An Taisce
The National Trust for Ireland

20130107-01-CDP

Forward Planning Unit
County Hall
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Co Louth

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07.01.14

Re: Pre-Draft Submission to the Preparation of the Louth County Development Plan 2015-2021

Sir/Madam,

An Taisce welcomes the commencement of a review of the County Development Plan (CDP) and would like to make the following comments which we request the Planning Authority (PA) take into consideration in the finalisation and adoption of the CDP, including the accompanying Strategic Environmental Assessment (SEA) and Article 6 Habitats Directive Assessment (HDA).

It is noted that this consultation is running concurrent to preparation of both a Green Infrastructure Strategy and Retail Strategy for County Louth. It is considered the CDP should adopt these strategies and include sections within the CDP.

We would also request that the PA make An Taisce known of any further consultation periods regarding the making of this CDP and issue An Taisce with notification of any future proposed amendments to the Draft CDP and notification of the final adopted CDP.

Yours sincerely,

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Pre-Draft Submission to the Review of the Louth County Development Plan

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1.0 Executive Summary

The new CDP will provide a key policy document of central importance for a critical period in Irish society and will form a contract between the PA and the local community embodying a promise to regulate land use in accordance with its policies and objectives[1]. It is now two decades since the 1992 Earth Summit in Rio de Janeiro when scientists warned humanity that 'no more than a few decades remain before the chance to avert the threats we now confront will be lost and the prospects for humanity immeasurably diminished'. The worldwide response to these messages from those in a position to bring about change has been almost nil. It is now, therefore, imperative that the new CDP set out a clear, rational, evidence based and plan-led strategy for the future spatial development of the locality to address critical emerging global challenges, **most importantly energy scarcity and climate change**, and is grounded in the principles of sustainable development.

1.1 General

- The objective for those preparing the new CDP should be conciseness, clarity and simplicity in use of language, and that planning terms be explained in an appending glossary. The excessive flexibility inherent in many CDPs is a key factor in the long delays experienced in the planning process. This flexibility is evidenced both vagueness and by 'let-out' clauses which causes interpretation problems for the developer, the Councillors, the public, and even the officials.
- Since the adoption of the previous CDP for the area a plethora of new long overdue environmental regulations have been brought into force which places strict new legal obligations on the PA. Regardless of the scale of the CDP, compliance with these new regulations cannot be ensured in the absence of undertaking a full Strategic Environmental Assessment (SEA) and Habitats Directive Assessment (HDA) in parallel with the preparation of the CDP.
- The CDP must be informed by a high level of transparency, democratic participation, community empowerment, and local decision-making and ownership. The Julianstown Village Design Statement prepared by the Heritage Council is useful example of how this can be achieved.
- The PA has a duty and obligation to protect and secure the value of the multi-billion asset loan portfolio which has been transferred to the tax-payer via the National Asset Management Agency (NAMA). The excessive zoning of land and the granting of planning permission for development on unzoned land (including multiple one-off housing) will have the effective of diluting this asset portfolio and undermine a successful return to the tax-payer.

1.2 Strategic Planning & Zoning

- In accordance with provisions of the Planning & Development (Amendment) Act (PDA) 2010 it is now a mandatory legal requirement that the CDP must 'be consistent with' with the relevant Regional Planning Guidelines and the National Spatial Strategy.

[1] See McCarthy J. In Attorney General (McGarry) v. Sligo County Council [1991]

- The CDP must comply with the new methodical and evidence-based approach to land-use zoning and settlement planning included under the PDA 2010 which requires a demonstrated rational 'joined up' assessment of zoned land requirements based on such criteria as, inter alia, regional population targets, the sequential approach, flood risk assessment, infrastructure capacity, natural habitats and S.28 Guidance published by the DoECLG.
- The PA must only apply considerations of proper planning and sustainable development (i.e. sequential approach, flooding etc) in zoning, phasing, de-zoning or downzoning land and disregard all other considerations including private interests or potential commercial or rate generating revenue.
- The PA must issue the draft CDP and any proposed amendments to the draft CDP to the Regional Planning Authority (RPA) (and/or the National Transport Authority (NTA) to test compliance with the RPGs (and/or the GDA Transport Strategy) and the response from the RPA must be made available to the public.
- The PA must not include any new zoning objective, local objective or delist a protected structure without providing the public and all prescribed bodies with an opportunity for scrutiny and comment.

1.3 Fossil Fuels and Climate Change

- Climate change is the defining challenge of our time. The primary objective of the CDP must be to break the locality's dependence on oil, stopping the locality's contributions to global warming and preparing the locality with the resilience to thrive in a time of energy and climate uncertainty.
- The PA should refer to the following critical reports which should be foremost in the consideration by the PA in the preparation of the CDP:

    1. Intergovernmental Panel on Climate Change (2013) - Fifth Assessment Report (AR5).
    2. A Baseline Assessment of Irelands Oil Dependence - Key Policy Considerations, Forfas, 2006
    3. IMF World Economic Outlook, April 2011: Oil Scarcity, Growth and Global Imbalances
    4. IMF, The Future of Oil Versus Technology, 2012
    5. Tipping Point: Near Term Systemic Implications of a Peak in Global Oil Production: An Outline Review; Feasta, 2010
    6. Sustainable Energy Security – Strategic Risks and Opportunities for Business (White Paper), Lloyds/Chatham House, 2010
    7. The Oil Crunch - UK Industry Task Force on Peak Oil and Energy Security (2010)
    8. Growth Isn't Possible – Why We Need A New Economic Direction, New Economics Foundation/Schumacker College, 2010

- The CDP should discontinue any objectives which provide for investment in oil dependent infrastructure (e.g. new roads, airports etc).
- The PA must prepare a strategy which would see the electrical generation needs of the locality primarily met by renewable sources by 2020, and entirely by 2030, including major use of local renewable energy sources, district heating and combined heat and power, and energy demand measures.
- Prepare and adopt a local Climate Change strategy in parallel with the preparation of the CDP – See Appendix 3

1.4 Sustainable Transport & Land Use Patterns

- A local transport plan must be prepared alongside the CDP setting out how the objectives of the national Smarter Travel policy will be achieved locally and translated into measurable action.
- The CDP must have the overall objective of significantly reducing transport demand by creating compact walkable settlement patterns and include detailed policies on walking and cycling. This must include permeability and way-finding studies to identify a safe network of existing/future walking and cycling routes which must be used as a chief criteria in selecting all land zoned for new development.
- The CDP must be carefully aligned with the regional transport strategies of the NTA, particularly with respect to rail infrastructure and bus services.
- Major new road objectives in the CDP must be discontinued. Investing further public monies on oil dependent transport infrastructure is wasteful.
- The sequential approach must be applied to the zoning of all land and the review of zoning in accordance with the PDA 2010 (including the phasing, de-zoning or down-zoning land).
- Land zoned for residential development must be located in close proximity and/or be well connected by public transport corridors (rail or bus) to existing and/or proposed services (e.g. schools, retail, community/health centres, sports/amenity facilities etc) and employment sites.
- Small-scale local industrial/commercial zones proximate to existing or proposed residential areas must be provided to deliver local employment opportunities rather than promoting large-scale industrial/warehouse parks.
- Mobility Management Plans must be made mandatory through the development management process for all planning applications (including one-off houses) requiring applicants to demonstrate how the objectives of the national Smarter Travel policy will be achieved through the development proposal.
- In accordance with the Sustainable Residential Development Guidelines in Urban Areas Guidelines the CDP must include policies to prohibit large-scale suburban type development proposals. Only development proposals commensurate with local physical infrastructure and social capital carrying capacity should be permitted.
- S.48 development contribution levies in lieu of off-street car parking in town centres should be dis-applied to counteract vacancy and revitalise traditional town centres
- Out-of-town commercial and/or retail development must be strictly prohibited. Where it has been permitted historically, car parking charges must be made mandatory to level the playing field and the unfair competitive advantage accruing to 'big box' out-of-town retailers from free car parking and publicly subsidised road infrastructure.
- The CDP must include policies to provide alternatives to unsustainable urban-generated dispersed one-off housing, including, for example, a serviced site policy (see Limerick County Council's Serviced Site Policy).
- A greenbelt policy should be implemented in peri-urban areas in the vicinity of the CDP boundary with strict restrictions on urban-generated one-off housing to prevent ribbon development and uncontrolled sprawl (See Cork County Development Plan 2009-2015).

1.5 Economic & Employment Development

- Given the impacts of energy scarcity continued GDP economic growth in the Irish economy is unlikely and, in any event, is unsustainable in the long-term. It is prudent to plan now for a different economic future including low-growth, no-growth or contraction scenarios.
- The CDP must include policies which support the development of a vibrant local manufacturing base that is based on the sustainable use of local indigenous resources and local markets which will make the locality more resilient in long run e.g. food processing, basic manufacturing etc
- In light of peak oil, the CDP must plan for higher and more volatile energy prices (and high material costs too) over the period of the CDP and to use this window of opportunity to transition the CDP area into a post-carbon, low energy, low consumption and resilient locality.
- The CDP must set out a carefully crafted strategy and form a binding contract between the PA and the community based on proper planning principles. The current economic climate must not be used as a short-sighted opportunity to loosen proper planning regulation for short-run economic return.
- Ireland's principle resource is our abundant availability of fertile agricultural land. The CDP must include policies to promote the sustainable local exploitation of natural resources for local markets.
- The CDP should include a policy for the promotion of local farmers markets and identify locations where farmers markets can take place.
- The CDP must include policies for the prohibition of out-of-centre retail development. The PA must take an active role in site assembly for new retail development on brownfield and infill sites, including using CPO powers where necessary to provide for the sensitive revitalisation of town centres.
- The PA must require the introduction of car parking charges for out-of-centre retail development and introduce a corresponding S.48 waiver for development contribution levies in lieu of off-street car parking for new retail development in town centre locations.
- The CDP must include a specific policy that explicitly provides that the change of use of retail warehouse units to non-bulky goods comparison and/or convenience uses will not be permitted.
- The CDP should include a policy which restricts large floor-plate multiples, which are dependent on complex oil-dependent supply chains, in favour of smaller floor-plate local shops and businesses.
- The CDP must include a detailed audit of all physical infrastructure (i.e. waste-water, potable water, ICT, transport, electricity etc) including location and capacity, to be used as a key criteria in determining the appropriate quantum and location of future new development.
- The CDP must include a clear programme of implementation which links the delivery of key pieces of social, physical and environmental infrastructure with the sequential and phases development of zoned land. It must clearly and transparently inform the citizen and manages expectations about the future development of an area. The CDP should not include policies and objectives unless the PA is confident of their successful implementation.
- The physical infrastructure audit should include an "Oil Vulnerability & Carbon Price Impact Assessment" to explore the threats from inflated and volatile oil prices together with the future (shadow) price of carbon. This should be undertaken for both capital and

operational municipal functions (e.g. sewage treatment, water supply, road developments, road repair, flood defences etc)

- The CDP must include an Employment Land Survey to determine the quantum of employment land and where employment land should be located in the context of sustainable transport objectives and the existing and future carrying capacity of physical infrastructure.
- Small-scale local industrial/commercial zones proximate to existing or proposed residential areas must be provided to deliver local employment opportunities rather than promoting large-scale industrial/warehouse parks.

1.6 Water

- The CDP must include a suite of integrated policy measures to ensure that the PA's legal obligations under the Water Framework Directive and the operable River Basin Management Plan are achieved.
- The quantum of land zoned in the CDP must be carefully matched and phased with the existing and/or planned Population Equivalent (PE) capacity of the local waste-water treatment plan. Where there is no commitment in the Water Services Investment Programme (WSIP) to fund additional waste-water treatment capacity surplus zoned land should be dezoned in accordance with the sequential approach.
- The CDP must include policies to provide alternatives to unsustainable urban-generated dispersed one-off housing, including, for example, a serviced site policy (see Limerick County Council's Serviced Site Policy).
- The CDP must de-zone or down-zone lands categorized in 'Flood Zone A' of 'Flood Zone B' applying the sequential approach. Where the zoning of recognised flood prone areas is retained a detailed Justification Test in accordance with the Flood Risk Assessment & Management Guidelines must be carried out.
- The use of Sustainable Urban Drainage Systems (SUDS) and rainwater harvesting must be made mandatory for all new development proposals.
- The CDP should seek to implement a Green Roofs policy through the development management process. It should be a mandatory requirement for all new developments to include an element of green roof technologies.
- The PA should explore the use of Integrated Constructed Wetlands (ICW) as a low –cost and environmentally sustainable alternative to heavy engineered and energy intensive waste water treatment facilities.

1.7 Natural Capital & Ecosystem Services

- In order to prevent potential legal action the CDP and development management decisions of the PA must rigidly adhere to its substantial legal obligations under EU law.
- Achieving adherence to the PA's legal obligations under the Habitats Directive and other environmental legislation cannot be achieved without the preparation in tandem with the CDP of a full SEA and HDA.
- The policy recommendations of the National Biodiversity Plan 2010 – 2015 should be fully incorporated into the CDP and a Local Biodiversity Action Plan prepared.
- The CDP should adopt a Green Infrastructure approach and include a section entitled Green Infrastructure modelled on the content of the Fingal County Development Plan 2010 – 2016 (Chapter 8)

1.8 Social Capital & Public Participation

- Bridging the gap between strategic planning, environmental requirements and the wider interests of the common good with local interests can be a process fraught with difficulty and conflict. The PA should appoint an independent facilitator to manage the public participation and consultation process[2].
- The CDP should implement the policies included in the recent report prepared by the Irish Heart Foundation – Building Young Hearts: Physical Activity, Young People and the Physical Environment, 2010.
- The CDP must designate suitable locations for allotments/community gardens and include a requirement that a designated area for allotment space be required in each new residential/mixed-use developments.

1.9 Cultural & Built Heritage

- The CDP should seek to designate more Architectural Conservation Areas (ACA's) and Special Planning Control Schemes.
- S.48 development levies for Protected Structures should be waived to encourage sensitive reuse and adaptation.
- Important views and prospects must be protected.
- The Architectural Heritage Protection Guidelines for Planning Authorities must be implemented in full.

1.10 Implementation & Monitoring

- The CDP must include a detailed implementation and monitoring schedule which outlines the manner in which the CDP envisages the future development of the area with particular focus on the phased and sequential development of the locality – See Appendix 1.
- A designated implementation officer must be appointed to oversee the implementation of the CDP and ensure joined up thinking between development management, forward planning, environment, service, infrastructure provision etc.
- The concept of a 'Sustainability Matrix' is now well developed throughout the UK and increasingly in Ireland and we recommend the PA include a requirement for all development proposals to be required to submit a Sustainability Statement with all planning applications. An excellent exemplar of a Sustainability Matrix is included the Clonburris Strategic Development Zone (SDZ) strategy prepared by South Dublin County Council.

[2] See for example www.partnerships.org.uk

2.0 Strategic Planning & Zoning

CDPs are an important part of the planning system. However, many CDPs have very often been little more than zoning vehicles for vested interests capitalising on the significant legislative and oversight loopholes that formerly existed. With the introduction of the Planning & Development (Amendment) Act (PDA) 2010 these loopholes have now been closed. The adopted CDP must therefore strictly adhere to the new legal framework which now exists.

2.1 Core Strategy & Settlement Strategy

A range of provisions of the PDA 2010 require that the land-use zoning and other provisions of all CDPs must ***'be consistent with'*** the National Spatial Strategy, the relevant Regional Planning Guidelines and S.28 Ministerial Guidelines issued under the Planning Acts 2000 - 2010. **Consistency is now a mandatory legal requirement and it would be unlawful for the PA to deviate from these higher level plans and policies**.

Recommendation:

- The CDP must comply with the new methodical and evidence-based approach to land-use zoning and settlement planning included under the PDA 2010 which requires a demonstrated rational assessment of zoned land requirements based on such criteria as, inter alia, regional population targets, the sequential approach, flood risk assessment, infrastructure capacity, natural habitats and S.28 Guidance published by the DoECLG.

2.2 Land-Use Zoning

The zoning of land for appropriate and sustainable uses is at the heart of planning and if this departs from proper principles the whole system is in difficulty and this extends to the property and land market and the construction industry. Where land is zoned there is a presumption in principle that development will be permitted and to refuse could mean the PA being faced with claims for compensation by landowners.

Box 5.2

Housing Location in Urban Areas	Evaluation Considerations
The Asset Test	Are there existing community resources, such as schools etc, with spare capacity?
The Carrying Capacity Test	Is the environmental setting capable of absorbing development in terms of drainage etc?
The Transport Test	Is there potential for reinforcing usage of public transport, walking and cycling?
The Economic Development Test	Is there potential to ensure integration between the location of housing and employment?
The Character Test	Will the proposal reinforce a sense of place and character?
The Community Test	Will the proposal reinforce the integrity and vitality of the local community and services that can be provided?
The Integration Test	Will the proposal aid an integrated approach to catering for the housing needs of all sections of society?

Figure 1 - The 7-Point Test for Zoning Land – National Spatial Strategy 2002

The PA must be mindful of the very significant contribution that the over-zoning and the ad hoc approach to zoning played in the inflation of the largest property bubble in the history of the world and ultimate the catastrophic consequences this has had on Irish society (See A Haunted Landscape – Housing & Ghost Estates in Post-Celtic Tiger Ireland). The PA must also recognise that its own interest is only effectually achieved through integration with its region and surrounding area. It would be inappropriate of any individual authority to be motivated in the zoning of land, particularly for commercial development, by the realisation of development contributions or rates income. Such a consideration is not provided for under planning legislation and it would be ultra vires of any PA to be motivated by such an interest, whether overtly or otherwise.

The inappropriateness of zoning objectives in many instances becomes a reality at appeal to An Bord Pleanála. The Board routinely disregards zoning objectives which are not in accordance with the principles of proper planning and sustainable development and refuses planning permission. **This undermines confidence in the planning system and leads to misplaced investment decisions by private investors, significant costs, conflict with local communities and is ultimately counterproductive.**

The former Chairman of An Bord Pleanála in his 2007 report stated that stronger account needed to be taken of important new realities such as climate change, energy costs and the need to minimise heritage loss. He stated:

> *'It is incumbent on planning authorities and An Bord Pleanála when making decisions on planning applications, to interpret Development Plans in a way that reflects these realities. In dealing with planning appeals the Board is constantly coming across zoned sites that are too far removed from developed areas, too remote from public facilities such as piped services, footpaths, lighting and with no prospect of public transport.'*

The Board has recently refused planning permission for development where there was significant over-zoning (PL27.238851). Due to the legacy of significant over-zoning the implications of the PDA 2010 will most likely necessitate the de-zoning, down-zoning or phasing of significant amount of zoned land and a careful reprioritisation (phasing) of future new development towards efficient, compact and walkable serviced locations in accordance with the sequential approach and infrastructure capacity.

The principle of de-zoning and down-zoning of land has been established and the planning legislation is very clear from planning legislation that there is no legal or constitutional prohibition on altering or discontinuing the zoning of land[3].

Recommendation:

- Following an evidence-based assessment of the quantum of zoned land within the CDP area, where there is surplus supply an appropriate quantum of land must be de-zoned, down-zoned or phased in accordance with the provisions of the PDA 2010.
- The PA must only apply considerations of proper planning and sustainable development (i.e. sequential approach, flooding etc) in zoning, phasing, de-zoning or downzoning land and disregard all other considerations including private interests or potential commercial or rate generating revenue.
- Following any future precedential decision from An Bord Pleanála which overturns a PA

[3] See: Regional Authorities - Regional Planning Guidelines Implementation Annual Report 2011

decision, a review should be undertaken to examine the basis on which the decision was made, and a report presented to Councillors on required amendments to the CDP required. This is a key conclusion of the recently published DoECLG Planning Review Report.

2.3 Oversight

The PA must be mindful of its obligations towards national and regional development and not narrow local issues. The State continues to invest billions of taxpayers' money in infrastructure and services (e.g. waste water treatment) and it is essential that the PA aligns the CDP to maximise the efficacy of public investment for the common good of society as a whole.

The PDA 2010 now provides that the relevant RPA has a specific remit in vetting local authority CDPs to ensure they are consistent with higher level plans and policies. The Minister can also intervene through the revised S.31 procedure of the PDA to require a local authority to ensure CDP objectives are consistent with the proper planning and sustainable development of the area.

The Draft CDP must now be issued to the RPA for an assessment of consistency at each stage prior to adoption (See Implementation of Regional Planning Guidelines – Best Practice Guidelines (DoECLG 2010)). In the Dublin Region, the Dublin Transportation Authority Act 2008 further provides that the DTA can intervene in the CDP to ensure compliance with transportation strategy objectives for the Greater Dublin Area.

Recommendation:

- The PA must issue the draft CDP and any proposed amendments to the draft CDP to the RPA (and/or the NTA) to test compliance with the RPGs (and/or the GDA Transport Strategy) and the response from the RPA must be made available to the public.

2.4 Last – Minute Zoning Amendments

Previously the practice developed throughout Ireland of land-use zoning and other amendments being included immediately before the adoption of the CDP without giving any opportunity for prior public scrutiny of comment. This practice is now unlawful and must not be entertained by the PA.

Recommendation:

- The PA must not include any new zoning objective, local objective or delist a protected structure without providing the public and all prescribed bodies with an opportunity for scrutiny and comment.

3.0 Fossil Fuel & Climate Change

3.1 Challenge

Fossil Fuel and climate change are the interrelated biggest and defining challenges of our time. We are currently experiencing an environmental and resource crisis that places human development at a crossroads. The implications of climate change, and fossil fuel extraction and combustion are becoming increasingly visible and are being exacerbated by economic recession.

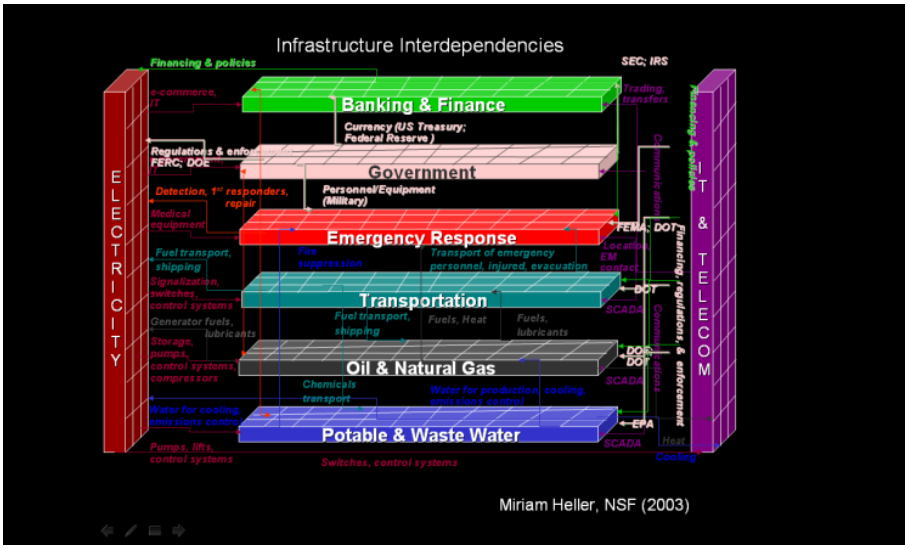


Figure 2 - Irish Society is complex and extremely vulnerable to energy scarcity.

The effects of these challenges are, and will continue to be, multi-faceted and systemic. Effects include energy price inflation, increased flooding; increases in the cost of resource dependent production; food shortages and other scarcities. These challenges, and the necessary development of policies to address them, are becoming a reality with which society has to learn to live by becoming more localised and resilient.

Recommendation:

- The primary objective of the CDP must be to break the locality's dependence on oil, stopping the locality's contributions to global warming and preparing the locality with the resilience to thrive in a time of energy and climate uncertainty.

3.2 Fossil Fuel

During the last decade the extraction of oil from conventional well sources peaked. Ireland is the seventh most oil dependent economy in the world where energy usage increased by 67% between 1990 and 2006. Further, demand for fossil fuels is increasing, not decreasing.

Ireland is 99% dependent on oil for transport and is amongst the most private car dependent countries in the world. Ireland is also highly dependent on road haulage for freight with only an extremely marginal rail freight infrastructure. The amount of oil used for transportation in Ireland tripled between 1972 and 2002, leaving Ireland consuming at least 50 per cent more per capita than the average of the EU-25 by the end of the period.

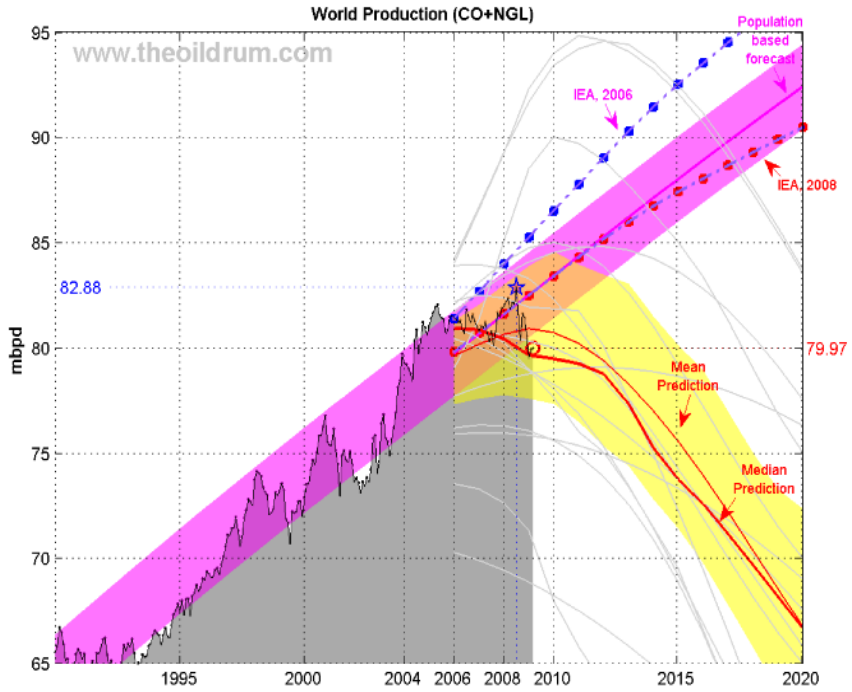


Figure 3 - The IEA has confirmed that the production of conventional oil peaked in 2006.

The Chief Economist of the International Energy Agency, Fatih Birol, recently confirmed that peak conventional oil production occurred in 2006. There is growing international consensus, as expressed by Macquarie Bank, Goldman Sachs, McKinsey Consultants, the UK Industry Task Force on Peak Oil and Energy Security, the UK Energy Research Council, IHS Herold, OFGEM, ASPO, Global Witness, the International Energy Agency and the Saudi Oil Ministry together with, most recently, Lloyds Bank that the 'era of cheap oil is over' and that serious supply constraints and an oil supply crunch is likely in the short-to-medium term. The Hirsch Report commissioned by the US Department of Energy in 2005 highlights very clearly that the era of plentiful, low-cost petroleum is approaching an end. World demand for oil is predicted to increase by 50% over the period up to 2025 at a time when the world oil reserves are diminishing rapidly and will lead to rapid price inflation and scarcity. According to the IEA, in order to sustain projected global energy demand the world will need to discover 'four new Saudi Arabias'.

The key issue with peak conventional oil is that it is not an energy crisis so much as a 'liquid fuels' crisis, which will have immediate consequences for the main categories of oil usage, in particular transportation. As Ireland is particularly and increasingly dependent (for exports) on oil for transportation, we are particularly vulnerable to oil price inflation and it is important to start preparing and contingency planning for such an event. The Hirsch Report states:

> *"The peaking of world oil production presents the U.S. and the world with an unprecedented risk management problem. As peaking is approached, liquid fuel prices and price volatility will increase dramatically, and, without timely mitigation, the economic, social, and political costs will be unprecedented. Viable mitigation options exist on both the supply and demand sides, but to have substantial impact,* ***they must be initiated more than a decade in advance of peaking."***

More recently, the International Energy Agency - World Energy Outlook published in November 2009 and again in November 2010 confirmed that oil prices are likely to inflate significantly through to 2030 and the continuation of current energy use trends would have dire consequences

for climate change together with huge systemic implications for the economy, society and environment. They would also exacerbate ambient air quality concerns, thus causing serious public health and environmental effects, particularly in developing countries. The current economic recession is likely to further exacerbate oil price inflation due to lack of current investment in boosting capacity.

As confirmed in the Hirsch Report there is no ready alternative to oil for private vehicle use. In this context, debates over substituting oil with renewable, gas or nuclear energy are irrelevant. The widespread replacement of the current vehicle stock with electric powered vehicles is economically and environmentally impractical. The mass production of battery or hydrogen technology capable of the propulsion of electric vehicles, particularly HGVs, is at the very least several decades off and it is most probable that there is no technological solution to this problem.

The preferred raw material for the production of batteries, Lithium, is itself severely resource constrained and found largely in highly environmentally sensitive and politically unstable regions of the world. In any event, the mass production of electric vehicles is wholly resource inefficient and the use of increasingly scarce energy for unproductive uses, such as electric vehicles, would be imprudent. Bio-fuels are not a solution as it competes with food for land and drives up food prices. For example, the grain required to fill the tank of a modern car could feed one person for a year.

Accordingly, any rational analysis of future available oil resources and energy resources would result in an inevitable conclusion that further public investment in oil dependent transport infrastructure is short-sighted, ill-conceived and an inefficient use of public funds. While we recognise that there remains a considerable straightforward connection in the minds of policy makers and elected members as to the economic benefits of road and air infrastructure, the overwhelming international evidence clearly indicates that past trends must not be used as a guide to likely future outcomes. Further investment in Ireland in road infrastructure (outside of road infrastructure maintenance) and the shaping of our society and economy around oil based transport (i.e. dispersed settlement patterns, suburban sprawl, export growth) will inevitably increase and 'lock-in' our exposure to oil price inflation and undermine the resilience of our economy and society in an era of peak oil.

Recommendation:

- The PA should refer to the following critical reports which should be foremost in their consideration in the preparation of the CDP:
  1. Intergovernmental Panel on Climate Change (2013) - Fifth Assessment Report (AR5).
  2. A Baseline Assessment of Irelands Oil Dependence - Key Policy Considerations, Forfas, 2006
  3. Tipping Point: Near Term Systemic Implications of a Peak in Global Oil Production: An Outline Review; Feasta, 2010
  4. Sustainable Energy Security – Strategic Risks and Opportunities for Business (White Paper), Lloyds/Chatham House, 2010
  5. The Oil Crunch - UK Industry Task Force on Peak Oil and Energy Security
  6. **6. Growth Isn't Possible – Why We Need A New Economic Direction, New Economics Foundation/Schumacker College, 2010**
- The CDP should discontinue any objectives which provide for investment in oil dependent infrastructure (e.g. new roads).
- The PA must prepare a strategy which would see the electrical generation needs of the

locality primarily met by renewable sources by 2020, and entirely by 2030, including major use of local renewable energy sources, district heating and combined heat and power, and energy demand measures.

3.3 Why most Fossil Fuels must be left in the Ground

Instead of investing in energy use conservation and renewable alternatives, the global trend has been to increase the extraction rate of large scale open case coal mining and extend oil and gas exploration into new areas and with problematic new technologies.

This has resulted in new explorations ranging from the Arctic wilderness to Central Africa. Russia is promoting drilling in the Arctic with the 2010 Deepwater Horizon spill showing the risks involved. The increased level of extraction from Canadian Tar Sands and the Niger Delta is devastating in environmental impact and generates much high level of emissions that conventional wells. Fracking in the US has created new environmental risks and has significant impact in climate emissions for the extraction process. Globally energy companies are in an exploration race to secure a level of fossil fuel extraction which is incompatible with the level of decarbonisation required to stabilise global climate at 2 degrees above pre industrial levels.

In 2012 if the Grantham Institute for Climate Change (based in Imperial College London) and the Carbon Tracker Initiative (An International NGO monitoring carbon emissions) published 'Unburnable Carbon 2013: Wasted Capital and Stranded Assets'. This reveals that total fossil fuel reserves already far exceed the global atmosphere capacity to absorb the emissions generated if temperatures are to be stabilised at 2^0c above preindustrial levels.

Between 60-80% of coal oil and gas reserves of publically listed companies are unburnable if the world is to have chance of not exceeding global warming of 2^oc. The issue is now to achieve an effective global climate agreement and carbon tax regime which will secure this.

Mary Robinson is now taking leadership stating in September 2013

> *'There is a global limit on a safe level of emissions. That means major fossil fuel reserves must be left in the ground. That has huge implications for economic and social development.'*

3.4 Greenhouse Gas Emission Reduction Targets

Ireland has signed up to the 20:20:20 EU agreement whereby we have a legally binding pledge to reduce greenhouse gas emissions by 20% below 1990 levels and increase energy efficiency by 20% by 2020. The scale of change needed to meet Ireland's commitments is enormous. Ireland's national Greenhouse Gas (GHG) emissions reduction target equates to approximately 2.5% per year until 2020. Greenhouse gas emissions from the transport sector have risen 170% over 1990 levels primarily due to spatial sprawl.

Accordingly further infrastructure investment in roads to serve energy inefficient and emission generating private motorised vehicles is untenable. Further investment in Ireland in road infrastructure (outside of road infrastructure maintenance) and the shaping of our society and economy around oil based transport (i.e. dispersed settlement patterns, suburban sprawl, export

growth) will inevitably increase and 'lock-in' our exposure to oil price inflation and undermine the resilience of our economy and society in an era of peak oil.

The Environmental Protection Agency (EPA) has estimated that in the non Emissions Trading Scheme (ETS) sectors, Ireland will exceed its EU Effort Sharing Directive (ESD) target by 2017 and may have a cumulative excess emissions of 2-20Mt by 2020 in agriculture, transport and home heating. In effect, Ireland is not bothering to co-ordinate any concerted effort to reduce emissions and embrace low carbon development. Furthermore, Ireland has no strategic planning in place to play its part, if the overall EU target is to be stepped up to 30% in the context of a global agreement on climate change. The EU Emissions Trading Scheme (ETS) has collapsed by failing to put the climate pollution impact price on carbon.

The PDA 2010 includes a new mandatory objective for development plans[4] as follows:

> *"The promotion of sustainable settlement and transportation strategies in urban and rural areas including the promotion of measures to:*
>
> *i. reduce energy demand in response to the likelihood of increases in energy and other costs due to long-term decline in non-renewable resources,*
> *ii. reduce anthropogenic greenhouse gas emissions, and*
> *iii. address the necessity of adaptation to climate change*
>
> *in particular, having regard to location, layout and design of new development."*

The PA has an obligation to respond now to the challenges of climate change through development which reduces the need for energy use, support sustainable modes of transport which will reduce the locality's carbon footprint in order to minimise the locality's greenhouse gas emissions and adapt to the effects of climate change, with particular reference to the areas of land use, energy, transport, water resources, flooding, waste management and biodiversity.

Recommendation:
• Prepare and adopt a local Climate Change strategy in parallel with the preparation of the CDP – See Appendix 3

[4] Section 10(2) of the 2000 Act as amended by section 7 of the Planning and Development (Amendment) Act 2010

4.0 Sustainable Transport & Land Use Patterns

4.1 Achieving Smarter Travel

The Government launched *'Smarter Travel – A Sustainable Transport Future'* in February 2009. The document, which was the subject of extensive public consultation, includes five key goals – (1) to reduce overall travel demand, (ii) to maximise efficiency of the transport network, (iii) to reduce reliance on fossil fuels, (iv) to reduce transport emissions and (v) to improve accessibility to transport.

The targets included in the Smarter Travel policy to significantly increase sustainable modal choices and reverse car dependency are challenging but urgently required. The CDP must include specific policies, objectives and measures to translate national policy into tangible local action.

The PDA 2010 includes a new mandatory objective for development plans[5] as follows:

> *"The promotion of sustainable settlement and transportation strategies in urban and rural areas including the promotion of measures to*
>
> *i. reduce energy demand in response to the likelihood of increases in energy and other costs due to long-term decline in non-renewable resources,*
> *ii. reduce anthropogenic greenhouse gas emissions, and*
> *iii. address the necessity of adaptation to climate change*
>
> *in particular, having regard to location, layout and design of new development."*

Circular PSSP-4-2010 to all planning authorities and has determined that the following national policy documents relate to proper planning and sustainable development under Section 9(6) of the Planning & Development Act 2000:

- Smarter Travel – A Sustainable Transport Future: A New Transport Policy for Ireland 2009 – 2012 (Department of Transport)

The requirements of this new provision will require a considerable shift in emphasis away from dispersed settlement patterns towards consolidation and compact urban forms. As a subsidiary to the county/city development plan, the CDP has a pivotal role in ensuring that spatial and transport planning are aligned to avoid unsustainable travel patterns and to ensure the objectives of Smarter Travel are achieved locally.

In the context of land use planning, the most effective means to achieve these objectives is to prevent inefficient and unsustainable car-based development sprawl i.e. planning for the best use of land to benefit from investment of public funds in physical infrastructure, including public transport infrastructure.

Recommendation:

- A local transport plan must be prepared alongside the CDP setting out how the objectives

[5] Section 10(2) of the 2000 Act as amended by section 7 of the Planning and Development (Amendment) Act 2010

of the national Smarter Travel policy will be achieved locally and translated into measurable action.

- The CDP must have the overall objective of significantly reducing transport demand by creating compact walkable settlement patterns and include detailed policies on walking and cycling. This must include permeability and way-finding studies to identify a safe network of existing/future walking and cycling routes which must be used as a chief criteria in selecting all land zoned for new development.
- The CDP must be carefully aligned with the regional transport strategies of the National Transport Authority (NTA), particularly with respect to rail infrastructure and bus services.
- New road objectives in the CDP must be discontinued. Investing further public monies on oil dependent transport infrastructure is wasteful.
- The sequential approach must be applied to the zoning of all land and the review of zoning in accordance with the PDA 2010 (including the phasing, de-zoning or down-zoning land).
- Land zoned for residential development must be located in close proximity and/or be well connected by public transport corridors (rail or bus) to existing and/or proposed services (e.g. schools, retail, community/health centres, sports/amenity facilities etc) and employment sites.
- Small-scale local industrial/commercial zones proximate to existing or proposed residential areas must be provided to deliver local employment opportunities rather than promoting large-scale industrial/warehouse parks.
- Mobility Management Plans must be made mandatory through the development management process for all planning applications (including one-off houses) requiring applicants to demonstrate how the objectives of Smarter Travel will be achieved through the development proposal.
- In accordance with the Sustainable Residential Development Guidelines in Urban Areas Guidelines the CDP must include policies to prohibit large-scale suburban type development proposals. Only development proposals commensurate with local physical infrastructure and social capital carrying capacity should be permitted.
- S.48 development contribution levies in lieu of off-street car parking in town centres should be dis-applied to counteract vacancy and revitalise traditional town centres
- Out-of-town commercial and/or retail development must be strictly prohibited. Where it has been permitted historically, car parking charges must be made mandatory to level the playing field and the unfair competitive advantage accruing to 'big box' out-of-town retailers from free car parking and publicly subsidised road infrastructure.
- The CDP must include policies to provide alternatives to unsustainable urban-generated dispersed one-off housing, including, for example, a serviced site policy (see Limerick County Council's Serviced Site Policy).

4.2 Population Dispersal

Ireland's dominant socio-cultural narrative continues to drive policies favouring the profligate dispersal of settlement towards one-off rural dwellings. Notwithstanding the fact that this pattern of development is socially, economically and environmental unsustainable, particularly with respect to oil dependence, greenhouse gas emissions, water quality, social equity, human health, and, critically, efficient Exchequer investment in infrastructure and services, it is likely that it will

continue at least in the short-term. Only when oil prices inflate significantly further in the future will the true cost of this settlement pattern become apparent[6].

The PA must ensure that proactive measures are included in the CDP to promote nucleation and protect rural areas from a proliferation of car-dependent dispersed urban-generated settlement. Ireland's rural areas will be critical resource within the new energy constrained era and the prudent protection and sustainable exploitation of natural resources for agriculture, forestry and renewable energy will be key.

We would refer the PA to the recent report prepared by the Environmental Protection Agency (EPA) – Sustainable Rural Development: Managing Housing in the Countryside 2010. The recommendations of this report should be incorporated directly into the CDP.

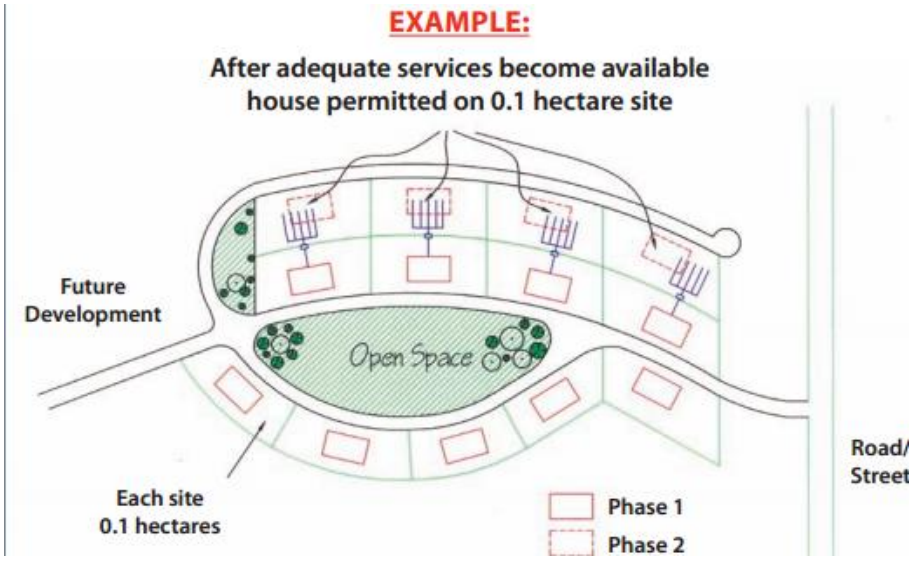


Figure 4 - The Planning Authority should implement a serviced sites initiative.

We would also direct the PA's attention to the most recent Forfas Statement on Energy which states:

> *'Ireland has opted for a policy of land-use planning which has resulted in the sprawl of low-density housing developments. This approach, while socially popular, is not sustainable from an energy, environmental, climate change or quality-of-life perspective'*

The only truly sustainable form of rural housing development is the village/small town cluster, which allows for the efficient delivery of services and infrastructure; enhances social capital, provides a compact walkable community; and the protection of the natural environment.

An Taisce's considered opinion on this issue is that, with over 410,000 one-off houses in Ireland and with a highly inequitable method of allocation together with major competing legal water quality obligations, serious consideration must now be given to a moratorium on a net increase in one-off housing units.

[6] See Fingal County Development Plan 2011-2017 (Chapter 8) for an overview of the rural housing challenge.

Limerick County Council has issued a policy statement on promoting nucleated settlements and serviced-sites in villages. The PA should adopt a similar approach in framing the CDP. It remains to be seen how effective these policies will be in practice.

Recommendation:

- The CDP has a key role to play in providing a suitable housing choice and alternative to one-off housing. It should be specific objective of the CDP to deliver suitable locations for serviced sites with access to piped infrastructure for those wishing to build their own dwelling houses.
- A greenbelt policy should be implemented in peri-urban areas in the vicinity of the CDP boundary with strict restrictions on urban-generated one-off housing to prevent ribbon development and uncontrolled sprawl.

4.3 Walking & Cycling

The CDP needs to place an emphasis on slow modes of transport. The National Cycle Policy Framework includes practical measures to help achieve the key objectives of this policy. The framework takes a methodical approach to investment and has an unquestioned research base. Better catering for cyclists and pedestrians must follow the hierarchy of provision, which starts with cutting speed and traffic levels as follows:

1. Reduce traffic speed and enforce the law.
2. Reduce traffic volume, particularly HGVs.
3. Redesign poorly-configured junctions, and better manage traffic.
4. Increase road space for cyclists and pedestrians (with wider inside lanes for example)
5. Consider dedicating hard shoulders to cyclists.
6. Having considered and, where feasible, undertaken all of the above, are there roads or streets that would benefit from the installation of on-road cycle lanes? Are there alignments which can be considered for off road cycle lanes?

Recommendation:

The CDP must include permeability and way-finding studies to identify a safe network of existing/future walking and cycling routes which must be used as a chief criteria in selecting all land zoned for new development connecting with key services and amenities such as schools, shops, parks etc (See Green Infrastructure approach below)

5.0 Economic Development & Employment

5.1 Approach to Economic Development

The economy is a wholly owned subsidiary of the environment. An unhealthy environment will result in an unhealthy society and economy. Although the link between sustainable economic development and natural resources has been widely ignored and eschewed by conventional economic policy makers, the onset of Peak Oil and Climate Change is precipitating a long overdue reappraisal of this costly misjudgement.



Figure 5 - The Economy is a subset of the Environment and Society

Understandably much of the current national political and media focus is on promoting economic development and employment. All mainstream commentators and politicians eulogize the accepted wisdom of the virtues of a return to economic growth (GDP/GNP) as the conventional solution to our current economic, unemployment and fiscal difficulties. However, it should be borne in mind that there is an inherent contradiction between the current model of economic growth and environmental and resource sustainability. Our society is currently locked into an economic system that has a GDP growth imperative and, as a consequence, increased energy demand, increased greenhouse gas emissions and increased resource throughput and depletion. Our ecological debts are as unstable as our financial debts. Neither is properly accounted for in the relentless pursuit of consumption growth. This contradiction is placing further pressure on the carrying capacity of the environment to support society and the economy.

Furthermore, GDP economic growth is a highly imperfect and counter-productive measure of human progress as it only measures income and does not account for the consumption of natural capital (resources), social inequality or the significant costs of anthropogenic pollution[7]. The Stern Report noted that Climate change is the greatest and widest-ranging market failure ever seen. As can be seen from the very high prices in Brent Crude Oil, the return of economic growth to the world economy has triggered an energy price spike, reducing consumption demand and further recession.

[7] Prosperity without Growth – The Transition to A Sustainable Economy, UK Sustainable Development Commission, 2009

Recommendation:

- Continued GDP economic growth in the Irish economy is unlikely and, in any event, is unsustainable in the long-term. It is prudent to plan now for a different economic future including low-growth, no-growth or contraction scenarios.

For example, a 2 per cent per annum growth in GDP would mean the carbon occasioned by each unit of economic output would have to be 130 times lower in 2050 than it is today otherwise we cross a threshold in terms of carbon emissions that future generations are unable to recover from. Economic growth is therefore inconsistent with the requirement to abate greenhouse gas emissions or reduce oil dependency. In any event, 2% GDP growth would mean the total size of the Irish economy with double every 35 years. **This is not physically possible in finite world and we should therefore not be planning for it.**

Current Government policy is to promote the Smart Economy and a return to an export-led economy. While this strategy has many virtues it is based on the premise that Ireland cannot compete with manufacturing industries in low-cost developing nations in a globalised economy. As a consequence, the structure of modern developed economies such as Ireland have typically tended to move progressively away from domestic manufacturing resulting in more and more finished and semi-finished goods needed to be imported from abroad and expanding the financial and services sector to pay for it. Of course, this strategy is extremely vulnerable to global economic instability, oil price inflation (for transport) and outsources environmental degradation to less regulated countries.

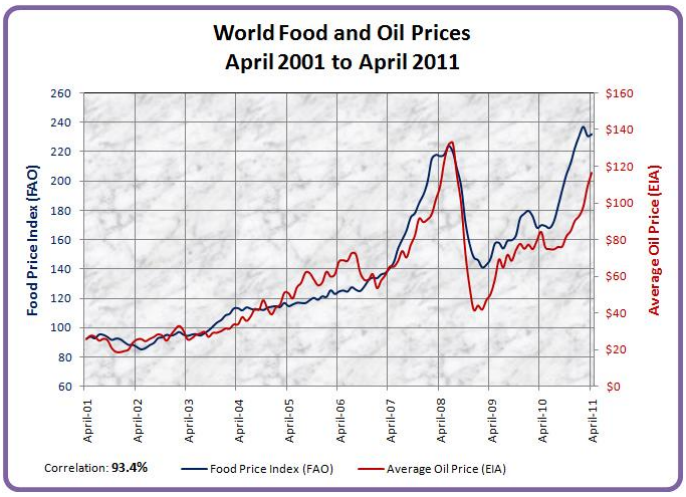


Figure 6 - Food prices will inflate with energy prices. Food security demands we produce more at home for local consumption

Current national economic development policies demonstrate a long-term blindness to the limitations of the physical world. Responses to the crisis which aim to restore the status quo are misguided and doomed to failure. Income today means nothing if it undermines the conditions upon which the prosperity of tomorrow depends.

Recommendation:

- The CDP must include policies which support the development of a vibrant local manufacturing base that is based on the sustainable use of local indigenous resources and local markets will make the locality more resilient in long run e.g. food processing, basic manufacturing etc.
- In light of peak oil, the CDP must plan for higher and more volatile energy prices (and high material costs too) over the period of the CDP and to use this window of opportunity to transition the CDP area into a post-carbon, low energy, low consumption and resilient locality.

5.2 Critical Mass or 'Development at All Costs'?

The simplistic political response equates spatial development with economic development. Given the extent of the current economic difficulties there will be considerable pressure on the PA to grant planning permission for all development, particularly employment and commercial rate-generating development, over the lifetime of the CDP regardless of the location and infrastructural deficits. This ad-*hoc 'All development is good development'* or *'Build/Zone it and they will come'* approach would be a mistake in the long-term.

The CDP must draw up a sensible strategy and agreed vision for physical development of the locality involving difficult choices based on objective planning criteria for the public good and then the PA must insist on rigorous adherence to this plan. Failure to do so, despite the short-term pressures, will simply serve to store up significant social, environmental, economic problems and costs in the years to come (as is currently the occurring from past laissez faire regulation).

A key factor for the future economic, social and environmental prosperity of the locality is the creation of an appropriate **critical mass** of population in the targeted settlement centres. The key locational criteria for new employment generating enterprises are urban centres with sufficient **agglomerations of scale** to support a range of vital support services and infrastructure (e.g. broadband, water services, social capital etc) for both the enterprise and individual employees. The non-strategic, ad-hoc and malleable approach of the past has failed. Accordingly, it stands that any diminution of the settlement strategy, while maybe socially and politically opportunistic in the short-term, will not in any way assist the enhancement of the local employment profile.

Recommendation:

- The CDP must set out a carefully crafted strategy and form a binding contract between the PA and the community based on proper planning principles. The current economic climate must not be used as a short-sighted opportunity to loosen proper planning regulation.
- Following any future precedential decision from An Bord Pleanála which overturns a PA decision, a review should be undertaken to examine the basis on which the decision was made, and a report presented to Councillors on required amendments to the CDP required.

5.3 Rural Enterprise

Recent OECD[8] and Western Development Commission research shows that opportunities for development exist in all regions, including lagging rural regions, and that greater development occurs when regions are able to mobilise their own local assets and indigenous resources to capitalise on their specific comparative advantages, rather than depending on national transfers and subsidies.

An Taisce strongly supports local and rural enterprise which serves local population catchments. As oil prices inflate small-scale enterprises and employment opportunities based on the sustainable use of indigenous local resources, particularly agriculture, bio-energy, agri-business and forestry will be become ever more important in building local community resilience.

[8] How Regions Grow: Trends and Analysis, OECD 2009 & Regions Matter: Economic Recovery, Innovation and Sustainable Growth, OECD 2009

Globalisation and the Single Farm Payment have undermined the viability of local agriculture in Ireland. Food security is now a major threat. Less than 40% of food consumed in Ireland is produced in Ireland – 60% is imported. Our entire agricultural production system is geared towards costly exports. Again, as oil prices inflate the **transition** to renewed reliance on local agriculture and indigenously produced and marketed food will become increasingly important.

Recommendation:

- Ireland's principle resource is our abundant availability of fertile agricultural land. The CDP must include policies to promote the sustainable local exploitation of natural resources for local markets.
- The CDP should include a policy for the promotion of local farmers markets and identify locations where farmers markets can take place.

5.3 Retail Development

Over the past decade there has been sustained pressure from multiple retail operators for out-of-town big box retailing and to circumvent the 'Sequential Approach'. The key driver of this trend is convenient access to publicly subsidised road networks, increased price competition and the ability to provide significant amounts of free surface car-parking. With the onset of the recession the profligate approach to permitting out-of-town retailing throughout Ireland has resulted in the decimation of historic town centres and the loss of many long-established local retailers. This in turn has had a knock-on impact for built heritage, social capital and quality of life.

In the short-term availability of free car-parking will provide out-of-town locations with a strong comparative advantage over town centre locations which is destroying traditional business models and their sustainable connection with the wider local economy. In the longer term the predominance of out-of-centre big box multiple retailers locks our society into complex 'just in time' supply chains and heightens our vulnerability to oil price inflation and reduces food security.

Recommendation:

- The CDP must include policies for the prohibition of out-of-centre retail development. The PA must take an active role in site assembly for new retail development on brownfield and infill sites, including using CPO powers where necessary to provide for the sensitive revitalisation of town centres.
- The PA must require the introduction of car parking charges for out-of-centre retail development and introduce a corresponding S.48 waiver for development contribution levies in lieu of off-street car parking for new retail development in town centre locations.
- The CDP must include a specific policy that explicitly provides that the change of use of retail warehouse units to non-bulky goods comparison and/or convenience uses will not be permitted.
- The CDP should include a policy which restricts large floor-plate multiples, which are dependent on complex oil-dependent supply chains, in favour of smaller floor-plate local shops.

5.4 Physical Infrastructure

Ireland has significant physical infrastructural deficits, particularly in transport and waste water infrastructure. The former is largely a result of our laissez faire and malleable land-use regulation and permissive approach to market-driven car dependent dispersed development patterns that were not aligned with appropriate infrastructure investment. The latter is as a consequence of a complete absence of any understanding of environmental carrying capacity and the short-term prioritisation of new development over other public health and environmental interests.

Planning has a vital part to play in ensuring the most efficient use of existing infrastructure and that new infrastructure is provided in the most effective and efficient manner possible. This will require that development be directed to places where infrastructure already exists or can be efficiently and cost-effectively expanded. This principle should apply whether the infrastructure is provided by public bodies or private companies. The future operational costs of infrastructure e.g. the long term costs of pumping water services must also be factored in. The need to maximise the return from long-term public investment in infrastructure must be the overriding priority. **Current economic difficulties should not dictate a return to an unsustainable spread of low density development.**

In order to address these deficits, the Exchequer is investing heavily through the Capital Investment Programme 2010 - 2016, Transport 21 and the Water Services Investment Programme. However, much of this infrastructure is being designed for a now departed era of energy abundance with no consideration given to the future price of oil or carbon. For example, the current energy bill for a large modern waste water treatment plan can be in the order of €2.5 million per annum. No assessment is being undertaken to ascertain whether this huge Exchequer investment is entrenching deep structural vulnerabilities in our society and storing up major problems for the future.

Recommendation:

- The CDP must include a detailed audit of all physical infrastructure (i.e. waste-water, potable water, ICT, transport, electricity etc) including location and capacity, to be used as a key criteria in determining the appropriate quantum and location of future new development.
- Develop an Infrastructure Delivery Plan - The CDP must include a clear programme of implementation which links the delivery of key pieces of social, physical and environmental infrastructure with the sequential and phases development of zoned land. It must clearly and transparently inform the citizen and manages expectations about the future development of an area. It does not include policies and objectives unless the PA is confident of their successful implementation.
- The Physical Infrastructure Audit should include an "Oil Vulnerability & Carbon Price Impact Assessment" to explore the threats from inflated and volatile oil prices together with the future (shadow) price of carbon. This should be undertaken for both capital and operational municipal functions (e.g. sewage treatment, water supply, road developments, road repair, flood defences etc)
- New road objectives in the CDP must be discontinued. Investing further public monies on oil dependent transport infrastructure is wasteful.

5.5 Employment Land

The PDA 2010 includes strict new provisions to ensure that the CDP is consistent with national, regional and local settlement planning policy. The new 'Core Strategy' approach is primarily with concerned with population and housing but also includes specific provisions on economic and social development. It is vital that the profligate approach to residential and retail zoning which was prevalent in the past is not now replaced with a profligate approach to industrial and commercial zoning particularly in the current economic climate. An evidence-based approach must equally be applied to industrial and commercial development.

Recommendation:

- The CDP must include an Employment Land Survey to determine the quantum of employment land and where employment land should be located in the context of sustainable transport objectives and the existing and future carrying capacity of physical infrastructure.
- Small-scale local industrial/commercial zones proximate to existing or proposed residential areas must be provided to deliver local employment opportunities rather than promoting large-scale industrial/warehouse parks.

6.0 Water

6.1 Legal Obligations

The management of surface, ground and coastal water resources in accordance with the provisions of the EU Water Framework Directive will be one of the most crucial overarching challenges for the PA in this CDP. Human activities have led to deterioration in water quality over many years. Ireland faces an immense challenge in achieving 'good' status in all water bodies by 2015. The achievement of our Water Framework Directive obligations will have linked benefits in the protection and enhancement of biodiversity, combating climate change, improving human health, protecting landscape and creating more sustainable settlement patterns. **Irish legislation now provides that local authorities can be sued for failing to meet water quality standards.**

The most recent report by the Environmental Protection Agency published in December 2009 (Water Quality in Ireland 2007 – 2008) together with recent publication of the statutory River Basin Management Plans has clearly highlighted the immense scale of the challenge facing Ireland in meeting our binding commitments under the EU Water Framework Directive. This report documents that at least 50% of the water bodies in the country require restoration and that there has been a dramatically high deterioration in Irish water bodies in the last 20 years. The PDA 2010 includes specific mandatory objectives to ensure the **integration of water quality management requirements into the physical planning process.**

Recommendation:
• The CDP must include a suite of integrated policy measures to ensure that the PA's legal obligations under the Water Framework Directive and the operable River Basin Management Plan are achieved.

6.2 Municipal Waste Water Treatment

The CDP must be fully consistent with the PA's legal obligations under the Waste Water Discharge (Authorisation) Regulations (SI No. 684 of 2007).

Circular Letter PD7/09 issued by the Department of Environment, Heritage and Local Government sets out the 'Combined Approach' and requires that planning permission should not be granted to development proposals where there is insufficient cumulative capacity within the relevant Waste Water Treatment Plant. This further underlines the imperative for new development to be channelled to targeted development centres where the appropriate physical infrastructure is planned or present. Given the new era of resource scarcity (including financial resources), it is very unlikely that the waste-water treatment capacity will ever be present to service over-zoned land. As a consequence there is little point retaining a zoning objective for surplus zoned land. This land should be simply de-zoned as planning permission is unlikely ever to be achievable. Retaining a zoning objective in the face of landowner pressure will be counterproductive in the long run.

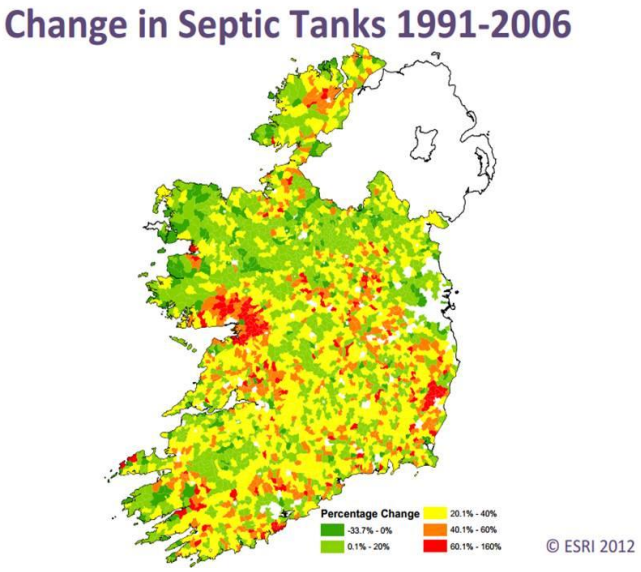
Recommendation:
• The quantum of land zoned in the CDP must be carefully matched and phased with the existing and/or planned Population Equivalent (PE) capacity of the local waste-water treatment plan. Where there is no commitment in the Water Services Investment

Programme (WSIP) to fund additional waste-water treatment capacity, surplus zoned land should be dezoned in accordance with the sequential approach.

6.3 Private Waste Water Treatment

Despite the proliferation of dispersed settlement, much of the soil conditions throughout Ireland are unsuited to private on-site waste water disposal. The legacy of this inappropriate development will be a significant challenge for the achievement of our binding Water Framework Directive targets by 2015.

The PA has binding legal obligations under the European Communities Environmental Objectives (Groundwater) Regulations 2010 and European Communities Environmental Objectives (Surfacewater) Regulations 2009. The EPA have issued a new Code of Practice for private waste water treatment and PA is being forced to implement a new very stringent compliance regime with respect to all on-site private waste water treatment facilities. These new requirements coupled with other environmental regulations will mean that achieving planning permission for one-off dwellings will be increasingly more difficult. The CDP must deliver appropriate alternative locations for those wishing to live in self-build properties.



Recommendation:

- The CDP must include policies to provide alternatives to unsustainable urban-generated dispersed one-off, including, for example, a serviced site policy (see Limerick County Council's Serviced Site Policy).

6.4 Surface Water

The Intergovernmental Panel for Climate Change (IPCC) has predicted that Ireland will experience more intense and prolonged rainfall events. This has been evidenced by the recent serious rainfall events and flooding throughout Ireland. The OPW is currently undertaking a Catchment Flood Risk Assessment & Management Plans (CFRAMS) for all major river systems in Ireland.

The Department of the Environment, Heritage & Local Government has also issued the Flood Risk Assessment and Management Guidelines under Section 28 of the Planning & Development Acts on the management of flood risks and the planning system. This allows for the de-zoning or down-zoning of lands where their development would comprise an unacceptable flood risk.

Conventional hard-engineered storm water management systems to drain surface run-off from asphalt, concrete and roof tiles are costly to implement and maintain. They also frequently fail causing urban flooding and a degradation of water quality. Sustainable Urban Drainage Systems

are now becoming the norm throughout Ireland and are mandatory in the Greater Dublin Area. These systems aim to replicate greenfield run-off rates and include measures such as permeable paving, soft detention basins (Swales), rainwater harvesting and green/brown roofs.

Recommendation:

- The CDP must de-zone or down-zone lands categorized in 'Flood Zone A' of 'Flood Zone B' applying the sequential approach. Where the zoning of recognised flood prone areas is retained a detailed Justification Test in accordance with the Flood Risk Assessment & Management Guidelines must be carried out.
- The use of Sustainable Urban Drainage Systems (SUDS) and rainwater harvesting must be made mandatory for all new development proposals.

6.5 Green Roofs

Green roof policies have significant benefits in terms of storm-water management, sustainable drainage, water quality, biodiversity, climate change mitigation and adaption, air quality, amenity and economics. Many European countries have been effectively using green building technologies for decades.

Recommendation:

- The CDP should seek to implement a Green Roofs policy through the development management process. It should be a mandatory requirement for all new developments to include an element of green roof technologies.

6.6 Integrated Constructed Wetlands

Restricted capital budgets in the future may prohibit investment in water services in small towns and villages. These settlements are key to developing a more nucleated settlement structure and it is vital, if a continued trend towards dispersal is to be abated, that innovative ways of ensuring that these settlements achieve their potential are implemented.

Integrated Constructed Wetlands (ICW) provides a proven and innovative mechanism to address waste-water capacity issues in rural villages, small urban centres and for one-off development. Constructing such systems is extremely cost effective (a fraction of conventional systems), have almost neutral ongoing running and energy costs and provide biodiversity and recreational benefits. These systems can provide local solutions to treat wastewater where it arises avoiding the need for significant public investment in physical infrastructure.



Figure 7 - ICW at Glasslough, Co. Monagahan with a Design PE capacity of 1,750

Constructed wetlands are increasingly been used in water and land management. They address the ever more apparent need for joined-up approaches to land and water management, with this need having International, European and National support i.e. the United Nations Environmental Programme (UNEP) and its Convention on Biological Diversity (CBD) and the Ramsar 1971

Convention for the protection of wetlands and European Union Directives, particularly that of the Water Framework, Nitrates, Bathing Water, and Ground Water Directives.

There are a number of different types of constructed wetland in use in Ireland over the past 50 years or so. Notwithstanding this, it is only in the past 20 years that a wider application of this approach to water management been integrated into the needs of natural resource management, culminating in the development of the Integrated Constructed Wetlands (ICW) concept. This more holistic approach places emphasis on the need for explicit integration of water management with landscape-fit and associated improved site values, and the facilitation of habitat and biological diversity. This purposeful integration enhances processing synergies, robustness and sustainability that are not generally available in most other single-focused constructed wetland designs. Integration benefits are primarily due to relatively larger scaling patterns and the greater biological complexity. This robust, sustainable and multi-benefit yield from ICW systems has been successfully applied throughout the country to a range of effluent types in different situations when appropriate assessment, design and construction are conducted. ICW should be considered as a possible solution for the following situations;

- Treatment of agricultural runoff and wash waters;
- Treatment of industrial runoff and wash waters, e.g. recycling facilities, meat processing facilities etc;
- Treatment of sewage waters for single houses, hotels, guesthouses, schools, villages, towns, housing developments, industrial and commercial developments;
- Treatment of in-stream waters;
- Treatment of storm water, including roads, housing developments, commercial/industrial developments, golf courses; and,
- Creation and enhancement of habitats and biodiversity.

Thanks to the pioneering work by the NPWS and others, Ireland is amongst the global leaders in developing ICW systems. A test system has been operational at Castle Leslie Estate, Glasslough, Co. Monaghan (P.E. 1,750) which very successfully treats the effluent from the entire village[9] [10] [11]. Further systems are operational in the Anne Valley, Co. Wexford and in Finglas, Co. Dublin.

The recently published code of practice for private waste water treatment plants for single dwellings has also recognised the effectiveness of these systems. An Bord Pleanála has also in the past granted planning permission for these systems for farm effluent. SEPA (The Scottish Environmental Protection Agency) recently published the Constructed Farm Wetlands Design Manual. This can be accessed on the SEPA website at http://www.sepa.org.uk/land/land_publications.aspx.

Recommendation:

- The PA should explore the use of Integrated Constructed Wetlands (ICW) as a low –cost and environmentally sustainable alternative to heavy engineered and energy intensive waste water treatment facilities.

[9] http://www.monaghan.ie/websitev2/waterservices/glasloughICWintroduction.html
[10] http://www.engineersireland.ie/media/engineersireland/community/whitepapers/ICE-Integrated%20Constructed%20Wetland-%20Glaslough%20ICW%20Paper%20Nov08.pdf
[11] http://www.dublincity.ie/WaterWasteEnvironment/WasteWater/Documents/Glaslough_ICW__Dan_Doody_et_al_-_Feb_09__.pdf

7.0 Natural Capital & Ecosystem Services

7.1 Importance & Legal Obligations

The PA will be fully aware of its important legal obligations under the EU Habitats Directive and EU Birds Directive[12] as brought to light in a number of recent judgments of the European Court of Justice[13] and now fully incorporated into the PDA 2010.

Ireland has an extremely negative record in complying with EU Environmental Directives. There are currently 21 ongoing cases against Ireland which could result in significant financial penalties[14]. **Stringent adherence to our statutory obligations is an absolute imperative in all development management decisions (regardless of scale).**

Biodiversity is a critical ecosystem resource that provides a free service to human wellbeing, our society and our economy, which is not inexhaustible and is under consistent and sustained pressure. Nearly two-thirds of the services provided by nature to humankind are in decline worldwide and the global ecosystem is close to collapse. Ireland's ecosystem services in terms of their productive output and human utility are estimated to be over €2.6 billion per year. This very conservative estimate omits other significant services for example waste assimilation provided by aquatic biodiversity and benefits to human health, social health and environmental benefits. Similar to all critical resources they must be carefully managed to ensure it is sustained as a renewable resource into the future[15].

Ireland has committed to halting any further reduction in biological diversity under the International Convention on Biodiversity. A new National Biodiversity Plan 2010 – 2015 has recently been published and should be fully incorporated into the CDP.

Recommendation:

- In order to prevent potential legal action the CDP and development management decisions of the PA must rigidly adhere to its substantial legal obligations under EU law.
- Achieving adherence to the PA's legal obligations under the Habitats Directive and other environmental legislation cannot be achieved without the preparation in tandem with the CDP of a full Strategic Environmental Assessment and Habitats Directive Assessment.
- The policy recommendations of the National Biodiversity Plan 2010 – 2015 should be fully incorporated into the CDP and a Local Biodiversity Action Plan prepared.

7.2 Green Infrastructure

Green infrastructure (GI) is rapidly becoming a very important concept in land use planning. Specific reference to GI is included in the Regional Planning Guidelines for the Greater Dublin Area and the Fingal County Development Plan. Comhar SDC have recently produced a report entitled

[12] Circular Letter SEA 1/08 & NPWS 1/08
[13] Case 418/04 EC Commission v Ireland
[14] e.g. in 2005 France was fined a lump sum of €20m, plus €57.7m for each 6 months of continuing non-compliance with the ECJ's judgment (C-304/02).
[15] The Economic and Social Aspects of Biodiversity – Benefits & Costs of Biodiversity in Ireland, DoECLG, 2008

'Creating Green Infrastructure for Ireland'. The PA will note that a new provision is included within the PDA 2010 (s.7(b)(i) (Amendment to s.10) as follows:

> *"the encouragement, pursuant to Article 10 of the Habitats Directive, of the management of features of the landscape, such as traditional field boundaries, important for the ecological coherence of the Natura 2000 network and essential for the migration, dispersal and genetic exchange of wild species;"*

The GI approach will increasingly be incorporated into the planning and development process and will become the accepted way to plan and manage urban spaces, reversing the trend of urban societies becoming disconnected from the natural environment on which they ultimately depend for survival.

GI can be defined as the physical environment within and between our cities, towns and villages. It is a network of multi-functional open spaces, including formal parks, gardens, woodlands, green corridors, waterways, street trees and open countryside. It comprises all environmental resources and thus a green infrastructure approach also contributes towards sustainable resource management. This includes a holistic approach to developing the landscape inclusive of other influences such as ecological development, improving air, water and soil quality, flood protection, access provisions and linkages, climate change/amelioration, pollution control and quality of life issues, in a sustainable and ongoing manner. GI is important in informing the decision making process on promoting interaction between local government departments on the direction and focus of future development.

GI can also play an important part in fulfilling Ireland's obligations under the EU Habitats Directive to ensure provision is made to adequate linkages between Natura 2000 sites arresting habitat fragmentation.

Recommendation:

- The CDP should adopt a Green Infrastructure approach and include a section entitled Green Infrastructure modelled on the content of the Fingal County Development Plan 2010 – 2016 (Chapter 3)

8.0 Social Capital & Public Participation

8.1 Effective Community Participation

It is absolutely essential for the CDP to be effective that it is prepared in a transparent manner in partnership with the local community (including children) and stakeholders and is aimed at building consensus. Far too often in the past CDPs have been developer led and there has been no meaningful engagement with local communities. The consequences have generally been deleterious to community integration and social capital. The Heritage Council through the Julianstown Village Design Statement pilot projects have been developing new techniques on fostering local community involvement in local planning based on local empowerment and ownership.

Recommendation:

- The CDP must be informed by a high level of transparency, democratic participation, local empowerment, decision-making and ownership. The Julianstown Village Design Statement prepared by the Heritage Council is useful example of how this can be achieved.
- Bridging the gap between strategic planning, environmental requirements and the wider interests of the common good with local interests can be a process fraught with difficulty and conflict. The PA should appoint an independent facilitator to manage the public participation and consultation process [see http://www.partnerships.org.uk/]

8.2 Human Health

Obesity is now a major public health epidemic in Ireland. The Institute of Public Health, in its report titled Health Impacts of the Built Environment, together with the National Obesity Taskforce[16] found that there is substantial evidence to suggest that urban sprawl is contributing to an 'obesogenic' environment with increasing obesity levels as increased car dependency, few opportunities for spontaneous involuntary exercise, longer commuting times and less time for physical exercise become a feature of life for many people.

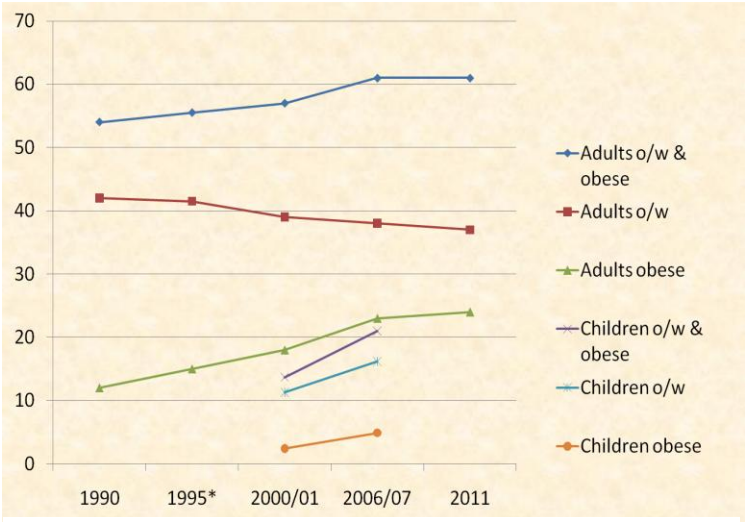


Figure 8 - Obesity is now an epidemic in Ireland due to our 'Obesogenic' environment

Ireland's adult obesity rate (24%) is now higher than in 18 states in the US Obesity is costing the Irish health service and then Irish tax payer tens of millions of euros each year. Communities that are planned and developed with regard to the health impact of the built environment could enjoy lower levels of obesity, cardiovascular disease, asthma and psychological stress.

[16] Obesity: The Policy Challenges – The Report of the National Taskforce on Obesity 2005

Recommendation:

- The CDP should implement the policies included in the recent report prepared by the Irish Heart Foundation – Building Young Hearts: Physical Activity, Young People and the Physical Environment, 2010.

With regard the Department of the Environment, Community and Local Government Draft Local Area Plan Guidelines 2012, it should be noted that Page thirty-two of the guidelines state that:

> *...exposure of children to the promotion of foods that are high in fat, salt or sugar is reduced such as the careful consideration of the appropriateness and or location of fast food outlets in the vicinity of schools and parks.*

It is asked the council include a policy within the plan to ensure that zonings in proximity to schools are reviewed in this light, and the zoning matrix amended appropriately. An Taisce has witnessed several instances in relation to fast-food developments where there has been significant conflict between local residents, school management and developers over the proposed use, most notably in Co Meath (Ref: NT/120082) and Co Wicklow (Ref: 13/8028). Some clarity of this issue in the plan might avoid this conflict from arising.

8.3 Allotments & Community Gardens

Allotments have become increasingly popular in recent years and will continue to do so with inflation in energy prices and general public consciousness with respect to food quality, food security, promoting local resilience and fostering community interaction. The PDA 2010 introduces a new definition of allotments into the planning code and new provisions to allow objectives to be included in development plans for the development of allotments.

Recommendation:

- The CDP must designate suitable locations for allotments/community gardens and include a requirement that a designated area for allotment space be required in each new residential/mixed-use developments.

9.0 Cultural & Built Heritage

Ireland's unique built and cultural heritage is increasingly threatened with destruction. Ireland is a signatory to UNESCO's Convention Concerning the Protection of the World Cultural and Natural Heritage ratified by Ireland in 1991 and to the Granda Convention ratified in Ireland in 1985. These conventions provide the basis for our national commitment to the protection of the architectural heritage the importance of 'handing down to future generations a system of cultural references'. It relies for its effectiveness on its signatory countries implementing their own national protective regimes.

Despite the vital economic importance of cultural and built heritage to tourism, Ireland has a very lax record in protecting our unique built and cultural heritage.

Recommendation:

- **The CDP should seek to designate more Architectural Conservation Areas (ACA's) and Special Planning Control Schemes.**
- **S.48 development levies for Protected Structures should be waived to encourage sensitive reuse and adaptation**
- **Important views and prospects must be protected**
- **The Architectural Heritage Protection Guidelines for Planning Authorities must be implemented in full.**

10.0 Implementation & Monitoring

10.1 Overview

Over the past fifteen years there has been no shortage of very well intentioned policy statement documents published in Ireland by Government, Quasi-Government and Non-Governmental Organisations with respect to the promotion of sustainable development. *'Sustainable Development – A Strategy for Ireland'* was published as far back as 1997 by the Government and included prescient policy objectives with respect to the promotion of sustainable land use planning policies. In the intervening period further important policy documents were published by the Government including the *Residential Density Guidelines for Planning Authorities* (1999); *Towards Sustainable Local Communities – Local Agenda 21* (2001), the *National Spatial Strategy* (2002); the *Sustainable Residential Development in Urban Areas Guidelines* (2008) and the recently published *Smarter Travel – A New Transport Strategy for Ireland* (2009) all of which include detailed policy guidance on the achievement of sustainable land use patterns.

However, the reality has been (and remains) a widespread absence of implementation and an almost complete **divergence between policy and practice**. Policy guidance documents such as those described above have been heretofore habitually ignored in favour of pressing short-term economic requirements, the requirement to promote commercial rate revenue development and lobbying from special interest groups. As a result and it must be recognised, the direct legacy of the recent 'Celtic Tiger' era and associated expansion in construction activity is that Ireland now has one of the most unsustainable, economically inefficient, structurally weak and spatially dispersed settlement patterns anywhere in Europe. **In the current economic circumstances within which Ireland finds itself, there is a very real danger that we will revert to the failed and near-sighted *'all development is good development'* mantra of the past without paying adequate attention to the long-term consequences and costs.**

We therefore submit that it is now, more than ever, of paramount importance that the PA moves beyond the mere rhetoric of commendable policy objectives within the text of the forthcoming CDP and towards **robust targets, actions and measures** to achieve the tangible implementation and a transition to a low-carbon, low-energy and sustainable society. Implementation has been the achilles heel of the achievement of sustainable development and land-use planning in Ireland and must therefore now at this critical juncture be the focus of the CDP. We set out below two ways in which the effective implementation of the sustainable objective targets can be achieved.

10.2 Targets & Monitoring

The CDP is a subsidiary policy document to the development plan. Section 15 of the Planning & Development Act 2000 imposes a general duty on the PA to secure the objectives of a Development Plan. Section 15(2) requires that not more than two years after the making of a Development Plan the Manager must provide a report to the Elected Members on the progress achieved in securing the objectives of the plan. Section 6 of the Development Plan Guidelines for Planning Authorities 2007 sets out guidance as to how the implementation of the policies and objectives of a development plan can be achieved. The Guidelines state that policies and objectives (1) must be capable of implementation and (2) must be possible to monitor and evaluate the effectiveness or otherwise of achieving stated aims. Monitoring involves the collation

and analysis of performance data which must be linked to an evaluation process so that effectiveness can be measured against stated criteria.

It is not possible to monitor the effectiveness of the policies and objectives of the CDP without the inclusion of quantifiable targets. Many recent best-practice statutory land use plans now include implementation measures[17]. We have included in Appendix 1 a sample schedule of Targets, Indicators and Monitoring Measures and we recommend a similar schedule should be included in the CDP.

In many cases the policies and objectives of the CDP will be general, non-specific and therefore unquantifiable. Indeed a major criticism of many CDPs is that they are far too long and unwieldy due to the breadth of information which must be included within the document. The purpose of the schedule included in Appendix 1 is to distill the core policies of the CDP into their key sustainability objectives so that they can be measured against benchmark criteria during subsequent reviews. This is not a complex task as the SEA Directive already requires that that monitoring measures be included and, in many cases, these measures are directly transferable to the CDP document.

Recommendation:

- The CDP must include a detailed implementation and monitoring schedule which outlines the manner in which the CDP envisages the future development of the area with particular focus on the phased and sequential development of the locality – See Appendix 1.
- A designated implementation officer must be appointed to oversee the implementation of the CDP and ensure joined up thinking between development management, forward planning, environment, service, infrastructure provision etc.

10.3 Sustainability Matrix

A key challenge for the implementation of the policies and objectives of the CDP is the convergence of national, regional and local sustainable development policy with actual development management decisions made by the PA in practice. For the most part, the achievement of the objectives of the CDP can only be achieved through private sector action together with, to a lesser extent, public spending in infrastructural capacity.

We therefore recommend that the PA, in addition to the normal development management criteria, include a **'Sustainability Matrix'** in the CDP setting out the range of sustainability criteria which should be intrinsic to all planning applications for development. This would act as both a guide to prospective applicants and PA staff in distilling the core sustainability, community and social infrastructure requirements of the CDP into a schedule of convenient assessment criteria.

Recommendation:

- The concept of a 'Sustainability Matrix' is now well developed throughout the UK and increasingly in Ireland[18] and we recommend the PA including a requirement for all development proposals to be required to submit a Sustainability Statement with all

[17] See for example the Draft Limerick County Development Plan 2010 - 2016, Draft Wicklow County Development Plan 2010 - 2016 and the Regional Planning Guidelines for the Greater Dublin Area 2010 - 2022.
[18] See For Example: http://www.lcc.ie/Planning/County_Development_Plans/Draft_Dev_Plan2010-2016/English/

planning applications. An excellent exemplar of a Sustainability Matrix is included the Clonburris Strategic Development Zone (SDZ)[19] strategy prepared by South Dublin County Council.

10.4 Accountability

In recent years the Irish planning system has been brought into disrepute. Corrupt zoning decisions, bad planning and the link between developers and politicians has brought calamitous consequences. More than ever the planning system is required to address the major challenges of our time. It must be reclaimed with transparent democratic decision making. The PDA 2010 has made significant legislative changes to the forward planning process and these must be adhered to by the PA to ensure the CDP is not subject to legal challenge or intervention.

Spatial planning is amongst the most important function of the PA and it's elected members. We refer the PA to the Judgment of the High Court in respect of Farrell & Forde v Limerick County Council [2008 No. 1398 J.R]. In this case Mr. Justice McGovern found that the Manager only had to give effect to the lawful resolutions of the elected members. The Manager has the power to treat a resolution as invalid where the Elected Members have ignored the local authority's expert advice to the effect that the proposal would be unlawful or contrary to the proper planning and development of the area and where they fail to outline any proper planning – based reason for rejecting that advice. Mr. Justice McGovern goes on to state:

> *'The planning process involves taking into account many considerations which may involve competing claims. The process exists for the benefit of the community at large and not for sectional interests, whether they be landowners, private individuals or developers, although there may be cases where these interests coincide'*

We request that the Manager and Elected Members have full regard to their legal obligations in the consideration of the CDP.

[19] http://www.clonburris.ie/images/stories/clonburris_approved_scheme/SectionG_Sustainability_Toolkit_and_Design_Standards.pdf

11.0 Conclusion

The key priority of the CDP must be transition to a low-carbon society and economy and to mitigate the significant risks associated with rising energy costs and climate change adaptation. **Business as usual is no longer an option, we can no longer afford to continue the pursuit of the failed short-sighted policy approaches of the past and that our collective future must be different.**

The international and national economic recession has provided a narrow window of opportunity to take action to concentrate investment and focus policy on the **transition** to a post-oil low-carbon locally resilient society. This is the major challenge of our time and will require urgent understanding of the nature of the challenges; no shortage of decisive political leadership, a radical change of direction together with robust and, in some instances, policy implementation which will be politically unpopular in the short-term. The statutory planning system, through the regulation of physical development and land use, has the most critical role to play in facilitating this **transition**. We have included in **Appendix 2** a series of transition measures which should be used as a guide in the preparation of the CDP.

The success or otherwise of the forthcoming CDP can only be judged against verifiable and implementable criteria which are subject to ongoing monitoring. We look forward to making further submissions to the CDP in due course.

12.0 Appendices

Appendix 1 - Suggested Implementation & Monitoring Measures

**** Note – This list is not exhaustive and can be added to and amended as appropriate.***

Theme	Strategic Policy Objective	Indicator	Source of Data/Information	Target
Settlement Patterns	**Strategic Settlement Policy**	Percentage of new population growth directed to designated upper tiers (Gateways, Hubs, Large Towns) of NSS/RPG settlement hierarchy	Local Authority, CSO (SAPS), NTA, DoECLG	60% of all new population growth to NSS/RPG upper tier designated centres
	Residential Density	Average housing densities in new development areas	Local Authority, CSO (SAPS), NTA, DoECLG	Average 50 per hectare
	Population Density	Population density in designated settlements	Local Authority, CSO (SAPS), NTA, DoECLG	To Increase
	Sequential Development	Total new development built on brownfield and/or urban infill land	Local Authority, CSO (SAPS), NTA, DoECLG	To increase
	Urban Consolidation	Total new development built on greenfield land	Local Authority, CSO (SAPS), NTA, DoECLG	To reduce
	Sequential Development	Percentage of new out-of-centre retail development permitted	Local Authority	No new out-of-centre retail development permitted
	Travel Demand Management	Mean Travel Times to Work/School/College etc	Local Authority, CSO (SAPS), NTA, DoECLG; Centrality Index	To reduce
	Waste Water Capacity	WWTP capacity (Population Equivalent to Population Ratio)	Local Authority, CSO, DoECLG;	100% of all new development to match with PE discharge license
	Modal Shift	Percentage of population/employment locations within 400 m of public transport	Local Authority, CSO, NTA, DoECLG	To increase
	Sustainable Communities	Percentage of new developments which comply with S.28 Design Guidance	Local Authority	100% of new developments to comply.
	Rural Housing	Numbers of new one-off rural housing units	CS0, Local Authority	Maximum 5% of increase in new housing units.

Theme	Strategic Policy Objective	Indicator	Source of Data/Information	Target
	Rural Villages	Number if new residential developments in rural villages	CSO, Local Authority	To increase
	Rural Design	% of new one-off rural dwellings which comply with Rural Housing Design Guide	Local Authority	100% of new developments to comply
Energy & Climate Change	**Reduced Private Car Use**	Total kilometres travelled by car fleet	NTA, CSO, DoT	To reduce by 20% (2020)
	Reduced Private Car Use	Number of car trips (morning peak)	NTA, CSO, DoT	To reduce from 65% to 45% (2020)
	Reduced GHG Emissions from Transport	National GHG Emissions for Transport	EPA, NTA, DoT, DoECLG, SEAI	Reduce by 20% per annum (200% in 2020)
	Reduced Energy Consumption from Transport	Total Final Energy Consumption from Transport	SEAI, DoT	To reduce by 20% (2020)
	Promote Public Transport	Transport Modal Split - Percentage use of public transport	NTA, CSO, DoT	55% of all commuter journeys (2020)
	Promote Public Transport	Extent of new bus corridors (Km)	Local Authority	To increase by 50%
	Promote Cycling & Walking	Cycling & walking as a transport mode	CSO Modal Split	10% of all trips by bicycle (2020)
	Promote Cycling & Walking	Extent of new walking & cycling routes ('Green Routes') (Km)	Local Authority	To increase by 50% (2020)
	Energy Descent	Per Capita demand for energy/Energy demand by Sector	Eirgrid, ESB Networks, DoECLG, CER, SEAI	To reduce by 20% (2020)
	Renewable Energy	Percentage of national renewable energy penetration	SEAI, DECNR	To increase by 20%(2020)
	GHG Reduction	National CO^2 Emissions per capita	EPA, DoECLG	To decrease by 20%(2020)
	Energy Efficiency	Percentage of New Homes achieving BER A-B	SEAI	100% of new homes achieving BER A-B (2020)

Theme	Strategic Policy Objective	Indicator	Source of Data/Information	Target
	Energy Efficiency	Percentage of New Homes achieving BER A-B	SEAI	100% of new homes achieving BER A-B (2020)
Water	**Surface Water Quality**	% of Water Bodies achieving WFD 'Good' Status	Quality of receiving waters – RBD/EPA Data	100% of water bodies achieving 'Good' Status by 2015
	Surface Water Quality	Scale of existing and new development to match EPA Discharge License	Local Authority, EPA	100% of new development to match EPA Discharge License
	Groundwater Quality	% of groundwater complying with WFD 'Good' Status	Local Authority, RBD, EPA	100% of groundwater achieving 'Good' Status by 2015
	Water Conservation	At plant level water supply energy demand requirements per annum as KWh/annum	Local Authority, EPA	To reduce by 25% (2020)
	Foul Effluent	At plant level effluent treatment energy demand requirements per annum as KWh/annum	Local Authority, EPA	To reduce by 25% (2020)
	Water Conservation	% of new homes/businesses with water conservation/demand management measures installed	Local Authority	100% of new homes/businesses with installed water conservation/demand management measures installed. (2015)
	Water Demand Management	% of installed water meters	Local Authority, CSO	100% of new homes/businesses with installed water meter (2015)
	Surface Water Management	% of new development with greenfield run of rates	Local Authority	100% of new developments with greenfield surface water run-off rates (2015)
	Flooding	Occurrence of Flood Events/Annual cost of flooding	OPW, EPA, Local Authority	To reduce.

Theme	Strategic Policy Objective	Indicator	Source of Data/Information	Target
	Flooding	% of land-use zoning / permitted development which complies with S.28 Guidance with respect to flood risk management & assessment/	Local Authority	100% of all land-use zoning/permitted development to comply.
Quality of Life	**Social Infrastructure**	% of Social & Affordable Housing provided in New Developments	Local Authority	Average 20% of Social & Affordable Housing in all new developments
	Integrated Communities	Distance to Community Facilities & Services	Local Authority, CSO, Centrality Index	100% of all new developments within 1km of services.
	Connected Communities	Distance to Public Transport	Local Authority, CSO, Centrality Index	100% of new developments within 400m of public transport.
	Access to Education	Primary & Secondary Schools per 10,000 population	DoES, CSO - Education Mapping; - Demographic/Age Dependency Ratios	100% of all new residential development with convenient access to education facilities
	Healthcare Facilities	Healthcare Infrastructure per 10,000 population	HSE Health Atlas, Local Authority, Trustz Haase	100% of all new residential development with convenient access to healthcare facilities
	Childcare Facilities	Childcare facilities per 1,000 population	Local Authority	100% of new residential development with convenient access to childcare facilities
	Recreation	Number of Children's Playgrounds directly provided per 1000 population	Local Authority	To Increase
	Recreation	Number of Swimming Pools per 1000 population	Local Authority	To Increase
	Universal Access	% new developments with disability access	Local Authority	100% of new developments with disability access
	ICT	Extend of Broadband Penetration	Forfas, DECNR	100% of new development with broadband access

Theme	Strategic Policy Objective	Indicator	Source of Data/Information	Target
Environment & Heritage	**Green Open Space**	Number of green open space amenity areas per 1,000 population	Local Authority	To Increase
	Forests	Forests within 10km of designated settlement patterns	NPWS, FIPS	To Increase
	Trees	Number of Tree Protection Orders	Local Authority	To Increase
	Water	Alignment between plan policies & & RBMP s	Local Authority, RBD, EPA	100% alignment (2015)
	Built Heritage	Number of Protected Structures	Local Authority, NIAH	To Increase
	Built Heritage	Number of Architectural Conservation Areas	Local Authority	To Increase
	Green Infrastructure	Extent of Green Infrastructure (Approximate Areas)	Local Authority	To Increase
	Landscape Conservation	% of new development comply with Landscape Conservation Assessment	Local Authority	100% of new development comply with LCA
	Biodiversity	% decline of biodiversity & habitats	Local Authority, Local Biodiversity Action Plan, NPWS. Biodiversity Maps, I-WEBS Etc	No decline(2015)
	Habitat Protection	Number of sites of importance for nature conservation adversely affected by development.	Local Authority, Local Biodiversity Action Plan, NPWS. Biodiversity Maps, I-WEBS Etc	No sites adversely affected
	Water	Alignment between plan policies & RBMP	Local Authority, RBD, EPA	100% alignment
	Built Heritage	Number of Protected Structures	Local Authority, NIAH	To Increase
	Built Heritage	Number of Architectural Conservation Areas	Local Authority	To Increase
Waste	**Recycling**	Number of bring banks per 1,000 population & Recycling Rates	Local Authority	To Increase
	Waste Minimisation	Use of Home Composting & brown bins	Local Authority, EPA	To Increase

Theme	Strategic Policy Objective	Indicator	Source of Data/Information	Target
	Waste Diversions	% of waste to landfill	Local Authority, EPA	To reduce
Economy & Employment	**Green Economy**	No. of planning permissions which have a specific focus on green business	Local Authority, IDA, Enterprise Ireland	To Increase
	Retail	Retail floorspace permitted in out-of-centre locations	Local Authority	No new retail floorspace permitted in out-of-centre locations
	Commuting	Travel to work times	Local Authority, NTA, CSO	To decrease
	Employment	New Employment Opportunities	CSO, POWCAR, QNHS, IDA, Enterprise Ireland, FAS	To increase

Appendix 2 – Transition Measures

Positive Visioning

We can only create what we can first vision:

- If we can't imagine a positive future we won't be able to create it.
- A positive message helps people engage with the challenges of these times.
- Change is happening – our choice is between a future we want and one which happens to us.
- Transition Initiatives are based on a dedication to the creation of tangible, clearly expressed and practical visions of the community in question beyond its present-day dependence on fossil fuels.
- Our primary focus is not campaigning against things, but rather on positive, empowering possibilities and opportunities.
- The generation of new stories and myths are central to this visioning work.

1. Help People Access Good Information and Trust Them to Make Good Decisions

- Transition Initiatives dedicate themselves, through all aspects of their work, to raising awareness of peak oil and climate change and related issues such as critiquing economic growth. In doing so they recognise the responsibility to present this information in ways which are playful, articulate, accessible and engaging, and which enable people to feel enthused and empowered rather than powerless.
- Transition Initiatives focus on telling people the closest version of the truth that we know in times when the information available is deeply contradictory.
- The messages are non-directive, respecting each person's ability to make a response that is appropriate to their situation.

2. Inclusion and Openness

- Successful Transition Initiatives need an unprecedented coming together of the broad diversity of society. They dedicate themselves to ensuring that their decision making processes and their working groups embody principles of openness and inclusion.
- This principle also refers to the principle of each initiative reaching the community in its entirety, and endeavouring, from an early stage, to engage their local business community, the diversity of community groups and local authorities.
- It makes explicit the principle that there is, in the challenge of energy descent, no room for 'them and us' thinking.
- In a successful transition project every skill is valuable because there is so much happening.
- We need good listeners, gardeners, people who like to make and fix everything, good parties, discussions, energy engineers, inspiring art and music, builders, planners, project managers.
- Bring your passion and make that their contribution – if there isn't a project working in the area you are passionate about, create one!!

3. Enable Sharing and Networking

- Transition Initiatives dedicate themselves to sharing their successes, failures, insights and connections at the various scales across the Transition network, so as to more widely build up a collective body of experience.

4. Build Resilience

- This stresses the fundamental importance of building resilience, that is, the capacity of our businesses, communities and settlements to deal as well as possible with shock.
- Transition initiatives commit to building resilience across a wide range of areas (food, economics, energy etc) and also on a range of scales (from the local to the national) as seems appropriate - and to setting them within an overall context of the need to do all we can to ensure general environmental resilience.
- Most communities in the past had – a generation or two ago – the basic skills needed for life such as growing and preserving food, making clothes, and building with local materials.

6. Inner and Outer Transition

- The challenges we face are not just caused by a mistake in our technologies but as a direct result of our world view and belief system.
- The impact of the information about the state of our planet can generate fear and grief - which may underlie the state of denial that many people are caught in.
- Psychological models can help us understand what is really happening and avoid unconscious processes sabotaging change, e.g. addictions models, models for behavioural change.
- This principle also honours the fact that Transition thrives because it enables and supports people to do what they are passionate about, what they feel called to do.

7. Transition makes sense - the solution is the same size as the problem

- Many films or books who suggest that changing light bulbs, recycling and driving smaller cars may be enough. This causes a state called “Cognitive Dissonance” –a trance where you have been given an answer, but know that it is not going to solve the problem you’ve just been given.
- We look at the whole system not just one issue because we are facing a systems failure not a single problem failure.
- We work with complexity, mimicking nature in solutions based problem solving.

8. Subsidiary: self-organisation and decision making at the appropriate level

- This final principle enshrines the idea that the intention of the Transition model is not to centralise or control decision making, but rather to work with everyone so that it is practiced at the most appropriate, practical and empowering level, and in such a way that it models the ability of natural systems to self organise.
- We create ways of working that are easy to copy and spread quickly.

Appendix 3 - Local Climate Change & Energy Strategy

Introduction

This Strategy is to provide for the coordinated measures necessary and achievable at the local level to achieve the long term strategic action needed to reduce climate emissions.

Climate change is consequence of unsustainable resource use by society, particularly energy use. Abating greenhouse gas emissions and reducing energy demand are therefore two sides of the same coin. Addressing climate change and must be seen as an integral part of addressing energy scarcity. By migrating to a carbon neutral society and economy earlier, resilience in the face of inflating energy costs builds resilience.

The Science of Climate Change

The advice of the UN Intergovernmental Panel on Climate Change IPCC scientific consensus should be accepted. Global average temperature must be contained at no more than 2°above pre-Industrial Revolution levels, and atmospheric CO^2 and other warming gases stabilised at 450 parts per million CO^2 equivalent (Co2 Eq), to avoid a catastrophic tipping point generating 6° rise in global temperature by the end of the 21st century and resulting sea level rise, desertification and global population displacement and resource conflict.

The Irish Context

The United States is the highest per capita Greenhouse gas emitter at 25 tonnes per person. Ireland ranks sixth at 17 tonnes per capita. By contrast, the UK per capita is 11 tonnes. Irish national emissions, i.e. those calculated only within the Kyoto-defined headings within Ireland, are at a level of 69 million tonnes, which is about equivalent to the total emissions of Sweden, which has a population more than twice that of Ireland.

The CO^2 Equivalent Targets Needed

There is currently a complete mismatch between the science of Global Warming and the public awareness, let alone political initiative, to take the action required. CO^2 Eq atmospheric stabilisation requires a reduction in current levels of anthropogenic (human caused) CO2 Eq Emissions by a level in excess of 80% by 2050. This is conservative advice based on a long drawn-out process of achieving scientific consensus through the UN Intergovernmental Panel on Climate Change (IPCC) process, which published its fourth report in 2007. This means bringing Irish per capita emissions to a level of under 2 tonnes, if not less. On top of this, the externalities generated by air and shipping and import of food, fertilizer, steel, and carbon-intensive goods, particularly from Asia, requires reduction at the same level.

Immediate Global Warming Projections for Ireland

Extensive ongoing multi-disciplinary research is been carried out in Ireland by the EPA, Met Eireann and the Irish universities and third level institutions, linked to colleagues all across the globe.

Even if effective international action is taken to stabilise CO^2 Eq. emissions at 450ppm, temperatures are still project to rise to up to 2° over pre-industrial levels. A number of conclusions are gaining consensus among the scientific community of the impact of this irreversible rise in Ireland including:

(i) Projection of higher rainfalls in the north and west, with lower rainfall in the south and east to a level of 10-15% per annum
(ii) More concentrated periods of higher rainfall

(iii) More exposure to flood risk
(iv) Increasing coastal erosion pressure, particularly on east coast
(v) Lower river flows, possibly to a level of 50% during lower rainfall periods potentially affecting fish spawning and water supply
More variable water saturation levels in upland blanket bogs, particularly more variation between dry periods and saturation, raising combined risks of peat slides in high rainfall and drying out with Greenhouse gas emission and biodiversity loss in low rainfall periods.

Current Irish Targets and Policy

The 1997 Kyoto Protocol represented the important first step in global cooperation to confront climate change. Ireland successfully lobbied for an increase in its emission allowance which was set at 13 over 1990 levels. National Climate Change Strategy Ireland 2000 set out the practical measures required. However, because of non implementation, emissions grew to the same level as would have occurred if there had been no strategy and are 26% above 1990 levels by 2008, twice that of the 13% cap. With the impact of the economic recession emissions have fallen back somewhat.

In January 2008 the EU Commission announced a target of achieving a 20% reduction on EU levels by 2020, to be increased to 30% in the event of the 2007 Bali Roadmap leading a new global agreement being resolved. This is still way below the reductions required by science. The January 2008 national allocation targets proposed by the Commission are based primarily on GDP and propose a new Irish target of 20% reduction below 1990 levels.

What Role Can Local Authorities Take?

There is major opportunity for local authorities to adopt progressive Climate Change strategies. Local authorities can take inspiration from the increasing number of regions across the world that are taking action both complementary to or additional to national governments against Climate Change[20].

While it must be recognised that there is a hierarchy of achievability of measures that can only be advanced at international or national level, there is an enormous scope for initiative and action by individual localities. This can then be more effectively linked to action at regional level and national level.

Local Climate Strategy

The overall aim is for the local authority s to adopt a Climate Change Strategy that would define:

(i) A statement under all of the relevant categories and headings of what is required to reduce emissions to under 2 tonnes per capita.
(ii) Immediate and practical steps for direct action by the local authority, with timetables and targets.
(iii) A regional strategy to be adopted through negotiation to incorporate other local authorities.

Positive Additional Impacts

The measures contained in this Strategy, while specifically designed to reduce greenhouse gas emissions, will have a range of significant parallel benefits for energy consumption, wellbeing, quality of life and health, the fostering of neighbourhoods, and specific effect in eliminating air pollution particle emissions, including PM10, traffic noise and congestion.

[20] http://www.climateneutral.unep.org/

Food

General Indicators

- To enhance national and regional food security and supply.
- To maximise fruit, vegetables and other food produced within the hinterland.
- To reduce the ecological and carbon footprint of the food needs of the locality.

Action Taken in Conjunction with the Regional Authority

- To promote and maximise the level of local need food production and distribution in the locality area.

Direct Actions taken by Local Authority

- To identify and provide the support structure for produce markets in key locations around the locality.
- To identify land in local authority ownership suitable for development of allotments and to promote the use of allotments by individuals, groups and local communities.
- To develop and promote in conjunction with the VEC and other bodies, training courses in the start up use and management of allotments, urban gardens and communal spaces for fruit and vegetable production.
- To initiate schools fruit and vegetable awareness programme, with funding, training and support structure provided for schools to develop allotment plots or raised beds, and fruit trees within school grounds.
- To provide the support structure for diversion of all organic waste into a local distribution network of composting centres to produce compost for local gardening and horticultural use.

Targets

- The local authority will set specific targets for increase in fruit and vegetable production and a reduction of ecological and carbon footprint of food uses.
- Elimination of all biomass waste from the waste stream and re-use for locally distributed compost.

Energy

General Indicator

- To promote a strategy which would see the electrical generation needs be primarily met by renewable sources by 2020, and entirely by 2030, including major use of local renewable energy sources.

Specific Additional Actions taken by the Local Authority

- To identify specific locations suitable for CHP and district heating development, both in conjunction with new developments and opportunities to retrofit existing major industrial users or hospitals in conjunction with CHP District Heating Schemes in adjoining areas.
- To provide in conjunction with Sustainable Energy Ireland, a promotional and support scheme for group housing retrofitting, including advice and assistance to individual property owners on financing and contract management.
- To investigate potential, particularly through major new developments potential for geothermal energy.

- To promote, in conjunction with Sustainable Energy Ireland, timezone heating and lighting use management, particularly to the office and retail sector to reduce unnecessary heat and light use outside office and trading hours.

Target

- To reduce energy consumption in the locality to time-tabled target

Spatial Planning

General Indicator

- To develop, in conjunction with the Regional Authority and the National Transport Authority, the integration of and land use planning with public transport provision.
- To fully implement the provisions of the Regional Planning Guidelines and relevant provisions of National Spatial Strategy, Ireland, 2002, including location of all further residential, retail and office development on public transport corridors and public transport accessible locations; and orderly and sequential development set out in the overriding planning policy provisions of National Spatial Strategy, Ireland, 2002, Section 1.1 (iv), which states *"Ireland needs to renew, consolidate and develop its existing towns and villages, i.e. keeping them as physically compact and public transport friendly as possible and minimising urban sprawl, while also achieving a high quality of design in new development and refurbishment. Urban land needs to be used carefully, sensitively and efficiently -with the aim of reducing dereliction and under-utilisation. Where greenfield development is necessary, it should take place through the logical extension of existing cities, towns and villages."*

Specific Actions Taken by the Local Authority

- To amend all planning policy documents to incorporate specific provisions, defining as an overriding objective, the creation of neighbourhoods and communities with walkable access to local services and public transport.
- To define six storeys as the general maximum building height to reflect the primary needs of human scale-orientated, neighbourhood-orientated planning and energy conservation with highest densities on public transport corridors.

Target

- To define measurable targets for enhancing walkable neighbourhoods and communities.

Transport

General Indicator

- To decarbonise transport in the locality with the overriding policy for a walkable, cycling friendly, public transport accessible, neighbourhood-orientated region.
- To adopt electric energy powered primarily by renewable sources, as the predominant transport generator by 2020 and complete source by 2030.
- To recognise the unsustainability of bio-fuel import and limited capacity of Irish bio-fuel to contribute to transportation use.

Actions taken by the Local Authority in conjunction with the Regional Authority

- To revise all transport expenditure policies and strategies with the primary aim of decarbonising transport; and inter-regional and intra-regional connection

- To shift the predominant fuel for buses from diesel to electric by 2020.
- To introduce a price charging structure for all private car and road vehicle use based on journey length, entry within particular cordons, size of vehicle, emissions and peak and off-peak time.
- To introduce a car parking structure and levy on all off street car parking spaces with the income generated used for funding sustainable transport

Specific Actions Taken by the Local Authority

- To define local towns as primarily a walkable areas
- To adopt and support the further development of the schools transportation project
- To reduce car travel to schools through a range of measures including walking buses, development of safe cycling routes, and, for families with no alternative public transport, walking or cycling option, car pooling rotas
- To develop a strategy for reducing HGV traffic, reviving the use of the rail freight links.
- To develop a network of safe cycling routes; on all of the arterial routes; on routes to district and neighbourhood centres and larger school and third level institutions and other nodal points, maximising safety and separating and minimising conflict or interface with road vehicles.
- To promote and provide support structures to third level institutions and businesses for cycling use; and incentive schemes linked to the progressive reduction of surface and other carparking space provision.
- To promote “cycle and ride” rather than “park and ride” to public transport routes.
- To control the excessive use of taxis along public transport routes, with amended fare structures, to dis-incentivise taxi use on public transport routes, and incentivise taxi and public transport modal sharing, e.g. use of taxi to nearest airport bus stop, rail stop or Luas stop.
- To require all new development generating more than 100 person movements per day, to provide a Mobility Strategy maximising walking, cycling and public transport use; and minimising private car use.
- To ensure effective charge structure on all off street parking.

Waste Management

General Indicator

- To adopt as a primary principle, the reduction of waste generation and the treating of each element of the waste stream with the optimum appropriate reuse or recycling methodology, minimising the transport and energy generated.

Specific Action by the Local Authority

- To ensure that all organic waste biomass material is diverted from the waste stream into compost for use in the locality.
- To initiate a range of measures to reduce the level and disposal of beverage and take away food containers, and packaging waste generally.

Targets

- To provide measurable timetables and targets for reduction of all individual elements of current waste stream, and specific sectoral reuse and recycle markets.

Biodiversity

General Indicator

- To enhance all sectors of Biodiversity in the locality.

Action Taken by the Local Authority in Conjunction with the Regional Authority

- Ensure Water Framework Targets are achieved for 2015.

Specific Actions Taken by the Local Authority

- To develop a planting and management strategy to enhance biodiversity in all Parks and green areas controlled by the Local Authority.
- To initiate a native tree planting campaign in conjunction with schools and communities, with school classes as they rise in age been guardians of individual or groups of trees.
- To identify locations suitable for and create wetland areas for invertebrates and as wildlife refuges.

Targets

- To provide measurable timetables and targets for biodiversity.