people of working age to every person aged 65 or over, compared to almost six today. In addition, the number of people over age 65 is expected to have trebled by 2050. One of the implications of these demographic changes is that the task of financing increasing pensions spending will fall to a diminishing share of the population. Furthermore, spending on public pensions (social welfare pensions and public service occupational pensions) is expected to increase from 5.5% of GDP in 2008 to almost 15% in 2050 (this rise is equivalent to over €8 billion in 2009 terms).

In that context the National Pensions Framework was published in March 2010 and sets out the long term plan for future pension reform in Ireland. It encompasses all aspects of pensions, from social welfare to private occupational pensions and public sector pension reform. Its aim is to deliver security, equity, choice and clarity for the individual, the employer and the State. It also aims to increase pension coverage, particularly among low to middle income groups and to ensure that state support for pensions is equitable and sustainable. Planned reforms include increasing State pension age (to 68 in 2028 – legislation for this is now in place); the introduction of a new automatic enrolment pension scheme; strengthening the regulatory regime for defined benefit schemes; and the introduction of new pension arrangements for new entrants to the public service.

Many in the business sector also taking a longer term perspective. The World Business Council for Sustainable Development has published *Vision 2050, The New Agenda for Business* which envisages a world well on the way to achieving sustainable development by that year and outlines a pathway of the type of progress needed to achieve that vision. This will require fundamental changes in governance structures, economic frameworks, business and human behaviour. The Report addresses questions such as - What does a sustainable world look like? What are the roles business can play in ensuring more rapid progress towards that world? The Council which comprises 29 member companies see *Vision 2050* as a platform for dialogue rather than a blueprint or prescriptive plan and highlights the gap between the vision described and a business-as-usual approach. The full report is available on the Council’s website⁶⁰:

The commitments in this Framework are first step in setting out a long-term vision for sustainable development in Ireland. Such a vision must be prepared in a participatory manner and should identify the main long term objectives and describe intermediate

⁶⁰<http://www.wbcsd.org/templates/TemplateWBCSD5/layout.asp?type=p&MenuId=MTYxNg&doOpen=1&ClickMenu=LeftMenu>

steps towards their achievement. This vision must be grounded in the Principles for Sustainable Development set out in this Framework and allow public, private and civil society sectors to implement simultaneous and mutually supportive actions.

Measures

62. Monitor implementation of the Framework for Sustainable Development for Ireland

Progress on implementation of this Framework for Sustainable Development for Ireland will be monitored periodically by an appropriate Cabinet Committee (see also Measure 63).

63. Reporting on the Framework for Sustainable Development for Ireland

Annex 2 identifies a lead Department and other Departments and agencies for each measure. It also identifies responsibilities and a timeline for delivery. Each Department will be required to report on the delivery of these measures and this process should be affirmed by relevant Departments in their Statements of Strategy.

64. Training programmes for local authority staff and elected representatives and other relevant public bodies

Sustainable development should be integrated into the training programmes for local authorities and other relevant public bodies, including in relation to financing and procurement.

65. Sustainability Assessment

The synergies between sustainability assessment and regulatory impact assessment will be examined.

66. Stakeholder Engagement for Sustainable Development

The Government will continue to support stakeholder dialogue and engagement. The National Economic and Social Council will develop its work in a way that integrates sustainable development issues into its research and analysis agenda.

4 Measuring progress on sustainability

Sustainable Development Indicators (SDI) play an important role in policy and decision making, performance measurement and benchmarking, and communication and raising awareness. Given the breadth of the sustainable development concept, there are a wide range of potential indicators that could be part of an SDI set and it can be difficult to agree on a single indicator set. Any SDI set will have limitations as it is attempting to measure complexity using a limited number of indicators. A common problem with SDI sets is that they try to incorporate indicators to address all aspects of sustainable development and then become too large to be of practical use.

Internationally, the main approach to compiling SDI sets has been to meet the information needs of a National Sustainable Development Strategy, rather than having a clearly defined conceptual framework which outlines a coherent approach to developing indicators. Few countries have provided full and detailed documentation of how they selected their indicators but this has usually involved detailed consideration of issues such as data availability and presentation and communication of the indicators. The SDI set usually then gains acceptance and legitimacy based on wide consultation rather than on the basis of a conceptual framework.

There are a number of key questions for sustainable development that an SDI set should aim to provide information for:

- How well are needs being met?
- What is the status and potential of resources or assets?
- How are these being degraded, maintained or enhanced? What are we leaving for the next generation?
- How efficiently are we using resources? Are we relatively decoupling economic growth from resource use and environmental impact?
- How fairly are resources distributed? How are inequalities being addressed?
- What responses and measures are being taken to address sustainable development challenges?

At an international level the most recent development in the area of sustainable development indicators is the publication of a report of the Joint UNECE/OECD/Eurostat Working Group on Statistics for Sustainable Development⁶¹. The aim of the Working Group was to develop a broad conceptual framework for measuring sustainable development with the concept of capital at its centre, and to identify a small set of indicators that might become the core set for international comparisons.

The Working Group had more than 90 members from 48 countries and international organizations who worked together to develop a framework for measuring sustainable development. This framework was intended as a proposal for consideration by countries interested in finding a conceptually clear and defensible basis for sustainable development indicators focused on long term well-being and has informed the development of indicators for Ireland.

At a European level, Ireland already has to report on a range of SDIs which are managed and reported by Eurostat. Therefore it is important to ensure as much synergy with current reporting systems as possible. The development of satellite accounts in the area of environmental sustainability would be most useful if linked to indicator sets.

⁶¹ United Nations Economic Commission for Europe (2009) Measuring Sustainable Development. Prepared in cooperation with the Organisation for Economic Co-operation and Development and the Statistical Office of the European Communities (Eurostat). United Nations, New York and Geneva.

While Ireland has had a sustainable development strategy in place since 1997, it has not yet adopted an SDI set. More comprehensive measures of sustainable development in Ireland should be developed to take account, in particular, the environmental impact of economic development. This is being partially addressed by the Central Statistics Office (CSO) via its implementation of the National Statistics Board's recommendation⁶² that the CSO develops a new annual environmental statistics report. This report would incorporate a range of data and complement *Measuring Ireland's Progress* (first published in 2003) which is more focused on economic and social indicators.

The roadmap for the resource efficiency initiative under EU2020 also proposes two levels of indicators:

- (1) A headline indicator - "Resource Productivity" - to measure the principal objective of the Roadmap, of improving economic performance while reducing pressure on natural resources;
- (2) A series of complementary indicators on key natural resources such as water, land materials and carbon.

The further development of an SDI set should also reflect:

- the evolution of the EU productivity and key natural resources indicators, envisaged by the European Commission up to the period 2013;
- the new EU Regulation on environmental economic accounts which has recently been introduced and which contains three modules on environmental indicators (air emissions, material flow accounts and environmental taxes) with further modules to be added.
- new arrangements for performance budgeting by Government Departments;
- development of indicators by other agencies including the EPA, SEIA, ESRI, and Forfás .

⁶² Strategy for Statistics 2009 – 2014

Sustainable Development Challenges	Indicator type	Level – the extent which needs are met.	Capital stocks – status of and changes to resources	Flow – use and influencing of capital stocks	Structural – efficiency and disparities	Response – social and political measures
Climate change and clean energy	Climate					
	Energy					
Sustainable travel and transport	Transport					
	Air Quality					
Economic prosperity	National finances and innovation					
	Employment, Skills and training					
	Education and science					
Sustainable consumption and production	Production					
	Consumption					
	Waste					
Conservation and management of natural resources	Water					
	Forests					
	Biodiversity					
Public health	Health					
Sustainable communities	Housing					
	Social inclusion					
	Demography and migration					
Global poverty and sustainable development	Development cooperation					
Land use and spatial planning	Land use					

Figure 21: Sustainable Development Indicators Conceptual Framework

Comhar Sustainable Development Council (SDC) has also undertaken work on SD Indicators over the last three years in a process that has involved a wide range of stakeholders. This has included the development of a conceptual framework for use in developing an SDI set, which is transparent and provides a rationale and justification for indicator selection (figure 21). The framework takes a strong sustainability approach and integrates relevant policy areas and the capital approach. Using a policy integration approach ensures that the indicators are associated with relevant Government commitments, relate to principles for sustainable development and key challenges outlined in this Framework. A capital approach provides for the measurement of long-term determinants of sustainable development and ensures that Ireland takes account of its human, physical, environmental and social assets and whether they are being enhanced or degraded. This overall approach ensures that the SDI sets are in line with recommended international best practice while remaining policy relevant and can be further developed in coming years as policy evolves.

The conceptual framework developed by Comhar SDC can be used to develop a comprehensive SDI set i.e. a national set, within which a set of key headline indicators are identified; and a local set. A headline set is a concise set of indicators developed for communication and awareness raising with the general public, educators, students and researchers. The primary aim of a national SDI set is to inform policy and decision making at a national level and to communicate progress on sustainable development to policy makers and other stakeholders. The local set has a similar aim, but measures progress at a local authority level.

The conceptual framework has been used by Comhar SDC to develop a headline indicators set⁶³. A national set will be further developed by the CSO, in consultation with the Department of Public Expenditure and Reform and relevant Departments and agencies, building on previous work undertaken by Comhar SDC in this area and various initiatives underway by the CSO. Similarly a local set will be developed in consultation with the Local Government Management Services Board and the County/City Managers Association.

The headline indicators developed by Comhar SDC are official statistics or calculated from official statistics. Adherence to the principles of official statistics ensures that the SDIs provide objective information for decision making, are scientifically robust, consistent over time and meet quality standards. This approach does have implications for local SDI sets as many local indicators are developed in a 'bottom-up' way and may not always meet these requirements. Overall it is intended that the development of SD indicator sets should be an evolving process and further refinement should take place as sets are implemented.

⁶³ www.comharsdc.ie

Measures

67. Sustainable development indicator set

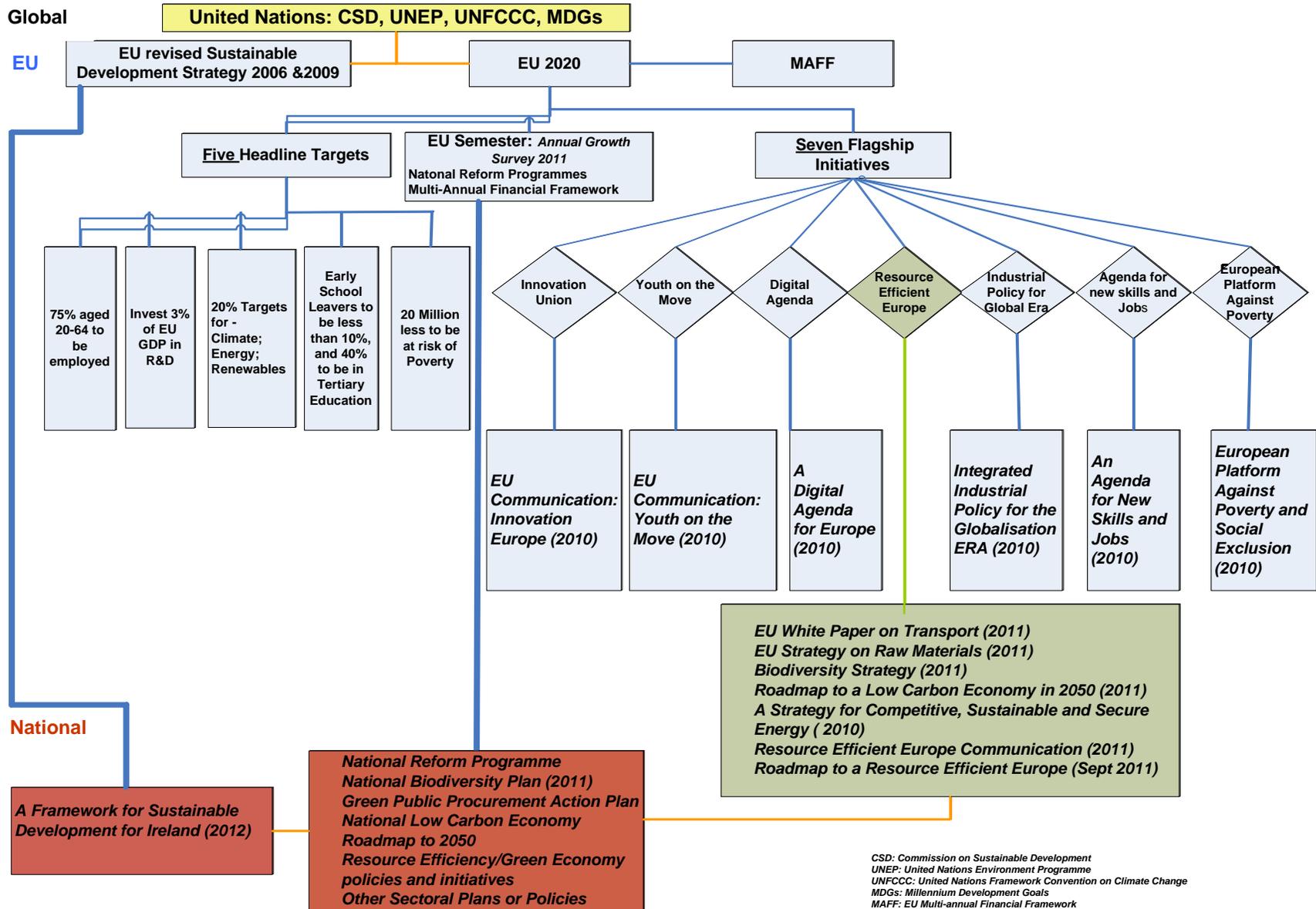
The Government will adopt and develop a sustainable development indicator set aimed at national policy making and the general public based on the conceptual framework at figure 21.

Headline indicators are a concise set of key indicators and will form part of a national set which is to be developed by the CSO, in consultation with the Department of Public Expenditure and Reform, relevant Departments and agencies and building on work undertaken by Comhar SDC in this area. The development of the indicators should also reflect the evolution of EU productivity and key natural resources indicators, envisaged by the European Commission up to the period 2013. The CSO will collate and publish the agreed national and headline SDI set on a biennial basis with support from others such as the EPA, SEAI, ESRI, Forfás and NESC. Similarly a local indicator set will be developed in consultation with the Local Government Management Services Board and the County/City Managers Association.

68. Further development of the indicators

Over the course of the strategy, further research should be undertaken to further develop and improve the SDI sets. This should be led by the CSO, in consultation with the Department of Public Expenditure and Reform, with the support of key stakeholders referred to in Measure 67. The CSO will oversee the specifications for the indicators and any revisions to the indicator sets.

Annex 1: Map of Commitments and Targets



Annex 2. Proposed Implementation Plan

Short-term (within 5 years); medium-term (six to 10 years); longer-term (beyond 10 years)

No.	Measure	Lead Department	Other bodies	Timetable
Sustainability of public finances and economic resilience				
1	Integrate environmental and social indicators into measures of economic progress	DPER, CSO		Longer term
2	Develop a framework for environmental tax reform	DF		Longer term
3	User charges	DF, DECLG		Medium term
4	Shifting the fiscal focus towards the Green Economy	DF	DCENR, DTrans, DAFF	Longer term
5	National Reform Programmes under EU 2020	DT		Short term
Sustainable consumption and production (SCP)				
6	Completion of Policy on Waste Management	DECLG		Short term
7	Resource Efficiency	Whole of Govt	DAFF, EPA	Short term
8	Green Tenders, An Action Plan on Green Public Procurement	DECLG, DPER	OPW	Short term
9	Resource Efficiency Programmes for Business	DJEI	IDA, EI, SEAI, EPA	Short term
Conservation and management of natural resources				
10	Implementation of the second National Biodiversity Plan	DAHG	DCENR, IFI	Short term
11	Development of a National Habitat Map	DAHG	DCENR, IFI	Medium term
12	Development of an integrated approach to Green Infrastructure	DAHG	DECLG, DCENR, IFI	Short term
13	Effectively communicating the economic rationale for conservation of natural resources	DAHG	DCENR, IFI	Short term
14	Development of indicators and accounting systems (satellite accounts) for natural capital	CSO	DPER, DAHG, DCENR, IFI	Longer term
15	Development of a National Landscape Strategy	DAHG	DCENR, IFI	Medium term
16	Development of an integrated approach to marine and coastal planning processes	DECLG	DAFF, DCENR, IFI	Medium term
17	Implementation of the Marine Strategy Framework Directive	DECLG	DAFF, DCENR, IFI	Medium term
18	Introduction of domestic water charges	DECLG	DPER, LAS	Medium term
Climate change and clean energy				
19	Review of climate-related policies	DECLG		Short term
20	National Climate Adaptation Framework and National Adaptive Capacity Assessment	DECLG		Short term
21	Ensure that critical infrastructure is climate resilient	DECLG, DTrans, DCENR		Longer term
22	Publish appropriate legislative instruments	DECLG		Short term
23	Emissions trading	DECLG	EPA	Medium term
24	Review of Irish Energy Policy	DCENR		Short term
25	Implementation of National Energy Action Plans	DCENR		Medium term
26	Develop a communication & research plan	DECLG		Medium term

No.	Measure	Lead Department	Other bodies	Timetable
Sustainable Agriculture				
27	Continued support for sustainable agricultural development in Ireland	DAFF		Longer term
28	Research	DAFF	EPA, Teagasc	Short term
Sustainable transport				
29	Ensure continued implementation of Smarter Travel	DTrans	DEHLG, DCENR, DF, DES, DTCS, OPW, transport agencies and LAs	Medium term
30	Examine feasibility of retrofitting gross polluter vehicles with NOX abatement technology	DTrans, DECLG		Short term
Social inclusion, sustainable communities and spatial planning				
31	Developing sustainable communities	DECLG	LAs /EPA	Short term
32	Social inclusion: Key national and EU strategies	Office for Social Inclusion, DSP	Social inclusion units, CDBs	Medium term
33	Social inclusion: housing	DECLG	LAs	Short term
34	Social inclusion: support for local and community engagement	DECLG	Las; local development sector	Short term
35	Social inclusion: guidelines on disability impact assessment	DJE		Short term
36	Social inclusion: migrant integration	Office for the Promotion of Migrant Integration	DSP, DES, DCELG, DH, DC, DJE, DAHGA, DTTS, DJEI	Medium term
Public health				
37	Review of policy framework for a sustainable public health system	DH	HSE	Medium term
38	Implement preventative interventions	DH	HSE, DECLG	Short term
39	Improve availability of information on health inequalities	DH	HSE	Short term
40	Health Information Bill	DH		Short term
41	Disease modelling	DH		Short term
Education, communication and behaviour change				
42	Strategy on Education for Sustainable Development	DES		Short term
43	Communicating progress on sustainable development	DECLG		Short term
44	Encourage Behavioural Change	DECLG		Short term
45	Aarhus Convention	DECLG		Short term
Innovation, research and development				
46	Deliver the right investment framework	DJEI, DES	DF	Medium term
47	Bridge the gap in linking R&D to sustainable commercialisation and policy development	DJEI	EI, SEAI, EPA, Forfas, Teagasc, Science Foundation of Ireland	Medium term
48	Focused research on sustainable development	EPA	Teagasc NESG	Short term

No.	Measure	Lead Department	Other bodies	Timetable
49	Postgraduate Training	DES	HEA, Teagasc, Irish Research Councils, EPA	Medium term
50	Develop Ireland's green economy	DJEI	EI, IDA, SEAI, EPA, DECLG, DAHG	Medium term
Skills and training				
51	Ensure education and training provision is aligned with the skills requirements of the Green Economy	DES	EGFSN ⁶⁴ , DAHG	Short term
52	Industry training networks for sustainability	DES		Medium term
53	Public service training	DECLG	DF	Medium term
54	Graduate placements	DES	DF, IBEC	Medium term
55	Role of Civil Society Organisations	DECLG		Medium term
Global poverty and sustainable development				
56	Official Development Assistance	DFAT, Irish Aid		Medium term
57	Address hunger and food and nutrition insecurity in the world's poorest and most vulnerable households	DFAT, Irish Aid	DAFF	Short term
58	Financing climate change actions in developing countries	DECLG, DPER	DFAT, Irish Aid	Medium term
59	Trade	DJEI	DFAT, Irish Aid	Medium term
60	Mainstreaming environment and sustainable development in aid	DFAT, Irish Aid	DECLG	Short term
61	United Nations Conference on Sustainable Development	DECLG	Irish Aid	Short term
Governance				
62	Monitor implementation of the Framework for Sustainable Development for Ireland	DECLG	DT	Short term
63	Reporting on the Framework for Sustainable Development for Ireland	DECLG	All relevant Departments and agencies	
64	Training programmes for local authority staff, elected representatives and other relevant bodies	DECLG	CCMA, LAMA, GCCC, AMAI	Short term
65	Development of Sustainability Assessment	DECLG	DF, DPER	Short term
66	Stakeholder engagement for Sustainable Development	DECLG	NESC	Short term
Measuring progress on sustainability				
67	Sustainable Development Indicator set	CSO	DECLG, DPER, DAHG, EPA, SEAI, ESRI, NESC, Forfas, Las, LGMSB	Short term
68	Further development of the indicators	CSO	DECLG, DPER	Medium term

⁶⁴ Expert Group on Future Skills Needs