



Environmental Pillar  
Working for a sustainable future



**DEBUNKING THE  
MYTHS AROUND  
IRISH AGRICULTURE**





# Introduction



This document, compiled by members of the Environmental Pillar and Stop Climate Chaos, draws on extensive policy and scientific evidence to challenge government and industry claims regarding the sustainability of Irish agriculture, in terms of its efficiency, its contribution to global food security, and its adequacy in climate mitigation. The document also highlights inadequacies in the Irish Government's approach to LULUCF (Land use, land use change and forestry), and challenges the argument that afforestation presents a viable option to offset emissions from agriculture.

## OBJECTIVES OF THIS DOCUMENT:

1. Rebut the often-misleading array of claims made in relation to the supposed climate, social and ecological sustainability of the Irish agri-food sector.
2. Challenge the argument that afforestation presents a viable option to offset emissions from agriculture.

The document aims to better inform discussions across civil society, media and government, and at EU policy level, regarding Ireland's climate, energy, and wider environmental responsibilities.

**Ireland's agricultural vision:** In 2010, the Department of Agriculture, Food and the Marine launched *Food Harvest 2020*, a roadmap setting out plans for the expansion of the agri-food sector in Ireland. This document was followed by *Food Wise 2025*, which seeks to build on *Food Harvest 2020* by establishing the "key actions required to ensure that the agri-food sector... maximises its contribution to overall economic growth, job creation and environmental sustainability over the coming decades".<sup>1</sup> Although compiled by industry and lobby representatives, both documents have become the official policy vision for Ireland's Department of Agriculture, Food and the Marine.

These documents, and their proposed vision, are accompanied and sustained by a Bord Bia (the Irish Food Board) marketing campaign and programme entitled *Origin Green*, which seeks to brand, nationally and internationally, Irish agri-food products as being produced in an environmentally and socially sustainable manner.

Due to the (social and economic) prominence of agriculture in Ireland, and the predominantly grass-based nature of Irish agricultural production, the Irish government, supported by industry and lobby groups, argue that Ireland should receive

*special treatment* with respect to the allocation of climate and energy targets for 2030 within the EU. This argument is accompanied by sustained rhetoric (often based on scientific inaccuracy) within the political and public arena regarding the ecological sustainability of Irish agriculture, the supposed role of Irish agriculture in contributing to global food security, and the role of so-called *climate-smart* agriculture in climate mitigation. The argument is made that if Ireland were to reduce or limit intensification of Irish agricultural production, it will be picked up elsewhere, where it may be more environmentally damaging.

**The climate and environmental costs:** Although the agri-food sector contributes to the economic viability of Irish rural life, and is cited as being one of the most important indigenous manufacturing sectors in Ireland, the sector, particularly in beef and dairy, contributes significantly to Ireland's greenhouse gas emissions profile, as well as affecting the conservation status of aquatic and terrestrial ecosystems on the island.



Ireland's focus on large-scale animal agriculture, particularly in beef and dairy, is unsustainable, for a number of reasons. Firstly, ruminant (cattle and sheep)-derived food is an extremely climate, calorie and fertiliser intensive way of producing protein at scale. The agriculture sector in Ireland is propped up by large economic subsidies, and indeed, if climate change, biodiversity loss, and other pollution costs were included in the true cost of beef, dairy, and sheep-meat, much of Ireland's agri-food sector would lose its economic viability.

Currently, agriculture is set to increase to 47 per cent of our non-Emissions Trading Sector emissions by 2020. This presents significant challenges for Ireland's responsibilities towards achieving its climate and energy targets, as well as its obligations under EU environmental directives and national and international strategies for biodiversity.

Furthermore, to balance, or off-set emissions from agriculture, the expansion of commercial forestry is being proposed as a means of carbon sequestration, despite the fact that this cannot result in permanent carbon dioxide reduction for climate mitigation. Further expansion would also incentivise the expansion of Ireland's unsustainable forestry model, one of the leading pressures on some of Ireland's most threatened species and habitats. Carbon sequestration in monoculture forestry cannot be used as a substitute for the substantial and sustained reductions required in livestock emissions.

Simultaneously industrial strip-mining of peatlands continues to extract large amounts of carbon-rich peat for burning and horticulture, causing emissions far greater than any sequestration in forestry. These peatlands are of high conservation importance and their unsustainable utilisation results in a deterioration of water and air quality.

Ireland should be charting a different course for agriculture. This should involve supporting farmers to transition away from intense ruminant production to more sustainable agriculture, recognising and working with Ireland's unique cultural and ecological heritage to support High Nature Value farming, and promoting healthier and less ecologically-damaging diets for the general population.

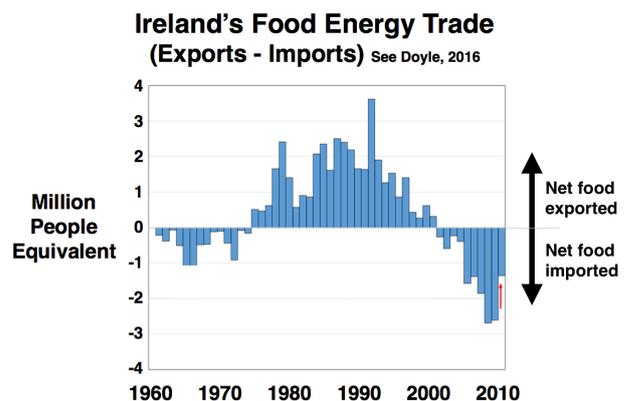
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# 1. Challenging the claims of Irish Agriculture's sustainability

## ***Ireland's agriculture is NOT contributing to global food security***

- Ireland is not helping to 'feed the world'. In net calorie terms Ireland is importing food rather than exporting it, enough to feed over a million people. Feeding grain to cattle is taking calories away from global food security, not contributing to it.<sup>2</sup>
- Contrary to the implications of Irish agri-food and Bord Bia publicity, food security is not simply a matter of food production and exports, it also has to take note of food and land impacts due to feed use, and climate impacts due to emissions from livestock and fertiliser-use. Above all food security is determined by complex issues of access to food for the poor. Ireland's major food exports are products like beef and infant formula, neither of which feed the poor and hungry of the world.<sup>3</sup>
- Efforts to address global food security should focus on the real issue of supporting the majority of the world's farmers, who are small scale producers engaged in subsistence agriculture, who for example produce 70 per cent of Africa's food supply. These farmers can double their food production within ten years by using genuinely environmentally friendly and socially just agro-ecological approaches.
- Climate change has significant implications for global security, particularly to agricultural production in developing countries. By failing to curb emissions from the agri-food sector in Ireland, the Irish government is in fact contributing to climate injustice by amplifying the risks to global food security.
- Compared to plant-based foods, animal foods are extremely inefficient in producing protein. Per calorie, or per kilogram of greenhouse gases produced, animal protein is far less efficient than plant-based protein.<sup>4</sup>
- Significantly more plant-based food calories and protein can be grown on far less land than that which is devoted to beef, dairy and sheep production.<sup>5 6</sup>
- For rich, developed nations like Ireland and those in the EU, sustainable, 'climate smart agriculture' should mean reducing the production and consumption of meat and dairy as well as supporting self-sufficiency in the developing world. Instead the term is being used as a diversionary cover for the unsustainable intensification of livestock production.

**FIGURE 1**



**The health and well being of farmers and consumers need to be supported**

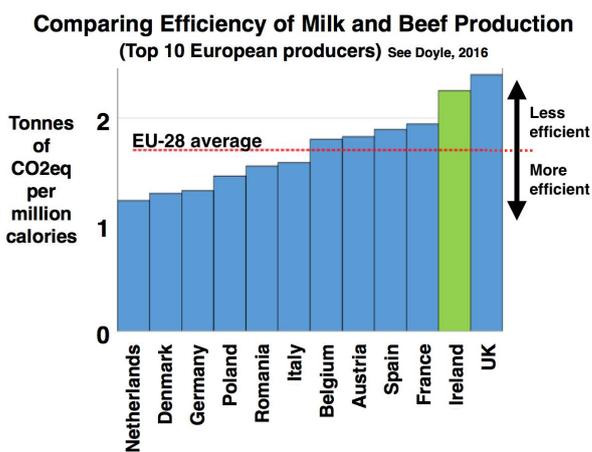
- There is now abundant scientific evidence to suggest that beef production, and the related overconsumption of food, particularly in wealthy nations, are highly unsustainable given global food requirements and the requirements now established by the Paris Agreement on achieving a low carbon transition.<sup>7</sup> Knowing this, and as some food processors are already realising,<sup>8</sup> European governments need to ensure that the public are supported in making a rapid transition away from producing and consuming ruminant-derived produce, especially beef.<sup>9</sup>
- In 2016, Irish dairy farmers experienced huge financial losses as a result of market volatility in milk prices, underpinned by over-production and an over-surplus of produce on international markets. Over-production has resulted in the return of EU storage intervention schemes (so-called “butter mountains” and “milk lakes”) and low prices for farm produce, which severely call into question the contribution of Irish agri-produce to global food security. Dietary change away from foods like beef needs to be a major part of government and industry policy.
- Intensive farming can undermine on-farm animal welfare standards,<sup>10,11,12</sup> subsequently reducing the potential for compliance with Ireland’s Animal Health and Welfare Act 2013, while potentially eroding consumer trust in animal production systems.
- Increased storm-activity and flooding as a result of climate change may make low-lying parts of Ireland unsuitable for certain agricultural production. These factors, in addition to unsustainable land management, will negatively impact the farming viability of some areas.

**Ireland’s ruminant-dominated agriculture produces climate inefficient food**

- Bovines and sheep are inherently climate inefficient; their production yields large amounts of methane and nitrous oxide.<sup>13</sup> Cattle and sheep based production systems require large inputs of land, grain, water, and/or fertiliser to increase yield.
- Ireland is less efficient than the European average in greenhouse gases per calorie of bovine food production.<sup>14</sup> Trade rules, or carbon taxes, penalising greenhouse gas intensive foods could limit both exports and imports of beef and dairy, thereby rewarding ‘efficient producers’.<sup>15</sup>

- Despite claims regarding the efficiency of Irish agriculture, and concerns about carbon leakage (i.e., production moving elsewhere); there is no support from industry members for a carbon tax on beef and dairy products. Taxes on beef and dairy produce are likely to be effective and publicly supported if the true ecological damages due to livestock agriculture were understood by the public.<sup>16</sup>

**FIGURE 2**



- Methane produced per head of cattle has increased in Ireland since 1990.<sup>17</sup> Contrary to assertions from Teagasc and the Irish Government, improving ‘efficiency’ is not climate mitigation unless total agricultural emissions fall. Intensive beef and dairy cattle are already at near maximum efficiency in Ireland. Extensive beef on pasture though is very climate inefficient.
- Reducing methane and nitrous oxide has immediate effects in reducing near-term global warming while preventing the impacts of dangerous climate change on vulnerable populations. Limiting future emissions of carbon dioxide from fossil fuel burning is the most important, and necessary goal for climate policy; yet this needs to be accompanied with efforts to reduce methane and nitrous oxide emissions from agriculture.

**Irish agriculture contributes to significant water pollution**

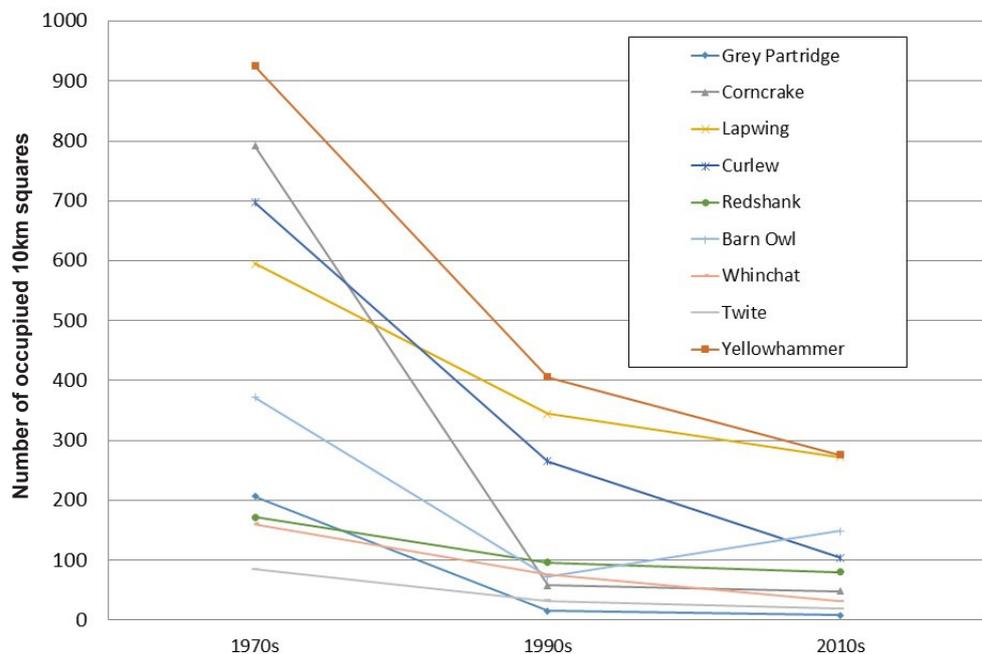
- Eutrophication of rivers and lakes due to phosphorous losses from agriculture continues to be the most critical impact of Irish agriculture on water quality. More than 70 per cent of phosphates reaching inland waters emanates from agricultural sources. Due to pollution impacts, the percentage number of high status rivers has almost halved between 1987 to 2012.
- According to the EPA's Water Quality in Ireland Report 2010-2012, 47 per cent of rivers, 58 per cent of lakes and 55 per cent of transitional water were of bad status for the period 2010-2012. The most important suspected causes of pollution in rivers is agriculture, accounting for 53 per cent of cases. The most widespread water quality problem in Ireland continues to be elevated nutrient concentrations. The most important suspected source of pollution is agriculture. It has been estimated, that in 2012, the relative contribution of nitrogen and phosphorus to surface waters were mainly from agriculture (88 per cent of nitrogen and 49 per cent of phosphorus).<sup>18</sup>

- The percentage number of high status rivers in Ireland has almost halved between 1987 and 2012.<sup>19</sup> Identified pressures include land-use changes associated with agriculture, such as field drainage and fertilisation, animal access to waters, and sheep dip pesticides.<sup>20</sup> Significantly, the national network of high status water bodies are clustered, and the evidence is clear that, on average, river sites with high quality water are not associated with intensive agriculture in the surrounding area.<sup>21</sup> The ongoing intensification of agriculture in Ireland is the greatest threat to Ireland achieving compliance with the Water Framework Directive obligations of achieving good status or preventing the loss of high status waters.<sup>22</sup>

**Intensive agriculture contributes negatively to biodiversity in Ireland**

- While Ireland has been farmed for millennia, farming practices co-existed alongside healthy ecosystems and were often instrumental in the maintenance of semi-natural habitats. Since the 1960s, we have drastically changed the way we farm. Across Europe, declines in farmland birds have been recorded, caused primarily

**FIGURE 3**  
Range of Red-Listed  
Lowland farmland  
bird species<sup>23</sup>



by agricultural intensification, through *inter alia* increased use of pesticides and fertilisers, increased mechanisation drainage and re-seeding of natural and semi natural grasslands, and clearance of non-cropped farmland habitats. This agricultural intensification has been encouraged by the Common Agricultural Policy (CAP). Declining farmland bird populations are indicative of wider impacts on biodiversity. Farmland bird declines reflect losses in habitat extent and quality and often equate to losses in ecosystems services which are an essential asset to society.

- At the other end of the spectrum, land abandonment threatens some of Ireland’s semi natural grasslands.
- The loss of hedgerow extent and quality has driven complex ecological changes which result in declines in range and population of many farmland birds.
- Declines in many farmland bird species<sup>24 25</sup> and habitats are ongoing<sup>26</sup> and are of significant concern in Ireland. Intensive agriculture has been one of the most serious negative impacts on biodiversity in Ireland<sup>27</sup> and further intensification plans under Food Wise 2025 is a very significant threat.
- Many breeding waders, including Curlew (now on the IUCN Red List as a species threatened with global extinction), Lapwing, Redshank and Snipe are largely dependent upon farmed grassland habitats. However, Curlew, along with other breeding waders, have almost disappeared from the Irish countryside (**See Figure 4**). The long-term breeding distribution of Curlew has declined by 89 per cent.<sup>28</sup> Ireland still had good population of Curlew in 1990, estimated at 5,000 breeding pairs. We may now have less than 200 pairs left.<sup>29</sup> Whilst similar trends have been observed elsewhere, the scale and depth of these declines is such that we face possible extinction of breeding Curlew in Ireland within the next thirty years. Their decline has been linked to various effects of grassland intensification, including drainage, increased use of fertilisers, re-seeding and increased stocking rates, though many other factors (peat extraction, afforestation, wind development) also play a part.

- The breeding wader declines are largely attributed to land use changes, in particular those associated with agricultural improvement, including:
  - widespread loss of wetlands; <600,000 acres of agricultural land drained between 1947 and 1997;
  - more intensive grassland management; for example, fertiliser use increased by 400 per cent in the second half of the last century;
  - loss of marginal upland habitat through afforestation: for example, > 60 per cent increase in the area of forestry between 1980 and 2000.

**FIGURE 4**  
Status of breeding waders in Ireland<sup>30</sup>

### Status and declines

Species	Conservation status	% Change	
		1970-2010	1990-2010
Curlew	IUCN /Irl Red	-78	-73
Dunlin	Annex 1 Irl Red	-69	-71
Golden Plover	Annex 1 Irl Red	-50	-42
Redshank	Irl Red, SPEC 2	-55	-47
Lapwing	Irl Red, SPEC 2	-53	-33
Snipe	Irl Amb, SPEC 3	-34	-8

## 2. Challenging the Use of Afforestation for Carbon Sequestration

### ***Using land use sinks to offset agricultural emissions is NOT scientifically justifiable***

- Government and industry claim that the high level, and projected increase, of emissions from livestock can be off-set by an increase in afforestation. This argument is scientifically flawed because the off-set available is only a small fraction of potential fossil fuel emissions.<sup>31</sup> Also, as detailed by the Intergovernmental Panel on Climate Change,<sup>32</sup> such land sequestration is impermanent (relative to the thousands of years of mitigation required), highly uncertain, and subject to carbon cycle rebound effects that seriously reduce their value. Widespread afforestation also presents significant threats to Ireland's biodiversity, where planted forest replaces more diverse habitats.
- Ireland has undergone considerable afforestation with non-native conifers over the course of the 20th century. Forest management for bioenergy and wood has stored far less carbon than would have occurred without management. Darker conifers absorb more sunlight increasing global warming.<sup>33</sup>
- Irish plans for developing a bioenergy sector from forestry are relying on a critical EU climate accounting error,<sup>34</sup> which incorrectly counts bioenergy from all biomass sources as carbon neutral. In fact, timber harvested from existing forests burned for electricity adds net carbon to the atmosphere.
- Although forestry and soils are regarded by the Irish government as viable land-use options for offsetting agricultural emissions, wetlands and peatlands are not. The failure by government to include peatlands is likely explained by the fact that our peatlands are currently being used unsustainably for the industrial scale extraction of peat for burning and horticultural purposes. This extraction and associated drainage creates large emissions, making

peatlands, which were once a net sink, now a major emission source. Peatlands are still Ireland's largest terrestrial carbon reservoir. Purposely selecting one land-use sink to offset emissions, while continuing to actively destroy a much greater reservoir and a former sink (i.e. Ireland's peatlands), is unjustifiable.

- There is no scientific justification for offsetting emissions against any particular sector or group of sectors against possible but highly doubtful, enhanced carbon sequestration in land-use sinks. Carbon removals should be additional to emission reductions, not replacing them.<sup>35</sup>

### ***Real carbon sequestration in Ireland: the need to preserve our peatlands***

- A contradiction exists whereby the Irish government want to include certain land uses to offset agricultural emissions, namely forestry and soils but they do not want to include wetlands, which are Ireland's greatest terrestrial carbon sink. Ireland's highly degraded peatlands are a source of very large flux emissions. Disturbances in the form of industrial and domestic peat extraction, private afforestation, overgrazing, wind farms and recreational activities are having major negative impacts on the hydrology, ecology and sequestration capacity of Ireland's peatlands.
- Peatlands cover less than 3 per cent of the global land surface but store more carbon than is contained in the vegetation of the world's forests.<sup>36</sup> The Republic of Ireland is third only to Finland and Canada in proportional area of peatland cover with peat soils covering 20 per cent of the country.<sup>37</sup> In their healthy state, bogs will not only store carbon but they will continue to absorb CO<sub>2</sub> as they grow.<sup>38</sup> In Ireland however,





Raised Bog being drained for peat extraction.  
Credit: Fintan Kelly

we have a poor record of managing our bogs and, it is estimated that at the national level, emissions from Irish peatlands and related activities (e.g. combustion, horticulture) are around 11.01 Mt CO<sub>2</sub> yr<sup>-1</sup> to the atmosphere.<sup>39</sup> In comparison annual C sequestration rates for Irish forests are equivalent to 1.56 to 2.39 Mt CO<sub>2</sub> yr<sup>-1</sup> for the first commitment period 2008-2012.<sup>40</sup>

- Neither Ireland nor the EU can have a credible approach to LULUCF unless peat and soil carbon sink issues are addressed. If properly acknowledged and managed, sequestered carbon could yield important income in terms of agri-climate environmental measures under the Rural Development Plan Regulations. In the UK, the recommended approach to sustainable soil carbon sequestration is to include the management and protection of carbon stocks in existing highly organic soils such as those found in the uplands, peatlands, grasslands and native forests.<sup>41</sup> Such measures are complimentary to obligations under the Birds Directive and commitments under the National Peatland Strategy<sup>42</sup> and EU Biodiversity Strategy.

#### **Afforestation impacts negatively on habitats and species**

- Irish forestry is dominated by intensively managed non-native conifer plantations. These monoculture blocks of conifers account for 72.8 per cent of the national forest estate, of this 52.4 per cent is made up of just one species, sitka spruce (*Picea sitchensis*).<sup>43</sup> These plantations support low levels of biodiversity.

The environmental impact of Irish forestry is further exacerbated by its intensive management. Common practices such as drainage during ground preparation, the use of pesticides and clear-felling result in many negative impacts on water quality.

- Currently, native tree species comprise less than 25 per cent of the forest stock. Native woodland cover is amongst the lowest in Europe at 2 per cent of total land cover.<sup>44</sup>
- Afforestation has the potential to deliver biodiversity benefits where appropriately sited (such as already intensified landscapes for improved pasture).<sup>45</sup> Currently Ireland has one of the lowest proportions of forest cover in Europe at just below 11 per cent, however afforestation in Ireland is progressing at one of the fastest rates in Europe, with ambitious targets to increase forest cover to 18 per cent by 2046.<sup>46 47</sup> With the recent and rapid land use changes associated with afforestation there is the potential for significant consequences for various elements of the environment such as biodiversity and water which can be both positive and negative and forest policy needs to be equally cognisant of the far-reaching environmental implications alongside the social and economic implications.
- The most recent Habitats Directive Article 17 report on the Status of Protected EU Habitats and Species in Ireland states that the principal pressures identified in Ireland's Habitats Directive report as impacting upon Ireland's biodiversity include unsuitable grazing regimes, natural system modifications (i.e. drainage), pollution and climate change.<sup>48</sup>
- The same Article 17 report ranks afforestation as the second highest threat and pressure to EU protected habitats and species after agriculture. Forestry is also closely linked directly to the eighth, ninth and tenth ranked national high level pressures/threats of pollution, invasive and problematic species and natural system modifications.<sup>49</sup>
- The most recent Article 17 report lists forestry as a high level pressure and threat to almost 40 per cent of EU protected habitats in Ireland. Natural Systems Modification impacts almost 40 per cent of habitats at a high intensity is the second highest impact on

habitats. More than 20 per cent of EU protected species are impacted by afforestation pressure and threats at a high intensity. The associated pressures of pollution, invasive and problematic species and natural system modifications are each negatively impacting upon over 70 per cent of designated habitats under the Habitats Directive as a pressure or threat of high, medium and low intensity.<sup>50</sup>

- The combined impact of agricultural intensification and forestry expansion will do irreparable damage to Irish biodiversity and drive regional and potentially national extinctions of many species.
- Designated habitats whose conservation status is being most negatively impacted upon by forestry are typically peatlands, grasslands, wetlands and coastal habitats. According to the NPWS areas of Annex I habitats which lie outside of designated sites, are particularly vulnerable to afforestation. The adaptation of forestry regulations is required to enhance protection of protected peatland Annex I peatlands and grasslands including priority habitats Blanket Bog Active [7130] and Species-rich *Nardus* upland grassland [6230] and Annex habitats Wet Heath [4010], Dry Heath [4030], Alpine and Sub Alpine Heath [4060], and Rhynchosporion depressions [7150].<sup>51</sup> Annex I grasslands such as *Molinia* Meadows [6410] and other grasslands associated with marginal farm land on nutrient poor soils are particularly vulnerable to afforestation.
- Species dependent on open habitats, including those associated with High Nature Value farming systems, are being negatively impacted by forestry. The ongoing national decline in the Hen Harrier population being the most obvious example.<sup>52</sup> While these impacts are not limited to birds, they are well studied and often most obvious in birds and are therefore indicative of broader ecological deterioration. Numerous studies in Ireland have all concluded that in order to prevent the loss of open habitat bird species of conservation concern afforestation should be focused in areas of improved grassland.<sup>53 54 55</sup>
- Semi-natural grasslands are important habitats for pollinators.<sup>56 57</sup> There is good evidence that semi-natural grassland habitats support the highest diversity of bees in Ireland.<sup>58</sup> However, the status of each of the Annex I grassland habitats surveyed for the most Article 17 report was 'Unfavourable - Bad', emphasising their vulnerability in Ireland and the urgency with which they need to be studied, monitored and offered suitable management support measures to meet the requirements of the Habitats Directive which is to restore these habitats to favourable conservation status. The Land Types for Afforestation<sup>59</sup> document which was recently published identifies a number of habitat types suitable for future afforestation in Ireland. Afforestation of semi-natural grasslands without professional ecological assessment could have a further deleterious impact on pollinators at a time when 1/3 of Ireland's wild bee species are under threat from extinction.<sup>60</sup>
- Forestry is a significant water management issue in many Irish catchments. Forestry is associated with eutrophication, acidification and sedimentation and, due to the distribution of forestry on marginally productive land, it is playing a disproportionate role comparative to its national land cover as a pressure on High Status Sites. This is resulting in the decline of populations of freshwater pearl mussel (*Margaritifera Margaritifera*), the endemic Nore freshwater pearl mussel (*Margaritifera durrovensis*) and the Atlantic salmon (*Salmo salar*).



Monoculture forestry has negative implications for biodiversity.



- The ongoing intensification of agriculture, in combination with the expansion of the forestry sector and the uninterrupted destruction of Ireland's peatlands, will prevent Ireland achieving its obligations to achieve good status under the WFD and to halt the loss of High Status Sites by 2021.

***Afforestation threatens national and internationally important and protected bird species***

- Ireland's 2014 Article 12 reporting under the Birds Directive identified pressures from agriculture and afforestation as significant drivers of decline in the populations of several bird species in Ireland.<sup>61</sup> Several Annex 1 bird species have been, and continue to be, impacted by afforestation and forest management practices. These species include Hen Harrier (*Circus cyaneus*),<sup>62</sup> Merlin (*Falco columbarius*),<sup>63</sup> Golden Plover (*Pluvialis apricaria*),<sup>64</sup> and Dunlin (*Calidris alpina schinzii*).<sup>65</sup> With the exception of Merlin whose population status is unknown, all species referred to above their populations are in decline according to the Article 12 report. For Hen Harrier and Golden Plover, in particular forest planting on open ground is a pressure/threat of high importance with Hen Harrier populations continuing to decline in Ireland and with declines within the SPA network designated for the species.<sup>66</sup> For Dunlin, afforestation is a threat of medium importance, and for Merlin, another species of open ground which can use forest plantations for parts of its lifecycle, sustainable forest management practices during the breeding season are critical.
- Curlew are also severely impacted by afforestation, with new plantations often sited on marginal upland habitats, which are important breeding areas for Curlew in Ireland. Not only does afforestation remove habitat, but breeding Curlew also suffer higher predation rates near to plantations.<sup>67</sup>
- In addition to forestry a wide range of biotic and abiotic factors can impact a species, but all sectors must be accountable for their actions and policies. The Forest Service is currently proposing to remove the current limit of 20 per cent planting on certain upland sites. Further afforestation in habitats important for these species will lead to further declines of these Annex 1 birds in Ireland.

- Birds of Conservation Concern in Ireland (BOCCI) is an assessment of the status of all regularly occurring birds on the island of Ireland. Species are categorised as Red, Amber or Green listed species. Red-listed species include Red Grouse, Barn Owl, Yellowhammer and Whinchat and breeding waders such as Curlew, Lapwing, and Redshank. Several of these species have experienced significant declines in the last 40 years. Habitat loss and degradation (as a result of agricultural intensification, land drainage and afforestation), predation, and human disturbance were identified as the primary threats to breeding populations in Europe.<sup>68</sup> Red and Amber listed birds of conservation concern were not assessed under the Strategic Environmental Assessment for the Forest Programme 2014-2020 programme.
- Research currently in press, using both national abundance data and habitat-specific densities, predicts future declines in Red and Amber listed birds (e.g. Curlew and other breeding waders) in response to increasing afforestation as well as for some common species.<sup>69</sup> Recent research in Ireland shows that the density of bird species of conservation concern<sup>70</sup> increased in response to the planting of intensively managed grassland sites, but decreased in response to afforestation of peatlands and of grasslands under intermediate management intensity.<sup>71</sup> In Ireland the targeted land types for afforestation are those under intermediate management intensity or marginal land and not intensively managed land. The potential for further afforestation of lands which are important to birds of conservation concern in Ireland is high and this could have a further serious impact on their populations.

# Conclusion



This document has aimed to rebut claims made in relation to the supposed climate, social and ecological sustainability of Irish agriculture in its current form, and challenge the argument that afforestation presents a viable option to offset emissions from agriculture. The following conclusions summarises the key points of concern, and offers broad suggestions for alternative policy directions.

The evidence clearly shows that in its current form, Irish agriculture is inefficient, contributing significantly to Ireland's emissions profile and to wider climate injustice. Despite claims to the contrary, it does not contribute to global food security, as Irish exports are primarily destined for European and emerging middle-class markets, and not regions where food insecurity is most prevalent.

As a result of the eutrophication of rivers and lakes, intensive agriculture is the greatest threat to water quality, with implications for Ireland's responsibilities under the Water Framework Directive. Intensive agriculture also creates significant pressures and threats to Ireland's biodiversity, with forestry presenting the second conservation concern after agriculture. Indeed, as highlighted in this document, many of our terrestrial and aquatic ecosystems are already under significant pressure.

Experiences of financial loss among farmers, arising from market volatility calls into question the economic viability of the current model of production. Farmers should be supported by national and EU policy to maximise calorie and protein production while minimising impacts to climate and the environment in Ireland and elsewhere. By pricing food pollution impacts, consumers would pay for pollution and reward efficiency by providing revenues to fund a farming transition to sustainable food production. Such regulation and pricing is stated in Irish and European research on agricultural efficiency, as necessary to drive and recognise it, yet agricultural policy fails to price food pollution and use revenues to drive a transition to low-emissions food.

Increased afforestation is being presented as a means of offsetting the real and projected increase in emissions from an expanding agricultural sector, while carbon sequestration through wetlands is being ignored. For reasons outlined in the document, carbon sequestration in monoculture forestry cannot be used as a substitute for the substantial and sustained reductions required in livestock emissions. Afforestation presents significant threats and pressures on Ireland's biodiversity, in particular, certain habitats, birds and pollinators, the implications of which were also outlined in this document.

Selectively choosing afforestation yet continuing the state-sponsored, industrial strip-mining of Ireland's carbon-rich peatlands fails as a carbon sequestration strategy. Halting all peat extraction by 2020, re-wetting and restoring mined peatland should be a major priority for Irish land use policy.

Climate mitigation efforts must seek to reduce total emissions output, achievable only through a substantial reduction in total cattle numbers and the preservation and restoration of peatland. Mitigation measures to reduce national emissions from peatlands could include: (1) a stronger enforcement approach to protect and enhance the C store in natural peatlands, (2) the rewetting / restoration of degraded peatlands to reduce emissions and create suitable conditions for C sequestration and (3) the use of alternative non-peat sources for energy production and horticulture use.

All afforestation should be sited and managed so that it is not in conflict with our legal environmental obligations. Particular attention should be paid to the need to meet minimum environmental requirements ensuring no inappropriate afforestation of sensitive habitats including areas where High Nature Value farming takes place.



In addition, increasing native woodland cover would create a more stable carbon sink with greater environmental integrity than commercial forestry. Clearly, forest policy needs to be cognisant of the far-reaching environmental implications of afforestation, alongside the social and economic implications.

Due to the reasons highlighted in this document, the state-sponsored promotion of intensive agricultural expansion (and the related expansion of monoculture forestry) means that Ireland is off-course in meeting its climate targets, and failing to meet its obligations under the Water Framework Directive, the Habitats Directive, and the Birds Directive. It also significantly weakens Ireland's broader commitments to global initiatives such as the Sustainable Development Goals (which include the goals of promoting sustainable agriculture, taking urgent action to combat climate change, conserving and restoring terrestrial ecosystems, managing natural resources sustainably, and preventing biodiversity loss and land degradation).

To conclude, the evidence presented in this document clearly emphasises the need for Irish agriculture to chart a different course away from the current policy position that is so heavily focused on the promotion of agricultural intensification and expansion. Considering the climate, ecological and social costs related to the current position, a new vision of national and EU policy is urgently required. This new vision will require strategies and initiatives that support a move away from intensive livestock production to more sustainable and diverse modes of livelihood generation, including a greater emphasis on the potential of non-ruminant and plant-based food production. Acknowledging the unique cultural and ecological heritage of Ireland may provide some guidance on promoting alternative means of agricultural production - for example, supporting approaches such as High Nature Value farming, can provide a means of supporting livelihoods, and conserving biodiversity through low-intensity farming. Such an approach would add real depth to the marketing of sustainably produced food produce.

In sum, the direction of Irish agriculture and nature policy must be re-aligned toward reducing emissions, restoring biodiversity and water quality and supporting farmers to support farmland biodiversity. To map a path to real sustainability, the Origin Green programme could then reflect this re-alignment demonstrating Irish leadership in sustainability.

**The authors - Stop Climate Chaos and the Environmental Pillar - are available to assist policy makers and industry members identify measures and initiatives to help make the transition to a more sustainable future.**

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**IN SUM, THE DIRECTION OF IRISH AGRICULTURE AND NATURE POLICY MUST BE RE-ALIGNED TOWARD REDUCING EMISSIONS, RESTORING BIODIVERSITY AND WATER QUALITY AND SUPPORTING FARMERS TO SUPPORT FARMLAND BIODIVERSITY.**

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# Notes



## **This analysis was compiled by members of the Environmental Pillar and the Stop Climate Chaos coalition.**

Stop Climate Chaos (SCC) is a coalition of 31 civil society organisations campaigning to ensure Ireland plays its part in preventing runaway climate change. It was launched in 2007 and is the largest network of organisations campaigning for action on climate change in Ireland. Its membership includes development, environmental, youth and faith-based organisations.

The Environmental Pillar is made up of 28 national environmental non-governmental organisations (NGOs) who work together to represent the views of the Irish environmental sector. The Environmental Pillar creates and promotes policies that advance sustainable development and acts as an advocacy coalition promoting sustainable solutions in areas such as climate change, biodiversity, tree-cover, resource efficiency, transport, planning and water.



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This submission was developed using the Environmental Pillar processes but is not necessarily the policy of each member group in the Pillar.