

UCC RESPONSE TO PUBLIC CONSULTATION ON THE ENVIRONMENTAL ASSESSMENT OF THE DRAFT AGRI-FOOD STRATEGY TO 2030

This submission from University College Cork (UCC) to the public consultation on the draft Agri-Food strategy to 2030 has been led from the UCC President's Office by the Interim President, Professor John O'Halloran.

University College Cork has a deep commitment to sustainability in all its facets and has particular expertise, capacity and competencies across the breadth of Agri Food that has facilitated input into this consultation process. The University was recently ranked 8th in the world in the Times Higher Education Impact awards and activities across our Green Campus Initiatives, Environmental Research Institute (400 researchers across the four colleges of the university bringing a multidisciplinary based focus to sustainability research) and our breadth of expertise in the food area across food science, business, health and nutrition have all been brought to bear in this consultation response. UCC very much welcomes the commitment to consultation and dialogue afforded with this draft strategy. Throughout UCC response to the Agri-Food strategy, the University wishes to emphasise the importance of Agri-Food strategy goals and actions being strongly underpinned by research and the latest evidence base.

Do you have any observations on the conclusions in the Environmental Report and Natura Impact Assessment?

University College Cork has consulted widely with a diverse range of academics and researchers through the Environmental Research Institute (ERI) in its response to this Public Consultation on the Environmental Assessment of the draft Agri-Food strategy to 2030. The ERI brings together over 400 researchers from 20 University schools and departments and 6 research centres to address the global sustainability challenges of Climate Action, Circular Economy & Healthy Environment in an interdisciplinary approach. The responses to the consultations are across goals relating to climate action, biodiversity, forests, seafood, and Origin Green and encompass observations on the Agri-Food strategy, additional information to be considered, and potential additional mitigation measures.

Goal 1: Develop a Climate Neutral Food System by 2050 and Improve Air Quality

The document presented a range of welcome measures for Irish farming in the areas of air quality, water quality and biodiversity. Food production will remain the main use of land in Ireland and farming will continue to be an important element in rural life and the Irish economy. But it must be sustainable in all dimensions and greater innovation and diversification of farming is needed.

The Irish Government is committed to reducing the overall amount of heat trapping or greenhouse gases across all sectors by 51 per cent between 2018 and 2030. The interaction between the level of climate ambition in agriculture and the rest of the economy is important as lower levels of emissions reduction in agriculture have to be compensated for in other areas of the economy, mainly in the energy sector such as in transport, electricity production and heating.

If the Agri-Food Strategy proposal of a reduction in Greenhouse Gas emissions from 22 Million tonnes in 2018 to between 19.0 Million Tonnes CO₂eq and 17.5 Million Tonnes CO₂eq by 2030 is to be accepted, then the reality is that all other energy related emissions would have to drop by over 70 per cent to meet the governments overall ambition. This strategy shifts the costs and burden of emissions

reduction from the agriculture sector to electricity, heating and transport beyond a level that is credible and beyond a level that is possible.

A number of arguments are cited in defence of a special relationship for Irish agriculture in the content of wider emissions reduction; namely in relation to the specific type of greenhouse gas, methane, that dominates the sectors and also in relation to the risk of increased food production from less sustainable parts of the world leading to an overall increase in absolute emissions even if Ireland reduces output. From a scientific perspective, the argument is correct that methane is a different greenhouse gas to the most common type, carbon dioxide. It is more potent but stays in the atmosphere for shorter periods of time. But where methane is not different is in relation to how it should be treated if we want to reduce global warming. The consensus from the International Panel on Climate Change is clear that all methane emissions must reduce, but importantly not at the same level as other warming gases.

Modelled pathways meeting the Paris Agreement target in the IPCC SR1.5 report see global agricultural methane emissions falling by 11-30% between 2010 and 2030 (table in the Summary for Policymakers). This translates to a 22-38% reduction in methane for Ireland between 2018 and 2030 (faster because methane emissions have been increasing since 2011). This compares with a CO₂ reduction range of 40-58% between 2010 and 2030 in the same report (38-57% reduction relative to 2018 for Ireland). A UN-backed study released in May concluded that methane emissions caused by human activity could be cut by 45% this decade, with many benefits, and concluded that “cutting methane is the strongest lever we have to slow climate change”

It can also be argued that developed economies like Ireland should reduce methane faster than this to allow for developing countries increase their native food production. In terms of global food there are concerns about the increase in global emissions that would result from a reduction in beef and dairy production here in Ireland. This is a term called “carbon leakage” and is conceptually correct but difficult to measure and verify in a future world. Having reviewed the evidence, the Climate Change Advisory Council determined that it is unlikely that mitigation in Ireland will cause an increase in global emissions, while noting that the potential release of land from a reduction in beef production could support alternative uses, raise farm incomes and reduce exposure of the sector to external market shocks. Feed additives which reduce methane emissions from cattle are coming on the market, but applications for grassland-based systems are not yet developed or costed, and can’t be relied upon to reduce emissions by 2030.

The structure and size of our national herd is a fundamental driver of emissions and efficiency improvements are not enough to meet targets. Framing climate action negatively in terms of losses to the “national herd” are unhelpful.

Goal 2: Restore and enhance Biodiversity

General

The twin challenges of biodiversity loss and climate change must be tackled in an holistic way. For example, the planting of mono-cultures of non-native conifers (e.g. Sitka Spruce) has severe impacts on biodiversity despite any carbon sequestration activity. The Agri-Food strategy and government policy in general, should financially incentivise the planting of mixed and broad-leaved trees for timber production and carbon sequestration. As noted in the SEA, a large proportion of the plant and faunal biodiversity is found in areas which are not formally designated. It is important that all agri-food activities, no matter their location in respect to designated sites, avoid and/or manage activities that will have a negative impact on biodiversity.

There is a lack of clarity about the scale of the impacts that farming practices have had on biodiversity relative to other agents of change listed. So for example, it is true that the following can all have negative impacts on biodiversity: “agriculture and forestry, development, climate change, energy production (e.g. wind farms), hunting, recreational and other disturbance, fishing, shellfish harvesting and aquaculture, bycatch, mixed source water pollution/eutrophication, mammalian predation and plastic waste”. But agricultural intensification has by far had the most important impact since it has affected most of the landscape in Ireland.

For Goal 2.1 Action 1 (Carry out baseline biodiversity studies including habitats and hedgerows on every farm): In general, actions relating to biodiversity do not have measurable goals/targets however, this goal suggests baseline studies on every farm. The mechanism to achieve this is not identified in the strategy and so the goal seems unlikely to be realised. It would be more meaningful if this goal could be linked to, or identified as part of, Goal 2.3 Action 3 (p54) Undertake a national land use review.

Goal 2.2 Action 2 (Put in place more targeted agri - environmental schemes): AES are short in duration (generally 5 years), too short to allow for sustainable systems of protection and enhancement of important habitats. Increasing the duration of AES would be beneficial.

Goal 2.7 Action 7 (Ensure that farms and forests do not contribute to habitat destruction and isolation): This seems aspirational in the absence of a realistic mechanism or a link to the proposed national land-use review.

Goal 2.8 Action 8 (Carry out restoration management of grazed peat land habitats): It is necessary to set a minimum target (number of ha) in order to formulate realistic plans.

Goal 2.9 Action 9 (Build on the measures introduced to protect and foster greater biodiversity in forests): It is necessary to identify these measures in order to propose a credible action.

Goal 3.1 Action 1 (To protect waters ... from diffuse losses of nitrogen): It would be beneficial to remove the word 'diffuse' as the varying definition of this term may restrict the scope of action required to achieve this action. See Harrison et al (2019) The problem of agricultural diffuse pollution. Getting to the point. Science of the Total Environment 677 : 700-717

Organic Agriculture: Target: 7.5% by 2030 is mentioned in Goal 3 but there is a significant impact in terms of on-farm biodiversity with the introduction of organic farming techniques. It is, perhaps the major benefit of organic production. The link between increased on-farm biodiversity and organic farming should be further stressed in Goal 2.

Birds: There is a lack of clarity over the scale of the declines facing birds in Ireland. An example of this is on page 26. Too much emphasis is placed on these 18 year CBS trends because any increases or decreases need to be considered in the context of historical population sizes, the vast majority of which were much greater than baseline estimates at the start of the 18 year CBS survey. It is more informative to look at the Red List. Specifically, a recent review by BirdWatch Ireland and RSPB Northern Ireland (Gilbert et al. 2021) showed that, of the 202 bird species that breed regularly in Ireland.

- 63% of these species are threatened;
- 26% of species are on the Red list
- 37% species or on the Amber list.

– Just 37% of species have a favourable status (Gilbert et al. 2021).

A disproportionate number of red listed species are farmland birds (35%) or upland (50%, also farming really), and much of the upland birds occur in sheep farming areas. Farming is the single most important challenge facing bird biodiversity, and therefore by default, overall biodiversity.

Goal 4: Diverse, multifunctional forests

At a time of growing demand for timber and other wood products, Ireland is ideally placed to contribute towards increased production, which will not only benefit the local forestry sector but also indirectly contribute towards the conservation of forests elsewhere through avoided harvesting. While doubling the sustainable production of biomass is a worthwhile goal, a more strategic set of targets would allow a greater focus on meeting both national and regional market demands. For example, Ireland could aim to target self-sufficiency and net export of timber. A focus on biomass alone might indirectly lead to a prioritisation of high-production systems with relatively low market value and limited long-term carbon storage potential.

The goals set under Mission 1 are not currently aligned to the target of achieving diverse multifunctional forests, although this might ultimately be achieved through the Forestry Strategy. Instead they are largely concerned with afforestation as an end in itself. An important developing paradigm is that not all forest stands need to be either diverse or multifunctional, but that the net benefits can be achieved and even maximised at a landscape scale through a mixture of forests with specific functions. Determining the appropriate balance of services required and their zonation is more likely to achieve the desired outcomes than a focus on tree cover alone.

Finally, the report only mentions agroforestry once in the context of the Programme for Government, rather than recognising the potential for mixed systems of production (whether silvoarable or silvopastoral) to increase sustainability, support biodiversity and diversify farm incomes. Ireland has had historically low levels of agroforestry relative to other EU countries with comparable climates and overcoming this legacy will require specific and targeted action. This would be a valuable addition to the Mission 1 goals.

Goal 5: Enhance environmental sustainability of the seafood sector

As highlighted by the Marine Protected Area Advisory Group in their report (October 2020), for the Department of Housing, Local Government and Heritage, there will be both benefits and costs for fisheries and aquaculture from marine protected areas (MPAs) expansion. This report states that “certain types of aquaculture may not be able to operate at all or in a very restricted capacity”, which would have implications for the volume of product being produced by the seafood sector but by limiting activity it will also contribute to its overall sustainability. The report also mentions that “it should be possible to continue to manage much of the aquaculture in Ireland so that it is compatible with conservation objectives in many MPAs”. Currently most shellfish and fish aquaculture companies in Ireland operate successfully within and adjacent to Natura 2000 sites and special areas of conservation (SAC). This is possible due to the sector being highly regulated and being compatible with the conservation objectives of those marine habitats, which would indicate that the future designation of MPAs within and adjacent to aquaculture sites would be possible. Near shore MPA expansion may also

place a greater emphasis on the requirement for the development of offshore aquaculture in the coming years.

The high level matrix assessment of strategy (Goal 5: Enhance the Environmental Sustainability of the Seafood Sector- 5.1, Action 1: Page 59-60) as is currently scored does not reflect the beneficial impact

of seafood on human health, climate change mitigation and the contribution to Irelands cultural heritage. We would recommend at least a “+” for “Human Health”, as seafood is a high protein and nutritious food product that has health benefits not only for physical well-being but for brain function also. Additionally, at least a “+” for “Climate Change” and “Cultural Heritage”, as shellfish contribute to carbon sequestration via the formation of their shell. Both fish and shellfish are strongly associated with Ireland’s cultural heritage.

Is there any additional information which in your view should be considered in the Environmental Report and/or the Natura Impact Assessment? Please specify.

Goal 5: Enhance environmental sustainability of the seafood sector

In other countries such as Scotland, some MPAs have been designated with existing finfish aquaculture sites, however an increase in costs associated with future licensing for operators have been identified, as additional surveys of culture sites is required. Some concerns have also been raised by the sector regarding the ability to expand their sector in the future. This concern could also be applied to the potential for offshore aquaculture development.

Goal 7: Strengthen Origin Green and sustainable supports to reflect the higher level of ambition

There should be greater consideration of the consumer as an actor in the food system.

Are there additional mitigation/monitoring measures that you would like to propose?
Please specify.

Goal 1: Develop a Climate Neutral Food System by 2050 and Improve Air Quality

Re: Goal 2.8 (Mission 1, page 56): Future management of cutaway peatlands is a critical land use activity. There is a need for extensive and ongoing monitoring of impacts of management approaches (rewetting, revegetation, etc.) to determine the impacts on GHG emissions. This is important for two reasons: (1) the significant carbon stocks contained in these areas, despite their depletion by extraction, (2) the vulnerability of said carbon stocks to climate change or non-optimal management interventions (this also applies to Page 57. Goal 4. Action 4.1).

Goal 2: Restore and enhance Biodiversity

For the horticulture industry, there is an urgent need to prohibit the use of peat-based compost, no matter its source. To do this effectively, alternative growing substrates are required which do not rely on the harvesting of peat bogs and the negative impact on biodiversity and carbon storage. It is welcome to see proposals outlined here to protect and rehabilitate such areas but there needs to be focussed attention paid to what types of growth media will replace peat in the Irish horticulture sector. This would align with the EPA's SOE 6 and 12.

Goal 5: Enhance environmental sustainability of the seafood sector

Through open dialogue with the sector and careful MPA designation planning, expansion will be beneficial for all stakeholders.

Goal 7: Strengthen Origin Green and sustainable supports to reflect the higher level of ambition

Consideration should be given to the independence of the origin green quality system from an Irish food promotional body to maximise customer and consumer confidence and trust. That said the proposed use of advanced digital technology to monitor and measure impact is welcome as it supports verification of the brand credentials.

Beyond pursuing more sustainable packaging, as a key action, attention should be given to reducing packaging (eg. Refill options) and increasing effective recycling of packaging (building on the reverse vending machine concept). Importantly initiatives that support and enable households to engage in more sustainable practices should form part of the strategy.

Actions that support the co-creation of solutions involving manufactures, retailers and consumers should be also be considered for the purpose of enabling more sustainable household food practices (and enhancing respect for food, its origins and environmental impacts). These actions could forefront traditional culturally rich approaches to extending the life of food, repurposing of packaging materials and minimising food excesses in the home.

Do you wish to make comments on the draft 2030 Agri-Food strategy, please ensure to state clearly the section of the draft Strategy and page number (if relevant) that your comment or submission relates to.

Overall the Agri Food strategy document is narrowly focused and protective of the current status quo. Although the issues of sustainability and health are addressed in the proposals for the development of the Agri Food system there is no coherent vision or even a clear definition of what is meant by the terms sustainability and health as applied to dietary intake patterns. This is a major deficit in the current draft document.

With regard to sustainability, we would highlight the need to adopt a multi-criteria sustainable diets framework along the lines set out in the Rome 2010, intergovernmental UN FAO and Bioversity International Conference Statement: "*Sustainable Diets are those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources.*" This framework acknowledges the complexity of the challenge we face in developing a sustainable Agri Food strategy and the need for trade-offs and compromise between different sectors and interest groups.

With regard to the elements of a healthy diet, the strategy document fails to acknowledge the extent to which current scientific work and policy recommendations in public health nutrition have moved from a narrow focus on specific nutrients or food items to consider the issue of how we can define and measure dietary patterns associated with chronic disease (including cardiovascular disease, type 2 diabetes, cancer and cognitive decline) wellbeing and longevity. Despite appearances to the contrary, there is a high level of scientific consensus on the core elements of a healthy dietary pattern as well summarised in the USDA Scientific Report of the 2015 Dietary Guidelines Advisory Committee (DGAC): "*The overall body of evidence examined by the 2015 DGAC identifies that a healthy dietary pattern is higher in vegetables, fruits, whole grains, low- or non-fat dairy, seafood, legumes, and nuts; moderate in alcohol (among adults); lower in red and processed meat; and low in sugar-sweetened foods and drinks and refined grains.*"

Mission 3

We have provided a number of comments on the draft 2030 Agri-Food strategy particularly around Mission 3: Food which is Safe, Nutritious and Appealing; Trusted and Valued at Home and Abroad.

- Within Mission 3, none of the four goals refer to research, or are research driven, even though they are highly dependent on underpinning research. Both policy, nutrition security, safety, innovation and authenticity/trust are all driven by fundamental and/or applied research as well as R&D.
- We note and endorse the Mission 3 proposal for improved policy coherence for food, nutrition and health through the establishment of a high-level implementation group co-chaired by the Department of Health and the Department Agriculture, Food and the Marine and we agree that there is already a substantial agenda where the work of the two Departments overlap, including aspects of Healthy Ireland, the National Obesity Strategy and One Health. It will be important to ensure broad multidisciplinary participation in this implementation group, including input from national and international colleagues with Public Health Nutrition and food policy expertise. This group will be able to draw on the Irish Healthy Food Environment Policy Index (Food-EPI) published in November 2020 by Dr Janas Harrington, SL in Public Health Nutrition in

UCC in collaboration with international colleagues - members of the INFORMAS (International Network for Food and Obesity / Non-communicable Diseases (NCDs) Research, Monitoring and Action Support). One of the priority areas highlighted in this international benchmarking study was the need for the government to prioritise an evidence-informed national food and nutrition policy with explicit consideration given to the health impact of vulnerable groups in Ireland and to the broader determinants of health including environmental sustainability and protection of biodiversity. See <https://www.jpi-pen.eu/images/reports/1%20IE%20Food-EPI%20Report.pdf>

- The programme in Mission 3 does not address the dietary shift required to achieve climate friendly diets that are also health-promoting. This might be difficult from an Irish perspective but should not be ignored. The issue of sourcing alternative protein has not been raised.
- Mission 3, Goal 1 is very welcome. Ireland needs an integrated National Food, Nutrition and Health Policy which is science-based, while considering the wider National and Global context. To date, there has been minimal integration of government departments and agencies and an insecure process free of bias to make evidence-based risk assessments to inform policy development. Within this document, Mission 3, Goal 1 needs to be explicitly linked to Mission 4, Goal 7.
- Goal 3, page 108 is naïve as it does not consider the regulatory context of EFSA. Functional ingredients are not the endgame for nutrition and health of people in Ireland. Nutrition security and a resilient food system post-COVID is likely to migrate away from functional ingredients towards more fundamental questions around proven health benefits of nutrients, food formulation, food composition and one health concepts.
- Work of direct relevance to this country is needed at every level to ensure that the dual goals of ensuring nutrition security while looking after plant, soil, animal and human health as well as livelihoods. This needs to be addressed in each Mission and it's very weakly addressed in Mission 3 around nutritional health.
- Missing from Mission 3: the food environment, where citizens are purchasing, preparing/consuming and disposing of their food was not considered adequately. A science-based approach that will endorse citizen engagements as a crucial aspect of successful dietary transition towards a more climate friendly and healthy diet (linking more closely with primary production) is not addressed.
- The introductory section for Mission 3, page 35, is weak and lacks focus, particularly given the wealth of data available to provide a snapshot into the nutritional health of people resident in Ireland. Consumer trends are only one driver of innovation in the provision of health-promoting, climate-friendly diets. Considerations are broader and driven by environmental and health issues as well as global trends. It would be an advantage to consider people living in Ireland as more than "consumers", which is their exclusive role in this document.
- The short section in Box 2 (page 36): The Role of Animal-Sourced Foods in Diets is limited in scope, heavily biased in favour of the current Agri Food model and it fails to adequately address the contribution of unhealthy dietary patterns to the overall burden of disease in Ireland and the potential for health and environmental co-benefits from a reduction in meat and dairy consumption in adults and increased consumption of locally produced vegetables, fruits, legumes, and nuts. While it may not be appropriate at this point to comment on the membership of the stakeholder committee it is clear that they would have benefitted from public health nutrition and healthy food policy expertise.
- On page 104 'Agree a stakeholder Roadmap for Food Product Reformulation', it is stated that "Self-regulation has been the primary approach to product reformulation in the Irish food

industry, where good progress has been made in recent years". There is absolutely no reliable evidence in support of this claim and to date (as I can testify as Chair of the DoH Obesity Strategy Reformulation Sub-Group), progress on reformulation has been extremely limited. The international evidence suggests that voluntary as opposed to statutory or mandatory food reformulation programmes are of limited effectiveness at best. The development and implementation of simple nutritional signposting systems such as Nutriscore, which has the potential to empower consumers and is currently endorsed at EU level, should be supported in Ireland. It needs to be acknowledged however that a high proportion of energy-dense and nutrient poor processed foods cannot be improved with reformulation, see <https://www.foodpolitics.com/2021/06/24491/>.

- Box 2, page 36, Conclusion is not evidence based. For high consumers, a reduction is warranted, but to make a broad-brush statement like this without appropriate consideration of the facts, or to identify a need for further evidence, weakens the whole argument.

Mission 4 should be Mission 1, because this underpins each of the other Missions and their Goals. There are too many broad statements throughout this document are not supported by evidence.

Overall the discussion of animal welfare issues in the strategy document is cursory. This is an important ethical issue that is salient for an increasing proportion of consumers and an area where Ireland could have a competitive advantage over other countries with more intensive farming systems.

Finally at the international level there is now considerable policy innovation at the intersection of food, health and the environment and it will be important to ensure that in the further evolution of our Agri Food strategy, Ireland draws on the vision and experience of countries such as Scotland (<https://www.gov.scot/policies/food-and-drink/good-food-nation/>) and Canada (<https://www.agr.gc.ca/eng/about-our-department/key-departmental-initiatives/food-policy/the-food-policy-for-canada/?id=1597863791042>) and on city level initiatives such as the Milan Urban Food Policy Pact (<https://www.milanurbanfoodpolicypact.org/the-milan-pact/>).

Hi [REDACTED]

Thank you for this opportunity, please find below an outline of our response which we will expand upon and send to you in the coming days.

CIEEM has approximately 260 members in Ireland who are drawn from across the private consultancy sector, NGOs, government and semi-state agencies, local authorities, academia and industry. They are practising ecologists and environmental managers, many of whom regularly provide input to and advice on land management for the benefit of protected species and biodiversity in general.

We welcome the opportunity to participate in this consultation and would be happy to provide further information on this topic. Please contact [REDACTED] (CIEEM Head of Policy and Communications) at [REDACTED] with any queries.

It is our opinion that the Natura Impact Statement would appear to fall short of some of the requirements of legislative and established case law, in particular with respect to the following areas:

- identification and detailed assessment of effects on European sites in light of their conservation objectives;
- full assessment of transboundary effects;
- identification of specific mitigation measures which will be effective and proven to address the identified effects on European sites; and
- demonstration of how statutory and non-statutory consultees concerns have been addressed (in particular the consultation responses from the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media as well as from the Environmental Pillar, the Stop Climate Chaos Coalition and the Sustainable Water Network.

In order to properly inform the Appropriate Assessment determination we believe that these aspects of the assessment in the Natura Impact Statement require additional work.

We look forward to expanding on this and engaging with you further.

Many Thanks,
[REDACTED]

[REDACTED]
[REDACTED]
Based in Ireland
Normal working days Monday and Tuesday
Tel: [REDACTED]



CIEEM

Chartered
Institute of
Ecology and
Environmental
Management

CHARTERED INSTITUTE of ECOLOGY and ENVIRONMENTAL MANAGEMENT

43 Southgate Street, Winchester, Hampshire, SO23 9EH

Tel: +44 (0)1962 868626 | enquiries@cieem.net

www.cieem.net



Company Number: RC000861, Registered Charity Number (England and Wales): 1189915

Scottish Conference 2021

Greening our Grey:
Improving the
Biodiversity in Urban
Landscapes

**CALL FOR PAPERS
NOW OPEN**

Online, 5 and 7 October 2021
www.cieem.net/events



Championing a sustainable
natural environment

Environmental: Please do not print this email unless it is necessary. Every unprinted email helps the environment.
Confidential: The content of this email is confidential and intended for the recipient specified in message only. It is strictly forbidden to share any part of this message with any third party, without a written consent of the sender. If you received this message by mistake, please reply to this message and follow with its deletion, so that we can ensure such a mistake does not occur in the future. Thank you for your cooperation and understanding.

Dear Sir/Madam,

I submit my views as a member of the public and am not attached to any organisation or company. My concerns are expressed solely as a rural dweller and a nature lover.

I am over 60 years old and have been a nature lover all my life, a passion that was kindled by my father and granduncle who both had an incredible interest in and love of the natural world.

In my 60 years, I have seen a decimation of nature within just a one mile radius of my home. When I was a child, the field adjoining my property was a marsh where wildflowers bloomed and frogs were a common sight. About 50 years ago it was drained. No more frogs, not one seen by me in this area in half a century.

There was a bog quite close by which was again habitat to frogs but also curlew, snipe and woodcock. No more curlew, snipe or woodcock in past 50 years. Replaced by ever growing dairy herds with an insatiable appetite for a sea of green grasses with not a wild flower in sight.

The marsh was a particular habitat of hares, many, many hares. Not in fifty years have I seen a hare in that particular area. There were two hares close by up to a few years ago but they now have disappeared. Gone is the iconic Irish Hare, a beautiful distinct sub species specific to Ireland.

The fields and hedgerows of my youth were covered in wild flowers of every variety and colour which supported a myriad of insects, bees and wasps. No more wild flowers.

In the skies overhead were skylarks which nested on the banks of an ancient ringfort. Pheasants nested amongst the brambles in the interior of the fort. No more skylarks or pheasants, sacrificed to the agri behemoth of bovine exclusivity to the detriment of nature. The ringforts haven't fared too well either, with no longer respect for their ancient past. No regard for our archaeology or culture.

Across the road from me, the corncrakes were a lullaby for us children on warm summer nights, their presence a wonder and comfort. We eagerly awaited their annual visits. Gone are the corncrakes who were deemed expendable to the bovine masters.

In that same field, lapwings, too, were annual visitors where they grazed amongst a damp area of grass and wild flowers, with their familiar call of pee-wee and the head feather which bobbed as they cross-crossed their favourite feeding ground. Gone are the lapwing, sacrificed, too, on the altar of agriculture.

It is also vital to state my dismay at the removal of ditches for miles around which has led to a vast reduction in the species of birds which nested in these centuries old boundaries. Removed too were trees, gorse, blackthorn, ferns, reeds, all essential to nature's creatures. With the loss of meadows went millions of insects which have virtually disappeared and which had supported a healthy abundance of birds. Not content with that, glens, those lovely sanctuaries where trees and bushes thrived in corners of fields, were all removed. Birdsong was replaced by bulldozers.

The full story of the decimation of our countryside and our wildlife has yet to be written. In fifty years, thousands of years of invaluable habitats were desecrated, all in a quest for an insatiable desire to expand, increase herds, milk production and profits. We have lost the most valuable resource of all, the nature without which we are nothing. Decades of successive departments of agriculture have overseen this drive for production. No one in that department or the farming

advisory authorities appear to have paid any attention whatsoever to the life force that is integral to humanity's very existence.

My submission is that of a humble rural dweller but who regards the environment around me as mine too. Rural Ireland belongs to all of our citizens, not just the 'custodians' of the land. What a misnomer that description has turned out to be!!!! An acquaintance who loved the countryside of our youth has described the destruction of nature as 'rape' -'rape of the land'. I can but concur.

Yours sincerely,





Draft Agri-Food Strategy to 2030 Environmental Consultation
Climate Change and Bioenergy Policy Division,
Department of Agriculture, Food and the Marine,
Pavilion A, Grattan Business Park,
Dublin Road,
Portlaoise,
Co Laois,
R32 K857

Uisce Éireann
Teach Colvill
24-26 Sráid Thalbóid
Baile Átha Cliath 1
D01 NP86
Éire

Irish Water
Colvill House
24-26 Talbot Street
Dublin 1
D01 NP86
Ireland

T: +353 1 89 25000
F: +353 1 89 25001
www.water.ie

15/06/2021

Re: DAFM Environment Assessment of Draft Agri-Food Strategy to 2030

To whom it may concern

Irish Water welcomes the opportunity to make a submission on the draft Agri-Food Strategy to 2030 and associated Environmental Report.

Our response is presented below to the following questions posed in the online questionnaire.

Q2. Having reviewed the Environmental Report, please provide comments on individual sections in more detail. Please ensure to state clearly the section of the Environmental Report and page number (if relevant) that your comment or submission relates to.

Irish Water would like to highlight the following in particular for consideration in the environment report

- Increased Water Demand does not appear to be considered in the environment report
- The National Water Resource Plan is now published, and the environmental report should assess against this plan

Irish Water comments on the environment report are provided below under the headings Water Demand and National water resource plan and Biosolids

Water Demand and National Water Resource Plan

Irish Water currently supplies about 1,730 million litres per day (Ml/d) of water to approximately 4.2 million people via 748 individual water treatment plants and 65,000

kilometres of distribution network. Historically this service was provided by 31 individual local authority water service functions. Under this management model, water supplies in many areas developed over time on a reactive basis, based on the need in the immediate vicinity. As a result, outside the main urban centres, water supplies are generally characterised by a fragmented network of isolated supplies, often abstracting from relatively small waterbodies, causing reliability / sustainability issues and the potential for environmental impact.

The situation, although manageable in the short term, will become increasingly untenable due to population growth, competing needs for water within catchments (including changes to agricultural land use), more stringent environmental conditions on water abstraction, and climate change impact. In addition to this, although as a country our average rainfall is relatively high, it is unevenly distributed, with more in the west than the east. The areas with lowest rainfall happen to have the greatest population density (although this density is low compared to European norms), and also have the most intensive agricultural production. This means that water resources in our more populated areas are locally under pressure.

- The NWRP is our plan to identify how we will provide a safe, sustainable, secure and reliable water supply to our customers for now and into the future whilst safeguarding the environment. The NWRP will set out how we will balance the supply and demand for drinking water over the short, medium and long term. It is a 25-year strategy to ensure we have a safe, sustainable, secure and reliable drinking water supply for everyone. Following on from the public consultation on Phase 1 NWRP draft Framework Plan and associated environmental reports, the submissions and observations received from public consultation have been taken into consideration, and the NWRP Framework Plan updated.

The NWRP Framework Plan has now been adopted, accompanied by a Strategic Environmental Assessment Statement and an Appropriate Assessment Determination. A Consultation Report summarising feedback received during the public consultation has also been published and can be accessed [here](#). It is important that the environment report for the DAFM statement of strategy assesses impact on the National water resource plan now that it is available.

Biosolids

Pg 35 of the Environment report refers to sewage sludge used in agriculture. Irish water would request that consideration be given to changing the language from 'sewage sludge' to 'biosolids'. All sewage sludge (biosolids) reused in Agriculture has undergone stabilisation treatment methods that comply with the European Sewage

Sludge Directive and the National Code of Good Practice for the use of Biosolids in Agriculture.

Sewage sludge is also referred to as a weakness and threat. The reuse of bioresources/biosolids contributes to the circular economy, bioeconomy and climate change initiatives such as the European Green Deal and the European Climate Action Plan. The use of sewage sludge in agriculture contributes to keeping carbon emissions low. Carbon sequestration is helping to decrease the use of higher carbon footprint synthetic fertilisers.

Pg 169 It is important to note that the National Wastewater Sludge Management Plan (2016) is currently under review and the new version should be completed in 2022.

Q4. Is there any additional information which in your view should be considered in the Environmental Report and/or the Natura Impact Assessment? Please specify.

- The National Water Resource Plan as suggested above has now been published and the environmental report should assess impact on objectives of this plan.
- The EU Sewage Sludge Directive (SSD) is currently under evaluation and is a valuable instrument to encourage the correct use of biosolids and allow to increase soil organic matter. The SSD identifies limit values for certain heavy metals to protect soils. Irish Water would propose that outcomes from the EU Sewage Sludge Directive review be considered.
- It is also worth noting that as part of the Nitrates Action Programme a review of the existing Nutrient Management Plan process will be completed.
- Irish Water are currently scoping a biosolids quality assurance scheme.

Q6. If you wish to make comments on the draft 2030 Agri-Food strategy, please ensure to state clearly the section of the draft Strategy and page number (if relevant) that your comment or submission relates to.

For ease of reading Irish Water have provided our comments back on the agri food strategy under the heading of aquaculture and water quality.

Aquaculture

Pg 9 Section 1

Irish Water note and welcome the ambition to reach 30% marine protected areas by 2030.

It is important that adequate wastewater services can be provided for coastal communities and industries without disproportionate treatment costs. Irish water would therefore be supportive of exclusion zones around wastewater discharges to ensure both the protection of the aquaculture industry and to ensure adequate wastewater services can be provided.

Section 6 Page 66

The strategy references the new National Strategic Plan for sustainable Aquaculture (NSPA) development for the period 2021 – 2030. Could you please confirm if this has been published or if it has or will be open to public consultation, we can only find the previous plan up to 2020 online.

Section 35. pg 86, Statement reads:

“ The Seafood sector will continue on a path of sustainable economic and environmental development by carefully managing the utilisation of sea-fisheries and aquaculture, including:

- *“Streamline the administrative procedure in the National Strategic plan for sustainable aquaculture development. The aquaculture licensing system needs to be adaptive to technology advances and local environmental conditions during the lifetime of the licences and at renewal. These issues need to be addressed through legislative change to maximise market demand and growth in the Aquaculture sector.”*

Irish Water is fully supportive of streamlining the aquaculture licensing process. Irish Water notes that it is important to weigh up the costs and benefits to the environment, society and exchequer in providing appropriate wastewater treatment where licensing aquaculture production is in the vicinity of a municipal discharge. For example, the potential energy/climate change implications and the financial cost of higher standards of treatment which may need to be met in order to allow for aquaculture production need to be considered in the decision making process.

Irish Water is currently consulted during the aquaculture licensing process and provides the location of discharges from municipal wastewater collection systems within 10km of a proposed aquaculture license in order to inform licensing decisions.

We suggest going forward that the DAFM consider the location and mixing zones of Irish Water discharges when deciding whether to grant a licence, and do not grant licences within such risk zones. Irish Water can work with DAFM to ensure they have the relevant risk data and suggest that a decision-making process is agreed and formalised.

This section also states that

- *“The competition for space for inshore fisheries is greater than ever. Space within the marine sector is required by fisheries and aquaculture, but also in demand for shipping, marine leisure and, more recently, renewable energy. The increased level and diversity of activity in the maritime space highlights the need for efficient and co-ordinated management to avoid conflict and to identify, where possible, synergies both within and between. Ireland’s future Marine Spatial Plan (MSP) will also impact on the inshore sector.”*

Irish Water would like to highlight that space is also required within the marine environment for receiving discharges of treated municipal wastewater from coastal communities and would request that this be reflected in the text above.

Water Quality

Page 48 the target “Water Quality – Agriculture will reduce nutrient losses to water by 50% by 2030” we would consider a similar target is required for pesticides that is in line with the new EU Farm to Fork Strategy and Biodiversity Strategy.

*“Pesticides in agriculture contributes to pollution of soil, water and air. The Commission will take action to **reduce the use and risk of chemical and more hazardous pesticides by 50%**”*

Page 59 Section on Mission: A Climate Smart, Environmentally Sustainable Agri-Food Sector - Goal 3: Protect High Status Sites and Contribute to Achieving Good Water Quality and Healthy Aquatic Ecosystems

Irish Water welcomes the goal of protecting high status water bodies and contributing to achieving good water quality. Irish Water shares the view that, from an implementation perspective, there should be shared responsibility and ownership approach across all Government departments and agencies.

The strategy includes appropriate actions for protection and improving water quality. We note that drinking water quality is specifically mentioned under Action 3. We would recommend that drinking water is considered under all actions for Goal 3. Drinking water sources are impacted by contaminants other than pesticides (e.g. ammonia, nitrate, sediment and microbiological contaminants) and therefore need to

be protected. This approach is in line with the new Drinking Water Directive and the Water Framework Directive.

If you have any queries please do not hesitate to contact us.

Yours Sincerely,

██████████

Environmental Policy Specialist

Irish Water

2021

Submission on draft Agri-Strategy 2030



MACRA NA FEIRME
MACRA NA FEIRME | www.macra.ie

Macra na Feirme

Agri-Strategy 2030

This document outlines Macra na Feirme's submission to the draft Agri-Food strategy 2030.

Overall this draft strategy is lacking actual figures surrounding output, farm income etc.

In the ambitious targets of the likes of 50% pesticide reduction, there are no alternative solutions provided to point in which direction the tillage industry should go. When setting out an objective, there should be due consideration on whether it will contradict other objectives such as increase and expand tillage and horticulture production.

In all of this strategy, there is, unfortunately, no reference to how rural Ireland will be affected if these objectives are met because we must remember it is not only the farmers that will be affected by this strategy but their families and communities too.

It cannot be emphasised enough that there huge importance in integrating farmers' economic and social conditions within environmental ambitions with the goal of generating a viable income for farmers and a future for the industry. These pillars must work together to achieve this, with no one pillar more important than the others.

The following topics continue to merit inclusion and must be given due consideration:

- Generational renewal - Attracting the next generation of young farmers to ensure we have the human capital at the primary production level to future proof our agri-food industry;
- Food security - This includes the need for biosecurity and climate adaption measures. Recent events including the 2018 drought, which reduced the supply of key horticulture products along with forage supplies, and the outbreak of ASF in China shows the need for more on-farm support and national policy in these areas;
- Managing the public perception and image of our animal protein production from a climate, environmental and animal welfare perspective;
- Delivering on environmental and climate challenges. Farmers work in an environment with constraints and regulations while managing scarce and limited resources. They strive to continually increase productivity, efficiency and competitiveness to achieve or maintain a viable return. Making farming attractive to the next generation of farmers in this context is a challenge;



Macra na Feirme

- Data management, the integrity of data, ownership, interpretation and analysis and the use of technology to make it applicable at the farm gate level in order to help maximise the use and return from scarce and limited resources; In the area of data ownership it is important for farmers to have their right to repair guaranteed in any policy covering Irish agriculture's use of technology;
- Soil science and nutrient management – The importance of soil quality including P&K status underpins all work in sustainably increasing crop or grass growth, measures must be taken to encourage greater soil management;
- The phrase from 'soil to society' – communicating the various aspects and benefits of farming and food production to consumers;
- Managing our ecosystems, natural habitats and biodiversity.

Biogenic methane

The newly proposed metric GWP* accounts for the short life span and biological origin of biogenic methane. Methane has a short lifespan of approximately 12 years after which it is ultimately broken down into carbon dioxide and water. This GWP* metric should be set at the 2020 figures.

Macra na Feirme are in favour of a separate target for biogenic methane within national targets due to the recognition of its potentially lower impact on global warming.

What should be given due consideration is the effect a reduction in the age of slaughter will have on the quantity of biogenic methane expelled in the atmosphere. Because slaughtering beef animals at a younger age will reduce the volume of methane produced over the animal's lifetime. In a recently published article on the life cycle assessment of pasture-based suckler steer weanling-to-beef production systems¹, it recommended that in order to reduce environmental impact and to optimise output of grass fed beef systems, that farmer should adopt systems that minimise age at slaughter and match breed types to the appropriate diet and finishing practices. For animals on grass only systems, the environmental impact per animal increased with slaughter age. Those animals slaughtered at 20 months had the lowest environmental impact across all units and systems investigated.

¹ Herron, et al. 2021. <https://www.sciencedirect.com/science/article/pii/S1751731121000896?via%3Dihub>



Macra na Feirme

Macra na Feirme are in favour of focusing on the MACC². The efficiency measures must be driven on and improved.

Teagasc again has come up with solutions that can aid in the reduction of methane production from animal breeding, dietary supplementation/management, improved animal health and of course lifetime performance/age at slaughter. Teagasc's analysis is that if Teagasc Marginal Abatement Cost Curve (MACC) were implemented, and animal numbers stabilised, then it is possible to achieve an emissions reductions target of between 10% and 15% by 2030³. But there must be a recognised distinction between biogenic methane and other Greenhouse Gases (GHG). Macra na Feirme also would like to reiterate the importance of the Signpost Farm Programme. This whole industry approach must be supported and promoted as much as possible to ensure all farmers are brought along as soon as possible, including the later adopters. The real challenge is accelerating adoptions by primary producers and that this is facilitated by all actors in the supply chain. In a survey conducted by Macra na Feirme in April 2021, 33% of those surveyed struggled to purchase protected urea fertiliser products this year because there was no protected urea in stock. Farmers need to be fairly rewarded for the action they are taking in relation to environmental sustainability.

There is also a real substantial risk of carbon leakage, where GHG emissions are reduced within Ireland while emissions have been offshored to another country resulting in increases in those. Effectively making Ireland look good in terms of GHGs but another country worse off, pushing the burden of food production onto them. This is particularly relevant when the efficiency of certain foods products produced in those countries which will undoubtedly increase their production is significantly lower than in Ireland. This may be further exacerbated when considering land use land-use change and forestry (LULUCF), as key countries which Ireland competes with for EU market share in beef including Brazil, which saw a deforestation rate at a 12 year high in 2020 despite conditions of potential EU trade deals, requiring limits on deforestation. In this context, Irish agri policy must consider all global activity carefully. All the impacts of changes to Irish agri policy must be fully assessed for their impact in potential increased in other producers of agri product in direct competition with Ireland.

² Teagasc, 2019. <https://www.teagasc.ie/media/website/publications/2018/An-Analysis-of-Abatement-Potential-of-Greenhouse-Gas-Emissions-in-Irish-Agriculture-2021-2030.pdf>

³ Boyle, 2021. <https://www.farmersjournal.ie/agriculture-is-facing-a-momentous-decision-on-carbon-budgets-621114>

CPD for farmers

Macra na Feirme are in favour of the action to promote education and training including life-long learning and peer to peer learning.

Research conducted by Skillnet Ireland and Macra Agricultural Skillnet found that there is a need for a Continuous Professional Development (CPD) framework to be established for the farming sector in Ireland⁴. As part of this research, over 270 people working in the agricultural sector in Ireland were surveyed. Almost 90% of the farmers surveyed said they believe CPD could benefit farmers by improving efficiency, increasing awareness of regulations, enhancing their ability to access finance and providing them with better structures for recruitment and management of staff. Two-thirds of respondents (67.3%) said they are likely to register for CPD points/credits if available, while almost half (47.3%) said they would be willing to pay an annual subscription to manage CPD points/credits.

Generational Renewal

Macra na Feirme welcomes the inclusion of generational renewal and the actions that follow under the heading. There is a need for stronger actions under this heading to ensure that the action will have the relevant steps carried out to achieve greater generational renewal.

Siloing the topic of generational renewal as solely a social element rather than recognising that all aspects of sustainability are impacted by the current low numbers of young farmers present in the industry. The uptake of technologies, the change of practices, and the adaptability of agriculture to meet environmental ambitions along with the necessary economic contributions made by agri-food are all negatively impacted by the low percentage of young farmers in ownership or management of Irish farms. This issue needs to be addressed across all three pillars with specific targets for each industry.

There must be the opportunity and active encouragement of intergenerational dialogue and government policy must evolve to allow for this to occur more frequently. Generational renewal can contribute to the social sustainability of rural areas and will be an important element in order to aid the attraction and retention of young people to live and work in rural areas. This is vital to sustaining our future agriculture and rural economy.

⁴ Skillnet Ireland, 2019. <https://www.skillnetireland.ie/wp-content/uploads/2019/04/Skillnet-Ireland-Macra-report-Apr19.pdf>

Plant-Based Doctors

Ireland

Climate change is the biggest health concern of the 21st century (World Health Organisation)¹. There is a need for leaders with vision, policy change among governments, and grassroot movements to alter our course to a more sustainable future. The health consequences of climate change are many; increased infectious diseases alongside increasing antimicrobial resistance, air and water pollution, increasing frequency and severity of extreme weather events to name but a few, all with a disproportionate effect on the vulnerable.

The current model of agriculture in Ireland is not sustainable by any environmental metrics currently employed. Farmers are particularly exposed with the majority of farms largely subsidized via CAP payments that are open to negotiation and liable to the same carbon budgets as other sectors. An aging farming population, debt from investment for intensification, volatile market forces and consumers increasingly seeking sustainable alternatives against existing rural economic issues and depopulation are significant stressors for rural communities. Despite the "green" branding, Ireland's agricultural model is dependent on imported fertilizer and feeds, with knock on nitrogen run off causing increasing environmental pollution. Approximately 50% of Ireland's freshwaters are now polluted, bird and bee pollinators are collapsing, and ammonia levels exceed EPA safety values and are increasing year on year, as detailed in the published Environmental report alongside the draft strategy document.

All of these effects directly and indirectly affect our rural and urban populations and add pressures to our already stressed healthcare system. Events such as COVID-19 and the recent cyber-attack have demonstrated to Irish healthcare professionals that it is always too early to act until it is suddenly too late. There is clear international consensus that all sectors and all actors in society must act to decarbonize and protect and restore biodiversity losses. The number one driver of environmental pollution, carbon emissions, biodiversity and habitat loss is not Irish farming, rather the repeated agricultural policies of which Agri-Food 2030 is the latest iteration. A radical shift is required and a plan for same has already been laid out in the EU Farm 2 Fork strategy. As an EU member state we are obliged to follow suit, as signatories to the Paris Agreement we are legally obliged to meet our emissions targets and as only the second country to declare a climate emergency we have an ethical duty to show further leadership.

Ireland's vision should be on creating a local, diverse and secure food system, with equity to farmers and all other players in the system. The associated co-benefits for the micro and macro environment will by extension have health benefits for our patients. We will not have healthy patients on an unhealthy planet. The result of poorly managed food system comes to the attention of all health care originations, either directly via chronic disease or indirectly by climate related factors. As

Plant-Based Doctors *Ireland*

healthcare professional, we are therefore obliged to advocate for a healthier alternative for our patients. Irish Doctors for the Environment calls for transformation of our food and agriculture system, where the upstream and downstream impacts on total greenhouse gas emissions waste, antibiotics, and pollution at every stage of the food system are considered. Addressing food systems represents a rare triple win; better health for patients and planet with reduced environmental and societal costs.

Do you have any observations on the conclusions in the Environmental Report and Natura Impact Assessment?

The urgent need to address ruminant methane and nitrogen waste is not considered in the context of how reducing same beyond mitigation levels could be used as a leverage to lessen the need for expensive agroforestry and other offset schemes while allowing land use for restoring biodiversity (birds and pollinators). While carbon sequestration is a mitigation tool, international consensus is far from clear as to how effective a tool it may be; the mantra "slow in, fast out" describes how rewilding and conserving existing areas of biodiversity are much more reliable than mono-forestry.

One of the clearest links between current policy and environmental impact is ammonia air pollution, which exceeds safe air quality standards (and rising), and 99% of which comes from agriculture (fertilizer and feeds). Another example is nitrogenous water pollution and the national herd number and fertilizers. There are now less than 20 Irish waters deemed "pristine", from the 500 mark only 30 years ago (as detailed in the report). The mitigation measures described are unlikely to achieve reduction targets even in a perfect world scenario, certainly not without significant outlay of funding with associated fiscal impacts on farmers. There is an urgent need to restrict imports of fertilizer and feeds to effectively reduce nitrogen derived water and air pollution, this is not countenanced in either report.

Having reviewed the Environmental Report, please provide comments on individual sections in more detail. Please ensure to state clearly the section of the Environmental Report and page number (if relevant) that your comment or submission relates to.

Section 4.2 page 22 states the One Health plan regarding antimicrobial resistance was deemed not to have a relationship with the strategy. However antimicrobial stewardship and the threat of antimicrobial resistance was recognised on page 89 and 119. Over 100 tonnes of antibiotics are used in animal agriculture per annum, it is difficult to tell exactly where and how². There is no detail given as to why the government One Health strategy to address the established threat of antimicrobial resistance was not included.

Plant-Based Doctors

Ireland

The thorny issue of saturated fat was omitted alongside the mentioned salt, sugar, nitrates and trans fats on page 119 as micronutrients of concern. Saturated fat is a known causal driver of cardiovascular disease, and is predominantly found in meat (red, white) and dairy. The reports strengths and weaknesses states that Ireland does indeed report good health, however rates of chronic disease are in fact some of the worst in EU. 60% of adults and 25% of children are currently overweight or obese and the number one cause of death is cardiovascular disease³. The main driver of cardiovascular disease are modifiable risk factors of which diet is key driver. That only a fraction of Ireland's agricultural capacity is used to farm fruits, vegetables, beans, pulses, nuts or seeds, is daily reflected in the standard Irish diet which is also deficient in these staples⁴.

Section 5 alternative 2 scenario reads as follows "*strong beneficial effects predicted for biodiversity, flora and fauna, water, air quality and climate. However, it is anticipated that there could be adverse effects on population and human health*". This is the anthesis of the very concept of planetary health whereby human health is only possible because of the complex natural systems upon which we all depend. The intrinsic values of biodiversity, water, air and stable climate quality that may not be realised on a balance sheet but they have a profound impact on the health and well being of the population at large now and into the future.

Section 6.1 Using "Ag Climatise" to achieve necessary reductions in methane would require every sector working in perfect concert to achieve, and still necessitate food and beverage savings. This is hopeful and objective environmental observers have expressed reservations as to the plausibility of same.

It is disappointing that the recognised demand for growing fruits, vegetables and whole foods (just 1.5% land use) is not framed positively in the context of potential future food security.

Having reviewed the Natura Impact Assessment, please provide comments on individual sections in more detail. Please ensure to state clearly the section of the Natura Impact Assessment and page number (if relevant) that your comment or submission relates to.

The Natura report takes until page 37 to finally determine how a climate neutral sector will be achieved; "This will be achieved through stabilising emissions from the national herd and implementing new technologies". As above in the environmental report, the NIA relies heavily on Ag Climatise report without expressly saying how marked reductions in ammonia, nitrogen and phosphorus pollution will be achieved. A more obvious solution than the suggested action on page 38 of "managing and mitigating losses of phosphorus and sediment to water" would be to limit or cap feed

Plant-Based Doctors *Ireland*

and fertilizer imports into Ireland. There is no mention of same in the NIA or the environmental report.

Is there any additional information which in your view should be considered in the Environmental Report and/or the Natura Impact Assessment? Please specify.

The focus on meat and dairy in Irish agriculture means that Ireland is not effectively feeding itself. Tremors from recent events such as Brexit and COVID-19 have shown that food security is a real issue. It is doubtful that beef and dairy in Ireland contributes to global food security. By importing feed and using large amounts of fertiliser, land and fresh water resources are used to the detriment of diversified plant-based food and other crop production.

Are there additional mitigation/monitoring measures that you would like to propose? Please specify.

Limiting nitrogen fertilizer and feed imports would ensure that the kind of efficiencies detailed by Teagasc's 2012 and 2019 GHG abatement studies would actually result in real reductions in absolute climate and environmental impact. Synthetic chemical nitrogen fertilizer is a key driver of methane, ammonia and nitrate pollution.

If you wish to make comments on the draft 2030 Agri-Food strategy, please ensure to state clearly the section of the draft Strategy and page number (if relevant) that your comment or submission relates to.

Agricultural policy and emissions are closely aligned (as recognised by numerous Teagasc reports) e.g., decline prior to milk quotas and rising since lifted. The overall aim for Ireland to be a leader in sustainable food is unlikely to prove successful if the strategy does not rely on a solid evidence base and take note of objections from objective actors. The premise set out is that Ireland should not shift from a predominantly livestock dominated farming system, yet other countries should shift to plant based systems. No clear evidence based reason is offered. The current model is sustained and dependent on a combination of subsidies, low taxation and evasion of environmental damage costs. The CAP subsidy should be viewed upon

Plant-Based Doctors Ireland

as a tool to protect the environment and biodiversity for current and future generations. All of the above issues are troubling in the context of FoodWise 2025 which promised no significant environmental improvements, yet all indicators have been profoundly affected negatively.

This strategy admits previous iterations were not fairly weighted with respect to environmental concerns. This admission of previous failures is laid out damningly in the section 4 (scoping process) of the environmental report "strengths and weaknesses". The problem with previous strategies is not the weighting given to environmental concerns, rather the premise that environmental targets must bend to the will of market forces and that there is a limitless atmospheric buffer with regard to emissions. Smart farming will not be enough and Ireland is already in the position of being in a minority of countries that has not made our 2020 target ambitions. Any wins from other sectors were consumed whole by emissions for the Agri sector.

The overall aim for Ireland to be a leader in sustainable food is unlikely to prove successful if the Agri-strategy does not rely on a solid evidence base and take note of objections from objective actors such as the Environmental Pillar. An overall concern is that the two bodies with no ties to industry and expertise in environmental concerns, namely the Environmental Pillar and the EPA have both expressed grave concerns. The EPA Director has stated "*a serious reputational risk for the agri-food sector in Ireland. Pending evidence and implementation of effective solutions to ongoing unsustainable air and water emissions, any plans for further intensification/expansion of the dairy herd would be difficult to sustain*" while the Pillar have of course withdrawn from the Agri-Food committee. It is also of dismay that calls for objective climate, environment and biodiversity experts were denied by the committee. This is especially troubling as there is much talk of the role of carbon sequestration proposed, yet there is no clarity as to how reliable this is long-term. Intensification and business as usual is described as an economic boon in the various reports, however as an EU member state the sector is much more likely to be financially exposed as decarbonisation begins in earnest.

Below are recommendations for consideration for Irelands food strategy going forward

A: Sustainable diets for health

Current Irish eating patterns are not supportive of human health or the prevention of disease, despite dietary factors being the most significant preventable cause of global morbidity and mortality⁵. The Irish diet is

Plant-Based Doctors

Ireland

predominantly composed of cereals, dairy, red meat and dessert dishes (70%) with less than 5% of the total daily total made up of legumes, non-starchy vegetables and fruit⁴. Due to this Irish dietary pattern which has a heavy dependence on ultra-processed foods and animal produce with low consumption rates of unrefined plant-sourced foods, figures show that 63% of the Irish adult population exceed the daily recommended upper limit intake of dietary fat, which is a major risk factor for Ireland's leading cause of death, cardiovascular disease.

The EAT–Lancet Commission is one of the first attempts to summarise and communicate the best available science on what constitutes a healthy diet within environmental targets⁶. Reducing highly processed foods, starchy vegetables and red and processed meat while increasing fruit and vegetable consumption would be in line with other existing guidance on healthy diets e.g., the 2016 European Society of Cardiology guidelines recommend a total fat intake of less than 30% (less than 10% saturated)⁷. Similarly, the American Heart Association's 2017 presidential advisory on dietary fats advised that replacing saturated fat with polyunsaturated vegetable oils could reduce cardiovascular disease by 30%⁸.

Food Environment; cost-determinants

As the ever increasing health budget demonstrates, "cheap" food is in reality an disproportionate expense borne by all of society, heavily weighted towards those who live in social deprivation. Allowing cost to determine food choices alone is already leading to bankruptcy of our health services and health systems. The retail price of food does not reflect the total cost of its production, consumption and upstream and downstream carbon and pollution footprint.

Food Environment; access and education

A top to bottom approach is required to assess the access, or lack thereof, to cooking equipment, food storage and cooking education in addition to taxation of refined high fat and high sugar food and beverages. National, regional and local policy that supports a food environment where making the right choice is easy is needed, being mindful of culture, price, accessibility and education level for food preparation skills. This represents a paradigm shift from the easily accessible and abundant highly processed foods that are high in salt, sugar and fat which make up the majority of the standard Irish diet⁴. The pending HSE framework for delivering a national social prescribing network would be ideally placed to

Plant-Based Doctors Ireland

direct those with identified needs to appropriate local services, and would be a relatively cheap intervention compared to the longitudinal costs associated with chronic disease management.

Food accessibility and seasonality

The issue of “food deserts” is not prominent in Ireland i.e., most small shops and supermarkets offer some fresh fruit and vegetables. However “food swamps” are increasingly common, whereby the public are bombarded by unhealthy convenience food analogues. The health and environmental impacts of unhealthy food environments (e.g., service stations) are not currently considered. For example, the costs associated from managing litter from fast food outlets is externalised to community services. The less visible impact of cardiometabolic disease and the carbon costs associated from fast food outlets are similarly externalised to the health care system and the environment.

Food produced locally out of season has a far greater environmental impact than food produced in season in other countries with associated food miles⁹. Consumers and healthcare professionals alike need guidance in this respect. Not all food miles are equal and reliable labelling is needed to make meaningful sustainable choices. Similarly, high environmental impact food choices such as red meat are frequently considered sustainable if produced locally. However, eating less meat is much more likely to have a lower carbon footprint than eating local or “sustainable” meat. Mixed messaging and a poor baseline understanding by the public and healthcare professionals requires clear guidance and information.

Sustainable Food Pyramid

The Irish Healthy Eating Guidelines and Food Pyramid is not aligned with recommendations for sustainable, healthy diets, nor does it support the target of reaching net-zero carbon emissions by 2050. They are heavily dependent on animal produce, with promotion of daily consumption of meat, poultry and dairy while segregating plant-based proteins as “vegetarian proteins”. The Brazilian dietary guidelines are exemplary, weighting their advice equally about what should be eaten with when, where and how to plan making meals in a culturally appropriate manner¹⁰. This is less abstract than food pyramids and food plates and has the potential for greater meaning for individuals. We call for the food pyramid to take the environmental impact of food into account when making recommendations (e.g. seasonality, food miles, packaging).

Plant-Based Doctors *Ireland*

B Sustainable Food Production

- (i) 92% of all Irish agricultural land is currently used for meat and dairy production, with just 1.5% of agricultural land being used for fruit, vegetable, and legume production. There is a symmetry between the lack of diversity of what we eat, the food that we produce and the ill-health for patient and planet that results. Despite capacity to the contrary, our food systems are failing to produce the foods essential for healthy diets in sufficient quantity and at affordable prices.
- (ii) Global food production constitutes the single largest driver of environmental degradation, being responsible for unsustainable land-use, deforestation, land changes, loss of biodiversity and greenhouse gas emissions. Irish agricultural is responsible for over 40% of non-traded greenhouse gas emissions, 83% of which is directly caused by livestock¹¹.
- (iii) Subsidies should be redirected to less carbon intensive avenues that have the potential to modernise rural Ireland in line with the governments rural action plan and the Farm 2 Fork strategy.
- (iv) To meet our total reduction in emissions in line with targets, a reduction in herd number is required alongside improved efficiencies, mitigation, sequestration measures and diversification to other arable foods and biofuels.
- (v) Even with novel food production systems, improved technology and productivity improvements, sufficient reduction in greenhouse gases will not be possible without also including structural changes in the human diet.
- (vi) Transitioning to an increasingly plant-based agricultural sector can not only help to reduce agricultural emissions, but increase the availability of land for carbon sequestration.

C Food security

- (i) Irish agriculture is focused on profitable exports and trade, exporting over 80% of all food produced. Tremors such as Brexit have shown that as an island nation, albeit EU member state, we are geographically and now more than ever, politically exposed. Our lack of preparedness and vulnerable food security has been exposed at short notice in recent years.
- (ii) A post COVID world would ideally look smaller with regional independence for food systems, not only to reduce food related carbon costs e.g. travel, packaging etc but to bolster the health and resilience of communities and encourage ownership of our microenvironments. Currently, Ireland imports

Plant-Based Doctors

Ireland

many plant-based foods, such as potatoes, cabbage, tomatoes, and lettuce, which could be grown by Irish farmers, if they are financially supported to do so.

- (iii) The profits of this food system are disproportionality shared, with many trapped in non-sustainable practices that have their own impact on health, both physical and mental e.g., meatpackers in COVID times. We call for a food system where there is mutual benefit for the environment and society.

D Current Policy

- (i) The EU Farm to Fork strategy, along with our national circular economy and biodiversity strategies will require substantial change in how we farm, fish, manage our forests and process, distribute and consume food. From an environmental perspective these strategies are sound and have buy in from stakeholders throughout the EU. However current Agri Food strategy and political will is not aligned with these initiatives as exemplified by the planned cheese factory in Co. Kilkenny and hesitancy to limit the national herd number.
- (ii) A 51% reduction in agricultural emissions will be required nationally by 2030, yet current agricultural mitigation strategies and policies set out in the "Ag Climatise" report 2020 focus on genotyping, reduced fertiliser use, and livestock feed are insufficient.
- (iii) The lack of financial support available to Irish farmers to help them shift to sustainable practises or to diversify into producing more sustainable produce such as fruit, vegetables and legumes is a huge barrier to sustainable economic development and of environmental concern.
- (iv) Protection of natural woodlands and peatlands, with incentives to reward same

E Examples

- (i) Denmark, with a similar dependency on livestock agriculture, has acknowledged the need for agricultural reformation and is currently increasing research in order to a plant-based system¹².
- (ii) Belgium and Canada are among countries who have reformulated their food guidance to incorporate sustainability as well as health^{13, 14}.

Action points

Education and policy

Plant-Based Doctors

Ireland

- (i) Transformation of the food system to deliver safe healthy food, regardless of where people live or what they earn.
- (ii) Address food related inequalities and promote a food system that is more fair to all stakeholders.
- (iii) Develop a labelling system to inform consumers about the health and environmental impacts of their purchases.
- (iv) Use taxation to incentivise low carbon impact and environmentally friendly food systems.
- (v) Inclusion of sustainable, healthy nutrition awareness and the environmental impact of food choices in school and college curriculums.
- (vi) Increase availability of community gardens, cooking classes, food preparation and food waste awareness.

Agriculture

- (i) Incentivise farmers and growers (CAP, F2F) to transition or diversify from ruminant farming to horticulture, woodland or biomass.
- (ii) Incentivise organic farming in line with F2F strategy.
- (iii) Identify and support potential local and organic suppliers for government facilities such as hospitals.
- (iv) Subsidise farmers to undertake environmental stewardship and carbon sequestration activities.

Healthy diets

- (i) Restriction of marketing and promotion of foods which have both large carbon footprints and negative health impacts.
- (ii) We ask that supermarkets are held accountable for paying farmers fairly and making local and sustainable healthy food affordable.
- (iii) Restrict incentives for overconsumption at a consumer level e.g., "buy one get one free".
- (iv) Support interventions to reduce rates of obesity via substitution of unhealthy foodstuffs with fruit, vegetables and wholegrains.
- (v) Subsidise production and sale of fruit, vegetables, nuts, seeds and wholegrain products to support increased uptake of plant-based diets.
- (vi) Advice and support, referral to weight management services.
- (vii) Increased availability of community gardens and cooking classes.

CONCLUSION

As a healthcare organisation, we call for a food system that offers sustainable nutrition for all with security and resilience to future economic and climate events.

Plant-Based Doctors Ireland

We propose that transformation of the existing system must take place in tandem with Ireland's transition to Net Zero and development towards a climate neutral economy by no later than 2050. A transdisciplinary approach to this system shift which involves farmers, policy makers, environmental experts, environmental engineers, and all relevant stakeholders is necessary. A reformed, Irish agricultural system which contributes to farmer income and wellbeing, economic growth, effective climate action, restored biodiversity, sustainable development and human health is not currently in place in Ireland, but it is possible, and essential.

References

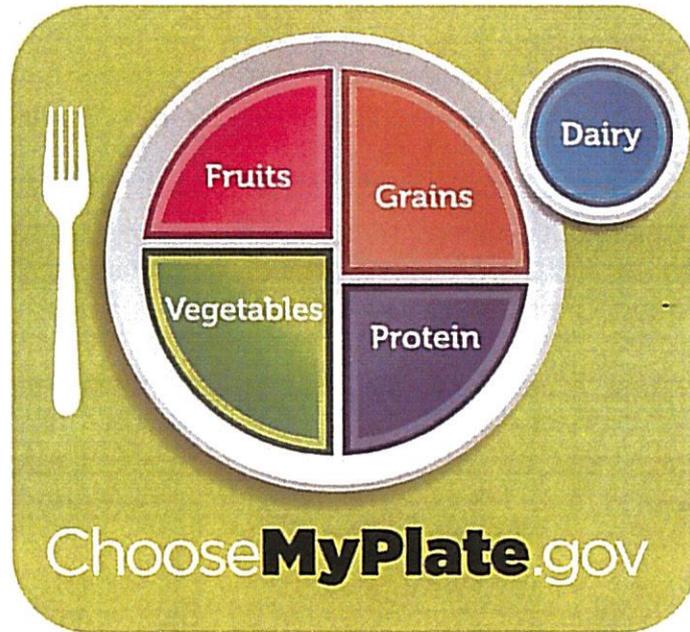
1. McMichael A, Haines J, Slooff R et al. "Climate change and human health: an assessment / prepared by a Task Group on behalf of the World Health Organization, the World Meteorological Association and the United Nations Environment Programme." World Health Organization, Geneva, Switzerland 1996
2. Department of Health (2018). Ireland's first One Health Report on Antimicrobial Use and Antimicrobial Resistance. Available at <https://health.gov.ie/national-patient-safety-office/patient-safety-surveillance/antimicrobial-resistance-amr-2/>
3. A Healthy Weight for Ireland: Obesity Policy and Action Plan 2016 – 2025
4. IUNA. 2011. *National Adult Nutrition Survey Summary Report on Food and Nutrient intakes, Physical Measurements, Physical Activity Patterns and Food Choice Motives Summary Report edited*. University College Cork, Cork, Ireland: Irish Universities Nutrition Alliance.
5. GBD 2017 Diet Collaborators. Health effects of dietary risks in 195 countries, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2019 May 11;393(10184):1958-1972
6. Willett W, Rockström J, Loken B, Springmann M, Lang T, Vermeulen S, Garnett T, Tilman D, DeClerck F, Wood A, et al. Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems. *Lancet* 2019;393:447–92.
7. Piepoli MF, Hoes AW, Agewall S, et al. ESC Scientific Document Group. 2016 European Guidelines on cardiovascular disease prevention in clinical practice: The Sixth Joint Task Force of the European Society of Cardiology and Other

Plant-Based Doctors Ireland

Societies on Cardiovascular Disease Prevention in Clinical Practice
(constituted by representatives of 10 societies and by invited experts)
Developed with the special contribution of the European Association for
Cardiovascular Prevention & Rehabilitation (EACPR). *Eur Heart J*
2016;37:2315-2381.

8. Sacks FM, Lichtenstein AH, Wu JHY et al American Heart Association. Dietary Fats and Cardiovascular Disease: A Presidential Advisory From the American Heart Association. *Circulation* 2017;136:e1-e23.
9. Poore J, Nemecek T "Reducing food's environmental impacts through producers and consumers" *Science* 01 June 2018: 987-992
10. Dietary Guidelines for the Brazilian Population 2014 (Portuguese: *Guia alimentar para a população brasileira* 2014)
11. Teagasc. 2017. *National Farm Survey (NFS)*. Carlow, Ireland: Teagasc.
12. Prag, Adam, and Henriksen Christian. 2020. "Transition from Animal-Based to Plant-Based Food Production to Reduce Greenhouse Gas Emissions from Agriculture - The Case of Denmark." *Sustainability* 8228.
13. <http://www.fao.org/nutrition/education/food-based-dietary-guidelines/regions/countries/belgium/en/>
14. Health Canada. 2019. *Canada's Dietary Guidelines*. Ottawa, Canada: Health Canada.

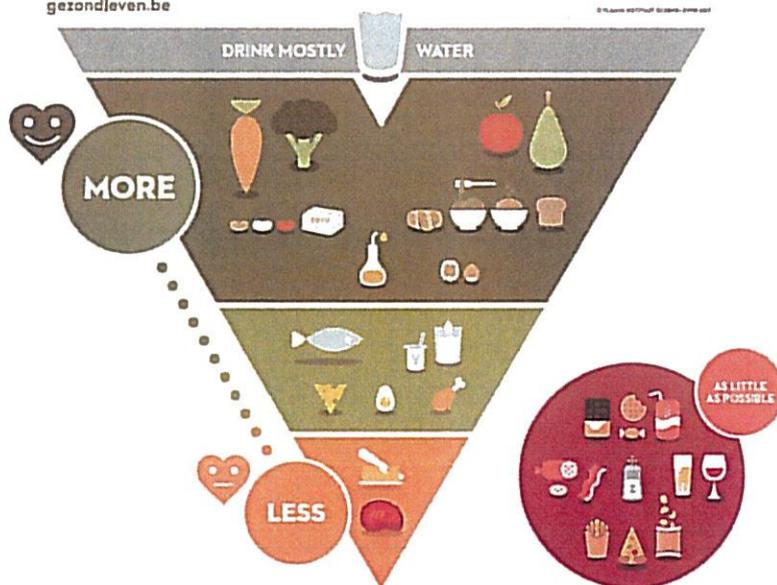
Plant-Based Doctors Ireland



FOOD TRIANGLE

VLAAMSE INSTELUIT
**GEZOND
LEVEN**

gezondleven.be



Sir/Madam,

I would just like to highlight and support this document joint agriculture policy document from the Sustainable Water Network, the Environmental Pillar and the Stop Climate Chaos Coalition:

<https://www.swanireland.ie/wp-content/uploads/2021/05/Towards-a-New-Agricultural-and-Food-Production-Policy-for-Ireland.pdf>

Please read it in light of this Draft Agri-Food Strategy to 2030 Environmental Consultation.

Selected recommendations for this 70-organisation strong report include:

1. Phase out all environmentally harmful subsidies and ensure that public money is channelled into the delivery of public goods.
2. Reward nature-friendly farming by rolling out generous results-based agri-environment schemes to restore threatened wildlife and habitats on all farms.
3. Cease the drainage of wetlands and peaty soils and implement a national agro-forestry programme to protect native woodland.
4. Implement regulatory, voluntary and combined measures to rapidly bring down sectoral methane and nitrous oxide emissions and reverse dairy expansion and introduce a cap on nitrogen use.
5. Conduct risk assessments of all intensive farms in sensitive catchment areas. If necessary, make certain areas ineligible for high densities of livestock to protect water quality.
6. Support the scaling up of local nature-friendly food production, especially in fruit, vegetables, cereals and pulses for human consumption.
7. Ensure that Ireland's food production policy promotes global health and greater dietary intake of sustainably produced organic produce and plant-based foods, while guaranteeing Ireland's international development commitments are not undermined.
8. Put in place a comprehensive public engagement programme to design and deliver an alternative, fairer model for Irish agriculture.



Co. Cork.