# Realisable Sustainability

### **OUR PLAN FOR CLIMATE ACTION NOW**





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# Introduction

Combating climate change and protecting our environment has become a defining issue of our political times—particularly for our generation. The results of the 2020 General Election, and more significantly the 2019 Local and European Elections, represented this call for urgent action by our politicians (reflected in the 2020 Programme for Government).

More urgency, however, is drastically needed. Ireland is currently not on target to achieve the 2020 targets for emissions reduction as outlined under the EU Effort Sharing Decision. Air Quality in our towns and cities remains a concern, with an estimated 1,300 premature deaths caused by poor air quality in the Republic of Ireland.

Often, however, the debate succumbs to one of absolutes with an apparent distaste for nuance: act now or never, the bolder the better. Yet, we in YFG pride ourselves in the formulation of practical solutions grounded in common sense. Act now—but sensibly.

We agree that more needs to be done—today. We also think, however, that there exists a plethora of ideas that are not divisive or needlessly radical that, if implemented within the lifetime of this Government, will make an incredible impact on affecting green change in the medium term. This policy paper is our modest attempt at translating those ideas into practical proposals for implementation.

What we are setting out to offer here are policies that are minor in practical change, but potentially transformative in effect. They may not light up the motley policy debates of Twitter, but change is slow, steady, and often uninspiring. Yet if put in place immediately, it will go some way to reducing the challenges we face.

We have deliberately narrowed our focus to solutions rather than grand analysis or wide scope. There are better places for that. This is our attempt to distill the values of YFG into a short policy framework that we can bring to our senior party colleagues, convince them of its merits, and eventually succeed in having the proposals implemented in Government.

We look forward to engaging with fellow members within our own organisation, and wider society, on how we might adapt and expand on this paper towards moving from the medium to the long term of meaningful climate action. We hope that YFG will continue this conversation into the future, maintaining an empirical and nonpartisan approach.

Beyond the abstract of policy debates in this area, the future of our country and world depends on successful Climate Action Now.

#### YFG Climate and Environment Taskforce

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# Climate

Climate change is caused by human activities that increase greenhouse gases, such as carbon dioxide and methane, and is threatening the way we live and the future of our planet.

Doing nothing in this area will end up costing far more in the long term than if we take actions now that will lead to more jobs, greater prosperity, and better lives for all while reducing greenhouse gas emissions and building climate resilience.

We break up the issues (which are not limited to these) within climate change to offering proposals in four important areas:



## Transport

### Low Traffic Neighbourhoods

These local initiatives have become popular in the United Kingdom, allowing for the introduction of point closures (with, for example, bollards or planters) for vehicles that are not owned by inhabitants of the neighbourhood. These could be introduced on a phased basis in areas with schools or playgrounds, provided planning has been granted, with exceptions for people with additional mobility needs. Not only will this have the effect of reducing car trips in the area, and thereby increasing cycling or walking, but it will also make the area more pleasant for residents by reducing noise pollution and improving air quality.

### 2 Congestion charges

The use of congestion charges in cities such as London has been extremely successful in reducing traffic and congestion, not to mention the increased quality of life for local inhabitants. Ireland should follow the lead of other countries and introduce the trial introduction of a congestion charge on private transportation vehicles entering and exiting the Dublin City Administrative Area between 7am and 6pm. The charge could be varied for different times of the day (to reflect peak pressure points) and for busier areas of the city, along with varying exemptions or price reductions for clearly defined categories of entrants. Following this one-year trial, the charge should then be reconsidered based on the experience and extended out to defined areas within the cities of Cork, Galway, Limerick and Waterford when appropriate.

### Bike to college scheme

Ireland's approach to promoting cycling has improved, but is still not sufficient. We propose the introduction of a Bike to College Scheme for third level students. The scheme will be based on the current Cycle to Work Scheme with this scheme's aim to provide discounts to students who decide to purchase bicycles for their daily commutes to and from college. This discount will be a VAT refund on the purchase price of the bike plus any necessary equipment, which will be processed by the student's third level registration office once a receipt and valid student card are presented.

### 4 Bike facilities in public buildings

Following from above, our cycling infrastructure itself is not up to scratch. Often those who want to cycle to work find that it is practically impossible as the adequate infrastructure for doing so, such as parking systems (e.g. racks and stands) and storage facilities (e.g. lockers and cycle centres), is not available in their place of work. We think that the public sector should lead the charge on this by mandating that all workplaces that house employees directly or indirectly employed by the state provide storage and parking infrastructure for a minimum of 10% of the designated capacity of the building.

### 5 Electric Vehicle charging spots

EV's will be at the forefront of transitioning to a low carbon economy, particularly in light of the Government's commitment to banning the sale of all new petrol and diesel cars from 2030. However, providing incentives merely for purchasing EV's is not enough – we need the infrastructure now. To that end, the Government should legislate for the provision of charging parking spaces at all major commercial and public parking sites and all third level institutions, similar to how disability spaces are provided for.

### 🕖 'Pedestrian first' urban design

Our major cities and towns were built with the primary purpose of ensuring the smooth transit of vehicles of some sort. We think that this approach is outdated – both for the climate and for citizens enjoyment of our beautiful cities and towns. We propose that the Government commit, therefore, to a 'pedestrian first' approach to current and future urban design in Ireland. Adopting this approach immediately could involve: (1) ensuring that there are safe footpaths on both sides of the road and pedestrian crossings in urban residential areas; (2) increased pedestrianisation of major city thoroughfares by banning all vehicle access; and (3) abolishing any fines on jaywalking in recognition of their ineffectiveness and anti-pedestrian bias.



# Agriculture

### Transitioning from beef farming in Ireland

To reduce the carbon intensive activity of beef farming, alternative forms of farming towards less carbon intensive specialities should be encouraged. More sustainable agricultural alternatives include poultry farming, which produces a third of the greenhouse gas emissions of beef, and free-range chicken farming. Both types of farming will utilise a much more efficient use of resources for a product higher in protein, lower in fat and calories, and at a fraction of the price per head. In addition, it will decrease the need for large indoor housing, heavy machinery, and the saturated supply of beef that currently exists which results in low prices.



#### Diversifying the future of Irish agriculture

Following from the above, the Government should focus on the incentivisation and the entry of young farmers from conventional and chemical dependent agriculture by providing start-up grants to farmers under the age of 40, in order to enhance farm viability and competitiveness. These grants would be funded through a realignment of the current EAFRD fund as part of Pillar II of the CAP, towards providing business start-up for small and medium size farmers who do not have the financial ability or desire to enlarge their holdings for mainstream conventional agriculture, such as dairy and beef. Funding would reward young farmers who have degrees in this field; who have succeeded to family land; and who have a business plan in place to diversify their farming enterprise towards more environmentally and financially sustainable models such as fruit and nut production, csa groups, and vegetable production.

### 3 Experimental research into methods to reduce methane

Methane, being 28 times more environmentally potent than carbon dioxide, is the second most important greenhouse gas with respect to global warming. The Government should establish a dedicated infrastructural framework into the multifaceted ways that methane could be reduced. Crucial to this would be facilitating the coordination of research into methane reducing methods with respect to, for example, garlic licks, monitoring cattle feeds, seaweed additives, grass seed varieties In addition, further research into vaccination or reduction of microbes responsible for methane production in the ruminant system combined with research into the breeds which can/ will produce less methane may be ground-breaking for the reduction of methane. Given that methane is responsible for approximately 60% of Irish agricultural emissions, and the importance of agriculture to the Irish economy, it is in the country's strategic interests to become a world leader in methane reduction research.

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#### Aggressive incentivisation of forestry

Currently, only 11% of Ireland's landscape is covered in forestry compared to the European average of 40%. Private planting should be further encouraged, specifically for native broadleaf species. On the macro level, forestry farms will need to play a larger contribution to the transition from higher carbon emitting forms of agriculture. In this regard, mixed forestry should be incentivised by implementing the development of silvopasture and diversifying current farms to also include forestry. These initiatives should be particularly focussed on incentivising conversion to forestry for low income farmers. On the individual level, a natural forestry campaign (native species primarily) should be introduced encouraging and incentivising tree plantation.

Expansion of anaerobic digestion and Ireland's bioenergy industry

Anaerobic digestion is a method by which feedstock in the forms of organic waste is converted into biogas and digestate by micro-organisms in the absence of oxygen. The main environmental benefit is that the process collects methane and provides a source of renewable energy that is carbon neutral. However, what is less promoted and known is that there are phenomenal economic benefits. Ethanol Europe's EU climate policy analyst, James Cogan, has commented that Ireland is made for anaerobic digestion and that rural areas in Ireland could reap the benefits of an effective bioenergy industry. We agree -the promotion of anaerobic digestion would foster a sustainable indigenous industry and further promote the transition to less carbon intensive industry. We propose that the Government increase the percentage blend of indigenous biogas into our natural gas pipelines up to 2% in 2021, and to 5% by 2025, and also establish a national framework for anaerobic digestion and Ireland's bioenergy industry.

## Residential

### Allowing timber buildings taller than 10 metres

Building regulations should be amended to allow for timber buildings to be greater than 10 metres in height, which would facilitate greater use of cross laminated timber in construction. Implementing this move would have a number of benefits: (1) reduced greenhouse gas emissions given that cross laminated timber has been found to emit 18% less than concrete; and (2) the materials from the house can be reused should it be demolished at some point in the future.

#### 2 Increased resources for the vacant site levy to combat housing and energy waste in our towns

Vacant housing developments are a disgraceful waste in our country. We propose that there be increased resources to impose the vacant site levy with considerations for environmental upgrades for wasted energy. This would mean additional human resources, longer term planning for investigations and process optimisation using technology. In addition, strong consideration should be given to this responsibility being enforced centrally, rather than through local councils, to ensure that there is a coherent and consistent approach to combatting waste.

### 3

### Tax incentives for individuals to implement retrofitting

Retrofitting homes results in dramatic energy savings for homeowners (through reduced energy bills and greater building durability) and, consequently, for the nation as a whole. Meeting the Government's target to retrofit 500,000 homes, and bring them to a B2 energy rating by 2030, requires greater tax incentives and schemes, as opposed to just grants. Immediate practical measures that could be implemented include: (1) providing that all retrofitting services will have a VAT rate of 10% and can be claimed back against tax; (2) having higher local property taxes on energy inefficient buildings (i.e. a sliding scale down from C to F energy ratings as well, e.g. an extra tax of 50e per year on D ratings, collected by the local council); and (3) encourage homeowners to use some of their savings towards retrofitting rather than having to rely solely on credit by topping up any savings used in a manner similar to the Help to Buy Scheme retrofitting (as recommended by the Credit Union Development Association).

### Greening new build apartments

As with transport, private residential buildings often do not have the necessary infrastructure for sustainable modes of transportation. To this end, we propose that it be made mandatory that all new build apartments have a required number of EV charging stations, bicycle storage and paring spaces, and shared car spaces (e.g. goCar)

To ensure that this would be viable, the implementing measure should set out a minimum number of apartments needed for this to apply, after having consulted stakeholders in the EV, bicycle, and construction industries and wider civil society.

### 5 Reducing Ireland's car dependency

If Ireland is to meet its climate commitments set out in law, our dependency on cars needs to be dramatically reversed for those with good access to alternative transportation methods. Three immediate measures that the Government could undertake to accelerate this change are: (1) limit the number of car parking spaces that can be provided in developments close to rail, Luas, and high frequency bus stops; (2) prohibit local authorities from reducing the number of units in well-located social housing developments (e.g. Pearse House); and (3) requiring that, where possible, new social housing developments be built within walking distance of rail and bus stops.



## Electricity

#### 1 Green credit/renewable energy requirements and standards for data centres

Ireland is increasingly becoming a popular destination for data centres, which can have negative consequences for our energy usage if not carefully managed. To this end, we propose that the Government legislate that sustainability criteria be included in planning permissions for data centres in Ireland. These could include strategies for recycling waste heat, lifecycle responsibility, and methods for generating the electricity required for the site sustainably either through the purchase of green credits or through building capacity on site. In this way, Ireland could lead the way in developing an industry of green data centres.

### 2 Energy independence and co-operative electricity generation support

Ireland is a country of communities. From Tidy Towns to the GAA, our capacity to work together in local groups to achieve a shared outcome is testament to the character of the Irish people. We believe that this should be fostered and utilised for meaningful climate action. Reliable and multi-annual sources of core funding for community energy groups are currently lacking and should be made more available, with a more targeted approach to emphasising and incentivising the benefits of co-operative electricity generation. More support should also be given to current energy communities, such as the Dingle Peninsula 2030 project, the Aran Island's Energy Co-op, and Tipperary Energy Agency, whilst continuing to expand the number of community energy sustainability groups focused on fossil-free futures. The cumulative effect of this community effort, we believe, will be to buttress Ireland's move towards energy independence.

### **Development of offshore wind energy**

Offshore wind farms are a vital source of clean energy resources, and while solar and onshore wind can and will play a role, offshore wind is the only technology with the scale and deployment capacity to meet this demand in full. Ireland, however, stands alone as the only country in the EU with an Atlantic coastline not developing its offshore wind resources. As well as the immense environmental benefits to be reaped, a report by KPMG in 2018 found that it has the potential to create 20,000 jobs by 2040. To that end, we propose that Ireland establish a standalone offshore wind agency whose sole focus would be to promote and encourage the development of offshore wind farms for the production of renewable energy.

# Environment

Issues with respect to climate change broadly come under the environment, however they can often be lumped in together without much appreciation for the nuances within the latter.

We break up the issues (which are not limited to these) within the environment to offering proposals in three important areas:

1. Air Quality

2. Water Quality

3. Soil Quality

### Some priorities of note for us in these areas include:

- Introducing Ultra Low Emission Zones or Zero Emission Zones in Irish cities;
- A ban on open fires;

A nationwide prohibition on burning of smoky fuels;

Investment in on-farm winter storage waterbodies or reservoirs; and

Increased soil protection education.

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# Air Quality

### Ultra Low Emission Zones and Zero Emission Zones in major cities

Two urban measures should be strongly considered to dramatically improve the air quality and living standard of citizens in major Irish cities. The first are Ultra Low Emission Zones, whereby certain categories of the most polluting vehicles pay a fee, which was introduced in Central London in April 2019 (and will be expanded to Inner London from October 2021). Early results of the ULEZ have found that emissions in Central London have reduced by 20%. The second are Zero/Low Emission Zones, which ban vehicles that have internal combustion engines from entering a defined area. The latter is a more radical proposal in that it would mean that only battery electric hydrogen vehicles would be permitted within the ZEZ. Both however would make a large difference in improving the current poor air quality in Irish cities and towns, and should be trialled in Dublin.

### 2 Increase the phytoplankton population for oxygen production

The largely unknown creatures of phytoplankton are microscopic bacteria that live in water environments. What is probably even more unknown is that the phytoplankton population produce up to 50% of all the oxygen in the world, and play a crucial role in the climate by reducing atmospheric carbon dioxide levels. Unfortunately, however,

their population has reduced globally by approximately 40% since 1950 due to the increase in temperature of oceans, which reduces waters oxygen and consequently phytoplankton. The Government should commit to increasing research into how the phytoplankton population can be increased and also to reducing any man made dangers to the organisms in our seas.



#### **Ban on open fires**

In its 2019 Report, the Environmental Protection Agency found that 1,180 people die prematurely due to air pollution in Ireland every year, noting that particulate matter (fine particles) from domestic burning of solid fuels was one of two main causes of poor air quality (the other being from vehicle emissions). One of the worst inducements of these emissions are from indoor open fires, which are an inefficient heat source (up to 80% of heat generated is lost up the chimney) and cause significant smoke and air pollution. The Government should commit to an absolute ban on open fireplaces on all newbuilds and examine the possibility of reducing the use of current open fires through an extensive national awareness campaign.

### 4 Nationwide prohibition on burning of smoky fuels

In addition to what the EPA has found, the Climate Change Advisory Council's annual review for 2019 reported that the average Irish home emits 58% more energy-related carbon dioxide than the average EU dwelling. Worryingly, with 20% of homes heated by solid fuels, Ireland has the second highest use of solid fuel for home heating in Europe. Therefore, we would support the recent call of the EPA for a nationwide ban on the burning of smoky fuels in open fires and stoves.

# Water Quality

## Support investment in on-farm winter storage waterbodies or reservoirs

Increased climatic pressure is causing greater volatile water scarcity in Irish agriculture, leaving harvests and livestock in danger. Incentivised construction of nature-based reservoirs in agricultural settings will reduce pressure on water scarce areas in times of high temperatures, and limit water stress and salinisation.

#### 2 Make agricultural and industrial water reuse an accessible aspect to doing business in Ireland

With recent EU regulation of the minimum requirements for reusing wastewater from agricultural and industrial backgrounds, Ireland should support the reuse of water for phosphorus abstraction for a natural alternative to chemical mining. The reuse of industrial wastewater also reduces: the amount of water used, water bills, the volume of generated wastewater, and reduces costs through industrial symbiosis (by-product reuse, sharing management of utilities, and sharing ancillary services).

#### Combine the twin actions of flood protection and the restoration of natural wetlands and floodplains

With the rewetting of boglands and wetlands, the natural drainage basin of floodwaters will be reactivated, relieving the stress of flood-prone districts. We propose that the Government introduce flood protection methods, such as tree-lined shelterbelts on river contours to prevent run-off, increase infiltration during flooding, and construct live brush mattresses along water bodies to stabilise the soil banks. These can be combined with the restoration of natural land barriers and rewetting models. Combining the two will allow a holistic approach to ensuring that water has a constructive purpose in carbon sequestration; and not a destructive purpose as volatile floodwaters.

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# Soil Quality

### 1 Promote soil carbon sequestration

The Government should promote soil carbon sequestration methods that will both financially reward the farmer and mitigate and reverse the effects of climate change.

By financially supporting and promoting the large-scale rewetting of marginal lands and previously drained landscapes, agro-tourism can become a major boost to local economies, whilst farmers can remain farming their remaining land. Likewise, by incentivising carbon farming with privately and publicly funded carbon credits, regenerative agriculture methods such as lower chemical usage, no-till seeding, and cover crops will naturally improve soil health and fertility, in turn allowing it to sequester larger amounts of carbon for longer.

#### 2 Incentivise the provision of soil protection and biodiversity promoting measures

Protecting and promoting the sustainable use of our soil is fundamental to the protection of our environment. To increase that protection, the Government should introduce incentivising biodiversity measures. Immediate proposals include: (1) increasing wooded strips, hedgerows, permanent grass strips in arable fields and along riverbanks in order to prevent soilerosion, especially into water sources; (2) increasing organic matter; and (3) strengthening our soil structure. The practices of maintaining soil protection and biodiversity promotion should be tied to any future TAMS grants, especially where soil sealing occurs due to construction of new facilities.

### 3 Increase soil protection education

Learning about the ways in which our soil can be protected and nurtured should be promoted by incorporating specific modules on Teagasc syllabi for sustainable methods. The areas that could be focussed on would include: no-till planting, longer and more diverse crops within rotations, planting nitrogen fixing cover crops, and the use of naturally created fertilisers such as compost tea and biochar. The promotion of these methods is not intended to replace entirely conventional farming methods; however, they have been proven to greatly improve soil health and fertility.

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