Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

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c/o Mr Karl Walsh
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Re: Strategic priorities to 2030 for "*A Climate Smart, Environmentally Sustainable Agri-Food Sector*"

Dear Tom

The Environmental Protection Agency (EPA) has reviewed the draft chapter *A Climate Smart, Environmentally Sustainable Agri-Food Sector* of the proposed Agri-Food Strategy and welcomes the opportunity to submit its views on what the strategic priorities for future policy should include.

The draft chapter is a thorough, objective and well written assessment of the current environmental challenges associated with the agri-food sector in Ireland. As previously stated in the EPA submission on the Ag-Climatise roadmap, the period to 2030 will shape the future direction of agriculture and its response to environmental concerns and adaptation to climate change. It will also provide opportunities to realise the potential that exists to both produce goods and consume goods in an environmentally sustainable way. We recognise the need to achieve a balance between economic, social and environmental factors in developing a sustainable Agri-Food Strategy, and further recognise that the LULUCF sector is a key component in the national strategic long-term vision for a prosperous, modern, competitive and climate neutral economy by 2050.

In relation to international policy drivers for environmental protection in this sector, the national Agri-Food Strategy should detail in specific measurable terms how it will address the EU Farm to Fork strategy which sets targets to "transform the EU's food system", including: a 50% reduction in the use (and risk) of pesticides; a 20% reduction ("at least") in the use of fertilisers; a 50% reduction in sales of antimicrobials used for farm animals; and an ambition that 25% of agricultural land is to be "under organic farming" by 2030.

In addition, it is recognised that the national policy has to assure that Marine Protected Areas are expanded to meet the current international requirements of conservation of 10 percent of all coastal and marine areas, rising to 30 percent under the EU Biodiversity Strategy 2030.

Agricultural practices are identified in EPA reports as being one of the main pressures responsible for the decline in water quality nationally. Moreover, the sector is responsible for approximately one third of national greenhouse gas emissions, and over 99 percent of national ammonia emissions. It is recognised that on an individual farm, and farm-type, basis there can be evidence of exemplary and low impact practice, however taking the sector as a whole, the economic growth in recent years is happening at the expense of the environment as witnessed by the trends in water quality, emissions, and biodiversity all going in the wrong direction. It is clear from the evidence that agriculture and other land management practices are key drivers of these negative trends. Business as usual will not reverse these trends.

We recognise that there is a role for the 'right measure in the right place' including – as referenced above - appreciating exemplary practice where it exists, however these local variations must be underpinned by fundamental change across the food system to address the core challenges. The draft chapter rightly identifies the 'green' reputation Ireland holds in relation to food and this is leveraged by *Origin Green* and other labelling schemes. Such quality standards play a valuable role and do support efficiency ambitions, however it is clear from examination of the science that the environmental sustainability of the sector as a whole is largely not supported by the evidence. And the case is weakening year-on-year as polluting air emissions increase and water quality further deteriorates. In our view this is 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.

Considering this framing and your request for input to the thematic priorities necessary to address the environmental challenges for the new strategy, we recommend consideration of the following:

Air & Water Quality

- Promote the use of protected urea in place of other less environmentally sustainable fertilisers. Teagasc research shows that protected urea nitrogen fertiliser offers the single largest emission reduction potential to Irish farmers as they seek to reduce greenhouse gas and ammonia emissions without impacting production.[1] Protected urea is reported by Teagasc as a cost effective option so it is a win-win for the industry. Its use is further supported by the Teagasc Marginal Abatement Cost Curve (MACC).

- Choose measures for nutrient management that have multiple environmental benefits. This will involve education and training in conjunction with the national Agricultural Sustainability Support and Advisory Programme (ASSAP). Soils at optimum fertility and soil pH status recycle nutrients more efficiently and should lead to a reduction in inputs for the same or increased levels of grass and crop production while also reducing nutrient loss. This has wide ranging positive outcomes for the environmental pressures identified and is a win-win solution from both an economic and environmental standpoint.

- In catchments with known nitrogen-pollution, it is essential that measures are implemented immediately, to halt, and reverse, the continuing increases in nitrogen emissions to water

(Figure 1). These measures must go beyond improving efficiencies and must be focussed on reducing the total emissions through breaking the link between animal numbers, fertiliser use and deteriorating water quality. The co-benefits to be gained from this including a reduction in greenhouse gases and ammonia (air quality) need to be promoted.

- Prevent the continuing losses of diffuse phosphorus in the catchments under known pressure (Figure 1). The focus should be on breaking the pathways between the critical source areas (or hot spots) and watercourses, e.g. through use of riparian zones, buffer strips, and attenuation solutions. The co-benefits that can be gained for biodiversity, reduced sediments in the water courses and pathogens such as VTEC need to be promoted.

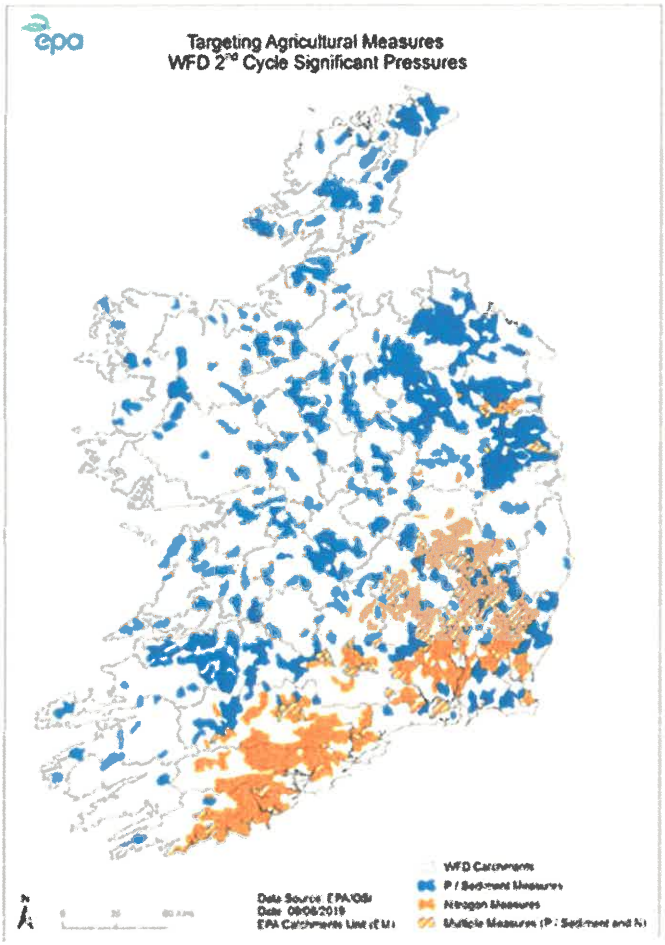

Figure 1: Targeting Agricultural Measures, WFD 2nd Cycle Significant Pressures

Climate & Sustainability

- Promote the use of 'high nature value' farming and the wealth of environmental benefits to be gained from the initiative, particularly in areas with high-status waterbodies, to support sustainable farming practices and local communities. Develop supporting agri-environmental schemes that provide payments for results-based, ecosystem services. The current model of 'payments for costs incurred or income foregone' promotes a concept that farming with the environment is a burden or results in negative outcomes for the farmer which is not accurate or effective.

- Further promote research and development into diversification of farming systems and practices with potential for environmental and economic sustainability for the agri-food sector. Such a programme of research should include methods for improving breeding, feed additives to reduce biogenic methane, agroforestry, paludiculture and nutrient management. A particular emphasis should be placed on developing economically sustainable farm systems for less intensive farms that focus on producing quality food for a premium price.

- Continued active engagement with, and support for, the OSI in progressing the completion of the detailed national land cover and land use maps that will be necessary to verify carbon emissions and offset opportunities (i.e. giving credit where it is due). These are needed in order to avail of the 26.8Mt land-use emissions removal allocation under the EU Effort Sharing Decision to 2030 in our national GHG inventory.

- To allow for accountability (measurement & demonstration) in land use practice there needs to be a move to including outcome focussed metrics, as well as activity metrics, and both need to be linked so there are opportunities for adaptive management.

- Develop and implement a food labelling system for national produce that provides consumers (national and international) with clear purchasing decision support information on carbon intensity (including the transport to market carbon intensity), and sustainability of the product.

- Research and assessment undertaken by CSO and ESRI (latter funded by EPA) identify that there exists within the national taxation and subsidy system a series of reliefs that are environmentally harmful, a number of which occur in the agri-food sector.[2] Such market failures need to be identified and removed from the taxation code and subsidy schema as they are incompatible with sustainability ambitions. For example, current land eligibility rules for the Basic Payment Scheme means that farmers receive no payment for land that is 'unworked', such as scrub and wetlands, which are naturally biodiverse habitats and often serve as buffer strips between the better farmland and watercourses. This incentivises the clearance of such habitats in direct opposition to the environmental incentives within CAP and GLAS.

<u>Marine</u>

- Emerging science suggests that natural marine kelp/macroalgae forests can play a vital role in climate mitigation and adaptation (e.g. carbon sequestration and sea level rise/storm surge wave energy dissipation) as well as in ecological stability.[3] There has been limited research in Ireland into these valuable ecosystem services and accordingly, there is reasonable grounds to adopt a precautionary approach in relation to commercial exploitation. The regulatory system and associated environmental assessment processes for industrial mechanical harvesting of kelp needs a fit-for-purpose evaluation as regards its effectiveness through the life-cycle of a project, i.e. through the application evaluation stage, the consent stage, as well as the operational compliance and enforcement stage (including environmental monitoring and reporting).

Forestry

- The carbon sequestration value of forestry is recognised and is vitally important to national climate action ambitions. However, sediment losses from forestry operations in upland catchments is the most significant pressure impacting on our high status waters. It is essential to ensure full implementation and enforcement of the environmental requirements for afforestation. Immediate action should be taken in the catchments where forestry is causing water quality problems and the level of Forestry Service oversight should be increased when operations are planned in high status catchments.

Food Waste

- Bring stakeholders together to do an all-of-value-chain National Food Waste Reduction Roadmap. This should be developed and implemented with clear national and sectoral targets for 2025 & 2030 to support the achievement of a clearly articulated national food waste prevention target. This will build on the work of the EPA through the National Waste Prevention Programme and the assets, expertise and existing structures of the consumer focused stopfoodwaste.ie and business focused National Food Waste Charter, Retail Action Group and Food Waste Forum. Activities within the roadmap should include behavioural change and educational initiatives for consumers and businesses, technical support interventions, data gathering research, monitoring and evaluation.

There are a range of associated supporting measures as identified in the chapter under review and ongoing initiatives (sward management, run-off management, integrated catchment / land use management planning, farm and nutrient management plans, etc.,) all of which would be expected as a matter of good practice. The farming community are custodians of our landscape, including much of its biodiversity, and have a core role in all solutions. We need to promote land uses that are sustainable and right for our environment and our people. This can be progressed by establishing and implementing a new approach to land cover, land use and land management to help coordinate and monitor Ireland's response to significant environmental issues such as climate change mitigation and the decline in nature across multiple sectors and in a coherent manner. Such a new approach will also deliver a more sustainable economic future for national food production enterprises.

Yours sincerely

Laura Burke
Director General

[1] https://www.teagasc.ie/publications/2020/protected-urea--why-now.php , and https://www.teagasc.ie/media/website/crops/soil-and-soil-fertility/Q--A-Protected-Urea-April-2019.pdf

[2] https://www.cso.ie/en/media/csoie/releasespublications/documents/rp/fossilfuelandsimilarsubsidies/Fossil_Fuel_and_Similar_Subsidies.pdf and, https://www.epa.ie/researchandeducation/research/researchpublications/researchreports/research295.html , and https://www.esri.ie/publications/the-environmental-impacts-of-fiscal-instruments

[3] for example: https://royalsocietypublishing.org/doi/full/10.1098/rsbl.2018.0236