**SUBMISSION FOR HARVEST 2025 ON BEHALF OF THE GREEN PARTY**

**Agriculture and the Environment**

Intensification of agriculture and the way it is being implemented in the Food Harvest 2020 will place pressure on all environmental components including air, water, soil and biodiversity.

**Air Quality**

Food production should not compromise environmental quality but that is going to be the inevitable result of farm intensification as we approach 2020 and onwards to 2025. While the carbon footprint per head of animal may have declined significantly over recent years, the projected increase in dairy cow numbers to meet FH2020 targets will negate gains in carbon efficiency. Ireland’s GHG emissions from the agricultural sector will continue to grow and this has been accepted by stakeholders. These emissions will come from methane produced by a larger cattle population and from ammonia and nitrous oxide emissions from land due to increased use of synthetic fertilisers. Without the implementation of mitigation measures, GHG emissions are projected to increase by 12% by 2020 (Food Harvest 2020 Milestones).

Environmental costs, in terms of GHG emissions, are also associated with the production of highly processed and of questionable nutritional value foods; the production, processing and export stages all have negative environmental impact that may be unnecessary. For both the farmer who works hard to produce a quality product and the environment which underpins that production, we must ensure that food production is focused on nutritional quality for the consumer, environmental sustainability and a fair return for producers.

**Water and Soil Quality**

Water quality may be compromised with increased farming activity, particularly associated with increased use of nitrogenous fertilisers on dairy farms. Of concern is the stated assumption in the background document “Climate Change and Sustainability” that further derogations under the Nitrates Directive will need to be sought to facilitate dairy expansion on farms. Soil quality will be affected by increased grazing, tilling and application of fertilizers.

Another serious threat is imposed on surface water due to the application of Phosphorus (P) fertilizers on new forest plantations on peat soils. Wet soils do not have a high P capacity, which results in massive amounts of nutrients leaching into the surface water and thus polluting or even poisoning it.

It is imperative that all EU and national legislation is fully implemented and that positive and negative effects of increased intensification on soil and water quality are continuously monitored and reported. The River Basin Management Plans prepared under the Water Framework Directive must be implemented in full. Environmental inspections/monitoring on farms will need to be enhanced but an adversarial approach should not be adopted. Education and training of farmers, contractors and agricultural advisors in good environmental management and protection will need to be significantly enhanced so that all parties are fully aware of their environmental obligations and the measures needed to protect the environment.

**Biodiversity**

Intensification of the dairy industry may lead to hedgerow and tree removal to facilitate the development of paddock systems on farms, with consequent loss of local biodiversity. The requirement of increased fertiliser/slurry use on dairy farms will also present a pollution threat to waterways and therefore, freshwater habitats and species. The conversion of marginal land (generally more biodiverse than agricultural land) into agricultural land may require drainage, destruction of important habitats and pose a threat to biodiversity. As outlined on pg 7 of the background paper “Climate Change and Sustainability”, the implementation of measures in the National Biodiversity Plan would be key to protecting vulnerable biodiversity. Implementation and monitoring of CAP measures to protect the environment must be carried out e.g. establishment of Ecological Focus Areas (EFAs), maintenance of permanent pasture, implementation of measures in the Rural Development Plan 2014-2020. Using a diversity of grassland species rather than relying on single species can increase production and biodiversity benefits. Establishment of field margins and wild bird cover are other measures which will enhance biodiversity in grassland and arable systems. There must be strict adherence to EU and national legislation, and continuous monitoring of the way the legislative requirements are implemented.

**Bioenergy Development**

We think further research into biofuel plantations is required before major decisions take place. Bioplantations have not proven to be as sustainable or economically viable as it was first thought. On the other hand, forward thinking and innovative ideas like the grass biorefinery (GBR) that apply to the characteristics of our natural resources should always be considered. Research and feasibility studies on this bioenergy option for Ireland already exist. If developed, it would reduce cattle numbers (particularly in the beef sector) immediately, with a consequent reduction in GHG emissions, by making grassland solely available for silage production for GBR processing. It would produce gas (“grass to gas” concept) which could be readily diverted to the existing national gas pipeline network, thereby eliminating the need for new distribution infrastructure e.g. large pylons. It would in turn contribute to replacing expensive and environmentally damaging fossil fuel imports. Through contractual agreements, it could deliver a steady and sustainable income for farmers who are currently experiencing very low prices and profitability. It has an additional benefit that land can be easily converted back into food production at a later stage if conditions change.

Anaerobic Digestion (AD) is a biological procedure that has proven to be valuable at both sustainable waste management and the generation of clean and cheap energy. Microbes digest agricultural waste and convert it to energy that can be used for heat, electricity or fuels for transport, under further treatment. Depending on the feedstock used, biological fertilizer, cooking gas and building materials are also possible by-products. Therefore, Anaerobic Digestion has the potential to directly reduce farming expenses as well as the environmental impact of agriculture and to indirectly cut the GHG emissions from the use of fossil fuels by replacing the latter ones with biogas.

More forms of generation of renewable energy should be encouraged. Renewables, apart from being a sustainable energy source, have at different occasions generated extra income for farmers and whole communities when implemented properly.

It is difficult to reconcile environmental protection with increasing agricultural intensification as envisaged by FH 2020 and beyond. While it is acknowledged that the production of food is of paramount importance in a world with a growing population, and that opportunities exist for economic growth and job creation, this should not come with significant environmental costs. It is the natural environment that sustains all life on Earth, and in a world of limited resources and climate change, we cannot afford to further damage our environment. If our soils were not healthy enough to support production anymore, there would be some catastrophic consequences on the rural sector and the national economy.

The present government needs to foster political will to protect the changing environment. What should be done as a first step is to share the urgent environmental message with the public and educate relevant groups and communities when necessary. It is also the government’s responsibility to facilitate a broad collaboration between the farming and the environmental community where the stakeholders will come together in order to look at the different angles and work with each other. We should adopt a more diverse agricultural model, expanding the focus on organic production, agri-environmental schemes, tillage, horticulture and more environmentally friendly farming practices that also have the potential to return higher income per unit of product.

Mitigation of climate change should drive our actions concerning the management of the natural Carbon sinks that have long been overlooked. Afforestation rates should be significantly accelerated but not at the expense of our valuable wetlands, which represent our major national Carbon sink (therefore their conservation is an urgent matter). The Government should motivate farmers to implement forestry projects on their land. Agricultural income and sustainable production are not conflicting interests and that should be made clear if we want to consider the potential of decreased emissions.

The conservation of our natural landscape is not only of environmental importance but of economic value as well. Hikers and naturalists come to Ireland from all over the world in order to visit the Burren, to walk around the peatlands and watch our wildlife thriving. If all land is converted to agricultural land, the tourism business outside Dublin will be at risk, when there are no natural sites left.