The Foundation for the Economics of Sustainability

Submission on the Ireland 2040 National Planning Framework draft

Contents

Feasta *(the Foundation for the Economics of Sustainability) is an open membership think tank. Its aims are to identify the characteristics (economic, cultural and environmental) of a truly sustainable society, articulate how the necessary transition can be effected and promote the implementation of the measures required for this purpose. It is a member of the Irish Environmental Network, the Environmental Pillar and Stop Climate Chaos Ireland.*

Introduction

We welcome the Plan's emphasis on revitalising brownfield and other disused urban sites, on regional development, and on strengthening public transport and bicycle infrastructure.

Our primary two concerns about the Plan are:

1. It does not take the economics of energy sufficiently into account
2. More measures need to be put in place to ensure that changes to infrastructure truly benefit everyone in Irish society

We'll take these in order, and finish with some specific suggestions for changes in the Plan's wording.

1. Economics of energy

In order to avoid potential problems - perhaps catastrophic ones - we urge policymakers to adapt the Plan in response to recent global energy forecasts[1].

While the Plan acknowledges the need to shift to 80% renewably-sourced energy by 2050[2] in order to lessen the probability of runaway climate change, the assumption throughout appears to be that provided the electricity grid is sufficiently reinforced, the future renewables-based economy will continue to function much as the fossil-fuel-based economy does today. Vehicles will become electric but will continue to thunder along Irish motorways at the same - indeed, greater - speed and numbers as at present. Shipping will continue its trend towards heavier vessels requiring deeper ports and larger-scale infrastructure. Dublin airport will be expanded. Although the plan does not mention this specifically, it also appears to assume that deliveries will continue to be made on a just-in-time basis.

However, the transition to renewables will not merely entail changes in the *means* by which energy is made available to Ireland's economy. It will also greatly affect *how much* energy is available, and *exactly how and when it can be used*.

This is owing to the intermittency of renewable energy supply, the embedded energy (often deriving from fossil fuels) that is involved in the construction, installation and eventual disposal of renewable energy generators and the consequent effect on the overall efficiency of renewable energy production, and the challenges posed by storage of energy generated by renewables[3].

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[1] See for example the IEA's *World Energy Outlook* for 2016 (discussed further below), also https://srsroccoreport.com/worlds-largest-oil-companies-deep-trouble-as-profits-vaporize-

[2] It should be noted in this regard that climate science indicates that a still bigger shift is needed, to 100% renewable energy by 2050 at the latest.

[3] For a clear overview of these issues see http://www.lowtechmagazine.com/2017/09/how-to-run-modern-society-on-solar-and-wind-powe.html

To make the situation more acute, there is strong evidence that we have reached the end of the era of easily-accessible fossil fuels. In a careful analysis of the IEA's *2016 World Energy Outlook* , Kjell Aleklett of Uppsala University points out that the agency is basing its predictions of future oil production on the assumption that there is a considerable quantity of undiscovered oil still out there, waiting to be discovered - despite strong evidence to the contrary[4]. In fact, fossil fuel companies are now in very bad shape financially: research and development costs are soaring relative to yields[5].

A severe slowdown in fossil fuel production and consumption would obviously be a good thing in terms of reducing greenhouse gas emissions but if the key role played by fossil fuels, particularly oil, in the economy is not properly acknowledged and addressed in the short term, the effects on the economy and on society at large will be catastrophic. We need to recognise that the energy transition may come upon us far more abruptly and chaotically than anticipated.

All of this indicates that the future economy will need to undergo significant structural change on all levels, and within as short a time-frame as possible, in order to adequately weather the vital transition away from fossil fuel use.

1.1 Survival strategies

We recognise that our proposed strategy of restructuring the economy, including of course its infrastructure, so as to be less dependent on transport and other heavily fossil-fuel-intensive activity, runs counter to certain aspects of the Plan in its current form.

Indeed, the Plan does not only assumes that transportation at its current pace is sustainable – it argues that it is *necessary* and that we will be in big trouble if this pace is not kept up: "the effectiveness of our airport and port connections to our nearest neighbours in the UK, the EU and the wider global context is vital to our survival, our competitiveness and our future prospects"[6]. A perceived need to build more roads and to expand Dublin airport is mentioned several times.

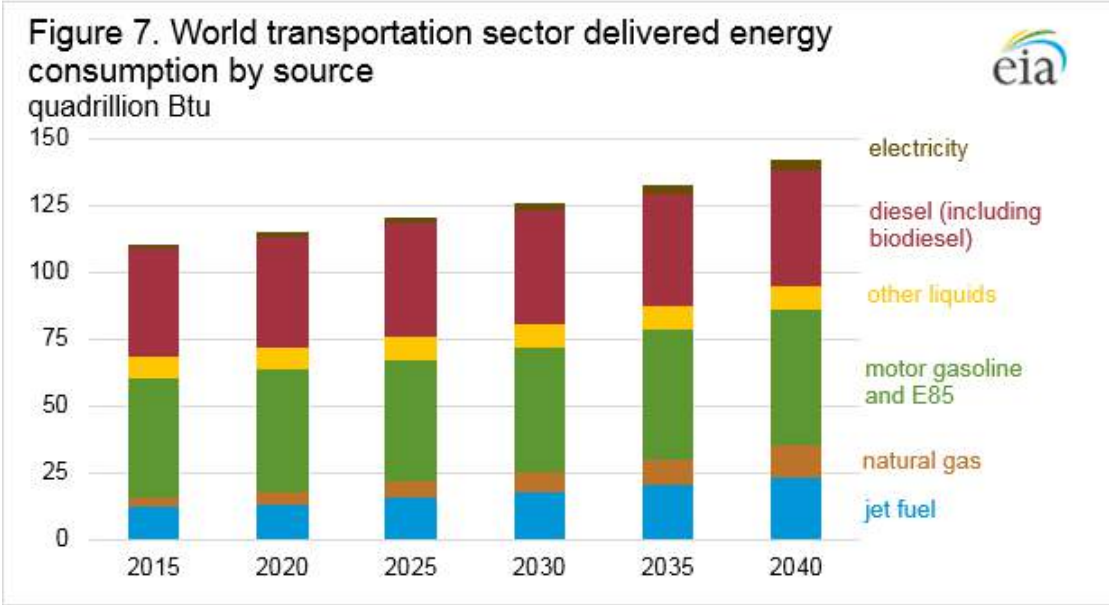
These assumptions presumably arise from fears that, were Ireland to take measures to cut back on transport and to focus on building a more localised economy, economic growth would probably be affected and the global financial system, with its 'hot money' flowing quickly from one jurisdiction to another and its skittish, volatile bond markets, would take a poor view of this. Ireland's open economy is highly vulnerable to capital flight and other economic damage that could be wrought by a lack of investor confidence.

[4] http://www.resilience.org/stories/2016-12-06/world-energy-outlook-2016-fatih-birol-in-brussels/
[5] https://srsroccoreport.com/worlds-largest-oil-companies-deep-trouble-as-profits-vaporize-while-debts-skyrocket/
[6] *Ireland 2040 – Our Plan Draft*, p 134

However, if one looks at the history of finance, the picture of investor behaviour that emerges is quite nuanced. Countries that have fallen out of grace in the financial markets can rather quickly get back into grace again, if they play their cards right. Indeed, this happened very recently in a country even smaller than Ireland. Following the 2008 financial collapse, Iceland 'broke the rules' by forbidding capital movement in and out of the country and by only bailing out domestic deposits, allowing its banks to collapse[7]. This did result in some short-term problems such as hyperinflation, but nobody starved – in fact the country recovered over time and is now doing quite well again.

Obviously, financial policy falls outside the direct remit of planning. However, we urge planners to consider that some of the constraints that they are assumed to be working under – such as the need to placate the global financial markets - may not be nearly as insurmountable as is frequently believed, whereas certain other constraints – such as fossil fuel depletion and the particular limitations of renewables - may turn out to be very serious indeed.

1.2 Transport



This graph from EIA shows the current role played by different kinds of energy in the transport sector of the global economy, along with projections for the future. We can see that oil –derived energy utterly dominates the transport sector. Source: https://www.eia.gov/outlooks/ieo/exec_summ.php

All sectors will need to be transformed, but transport will be particularly strongly affected - not merely in terms of how it is fuelled, but in terms of the overall role it plays within the economy. This will obviously have strong implications for infrastructure planning. Aleklett comments, "Next time a politician tells us we

[7] http://www.telegraph.co.uk/business/2017/03/14/icelands-recovery-shows-benefits-letting-over-reaching-banks/].

must be fossil free by 2050 we must require him/her to describe the investments in infrastructure that will be made to remove oil use from goods transport."[8]

We have seen that, owing to certain challenges they present, renewables are unable to furnish energy for transport on the same scale as oil does. Thus, even while renewables have now managed to gain a foothold in other sectors of the economy, oil still retains a hugely dominant role in transport (see the EIA graph above), purely because it is so practical. Renewables certainly have potential but this potential largely lies elsewhere.

Transport of goods was responsible for 14% of emissions worldwide in 2010[9] but it is projected to account for 29% of emissions in Ireland by 2020[10]. We have already seen, however, that this trend simply cannot continue, because the fossil fuels required are not available[11] (and, even if they were, would not be usable owing to their effect on the climate), and renewables cannot fill this particular gap.

To put it bluntly, in order to ensure that the Irish economy can continue to function adequately and provide vital support to everyone living in Ireland, we will need to wean ourselves off our reliance on quick, cheap transport.

It is vital that the shift away from a heavily transport-based economy not be viewed as a return to the Dark Ages, a reversal of progress. For one thing, we should note that, were the economy (including infrastructure) to be restructured judiciously, much of the transport that is considered to be so fundamental at present would become completely unnecessary to our prosperity.

Many analysts have pointed out the absurdity of an economy that requires an enormous amount of rushing around, in quest of rewards that are frequently dubious, to put it mildly. For example, a German study in the 1990s determined that the components making up a single pot of strawberry yoghurt on a supermarket shelf had travelled a total of 3,494km! Packaging was a big culprit as the raw materials required for its production came from many far-flung places[12]. This situation is unlikely to have improved since. The ecological footprints involved are vast and the freshness of the products risks being compromised. Then there is the phenomenon of a country exporting and importing enormous quantities of the same product[13].

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[8] http://www.resilience.org/stories/2016-12-06/world-energy-outlook-2016-fatih-birol-in-brussels/

[9] https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data#Sector

[10]https://www.epa.ie/pubs/reports/air/airemissions/ghgprojectionsEPA_2017_GHG_Emission_Projections_Summary_Report.pdf

[11] Media coverage of shale oil development may create the impression that the fossil fuel industry is experiencing a resurgence but the actual production figures contradict this. In reality, the fracking/shale oil 'boom' is simply a speculative credit bubble: https://srsroccoreport.com/trouble-financing-its-debt-massive-decline-rates-pushes-u-s-shale-oil-industry-closer-towards-bankruptcy/.

[12] *Road Transport of Goods and the Effects on the Spatial Environment*, July 1993 Cited in http://www.feasta.org/documents/shortcircuit/index.html?sc5/dc5.html

[13] https://qz.com/563131/why-countries-buy-so-many-things-they-already-have/

In addition to these economic issues, there is a strong argument to be made that transport on its current scale, including heavy dependence on the private car, is actually quite detrimental to social well-being. This will be discussed further in section 2.

With regard to public transport, it is hard to avoid a perception that both Bus Eireann and Irish Rail are being underfunded in order to soften them up for the privatisation of profitable routes and a total abandonment of the non-profitable ones. This is extremely worrying.

We would second the suggestions made by Eileen Brannigan of the North Tipperary Rail Community in her submission to the NPF on the urgent need to improve Ireland's railway network. We also endorse the Citizens' Assembly's recommendations regarding greatly-increased funding for public transport in general[14].

We'll now briefly explore how an economy that is much less dependent on private and goods transport might look. What infrastructure would it require?

Below is a short – and inexhaustive – description of the types of changes we envision, with some discussion of how infrastructure planning could best help them along.

1.3 Agriculture

In practical terms, the production of staple goods such as food will need to be largely re-localised, with far greater emphasis on box schemes and farmers' markets, rather than the current trucking of vast quantities of perishables over long distances in heavy goods vehicles, their elaborate packaging and storage in centralised warehouses and just-in-time deliveries to supermarket chains.

This change may well reverse the decades-long depopulation of certain rural areas in Ireland as there will be a much increased demand for locally-produced, high-labour-input farm produce. There will be a trend towards smaller-scale mixed farms, combining meat and vegetable production, as fossil-fuel-derived fertiliser and cheap fuel for tractors will no longer be readily available; soil will need to be nourished using mixed-farm inputs which require more human labour than at present.

Significant employment opportunities will therefore arise in the agricultural sector. The bioeconomy will take up its (rightfully) dominant place in the overall economy[15]. While food will become somewhat more expensive because of the higher labour input, we will likely also reap a considerable public health benefit

[14] http://www.thejournal.ie/citizens-assembly-climate-change-3681342-Nov2017/

[15] For a more detailed description of measures that we advocate in support of the bioeconomy, see Feasta's recent submission to the Department of the Taoiseach;s Bioecoomy Discussion Document: http://www.feasta.org/wp-content/uploads/2017/09/Feasta-submission-on-the-bioeconomy.pdf

(and savings in healthcare costs) from having access to higher-quality and fresher agricultural produce.

1.4 Housing

The Plan states that housing should optimally be as close as possible to places of work, cutting down on commute times. We agree; however, we argue that demand for new or refitted housing may in fact arise in unexpected places, such as hitherto 'sleepy' or 'in decline' villages, owing to the shifts in the agricultural sector described above.

Housing design and infrastructure in rural areas can significantly support the energy transition. Similarly we need to close the loop on agricultural productivity by returning nutrients and biomass from redesigned sewage infrastructure back to the land as humic compost[16] There is no need to delay on implementing such measures as installing reed-based sewage systems and other gravity run infrastructure for water supply and sewage treatment and making optimal use of passive solar gain for home heating. The recent storms this past October saw electricity cuts and consequent interruptions to electricity dependant sewage treatment in parts of the country, and thus water pollution in receiving rivers and coastal waters.

As described in a submission made by Feasta to the DEHLG in 2008[17], a resurgence of village-scale development, both in the form of revitalising old villages and of developing new eco-villages, would be optimal.

The trend of increasing housing demand in urban areas is unlikely to continue, or at least not at the same pace, in a zero fossil fuel economy. Where new urban construction is required, we endorse the Plan's guideline that this be carried out as much as possible on derelict and brownfield sites, and that planning standards be flexibly applied.

We also endorse the Plan's stipulation that mandatory parking spaces be dropped in urban housing plans and urge the Department to consider dropping the requirement that these spaces be included in rural construction. As implied above, the future economy, even in rural areas, is likely to include far less private car use and far more small-scale, low-energy transportation.

1.5 Manufacturing

While there will still be a certain amount of international trade in the zero fossil fuel economy (largely powered by wind, so with longer transport times than at present) we will no longer see the current extreme division of global labour, with China as the manufacturing powerhouse of the world, the US and various other Western countries largely responsible for information technology development, Africa treated as a giant mine for minerals and precious metals, and so on.

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[16] http://www.feasta.org/2016/04/26/closed-loop-agriculture-for-environmental-enhancement-returning-biomass-nutrients-from-humanure-and-urine-to-agriculture/

[17] http://www.feasta.org/documents/landhousing/Feasta_re_Sus_Res_Devel_in_Urban_Areas.pdf

Of course there will still be some regional specialisation, but the economies of scale that heavily influence the current system will be strongly counterweighted by more expensive and slower transport. This means that, if all goes well, we will see a resurgence - or in some cases, the introduction - of various small-scale industries in Ireland.

Unlike in transport, renewables will be able to play an important role in industry, as their intermittency does not interfere in any important way with most food production or manufacturing. Production speed will be lowered, but the quality of output will remain just as high as at present.

In a useful article entitled "How to run the economy on the weather"[18], Kris De Decker outlines many specific ways that the future economy could be adapted to meet the requirements of renewables. For example:

"Manufacturers could counter seasonal production shortages by producing items 'in season' and then stocking [them] close to consumers for sale during low energy periods. In fact, the products themselves would become 'energy storage' in this scenario. Instead of storing energy to manufacture products in the future, we would manufacture products whenever there is energy available, and store the products for later sale instead."[19]

Other measures he suggests include running goods trains whenever sufficient energy is available, and using robots for night shifts in factories on windy nights.

2. A more democratic infrastructure

Ireland has high levels of inequality at present[20]. Without careful management, this situation could change for the worse during the energy transition, because there is a danger that those with greater political access will be able to continue with their high-energy lifestyles, while everyone else shoulders the burden that this will create. (Indeed, we are already seeing this happening internationally in the effects of climate change on various Global South countries).

2.1 Population growth, economic growth and well-being

We acknowledge that the projected population growth figures for Ireland that the ESRI has published will certainly affect the country's infrastructure requirements. However, we would argue that an increase in overall population does not actually indicate that we need an increase in aggregate economic growth in order to furnish everyone's needs. Quality of economic activity is far more important than quantity.

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[18] http://www.lowtechmagazine.com/2017/09/how-to-run-the-economy-on-the-weather.html#more
[19] ibid
[20] https://www.irishtimes.com/opinion/despite-recovery-ireland-remains-a-hugely-unequal-society-1.2766053

As we will argue below, a fair proportion of activity that is currently counted in GDP is actually detrimental to economic and social wellbeing. In this regard we refer planners to the ongoing work of Feasta's Beyond GDP group, who are developing a National Well-Being Index as an alternative to GDP[21].

2.2 Commons-based approach to infrastructure planning

In all of the Plan, the word "participation" appears twice. "Consultation" appears eleven times. There is no mention of the Aarhus convention or the Public Participation Networks (PPNs). Irish Water appears four times. Given that Irish Water has caused so much controversy this seems to demonstrate government confidence in Irish Water. One could be forgiven for deducing that the people preparing this document seem to believe that Irish Water will be a valid entity until 2040, but have little confidence in the PPNs.

Community is mentioned throughout the document, but at present there is little by way of commitment to empowerment. Every aspect of this plan will affect our environment, therefore everyone should be informed about it and facilitated to participate in it.

Elinor Ostrom's extensive research on commons is useful in this context, as it provides examples of infrastructure that effectively supports all members of a community, in some cases for many decades or even centuries, and in places as varied as Guatemala, Nepal, Turkey, and Los Angeles.

Commons are collectively-managed common pool resources. The "On the Commons" website states

"Ostrom's achievement effectively answers popular theories about the "Tragedy of the Commons", which has been interpreted to mean that private property is the only means of protecting finite resources from ruin or depletion. She has documented in many places around the world how communities devise ways to govern the commons to assure its survival for their needs and future generations."[22]

Any common-pool resource, such as water, the electromagnetic spectrum and transport infrastructure could potentially be managed as a commons, following the guidelines identified by Ostrom[23].

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[21] http://www.feasta.org/beyond-gdp-new-approaches-to-measuring-well-being/

[22] http://www.onthecommons.org/magazine/elinor-ostroms-8-principles-managing-commmons#sthash.RSzpReZI.dpbs

[23] Ostrom's eight guidelines are as follows: 1. Define clear group boundaries. 2. Match rules governing use of common goods to local needs and conditions. 3. Ensure that those affected by the rules can participate in modifying the rules [see section 2.3 on the Aarhus Convention]. 4. Make sure the rule-making rights of community members are respected by outside authorities. 5. Develop a system, carried out by community members, for monitoring members' behavior. 6. Use graduated sanctions for rule violators. 7. Provide accessible, low-cost means for dispute resolution. 8. Build responsibility for governing the common resource in nested tiers from the lowest level up to the entire interconnected system.

With regard to water management, we refer planners to Feasta's Water Commons group[24], which aims to extend the debate about water policy in Ireland and to establish water commoning as something worthy of serious and critical consideration.

Another important common-pool resource is the rental value of land. This value should be harnessed and used for the common good by means of a site value tax. Site value tax is the most socially progressive type of tax, and it cannot be dodged (since land cannot be moved). It is currently used in a number of states and regions worldwide including Taiwan, parts of Australia, Russia, Estonia, Lithuania, Hong Kong and several cities in Pennsylvania. It is under consideration in China also. In recent years it has been promoted by Paul Krugman, Joseph Stiglitz and Michael Hudson, and by the Greens, Labour and Liberal Democratic parties in the UK.

Site value tax applies only to the value of the ground under the house and is entirely unaffected by improvements to property, including energy efficiency measures. Moreover, it encourages optimal use of urban land, including the revitalisation of derelict sites, and has a depressing effect on land speculation.

With regard to renewable energy, we share the Citizens' Assembly's recently-stated position: we would argue strongly in favour of government incentives to encourage community ownership, following the example set by countries such as Denmark[25]. It is notable that the Assembly achieved a 100% consensus on this subject[26], suggesting that such incentives would enjoy widespread popularity.

Locally-owned energy may cost somewhat more up-front but the hidden costs of energy that is owned and managed by large companies based elsewhere which are unaware of (or insensitive to) local needs are far higher. Indeed, the energy transition presents an exciting and welcome opportunity to democratise energy production.

2.3 The Aarhus convention

Ireland ratified the Aarhus convention in 2012 and given its significance to the development of plans, policies and programmes, it should be incorporated into this Plan. The Convention, with its strong emphasis on community participation, provides a formal framework to ensure that Ostrom's third guideline for managing a commons (as described in section 2.2 above) is followed: "ensure that those affected by the rules can participate in modifying the rules".

To quote the Aarhus Convention Implementation Guide:

[24] http://www.feasta.org/2016/12/05/water-commoning-extending-the-public-debate-about-water-policy-in-ireland/
[25] http://www.feasta.org/2014/06/22/from-our-archives-how-three-families-created-a-movement-and-boosted-an-industry/
[26] http://www.thejournal.ie/citizens-assembly-climate-change-3681342-Nov2017/

"*The Convention on Access to Information, Public Participation in Decision making and Access to Justice in Environmental Matters (Aarhus Convention) was adopted at the Fourth Ministerial Conference "Environment for Europe" in Aarhus, Denmark, on 25 June 1998. Thirty-nine countries and the European Community have since signed it.*

The Aarhus Convention links environmental rights and human rights. It acknowledges that we owe an obligation to future generations. It establishes that sustainable development can be achieved only through the involvement of all stakeholders. It links government accountability and environmental protection. It focuses on interactions between the public and public authorities in a democratic context and it is forging a new process for public participation in the negotiation and implementation of international agreements.

The subject of the Aarhus Convention goes to the heart of the relationship between people and governments. The Convention is not only an environmental agreement, it is also a Convention about government accountability, transparency, and responsiveness.

The Aarhus Convention grants the public rights and imposes on Parties and public authorities obligations regarding access to information and public participation. It backs up these rights with access-to-justice provisions that go some way towards putting teeth into the Convention. In fact, the preamble immediately links environmental protection to human rights norms and raises environmental rights to the level of other human rights."[27]

Incorporating the Aarhus convention into the National Planning Framework will be a step towards ensuring more widespread awareness of its existence and may act as a reminder to those responsible for ensuring these rights are protected. The Aarhus convention is integral to all planning, especially when one considers the fact that we are now in a transition to a low carbon economy and society.

Here is an excerpt from the implementation guide. Public participation is vital to a shared vision with greater success in planning. Where public participation is mentioned within the 2040 document, this table should be referenced:

"Implementing public participation
Under the Aarhus Convention, Parties have core obligations to put it into practice. Under these obligations, each Party has some flexibility in how it adapts the Convention's obligations to its own national legal and institutional system. The following is an overview of the clear obligations for Parties and practical considerations for implementation found in articles 6, 7 and 8.

	General requirements	Implementation guidance
Article 6	• Conduct public participation early in decisions on activities with a possible significant	• Develop criteria for evaluating significance for non-listed

[27] https://www.unece.org/fileadmin/DAM/env/pp/acig.pdf

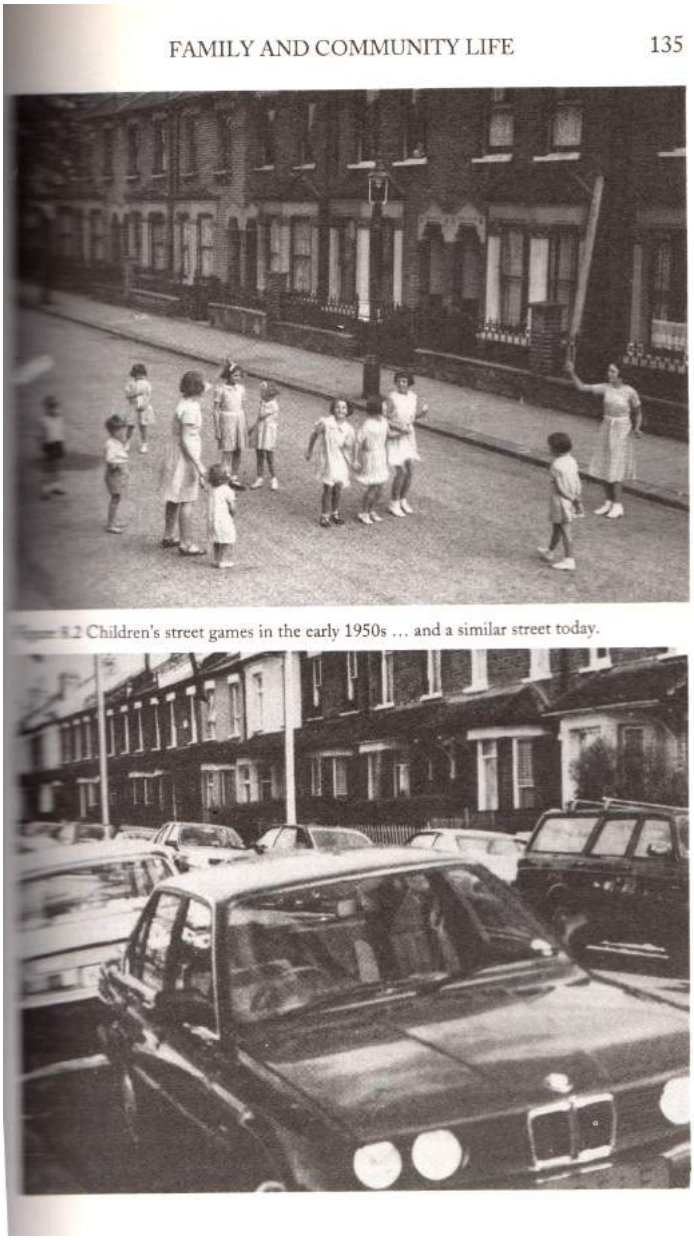
	environmental impact • Give notice to the public concerned • Establish reasonable timeframes for phases of public participation • Provide all relevant information to the public concerned • Provide opportunities for the public to make comments • Take due account of the outcome Inform the public of the final decision with reasons	activities • Ensure that decision makers have a legal basis to take environmental considerations into account • Develop incentives for applicants to engage in early dialogue • Set guidelines and standards for the quality of relevant information • Establish clear procedures for submitting comments in writing or at hearings • Supervise how public authorities take comments into account • Clearly define any exemptions • Flexibility in setting timeframes • May facilitate public participation through early dialogue with the applicant • May apply information exemptions • May limit application to decisions on GMOs if not "feasible and appropriate"
Article 7	• Establish a transparent and fair framework for public participation in plans and programmes relating to the environment • Identify participating public • Conduct public participation ear-	• Develop clear rules for participation • Develop mechanisms for notification • Set guidelines and standards for the quality of necessary information

	ly in development of plans and programmes relating to the environment • Give necessary information to the public • Establish reasonable time-frames for public participation • Take due account of the outcome	• Develop tools for the 13dentifycation of the participating public • Supervise how public authorities take comments into account • Establish policies for public participation in policy-making • Flexibility in means (practical and/or other provisions) • Flexibility in setting time-frames • Broad latitude in how to provide public participation in preparation of policies
Article 8	• Promote public participation in the preparation of laws and rules with potential environmental impact • Establish sufficient time-frames for public participation • Publish or publicise drafts • Provide opportunities for the public to make comments • Take due account of the outcome	• Develop clear rules for participation • Develop criteria for evaluating significance • Establish a reliable and regular vehicle for publishing drafts • Establish clear procedures for submitting comments in writing or at hearings • Supervise how public authorities take comments into account • Flexibility in setting time-frames • Broad latitude in how to provide public participation in preparation of laws and

		rules • Flexibility in taking due account of outcome

2.4 Social and health effects of transport infrastructure

We have argued in section 1 above that energy depletion, and the limitations of renewables as transport fuel, will require a significant curtailment of rapid transport in the future. Now we will describe some of the potential benefits this curtailment could bring about.



From *The Growth Illusion* by Richard Douthwaite, Lilliput

In an RSA lecture entitled "The Social Consequences of Hypermobility", John Adams critiques the phenomenon of widespread rapid transport, pointing out that it widens the gap between have and have-nots and exacerbates the vulnerability of those unable to drive[28]. While the number of people who own cars and take flights is increasing, the human population is increasing much faster, with the result that a smaller minority actually have the privilege of easy travel. As we have seen above, it is very unlikely that this situation will become any fairer.

When cars are privileged over slower and more collective means of transport, this can result in quicker journeys for some people

[28] http://john-adams.co.uk/wp-content/uploads/2006/hypermobilityforRSA.pdf

(assuming that they don't get stuck in traffic jams) but it restricts the freedom of movement of non-drivers of any age, including – importantly - the freedom of children to play outside.

Anyone who has travelled in a non-industrialised country will likely have been struck by the sheer amount of street life that takes place in societies where there are fewer cars, with children often taking up a considerable amount of road area with their outdoor games, and the elderly and other adults also spending a great deal of time outside on the street.

It is common today to hear pronouncements about Western children being spoiled because they often have a great many material possessions, but we forget that their freedom is often enormously constrained, compared to that of previous generations, because of the requirements of the fast-transport-based economy. Adams writes:

"Children's freedoms will be further curtailed by parental fears [of their being knocked down by vehicles], and the social catalyst of children playing in the street will disappear. In Britain, as recently as 1971, 80% of 7 and 8 year old children got to school on their own unaccompanied by an adult. Now virtually none do, and the [UK] Government issues guidance to parents warning that allowing children under the age of 12 out of the house unaccompanied is irresponsible. "[29]

The effects of infrastructure on health are mentioned briefly in the Plan draft (p81). As with social effects, these are worth spelling out in far more detail as they are dramatic. A 2014 report to the UK's Department Transport on the effects of frequent walking and cycling on healthcare costs concluded that "The results are compelling. The typical benefit cost ratios are considerably greater than the threshold of 4:1 which is considered by the Department for Transport as 'very high' value for money. This supports the conclusion …that small-scale transport schemes can really deliver high value for money…Within transport, investment in walking and cycling are likely to provide low cost, high-value options for many local communities. "[30] A move away from car-based culture would have a significant positive effect on Ireland's constrained healthcare budget.

3. Specific changes in wording

In addition to the more general points above, there are some specific changes in wording, and additions of wording, that we recommend for the Plan:

Chapter 1 - High Level Objectives

We would urge the document framers to incorporate a definition of sustainable development into the document. The term is mentioned twenty times within the document without being defined. We propose including it with the list of four high level objectives. It could be included as a quote along these lines:

[29] ibid, p4

[30] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/371096/claiming_the_health_dividend.pdf

The Brundtland Commission definition, "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs", will be the basis of all objectives and actions coming from this plan including plans referenced within this plan. This is our commitment to ensuring our children inherit a thriving country.

Below are some suggested rewordings of specific policy objectives:

National Policy Objective 25

"Facilitate the promotion and creation of sustainable community development and support community organisations in their work to provide for a more sustainable future."

This would benefit from the inclusion of a definition of sustainable community development or reference to relevant policy along the lines of objective 26. For example the following quote is taken from *Our Communities: A Framework Policy for Local and Community Development in Ireland* (2015)

"Based on a set of core values covering social inclusion, equality and respect for diversity, local and community development seeks to harness all the potential resources at the disposal of communities by bringing together people, groups, and agencies, voluntary and statutory bodies to make a positive difference in the development of sustainable communities. The notion of 'working with' rather than 'on' or 'for' people is central to progressive and proactive processes that seeks specific results in terms of desired changes in individuals, groups, neighbourhoods and social and economic conditions."

National Policy Objective 31

"Facilitate fostering and protecting the Irish language, particularly within Gaeltacht regions."

If we can specify protection of our language surely we can do likewise with our natural environment. There are references to the natural landscape and biodiversity but not any specified intention to protecting our actual natural environment upon which we are completely dependent. Much like the Irish language, it is already incorporated into the education system, however it should be a documented national intention not limited to school students.

Proposed wording:

National Objective ……

Facilitate fostering care of and protecting our natural environment.

National Policy Objective 41

"Support the growth and development of the maritime economy, particularly in remote coastal communities and islands"

Rewording:

"Support the environmentally sustainable growth and development of the maritime economy, particularly in remote coastal communities and islands"

There are objectives to enhance public transport within our cities but no objectives to improve rural connectivity which includes combating isolation. Rural dwellers are dependent upon cars even when they use public transport. There is also no objective to decarbonise or address the unsustainable use of fossil fuel for transport in rural areas. As argued above, there must be greater incentives put in place to encourage the use of fossil free vehicles.

Finally, we strongly suggest that two other sentences in the Plan be reworded. The first one is from page 22:

'The benefit of making the transition to a low-carbon economy is that a reliable, sustainable and affordable low-carbon energy system would make us a global "go-to" location for enterprises and activities that require energy but without environmental impact."

This reads quite oddly as it implies that the sole reason for cutting greenhouse gas emissions is to increase Ireland's competitiveness. Thankfully, elsewhere in the Plan it is made clear that there are more pressing reasons to make the energy transition, but the line quoted above would be clarified by replacing "The benefit…." with "One benefit….".

The following line is from page 111:

"If Ireland is to make up for lost ground in relation to carbon reduction targets and move towards the objective of a low carbon and climate resilient Ireland by 2050, it is necessary to make choices about how we balance growth with more sustainable approaches to development and to examine how planning policy can help shape national infrastructural decisions."

We are unsure what this line means, particularly the reference to 'balancing growth with more sustainable approaches to development', and would appreciate if it were clarified.

4. Summary

- **The energy transition to 100% renewables may come upon us much faster than anticipated** because of a rapid global depletion in easily-accessible fossil fuels
- This will affect all sectors of the Irish economy, but particularly transportation as it is highly dependent on oil and renewables cannot maintain the transport sector's current scale and pace. **We therefore need to restructure the economy so that it no longer depends on quick, cheap transport**
- Manufacturing and agriculture will also need to take the requirements of renewable energy into account, allowing for intermittency and challenges in energy storage. This will result in **slower production speeds, but product quality need not be compromised** and may even increase in some cases
- **Higher labour inputs in agriculture should generate significant employment**
- **Rural housing is therefore likely to experience a resurgence,** and rural settlements should be revitalised
- **Closed-loop agriculture coupled with ecological building design should strongly impact energy use**
- We endorse the Plan's emphasis on **prioritizing construction on brownfield and derelict sites in urban areas**
- **The Aarhus Convention,** which emphasises community participation in decision-making, **needs to be incorporated into the Plan**
- A **Site Value Tax** would help to ensure that derelict sites are developed and discourage land speculation
- **Commons-based management would also be effective in the water and renewable energy sectors**
- **A flexible approach should be taken to planning standards** in both urban and rural areas
- **Population growth does not always indicate a need to increase aggregate economic growth.** Quality of economic activity is paramount
- **Well-designed local infrastructure**, emphasizing public transport, bicycle use and walking, **would improve social cohesion, significantly improve the lives of children and others who do not have easy access to cars, and have a dramatic impact on national healthcare costs**