Environmental Pillar

Environmental Pillar Submission: Ireland's Fourth National Biodiversity Action Plan 2023-2027

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Environmental Pillar

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Environmental Pillar Submission: Ireland's Fourth National Biodiversity Action Plan 2023-2027

Introduction

This is a submission on behalf of the Environmental Pillar in response to the call for submissions on Ireland's Fourth National Biodiversity Action Plan 2023-2027. The Environmental Pillar is an organisation that works to represent the views of 32 of Ireland's leading environmental NGOs. We work to promote environmental sustainability and the protection of our natural environment. In May 2019, Dáil Eireann declared a climate and biodiversity emergency[1] making Ireland only the second country to do so. Despite this and a multitude of government commitments, targets and timelines we continue to see the health of the environment deteriorate and even once common species edge towards national extinction. While some notable actions have been taken such as the Review of the National Parks and Wildlife Service, we are still awaiting an emergency response commensurate with the scale of the crisis we face. We have yet to see biodiversity loss prioritised or indeed recognised across many government departments, while the leading driver of biodiversity loss remains government policies in sectors such as farming, forestry and fishing. Even 'green' policies linked to climate change mitigation and adaptation have not been designed in a way that takes nature into account.

We know that the drivers of biodiversity loss are deep rooted, resulting from the complex interplay of socio-economic, cultural and environmental factors at both a national and global level. Addressing underlying systemic issues such as overconsumption, governance, globalisation and climate change will not be easy and it won't happen overnight but we must recognise the necessity for change and act accordingly. Effectively addressing biodiversity loss will require addressing unsustainable policies within key sectors and in some cases, it will require root and branch reform. A visionary and enforceable National Biodiversity Action Plans (NBAP) is essential to deliver an all of government and all of society response to biodiversity loss. Key to this will be ensuring that NBAP addresses the failings of past plans and has the ambition to not only deliver on the targets of the EU Biodiversity Strategy and the Draft Nature Restoration Law but that it looks to exceed their ambition. Even the most ambitious actions are only as good as their implementation. To ensure that the NBAP is fully realised much more will need to be done to enhance the transparency and accountability around the implementation of this plan.

Ireland has the ability to be a world leader in biodiversity restoration; we know that when conservationists, farmers and communities are given the tools we need we can turn the tide on biodiversity loss. This has been demonstrated in the evolution of a distinctly Irish approach to Results Based Agri-Environmental Schemes where we have seen Ireland already establish itself as a world leader in this space.

We are providing our input into the draft NBAP in the hope that the views of ourselves and the public will be considered and that the existing commitments within the draft plan can be built upon and strengthened.

[1] Environmental Pillar (2019) Declaration of biodiversity and climate emergency warmly welcomed https://environmentalpillar.ie/2019/05/09/declaration-of-biodiversity-and-climate-emergency-warmly-welcomed/

A planet in crisis

The fourth National Biodiversity Action Plan comes at a critical point in the Earth's history when the scale of the dual biodiversity and climate crisis can no longer be doubted. The accumulated knowledge on the state of life on Earth signals unequivocally that we are living through the earth's sixth mass extinction event, the greatest loss of life since the extinction of the dinosaurs[2]. Current extinction rates are estimated to be between hundreds or thousands of times greater than normal rates that prevailed over the last tens of millions of years[3] [4] and are accelerating[5]. Humanity's impact on nature and the climate since the industrial revolution, has been so profound that some scientists propose that we are living through a new epoch, the Anthropocene[6]; a period defined by humanity's impact on the planet as opposed to geological processes.

The world's population of 7.6 billion people represent only 0.01% of all living things by weight, yet it has been estimated that humanity has already caused the loss of 83% of all wild mammals and half of all plants[7]. The World Wildlife Funds Living Planet Index (LPI) has tracked the abundance of almost 21,000 populations of mammals, birds, fish, reptiles and amphibians around the world over the last two decades. The most recent global LPI shows a 68% decrease in population sizes of mammals, birds, amphibians, reptiles and fish between 1970 and 2016[8].

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in their global assessment of biodiversity and ecosystem services[9] reported that 85% of our planet's land surface is significantly altered, 66% of the ocean area is experiencing increasing cumulative impacts, and over 85% of the area of wetlands has been lost. The average abundance of native species in most major terrestrial biomes has fallen by at least 20%. Only around 25% of land is in a natural state with minimal human intervention.

According to the International Union for Conservation of Nature's (IUCN) Red List of Threatened Species[10], humans have driven at least 680 species of vertebrates, the best studied taxonomic group, to extinction since 1500. The destruction of Nature has led to an average of around 25% of species in assessed animal and plant groups being threatened, with around one million species already facing extinction within the coming decades.

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[2] Ceballos, G., Ehrlich, P. R., & Raven, P. H. (2020). Vertebrates on the brink as indicators of biological annihilation and the sixth mass extinction. Proceedings of the National Academy of Sciences, 117(24), 13596-13602.

[3] Barnosky, A. D., Matzke, N., Tomiya, S., Wogan, G. O., Swartz, B., Quental, T. B., ... & Ferrer, E. A. (2011). Has the Earth's sixth mass extinction already arrived?. Nature, 471(7336), 51-57.

[4] Pimm, S. L., Jenkins, C. N., Abell, R., Brooks, T. M., Gittleman, J. L., Joppa, L. N., ... & Sexton, J. O. (2014). The biodiversity of species and their rates of extinction, distribution, and protection. science, 344(6187), 1246752.

[5] Ceballos, G., Ehrlich, P. R., Barnosky, A. D., García, A., Pringle, R. M., & Palmer, T. M. (2015). Accelerated modern human–induced species losses: Entering the sixth mass extinction. Science advances, 1(5), e1400253.

[6] Folke, C., Polasky, S., Rockström, J., Galaz, V., Westley, F., Lamont, M., ... & Walker, B. H. (2021). Our future in the Anthropocene biosphere. Ambio, 50(4), 834-869.

[7] Bar-On, Y. M., Phillips, R., & Milo, R. (2018). The biomass distribution on Earth. Proceedings of the National Academy of Sciences, 115(25), 6506-6511.

[8] WWF (2020) Living Planet Report 2020 - Bending the curve of biodiversity loss. Almond, R.E.A., Grooten M. and Petersen, T. (Eds). WWF, Gland, Switzerland.
file:///F:/Ag%20&%20Land%20Use/Biodiversity/WWF%202020%20Living%20Planet%20Report.pdf

[9] Settele, E. S. Brondízio E.S., H. T. Ngo, M. Guèze, J. Agard, A. Arneth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razzaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn, Germany. 56 pages. https://zenodo.org/record/3553579#.YwYFGXbMI2w

[10] IUCN. (2020). The IUCN Red List of Threatened Species. Version 2020-2. https://www.iucnredlist.org

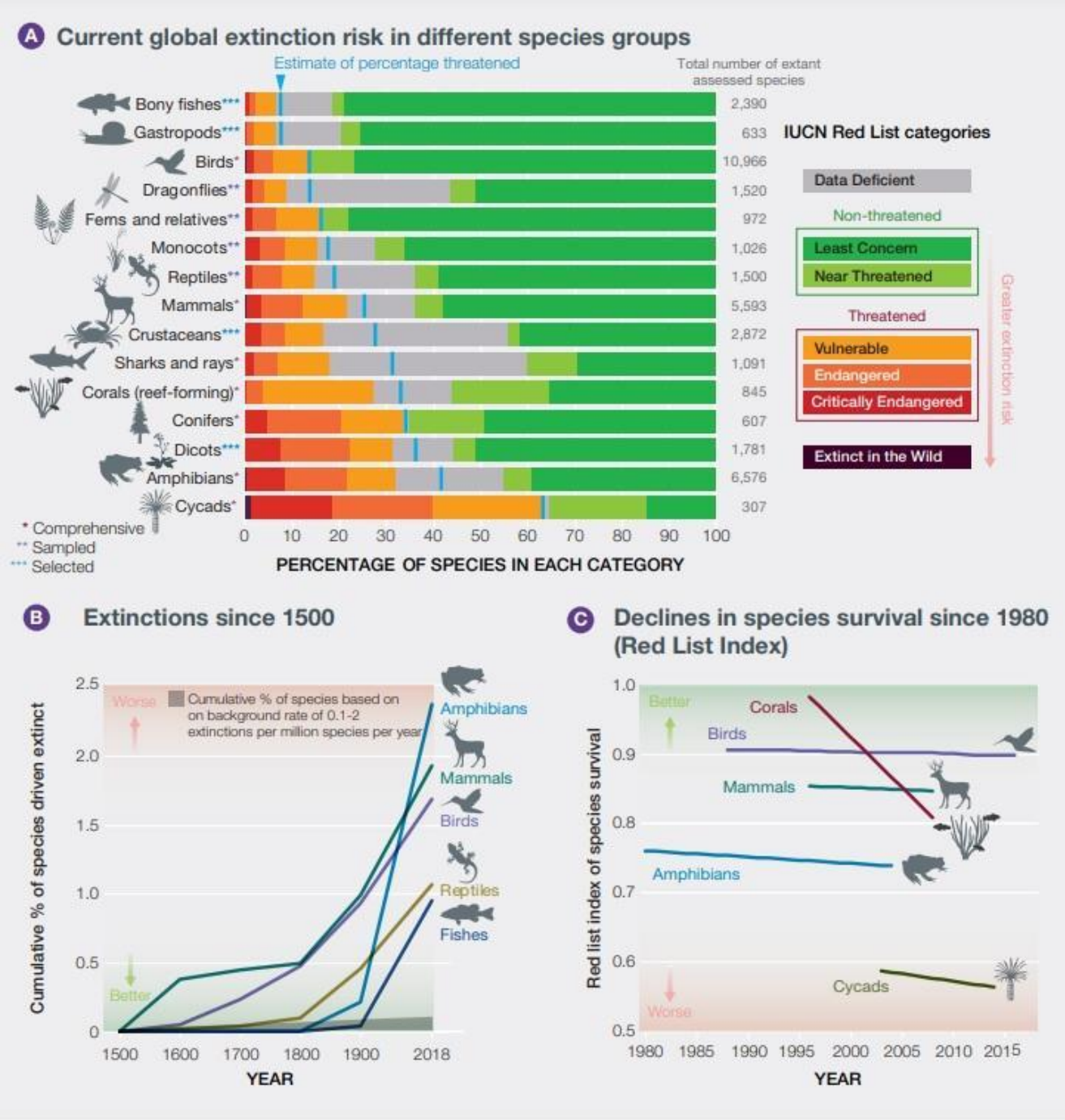

Figure 1. A substantial proportion of assessed species are threatened with extinction and overall trends are deteriorating, with extinction rates increasing sharply in the past century (Source: IPBES, 2019)[9]

Irish Indicators of Biodiversity Loss

In Ireland the most recent report by the National Parks and Wildlife Service (NPWS) on the status of habitats and species protected under the Habitats Directive show that an abysmal 85% of habitats are in unfavourable (i.e. inadequate or bad) status, with 46% of habitats demonstrating ongoing

declining trends. A situation that has remained largely unchanged since Ireland's initial assessment in 2007[11].

The picture for species protected under the Habitats directive is more positive with 72% assessed as stable or improving. However only 57% of species have a favourable conservation status and 15% are in decline, with freshwater species such as freshwater pearl mussel most at risk; with only a few rivers clean enough to support populations that can produce young. Monitoring of bird species assessed under the Birds Directive, indicates that 19% had increased, but 18% of breeding species and 16% of wintering species were in decline[12]. Monitoring of wintering waterbirds by BirdWatch Ireland, have found that numbers have declined by almost 40% since the mid-1990's[13]. Of the 211 bird species covered within the most recent assessment of Birds of Conservation Concern in Ireland, 54 (26%) were placed on the Red list, 79 (37%) on the Amber list and 78 (37%) on the Green list[14]. A fifth of Irish birds are in long-term decline, the corn bunting became extinct here in the 1990s and there is there is grave concern about species such as Curlew, which was once ubiquitous across the Irish countryside but has undergone a population decrease of 96% and a reduction in range of 78% between 1980 and 2018[15].

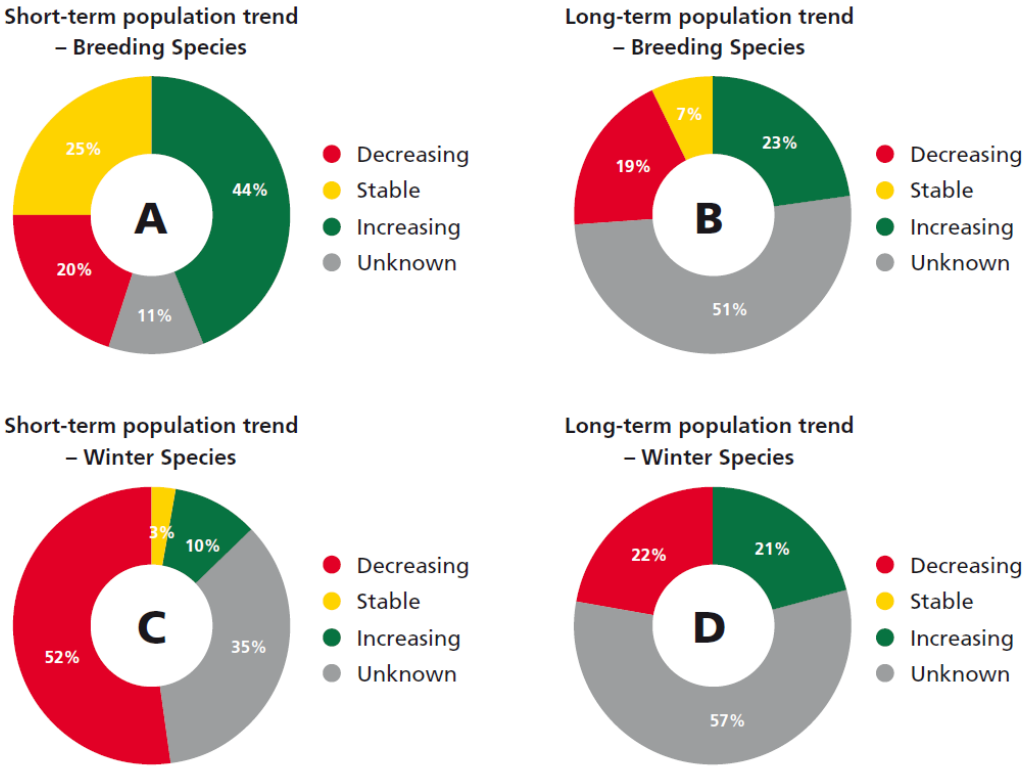

Figure 2. Trends in Ireland's breeding and wintering bird populations, showing short-term (12 year) and long-term (since the early 1980s) population trends, NPWS (2019) Article 12 Data (Source EPA, 2020)

[11] NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol1_Summary_Article17.pdf

[12] NPWS, Ireland's Summary Report for the period 2008-2012 under Article 12 of the Birds Directive. 2015, National Parks and Wildlife Service: Dublin.

[13] BirdWatch Ireland (2019) Ireland's Wintering Waterbirds down by 40% in 20 years https://birdwatchireland.ie/irelands-wintering-waterbirds-down-by-40-in-less-than-20-years/

[14] Gilbert G, Stanbury A and Lewis L (2021), Birds of Conservation Concern in Ireland 2020 –2026. Irish Birds 9: 523—544

[15] O'Donoghue, B., Donaghy, A. and Kelly, S.B.A., (2019). National survey of breeding Eurasian curlew, Numenius arquata in the Republic of Ireland, 2015-2017. Wader Study 126(1).

According to the IUCN threatened 'red' species list, a total of 24% of assessed Irish species are classed as threatened (14.8% critically endangered, endangered or vulnerable and 9.2% near threatened), while another 2.7% are classed as regionally extinct. The IUCN assessment suggests that the species groups of most concern, are non-marine molluscs (34%), bees (43%), Amphibia, Reptiles and Freshwater Fish (40%), Butterflies (34%) and Mosses, Liverworts, Hornworts (30%)[16]. One-third of Irish bee species are threatened (30 of 100 species), with 10% critically endangered, 6% critically endangered and 3% already regionally extinct[17].

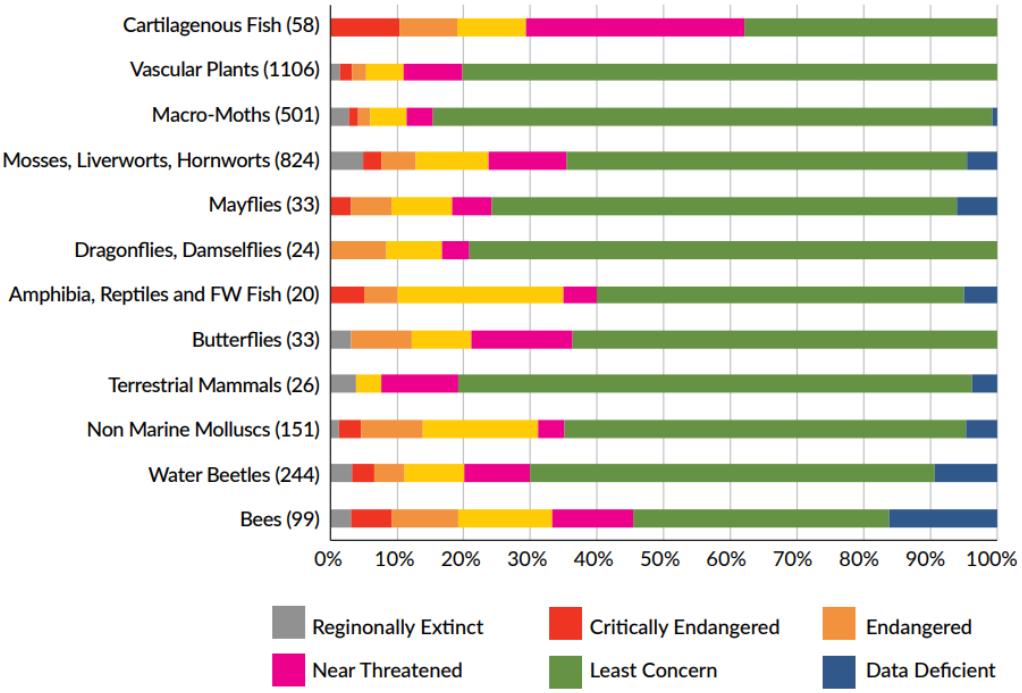

Figure 3. Proportion of total species assessed under various IUCN Red List threat categories (DCHG, 2019)[16]

What are the main drivers of biodiversity loss

Global drivers of biodiversity loss

In the last 50 years humanity's relationship with nature has been transformed by unprecedented economic growth, increasing human population and increased life expectancy. The human population has doubled, the global economy has expanded four-fold and over 1 billion people have been elevated out of extreme poverty[18] [19]. Globalisation has been accompanied by an explosion in production and consumption[20]. This has been accompanied by dramatic shifts in how we live such urbanisation[21] and how we exploit the land and sea[8] [9]. The improvements in human welfare and the

[16] DCHG (Department of Culture, Heritage and the Gaeltacht), 2019b. Ireland 6th National Report to the Convention on Biological Diversity. Government of Ireland, Dublin.
[17] Fitzpatrick, Ú., Murray, T. E., Byrne, A. W., Paxton, R. J., & Brown, M. J. F. (2006). Regional red list of Irish bees. National Parks and Wildlife Service (Ireland) and Environment and Heritage Service (N. Ireland).
[18] World Bank, 2018, "Poverty and shared prosperity 2018: Piecing together the poverty puzzle".
[19] IPBES, 2019, "Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services".
[20] ibid
[21] UN. (2014). Population facts – Our urbanizing world. No. 2014/3. United Nations Department of Economic and Social Affairs website. United Nations (UN).

growth in the global middle class have alleviated much poverty and suffering[22] however the increasing demand on the planets resources has resulted in humanity's Ecological Footprint increasing to the point where we are now demanding the equivalent of 1.7 planets worth of natural resources[23] [24]. Countries within North America and Europe which have the most unsustainable consumption patterns have an Ecological Footprint per person that is much higher than other world regions[25]; this includes Ireland where our consumption patterns will have to change significantly if we are to respect planetary limits[26]. If we continue to push nature beyond the ability of natural systems to cope, which is increasing the risk of exceeding ecological tipping points with large-scale, irreversible environmental and societal impacts.[27] [28]

According to WWF's Living Planet Database the primary drivers of global biodiversity loss are:

1. Changes in land and sea use (including habitat loss and degradation),
2. Species overexploitation,
3. Pollution,
4. Invasive species and disease
5. Climate change.

These findings are broadly supported by the comprehensive assessment of the state of global biodiversity carried out by the IPBES[9] who found that five direct drivers have accounted for more than 90% of nature loss in the past 50 years. As previously discussed these drivers stem from a combination of current production and consumption patterns, population dynamics, trade, technological innovations and governance models.

1. Land- and sea-use change
2. Climate change
3. Natural resource use and exploitation
4. Pollution
5. Invasive alien species

Irish drivers of biodiversity loss

According to the National Parks and Wildlife Service the main pressures / threats to Ireland's protected habitats are agriculture and other land uses such as extraction of resources (e.g. peat mining), forestry, urbanisation, recreation and invasive species (Fig. 4)[11].

Agriculture is by far the greatest threat and pressure impacting on 70% of surveyed habitats (Fig 4). Agriculture further ranked as a threat/pressure of High importance for 50% of habitats. Of the pressures associated with agriculture, overgrazing is by far the biggest issue identified, impacting on just under 40% of habitats (Fig. 5). For context the next biggest pressure is under grazing which is

[22] H. Kharas, 2017, "The unprecedented expansion of the global middle class – an update", The Brookings Institution, https://www.brookings.edu/wp-content/uploads/2017/02/global_20170228_global-middleclass.pdf (link as of 7th Jan 2020).
[23] Global Footprint Network. (2020). Calculating Earth overshoot day 2020: Estimates point to August 22nd. Lin, D., Wambersie, L., Wackernagel, M., and Hanscom, P., editors. Global Footprint Network, Oakland. www.overshootdayorg/2020-calculation> for data see <http://data.footprintnetwork.org.>.
[24] Lin, D., Hanscom, L., Murthy, A., Galli, A., Evans, M., Neill, E., ... & Wackernagel, M. (2018). Ecological footprint accounting for countries: updates and results of the National Footprint Accounts, 2012–2018. Resources, 7(3), 58.
[25] Lin, D., Hanscom, L., Murthy, A., Galli, A., Evans, M., Neill, E., ... & Wackernagel, M. (2018). Ecological footprint accounting for countries: updates and results of the National Footprint Accounts, 2012–2018. Resources, 7(3), 58.
[26] Goldrick-Kelly, P. (2021). Does the Republic of Ireland live within planetary boundaries?
[27] WWF, 2018, "Living planet report – 2018: Aiming higher", https://www.worldwildlife.org/pages/living-planetreport-2018.
[28] T.M. Lenton, and H.T.P. Williams, 2013, "On the origin of planetary-scale tipping points, Trends in Ecology and Evolution, 28, 380–382, doi:10.1016/j.tree.2013.06.001 (link as of 7th Jan 2020.)

impacting on just over 15% of habitats, demonstrating the complex role that policy and market driven changes in agricultural practices have had on biodiversity in recent decades. Many threatened habitats and species are dependent on farming for their survival and therefore in many instances it's a case of supporting the right kinds of farming and space for nature on farms rather than no farming.

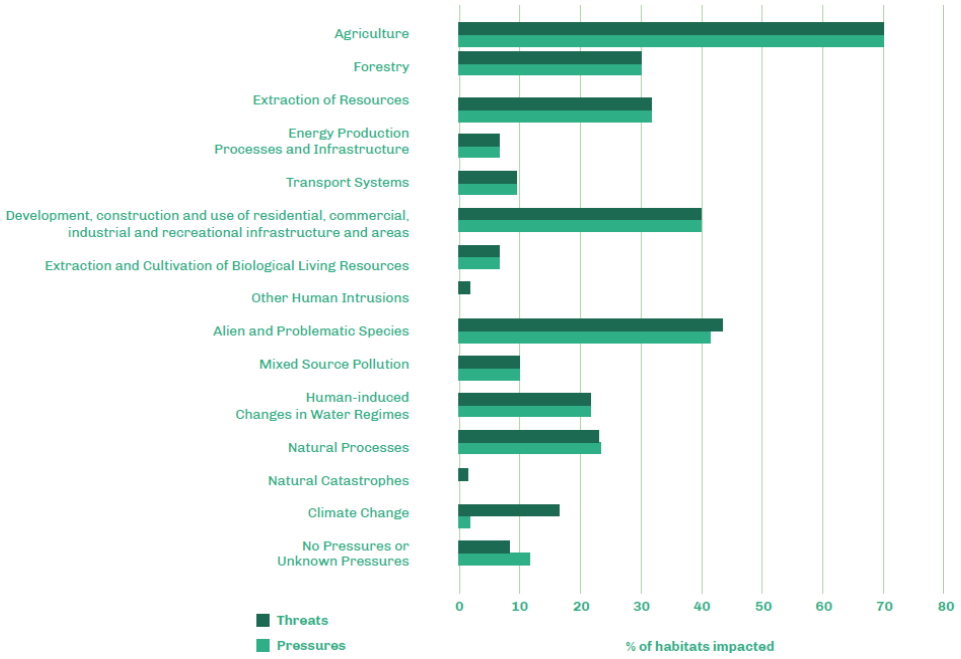

Figure 4. Percentage of habitats impacted by pressure/threat category (combined Medium and High-importance pressures/threats) (Source NPWS, 2019)[11].

Figure 5. Percentage of habitats impacted by agricultural pressures (Medium and High-importance pressures combined) have been adapted from the standardised list (Source NPWS, 2019)[11].

The important role that sustainable agricultural practices will have to play in restoring Irish biodiversity is further highlighted by the dominance of agriculture as a High Importance pressure / threat category for species (Fig 6) protected under the Habitats Directive.

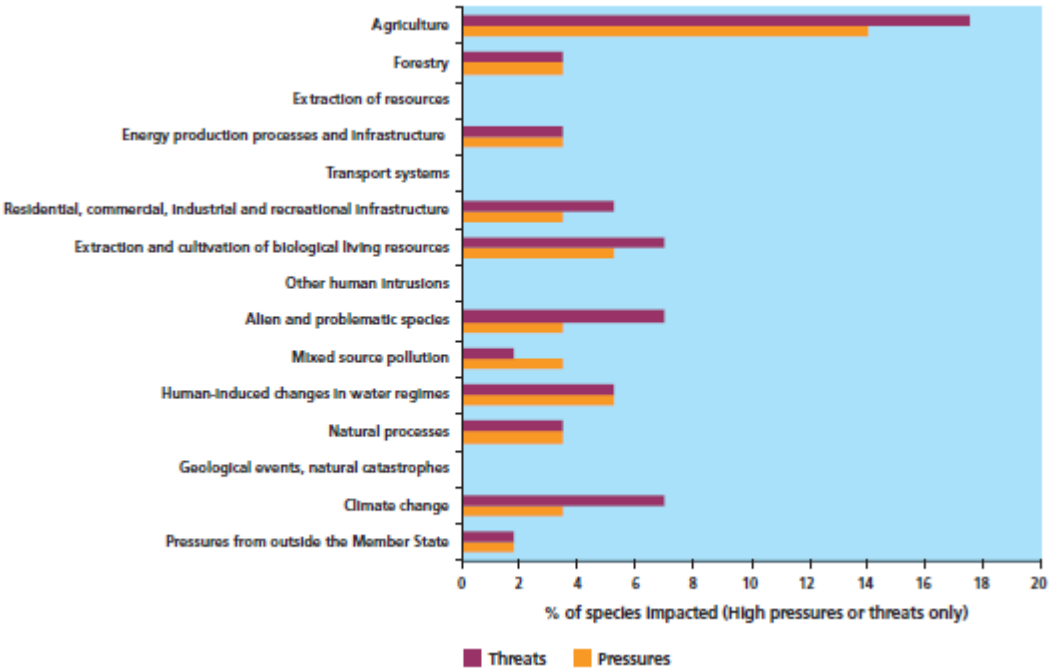

Figure 6. Percentage of species impacted by High Importance pressure / threat category

The next most frequent category of pressure on habitats to be recorded by the NPWS (Fig. 4) is Alien and problematic species (listed as a pressure in 42% of habitats), closely followed by Development, construction and use of residential, commercial, industrial and recreational infrastructure and areas, a pressure on 41% of habitats (Fig. 4). Both pressures are reflective of the role that globalisation, trade and economic development are having on our native habitats. The impact of recreation also illustrates the increasing demands we are placing on our remaining wild spaces and even recreational activities can negatively impact on habitats if they aren't managed properly.

Turning to Irelands water environment, agriculture is again by far the most significant pressure[29] [30]. Significant agricultural pressures on our water environment include run-off of nutrients and sediment from agricultural land and farmyards and the contamination of surface waters with pesticides. Drainage of agricultural land has also resulted in damage to the physical integrity of streams and rivers (Hydromorphology) and increased the loss of sediment to larger downstream rivers[38]. Agricultural intensification and in particular the abolition of the dairy quota has resulted in a recent marked increase in water pollution from nutrients, particularly in the south and southeast of Ireland[39]. There is an obvious need for continued investment in waste water treatment and improved regulation of forestry and extractive industries. Nature based solutions which use habitats as buffers to prevent run-off from farmland and forestry offer an opportunity to improve both terrestrial and freshwater biodiversity[31].

[29] Environmental Protection Agency (2020) Ireland's Environment An Integrated Assessment 2020.
[30] Environmental Protection Agency (2021) Water Quality in 2020, An Indicators Report.
[31] DAFM (2018) Woodland for Water: Creating new native woodlands to protect and enhance Ireland's waters

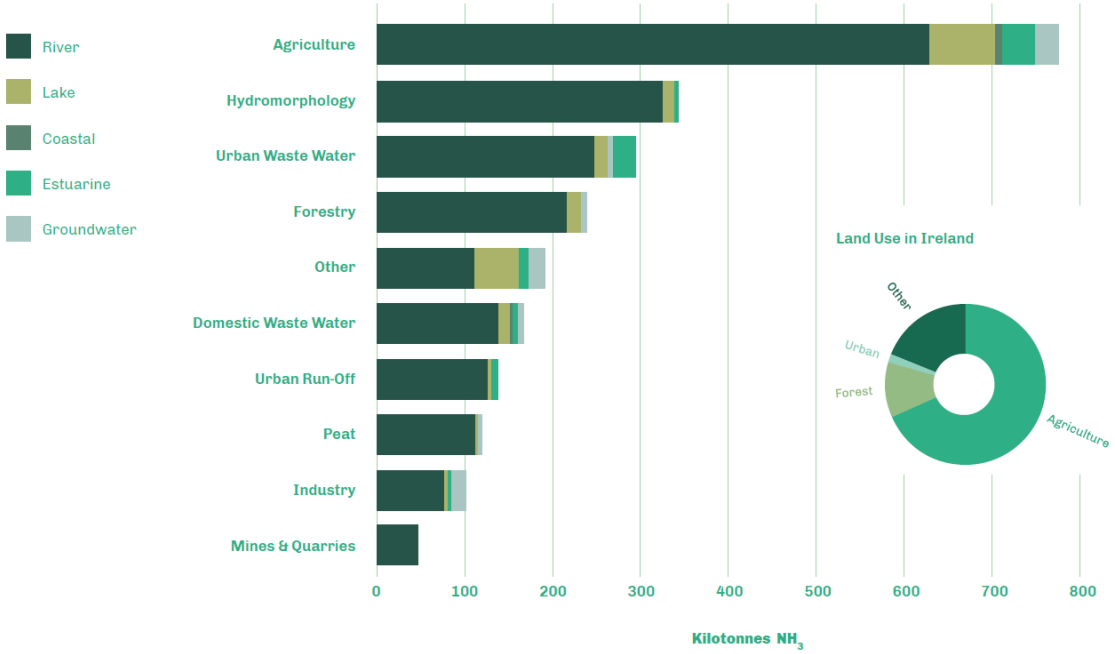

Figure 7. Significant pressures on Ireland's aquatic environment (Source: EPA, 2020)[29]

From a global to a national level, land use change and in particular agricultural intensification has reshaped our environment, leaving little space for nature. Here in Ireland, a productivist model of food production – characterised by intensification, concentration, and specialisation – has come to dominate farming[32]. Changes in agricultural practices such land drainage, reseeding of grasslands and a move to silage and the nationwide reduction in mixed farming, have driven the loss or degradation of habitat and a reduction in the diversity and connectivity of habitats at a landscape level[33]. The decline or loss of farmland bird species such as corncrake, yellowhammer and corn bunting, are indicative of these changes while declines in bees, butterflies and other insects has largely resulted from the effect of the conversion of diverse grassland habitats to monoculture grasslands and the drive on productivity resulting in the loss of hedgerows and scrub[42]. The EU's Common Agricultural Policy (CAP) has supported intensification by subsidising food production over the other services that farmland can provide such as regulation of soil and water quality, carbon sequestration, support for biodiversity and cultural services. Despite numerous and on-going reforms, the current CAP policy framework has failed to drive sustainability and environmental protection. Since its establishment in 1962, the CAP has driven the intensification of agriculture and has promoted the simplification and specialisation of agricultural ecosystems. This, in turn, has led to profound biodiversity loss, land degradation, including over-grazing, and climate change. Limited funding goes to support climate-friendly and High Nature Value Farming.

Ireland's forestry sector is also highly intensive with plantation forests dominating total forest cover in Ireland. 60% of the national forest estate is made up of non-native conifers, with 44.6% of forestry being made up of just one species, Sitka spruce (*Picea sitchensis*)[34]. Ireland's unnatural and industrial model of forestry is very unusual in a European context[35]. For example, Ireland has over 85%

[32] Towards a New Agricultural and Food Policy for Ireland Recommendations for Government A Position Paper from the Environmental Pillar, the Stop Climate Chaos Coalition and the Sustainable Water Network https://www.stopclimatechaos.ie/news/2021/04/27/towards-a-new-agricultural-and-food-policy-for-ire/
[33] DCHG 2019. Ireland's 6th National Report to the Convention on Biological Diversity. Department of Culture, Heritage and the Gaeltacht.
[34] DAFM (2022) Forest Statistics Ireland 2022, Department of Agriculture, Food & the Marine, Johnstown Castle Estate Co. Wexford
[35]Forest Europe (2020): State of Europe's Forests 2020.

plantation forest share, one of the highest levels in Europe and the highest share of forest area dominated by introduced tree species (>60%). This is in stark contrast to Europe as a whole where the forest area is dominated by semi-natural forest cover (Fig. 8)[44]. Forestry is reported as having a negative effect on a wide range of species, including fish, molluscs, terrestrial mammals and vascular plants because of the wide sphere of influence of some activities for example through water quality impacts. The habitats which have been most negatively impacted by forestry are peatlands, grasslands, wetlands and coastal habitats[16]. Commercial forestry is also a significant pressure on water quality (Fig. 7) and freshwater biodiversity at a national level and is a critical pressure nationally impacting on ecologically important water bodies[36]. Poor regulation of the sector has resulted in a situation where 450,940 ha of peatlands in Ireland have been inappropriately afforested[37], 60% of which is State owned[38]. These legacy issues include protected sites such as the six Special Protection Areas designated for Hen harrier (a protected bird of prey reliant on open upland and extensive farming habitats), in which forest cover has reached 53%[39]. Forestry has been the main driver of habitat loss within these sites[40] which have seen a 25% breeding population decline between 2005. The population within these protected sites is not self-sustaining[41]. The failure of the State to address these legacy issues or act to protect High Nature Value farmland even within protected areas is a serious ongoing issue and is indicative of the influence industry has over the government policy.

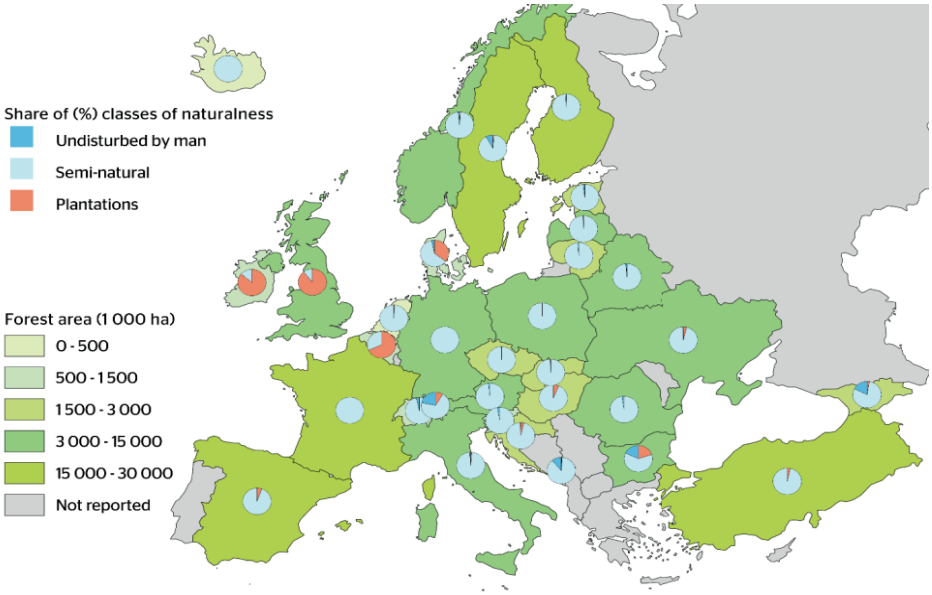

Figure 8. Forest area by classes of naturalness, by country, 2020 (Source: Forest Europe, 2020).

Peat soils cover 20.6% of the national land area and Ireland supports a high proportion of a number of internationally threatened peatland habitat including Active raised bogs, Active Blanket bogs and

[36] Department of Housing, Planning, Community and Local Government (2017) Draft River Basin Management Plan for Ireland (2018-2021), Dublin: Department of Environment, Heritage and Local Government
[37] Duffy, P., Black, K., Fahey, D., Hyde, B., Kehoe, J., Murphy, B., Quirke, B., Ryan, A.M. and Ponzi, J., 2020. Ireland's National Inventory Report 2020. Greenhouse Gas Emissions 1990-2018 Reported to the United Nations Framework Convention on Climate Change. Environmental Protection Agency, Johnstown Castle, Ireland.
[38] NPWS (2015) National Peatlands Strategy
https://www.npws.ie/sites/default/files/publications/pdf/NationalPeatlandsStrategy2015EnglishVers.pdf
[39] Moran, P. & Wilson-Parr, R. (2015) Hen Harrier Special Protection Area (SPA) Habitat Mapping Project 2014. Irish Wildlife Manuals, No. 83. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Ireland.
[40] Ruddock, M., Mee, A., Lusby, J., Nagle, A., O'Neill, S. & O'Toole, L. (2016). The 2015 National Survey of Breeding Hen Harrier in Ireland. Irish Wildlife Manuals, No. 93. National Parks and Wildlife Service
[41] Hen Harrier Project (2021) HEN PROGRAMME Hen Harrier Monitoring 2021
http://www.henharrierproject.ie/HHP_HH_Monitoring_2021.pdf

Wet Heath and Dry Heath[42]. Industrial-scale cutting of peatlands for electricity generation, household fuel and horticulture has decimated our raised bogs, with domestic cutting having a large impact on the remaining fragments of habitat. Ninety-two percent of raised bog is thought to be degraded, while the area of active (peat-forming) raised bog may be less than 4% [43], while only 28% of the original blanket peatland resource is deemed suitable for conservation (natural peatlands)[51]. These figures themselves are several years old and the situation will have deteriorated further in the interim. The loss of our bogs in combination with the drainage of wetlands and wet meadows has contributed to the collapse of once common farmland birds such as Curlew, Lapwing and Redshank.

Overfishing and poorly regulated commercial fishing activities are the main drives of biodiversity loss in the marine environment. Ireland has played a negative role[44] in the EU's failure to end overfishing by 2020 and end illegal discarding of fish at sea by 2019[45]. In Ireland's Marine environment only around 2% of our national maritime area is currently designated and protected as part of the Natura 2000 network[46]. Active protection and conservation management even within protected areas has been extremely weak in Ireland. The Marine Institute have carried out a risk assessment on the effects of fisheries on the qualifying interests of Special Areas of Conservation in Irish coastal waters[47]. They found that destructive forms of commercial fishing such as bottom trawling are ongoing in Marine Protected Areas. They found that bottom trawling can have significant negative impacts on seafloor habitats, especially for habitats not subject to natural disturbance. They found that the scale of the negative impacts varies depending on the frequency of disturbance and the sensitivity of different species to disturbance. The study found that fisheries using bottom trawls or dredges in particular poses a risk to habitats such as maerl, sea grass and biogenic or geogenic reef habitats because these habitats are sensitive to physical disturbance. In the experience of our members the aquaculture sector is also poorly regulated and the expansion of fish farms and shellfish aquaculture is having an increasingly negative impact on our coastal biodiversity. There is considerable evidence that there is a link between salmon farms and the spread of salmon lice to wild Atlantic salmon and sea trout[48] which is negatively impacting on the survival of wild salmonids[49].

Infrastructure development and urbanisation is clearly a driver of biodiversity loss as it may permanently destroy habitats, often resulting in fragmentation and degradation of remaining habitat and disturbance to species. Other pressures include the introduction and spread of alien invasive species and the alteration of wetlands such as the ongoing drainage of wetlands and rivers across the country.

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[42] NPWS (2015) National Peatlands Strategy, National Parks & Wildlife Service 7 Ely Place, Dublin 2, D02 TW98, Ireland https://www.npws.ie/sites/default/files/publications/pdf/NationalPeatlandsStrategy2015EnglishVers.pdf

[43] NPWS, The status of EU protected habitats and species in Ireland. 2008, National Parks and Wildlife Service.

[44] Kelly, F (2020) Common Fisheries Policy 2020 A Discarded Opportunity, Birdwatch Ireland, Kilcoole, Co. Wicklow, Ireland https://birdwatchireland.ie/publications/kelly-2020-common-fisheries-policy-2020-a-discarded-opportunity/

[45] Scientific, Technical and Economic Committee for Fisheries (STECF) – Monitoring the performance of the Common Fisheries Policy (STECF-Adhoc-21-01). EUR 28359 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-36155-8, doi:10.2760/26195, JRC124906.

[46] Marine Protected Area Advisory Group (2020). Expanding Ireland's Marine Protected Area Network: A report by the Marine Protected Area Advisory Group. Report for the Department of Housing, Local Government and Heritage, Ireland.

[47] Marine Institute (2015) Article 6.2 (Habitats Directive) Risk Assessment, The effects of fisheries on Qualifying Interests in Special Areas of Conservation in Irish coastal waters, Marine Institute, Rinville, Oranmore, Co. Galway

[48] Thorstad, E. B., & Finstad, B. (2018). Impacts of salmon lice emanating from salmon farms on wild Atlantic salmon and sea trout.

[49] Shephard, S., & Gargan, P. (2021). Wild Atlantic salmon exposed to sea lice from aquaculture show reduced marine survival and modified response to ocean climate. *ICES Journal of Marine Science*, *78*(1), 368-376.

"If we were coal miners, we would be up to our knees in dead canaries." - President Michael D. Higgins, National Biodiversity Conference 2019.

Figure 9. Ireland's Natural History Museum is sadly full of species that have gone extinct in Ireland. The most recent addition to the list is the Corn Bunting (*Miliaria calandra*); the last recorded breeding took place in the mid to late 1990's in County Mayo. The decline is considered to be mainly due to changes in agricultural practices, such as decline in mixed farming and more intensification of grassland management (Source: Fintan Kelly)

What are the threats presented by biodiversity loss?

Nature, through its ecological and evolutionary processes, provides the oxygen we breathe and the fresh water and soils that sustain us. Natural systems control the freshwater cycle, regulate our climate and provide beneficial ecosystem services such as pollination and pest control and reduce the impact of natural hazards[9]. Biodiversity loss threatens the health of people, animals, plants and soil. Healthy ecosystems are rich in symbiotic relationships and loss of any element can have cascading impacts on other species and the ecosystem as a whole. Ultimately human life is dependent upon healthy ecosystems which collectively maintain a healthy planet.

Over 75% of global food crop types rely on animal pollination. Marine and terrestrial ecosystems help to store damaging greenhouse gas emissions, helping to stabilise our climate, locking in 5.6 gigatons of carbon per year (equivalent to 60% of global anthropogenic emissions)[9]. Nature underpins all dimensions of human health and wellbeing underpinning our culture and that of past civilisations, providing us with inspiration and hope. It also supports our physical health by providing

medicines and spaces that enhance our physical and mental well-being. Its gifts are as numerous as the multitude of lifeforms it has graced our small blue planet with. Nature benefits all life on earth because in the purest sense it is all life on earth. We ourselves are part of nature yet we continue to threaten the vital gifts and services Nature provides.

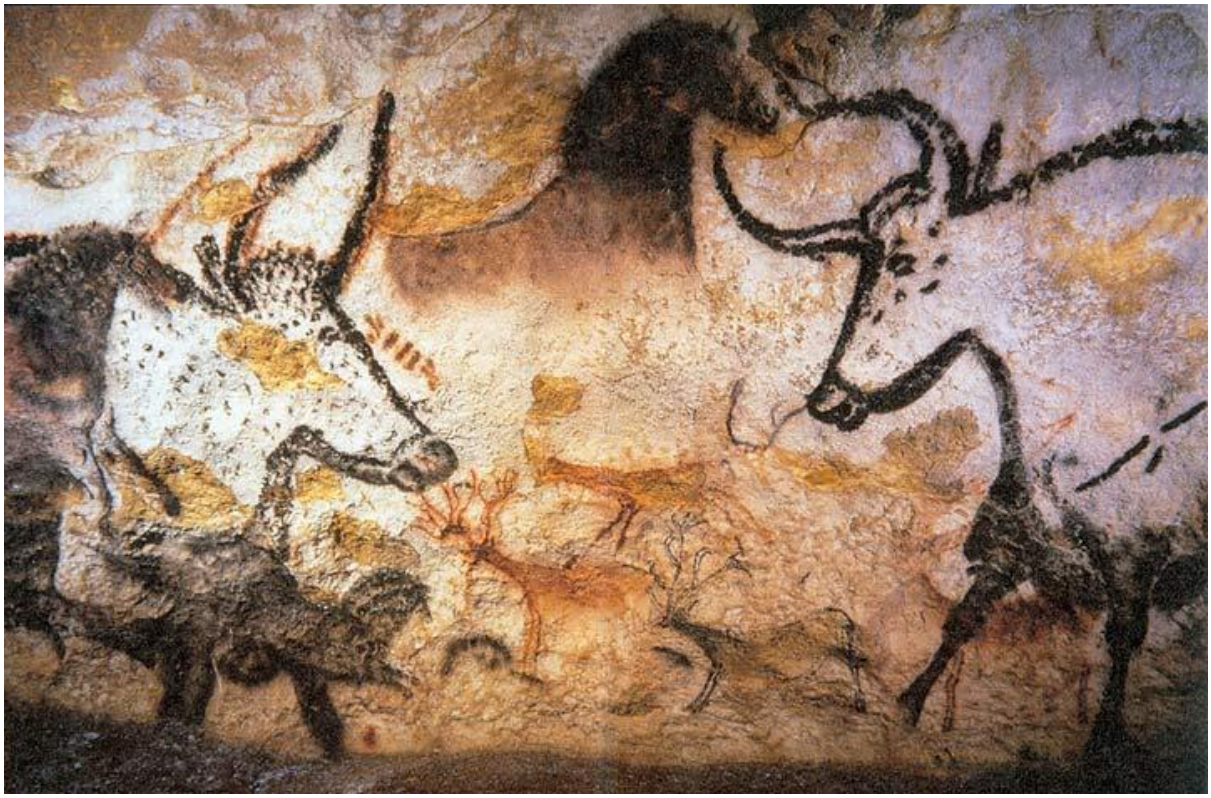

Figure 10. Cave painting of Aurochs, Horses and Reindeer in Lascaux, France (Source: WikiCommons[50])

We have a clear moral obligation to protect the other living things that we share this planet with but we also have a rational imperative to halt biodiversity loss as it threatens our economic well-being, and global security[51] [52]. The continued loss of biodiversity is a threat to the UN Sustainable Development Goals, including poverty alleviation and food, water and energy security. The World Economic Forum (WEF) produces an annual report on the Global Risks report. For a number of years, the health of the planet has dominated concerns for the global economy, with environmental risks identified as the five most critical long-term threats to the world as well as the most potentially damaging to people and planet[53]. The five leading critical threats to the world are identified as: Climate action failure, Extreme weather, Biodiversity loss, Natural resource crisis (Fig 11).

"The pace of change over the past 50 years has been unprecedented in human history, with extraordinary increases in world economic output and life expectancy…However, this

[50] https://commons.wikimedia.org/wiki/File:Lascaux_painting.jpg
[51] Fedotova, G. V., Sotnikova, L. F., Orlova, E. R., Baranova, A. F., & Goncharova, A. V. (2021, March). Global problems of biodiversity and food security. In IOP Conference Series: Earth and Environmental Science (Vol. 677, No. 3, p. 032010). IOP Publishing.
[52] Ahmed, N., Khan, T. I., & Augustine, A. (2018). Climate change and environmental degradation: a serious threat to global security. European Journal of Social Sciences Studies.
[53] World Economic Forum (2022) The Global Risks Report 2022, 17th Edition
https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2022.pdf

remarkable growth and prosperity has come at a heavy cost to the natural systems that underpin life on Earth – and which therefore underpin these economic achievements too."
– The World Economic Forum

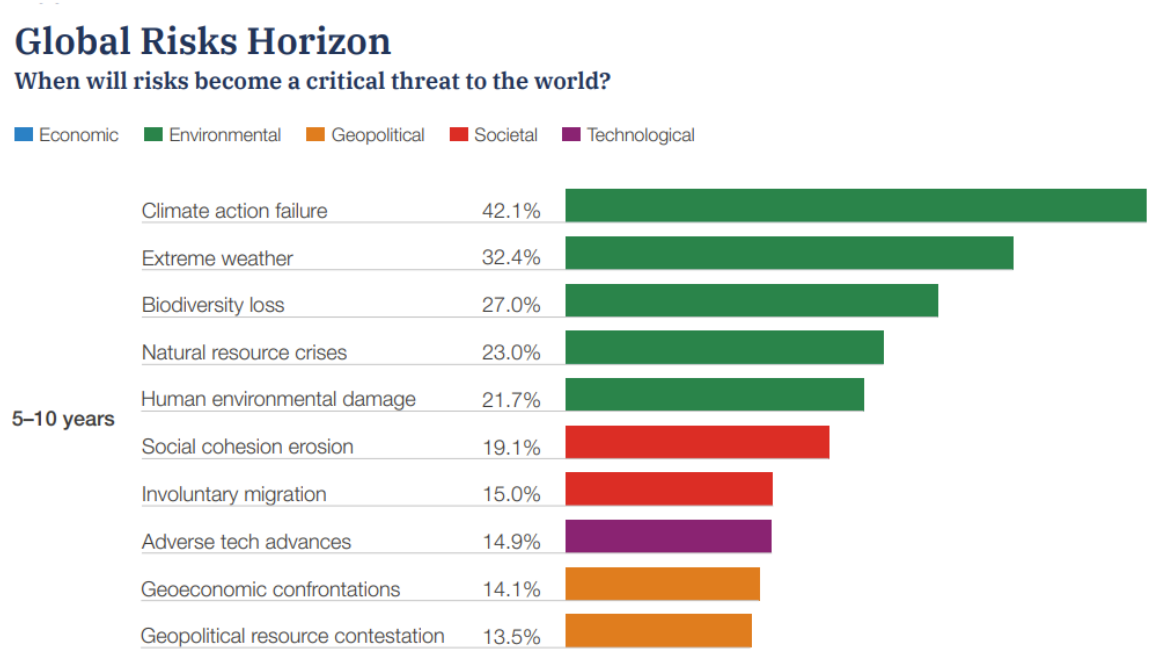

Figure 11. Global Risks Horizon 5-10 years (Source: WEF, 2022)[53]

These threats are closely intertwined and could be viewed as different dimensions of the one ecological or environmental crisis. Economists have good cause to be concerned as the environment is foundational to both human societies and the economy. According to WEF[54] $44 trillion of economic value generation – more than half of the world's total GDP – is moderately or highly dependent on nature and its services, leaving the global economy dangerously exposed to the negative impacts of biodiversity loss and climate change. The three largest sectors that are highly dependent on nature generate close to $8 trillion of gross value added (GVA): construction ($4 trillion); agriculture ($2.5 trillion); and food and beverages ($1.4 trillion), roughly equivalent to twice the size of the German economy.

The Case for Action

The economic risks of biodiversity loss and climate change are clear but so too is the business case for biodiversity conservation. The opportunities presented by biodiversity conservation are clearly outlined in the European Commission's Biodiversity Strategy for 2030[55]. According to the Commission the overall benefit/cost ratio of an effective global programme for the conservation of

[54] World Economic Forum (2020) Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy https://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf
[55] EC, 2020 , Biodiversity Strategy for 2030, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions (COM(2020) 380 final) https://eur-lex.europa.eu/resource.html?uri=cellar:a3c806a6-9ab3-11ea-9d2d-01aa75ed71a1.0001.02/DOC_1&format=PDF

remaining wild nature worldwide is estimated to be at least 100 to 1[56]. The EU has recognised that natural capital investment, including restoration of carbon-rich habitats and climate friendly agriculture, is among the five most important fiscal recovery policies, which offer high economic multipliers and positive climate impact[57]. Within the EU compliance costs of designating, protecting and managing the Natura 200 network of protected areas, cost an estimated €5.8 billion annually across the EU. However, the multiple benefits of the EU's Birds and Habitats Directives are worth, estimated at €200-300 billion per year, significantly exceed identified costs[58].

Conserving exploited marine species for example could increase annual profits of the seafood industry by more than €49 billion, while protecting coastal wetlands could save the insurance industry around €50 billion annually through reducing flood damage losses[59]. The direct economic value of Ireland's ocean economy was estimated to be worth €1.8 billion or approximately 0.9% of GDP in 2016[60]. The economic benefits relative to 2012-14, of rebuilding overfished fish populations in line with EU policy, could provide Ireland with an additional 200,000 tonnes of fish landings annually. This would generate an additional €270 million in earnings potentially supporting 2,200 new jobs[61].

When the capacity of nature to support agriculture, fishing or other ecosystem services is undermined it is usually the rural communities, who are most dependent on nature who suffer the most. An example of this is Ireland's inshore fishing fleet. Of the 1,991 vessels registered in Ireland over 80% are less than 12m in length[62]. These small inshore vessels are totally dependent on landings within Ireland's inshore waters and play an important role in supporting employment in coastal communities which often are marginalised by a range of other negative socio-economic pressures[75]. The collapse of fish populations such as Cod and Herring due to overfishing, which would have traditionally supported important seasonal fisheries for the inshore fleet, has negatively impacted on employment in the sector, leaving the remaining vessels heavily dependent on a small number of fish shellfish and crustacean species which are now also vulnerable to collapse due to overexploitation. The restoration of our marine ecosystems is therefore not only an environmental imperative but also a socio-economic one[63].

Investing in agri-environmental measures is also an excellent way to deliver public goods in the form of environmental goods and services such as biodiversity, while also providing economic support to farming families with lower incomes. This is illustrated in BirdWatch Ireland's assessment[64] of the Common Agricultural Policy (CAP) beneficiary's database[65], which highlighted the proportion of

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[56] Balmford, A., Bruner, A., Cooper, P., Costanza, R., Farber, S., Green, R. E., ... & Turner, R. K. (2002). Economic reasons for conserving wild nature. science, 297(5583), 950-953.

[57] Hepburn et al. (2020), Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change?, Smith School Working Paper 20-02.

[58] EC, 2016, 'Fitness check of the EU Nature Legislation (Birds and Habitats Directives)', Commission Staff Working Document (SWD(2016) 472 final)

[59] Barbier, E. B., Burgess, J. C., & Dean, T. J. (2018). How to pay for saving biodiversity. *Science*, *360*(6388), 486-488.

[60] Norton, D., Hynes, S., & Boyd, J. (2018). Valuing Ireland's blue ecosystem services (No. 1154-2021-687).

[61] NEF (2017) A Fair Fishing Deal for Ireland – How to Manage Irish Fisheries in the Public Interest

[62] Marine Institute (2018) Trawl Fishing in Waters Inside 6nm around Ireland, Fisheries Ecosystems Advisory Services Marine Institute https://www.agriculture.gov.ie/media/migration/customerservice/publicconsultation/review6nmzone/2TrawlFishingWatersInside6NMAroundIrl270418.pdf

[63] Kelly et al., (2021) How the EU Fishing Fleet can Become Low Environmental Impact, Low Carbon and Socially Just - Fishing opportunities as an Agent of Change https://our.fish/publications/report-how-the-eu-can-transition-to-low-environmental-impact-low-carbon-socially-just-fishing/

[64] Copleland, A., (2018) The Common Agricultural Policy Post-2020, BirdWatch Ireland Submission to the consultation on the shape of the Common Agricultural Policy post 2020 for the Department of Agriculture, Food and the Marine

[65] Data derived from CAP beneficiaries database https://www.agriculture.gov.ie/agrifoodindustry/euinternationalpolicy/commonagriculturalpolicycap/capbeneficiariesdatabase/; accessed Jan-18

farmers drawing down payments for measures associated with 'Improving the Environment and Countryside' in 2016 on a county-by-county basis (Fig 12 a). When compared to the average payment per county to CAP beneficiaries (under Pillar 1 and/or Pillar 2)(Fig 12 b) it demonstrated a clear national divide between the amount of public funding versus the delivery of public goods. When Fig 12 b is compared to a map of the likely distribution of High Nature Value farmland in Ireland (Fig 12 c) it is clear that Ireland's most biodiverse farmland occurs where CAP payments are lowest (e.g. the West) and the proportion of farmers drawing down payments to improve the environment and countryside (such as agri-environment or ANC payments) is highest (Fig 12 a). This suggests that by targeting investment towards the delivery of biodiversity measures we can deliver public goods to society and financial support to the parts of rural Ireland that need it the most.

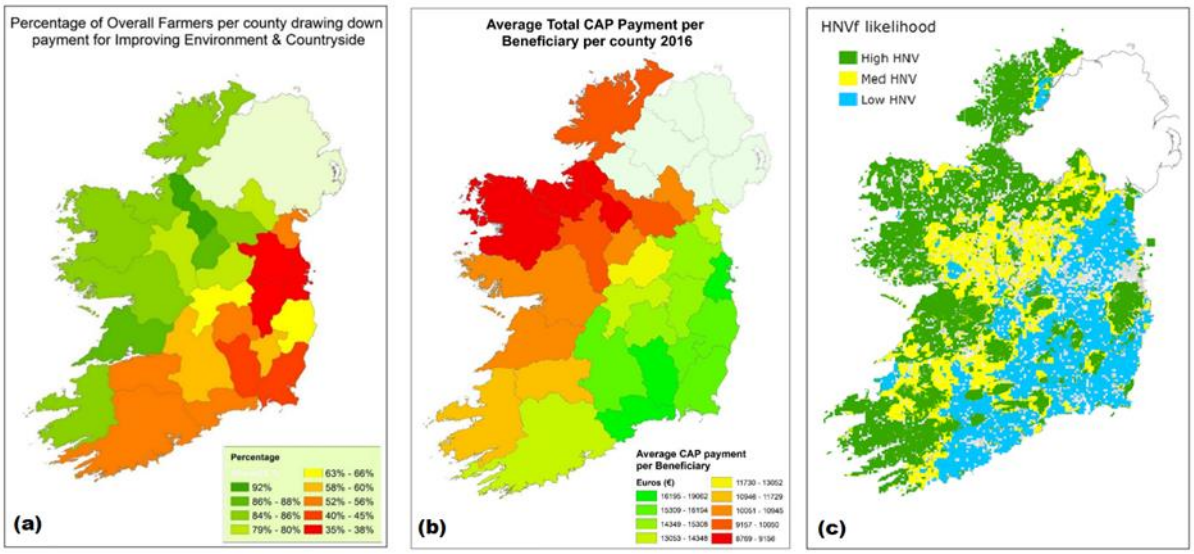

Fig 12. (a) Number of farmers (as percentage) drawing down payments from CAP in 2016 for Improving Environment and Countryside as a percentage of overall farmer numbers (farmer numbers derived from the CSO farm census 2010); (b) Displays the average total CAP payment received by individual beneficiaries in each county of Ireland for 2016; (c) Predicted extent and distribution of high nature value farmland in the Republic of Ireland[66]

***"The business case for biodiversity is compelling: the benefits of restoring nature outweigh the costs ten-fold, and the cost of inaction is even higher"* - An Taoiseach Micheál Martin at Ireland's second National Biodiversity Conference 2022[67].**

Despite the overwhelming case for urgent action to halt and reverse biodiversity loss the future outlook for biodiversity is deeply concerning. The predominant economic models internationally remain based on the misguided premise of infinite growth on a finite planet. In Ireland the greatest threat to biodiversity moving forward remains market-driven policies which favour the

[66] Moran, J., Byrne, D., Carlier, J., Dunford, B., Finn, J. A., Ó hUallacháin, D., & Sullivan, C. A. (2021). Management of high nature value farmland in the Republic of Ireland: 25 years evolving toward locally adapted results-orientated solutions and payments. Ecology and Society.

[67] Keynote by the Taoiseach Micheál Martin at Ireland's second National Biodiversity Conference Dublin Castle https://www.gov.ie/en/speech/1405e-keynote-by-the-taoiseach-micheal-martin-td-at-irelands-second-national-biodiversity-conference-dublin-castle/

intensification of models of farming, forestry, fisheries and extractive industries which are already the leading sectoral drivers of biodiversity loss. A key example of this is the Irish governments 10-year strategy for the agri-food sector Food Wise 2025, which sets out a roadmap for further growth and intensification of the agricultural sector including an 65% increase in primary production[68].

The implications of this plan and its successor plan were so dire for Ireland's biodiversity, air, water and climate that the Environmental Pillar groups reluctantly withdrew from the Agri-Food 2030 Strategy Committee having concluded "*that the draft Strategy is woefully inadequate to meet the social and environmental challenges we face*[69]." Ireland's current Forestry Programme has a target to increase Ireland's forest cover area from its current level to 18%, requiring an additional 46,000 ha. Given the reluctance of the sector to address either legacy or ongoing impacts on biodiversity the expansion of forestry, particularly across Ireland's High Nature Value farmland, would have a major negative impact on biodiversity[70]. Claims that business as usual afforestation is a win-win for biodiversity and climate are therefore extremely dubious. There is also a growing body of international research which highlights that using overly simplistic targets for land-use change, such as the number of trees planted or annual afforestation rates can be misleading, contributing to policy failure, misuse of carbon offsets and even increased greenhouse gas emissions.[71] [72] [73]

Conservation in Action - Action is the antidote to despair

We know from experience that when we as a nation are given the tools we can deliver world class conservation projects and turn the tide on biodiversity loss. Examples of this are the role that Irish locally led result-based agri-environment schemes are playing in influencing approaches to agri-environmental schemes across Europe or the spread of initiatives such as the Farming for Nature awards to Austria and Lithuania. We now need a visionary and enforceable National Biodiversity Action Plan (NBAP) to ensure that these schemes and other flagship conservation initiatives around the country are built upon and given even greater impetus as catalysts for change. We need a NBAP that creates a framework to elevate biodiversity loss as a priority across all relevant departments; a strategy that harnesses the collective knowledge that we have accumulated to hardwire the protection and restoration of nature within overarching strategies across land and sea. We need better regulation and enforcement founded on the understanding that nature is not a hurdle to development but foundational to the well-being of all life and that of future generations. This NBAP must succeed where its predecessors have failed by delivering an all of government and all of society response to biodiversity loss. Key to this will be ensuring that NBAP addresses the failings of past plans and has the ambition to not only deliver on the targets of the EU Biodiversity Strategy and the Draft Nature Restoration Law but that it looks to exceed their ambition. The lifetime of this NBAP

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[68] DAFM (2020) Food Wise 2025 https://www.gov.ie/en/publication/a6b0d-food-wise-2025/

[69] Environmental Pillar (2021) The Environmental Pillar withdraws from the problematic 2030 Agri-Food Strategy Committee https://environmentalpillar.ie/2021/02/25/the-environmental-pillar-withdraws-from-the-problematic-2030-agri-food-strategy-committee/

[70] Birdwatch Ireland (2019) Greening Irish Forestry - Recommendations for Nature Friendly Forestry https://birdwatchireland.ie/app/uploads/2019/05/BirdWatch-Ireland-2019-Greening-Irish-Forestry.pdf

[71] Brown, I. (2020). Challenges in delivering climate change policy through land use targets for afforestation and peatland restoration. Environmental Science & Policy, 107, 36-45. https://discovery.dundee.ac.uk/ws/files/42352981/ibrown_woodland_peatland_paper_feb2020_author_version.pdf

[72] Matthews, K. B., Wardell-Johnson, D., Miller, D., Fitton, N., Jones, E., Bathgate, S., ... & Perks, M. (2020). Not seeing the carbon for the trees? Why area-based targets for establishing new woodlands can limit or underplay their climate change mitigation benefits. Land use policy, 97, 104690.

[73] Naudts, K., Chen, Y., McGrath, M. J., Ryder, J., Valade, A., Otto, J., & Luyssaert, S. (2016). Europe's forest management did not mitigate climate warming. Science, 351(6273), 597-600.

(2023-2027) means that the vast majority of the targets for conservation and restoration outlined in various national and EU policies for 2030 must be delivered over the life of this plan. We are providing our constructive feedback on the draft NBAP in the hope that the plan can be significantly strengthened in many areas to ensure that it can deliver tangible outcomes across the six high-level objectives.

***"The risks of not delivering on these (biodiversity and climate) commitments are stark and far-reaching"* - Ireland's National Risk Assessment 2021/2022.**

Recommendations

The draft NBAP needs to substantially improved

The National Biodiversity Forum (NBF) was established to provide independent monitoring of progress of the implementation of the National Biodiversity Action Plan, In its review of the most recent NBAP, together with preceding plans, the NBF found that they have not succeeded in halting or reversing the negative biodiversity trends in Ireland, partly because the actions have not been sufficiently targeted, the targets that did exist were not SMART (Specific, Measurable, Achievable, Realistic, Timely) and finally there was a lack of accountability when it comes to the delivery of actions. **Despite these concerns the format of the draft plan is actually worse than previous NBAPs which clearly outlined objectives based on clear Timeframes and Actors/Key Partners.** The absence of clearly identified Actors/Key Partners is particularly concerning given the lack of transparency and accountability associated with the failure to deliver on past objectives. This restructuring of the presentation of the report also highlights the lack of coherence and continuity with previous NBAPs. Past experience has shown that actions in previous plans which have not been achieved are often carried forward without any explanation on why they were not previously achieved, or worse yet key actions aren't carried forward and no explanation is provided. Another overarching issue with the draft is that in many instances the indicators are not directly linked to the outcomes and timelines in the targets section or the outlined targets are not sufficient to deliver on the stated objective.

Recommendations: In line with the recommendations of the National Biodiversity Forum

- **The NBAP must establish SMART targets and Key Performance Indicators that will measure positive impacts on biodiversity. Targets should be focused on measurable results-based outcomes and actions with a strong evidence-base for effectiveness.**
- **The NBAP actions should include clear Timeframes and Actors/Key Partners**
- **The State should provide sufficient resources to the NBF to enable them to provide comprehensive oversight of the NBAP.**
- **The indicators should be directly linked to the outcomes and timelines in the targets section and the targets should be sufficient to deliver on the stated objectives.**

While Article 6 of the Convention on Biological Diversity does only require that National Biodiversity Action Plans is "*as far as possible and as appropriate*" ...integrated…"*into relevant sectoral or cross-*

sectoral plans, programmes and policies," the Irish government has declared a national biodiversity emergency and it is abundantly clear to us that as "*as far as possible and as appropriate"* is not an emergency response and will not address the scale of the challenges we face in tackling the biodiversity emergency. If the NBAP is to be a truly whole of government, whole of society approach then every department, public body and local authority must bring sectoral plans, programmes and policies in line with the national response to biodiversity loss and the NBAP should clearly outline how this will be delivered.

Many actions within the plan are too high level and the supporting indicators are often process rather than results oriented. An example of this is action 1C3 where DAFM have summarised all of the biodiversity actions within the CAP Strategic Plan 2023-2027 and the Rural Development Plan, into one point with an indicator that "*Incentives for farmers to create habitats for wildlife are in place by 2023*." Actions should ideally be more detailed and have indicators that are linked to tangible biodiversity benefits with clear accountability and timelines.

Recommendation: Generic high-level actions and indicators should be replaced with multiple detailed actions and indicators that are linked to tangible biodiversity benefits with clear accountability and timelines.

For some actions and indicators appear insufficient to deliver on their stated target. An example of this is action 1D1-1D3 which has a target of '*By 2027, public awareness on biodiversity is increased by 20% against a 2023 baseline*.' The main indicators to deliver on this target are that a Communications expert is appointed in DHLGH and a Biodiversity Awareness Programmes in Gaeltacht communities. It is questionable whether these actions in isolation can influence public awareness at a national level. Actions such as a commitment to ongoing support for Biodiversity Week and other public awareness initiatives should be added to this objective. Further strengthening the role of eNGOs and civil society will also be key.

Recommendation: There should be a review of the efficacy of the draft indicators to deliver on the stated targets.

We are supportive of a statutory requirement for NBAPs (1B1). However, this will not address the core issue of accountability. In the words of the NBF "*Accountability for the delivery of the NBAP is essential. The Government should place the NBAP on a legal footing to ensure accountability for its delivery, as is being considered for the Climate Action Plan*."

Recommendation: The Government should place the NBAP on a legal footing to ensure accountability for its delivery.

We are supportive in principle of an expanded Biodiversity Working Group (1B2), however we are concerned that the inclusion of sectoral representatives without eNGO or civil society participation may undermine the Biodiversity Working Group. For example, we have observed the negative role that Coillte in tandem with the Forest Service has played in undermining the Hen Harrier Threat Response Plan (TRP) through the Hen harrier TRP inter-departmental steering group. We therefore

request that the Biodiversity Working Group include representation from the NBF and the Environmental Pillar.

Recommendation: In the interests of transparency and accountability the Biodiversity Working Group should include representation from the NBF and the Environmental Pillar.

Biodiversity Action needs to be properly resourced

Biodiversity conservation has been woefully under-resourced in Ireland at every level of government. We are therefore supportive of the actions within the NBAP which are designed to address the financial and capacity constraints which have undermined conservation efforts for many years. We are supportive of the 1A3 – 1A6 actions, targets and indicators that are designed to implement the findings of the National Biodiversity Expenditure Review, the Strategic Review of the National Parks and Wildlife Service and the Biodiversity Financial Needs Assessment. However, there is no clear commitment to ensure that shortcomings identified in the Biodiversity Financial Needs Assessment will be addressed. The National Biodiversity Expenditure Review[74] found that over the 6-year period between 2010-2015, Ireland had a total national annual average expenditure of just €250 million on biodiversity. This is well short of the minimum 0.3% of GDP recommended annual investment in biodiversity conservation by IUCN for OECD countries. Given the dire state of Nature in Ireland and the need for an urgent response to our national biodiversity and climate emergency we recommend that funding for biodiversity conservation be increased to €1.5 billion up to 2030. This level of response is in line with Ireland's National Risk Assessment[66] which acknowledges that the interlocking risks of biodiversity loss and climate change are even more significant than previously thought and demand a stronger global response and within a shorter time frame.

Recommendation: The NBAP should make a clear commitment to increase state investment in biodiversity conservation to €1.5 billion up to 2030. This level of funding is in line with Ireland's declared Biodiversity emergency, the National Risk Assessment and the recommendation of the IUCN.

We welcome the commitment in actions 1A6 and 1B4 aimed at improving the biodiversity capacity across the civil service through actions such as training and through the appointment of Local Authority Biodiversity Officers. Increasing biodiversity expertise within all levels of government is a positive step in delivering an all of government and all of society approach to biodiversity loss. However, we are concerned that unless existing and new positions are properly resourced to deliver on our biodiversity objectives then capacity issues will continue to hinder progress. Fingal County Council, one of the most proactive local authorities when it comes to the implementation of biodiversity conservation measures recently admitted that it would not be in a position to achieve two-thirds of its biodiversity targets under the EUs Biodiversity Strategy due to a lack of resources, stating that "*Neither the funding or the extra staff resources can be made available by the council due to demands from other competing priorities such as the provision of housing, roads, sports and community facilities*." As a consequence, it said: "*the council will not be in a position to halt the loss of biodiversity in Fingal by 2030 as envisaged by the EU*[75]." To deliver an all of government and all of

[74] Morrison, R., & Bullock, C., (2018) A National Biodiversity Expenditure Review for Ireland, University College Dublin.

[75] Irish Times (2022) Strategy to halt biodiversity loss in north Dublin cannot be achieved due to lack of funding, published Mon Jul 18 2022 - 01:42 https://www.irishtimes.com/environment/2022/07/18/strategy-to-halt-biodiversity-loss-in-north-dublin-cannot-be-achieved-due-to-lack-of-funding/

society response to our biodiversity emergency there is a need for an assessment of the financial needs at all levels of government to deliver on national and EU biodiversity objectives.

Recommendation: The NBAP should include the need for an assessment of the biodiversity financial needs of all levels of government with a view to ensuring that all relevant bodies are sufficiently resourced to meet Ireland's biodiversity targets.

We are supportive of the ambition to enhance the biodiversity expertise across the civil service through training; however, ecology, environmental sciences and environmental law are complex fields of research that take many years of dedicated study and practical experience to achieve a degree of expertise. We would therefore recommend that wherever possible suitably qualified experts continue to be recruited as a priority.

Recommendation: In addition to upskilling existing staff across all levels of government the NBAP should encourage the recruitment of qualified ecologists, environmental scientists and environmental lawyers.

The NPWS should be given greater control over the allocation of biodiversity funding

The review of the NPWS found that not only has the limited capacity of the NPWS constrained its ability to deliver on biodiversity obligations but *"furthermore, although cross-departmental and cross-sectoral plans exist, they were considered to be mired in bureaucracy, poorly coordinated, and hampered by legacy arrangements*." Further to this the lack of funding is exacerbated by the fact that Government funding "*allocations are misaligned to remits*," with the majority of Irish biodiversity funding being allocated to the Department of Agriculture Food and the Marine, whose primary remit is to 'lead and develop the agri-food sector', rather than the conservation of biodiversity. Similarly, the European Maritime and Fisheries Fund (EMFF) is the financial mechanism under which actions should be funded to improve the management of Ireland's marine resources and conservation of our marine habitats and species. The Irish EMFF programme is also administered by the Department of Agriculture Food and the Marine (DAFM), who have routinely misallocated biodiversity funding to facilitate ongoing intensification of fishing and aquaculture activities, while the conservation and sustainable management of our marine environment has been poorly funded.

The disproportionate control that other departments have over the design and allocation of biodiversity funding is a key governance failing which has yet to be addressed. The fact that DAFM in particular have so much control over key EU structural funds and state funds despite their numerous conflicts of interest is a glaring issue which needs to be resolved. Moving forward both national and EU funding should be allocated in a way that maximises positive impacts on biodiversity conservation and avoids funding activities that drive biodiversity loss.

Recommendations:

- **The NPWS / DHLGH should be given greater control over the allocation of EU structural funds and state funding for biodiversity.**

- **The allocation of funding by the government should maximise positive impacts on biodiversity conservation and avoid supporting activities that drive biodiversity loss.**
- **Additional funding linked to the delivery of actions under the EU Biodiversity Strategy and the Nature Restoration Law should be funnelled through DHLGH.**

Action 1C2 commits that DAFM will monitor and report on the efficacy of actions to promote biodiversity under the CAP Strategic Plan. While we are supportive of an ongoing review of the efficacy of biodiversity measures this action should be expanded to an independent audit of the efficacy and cost effectiveness of all biodiversity investment funded through EU structural funds and through the exchequer. This expanded action would also support actions such as 1A5 on the tagging of biodiversity expenditure across government. A key question should be why past investment through CAP and EMFF failed to improve the conservation status of so many habitats and species.

Recommendations:

- **The NBAP should commit to an independent audit of the efficacy and cost effectiveness of past expenditure on biodiversity.**
- **Future expenditure should be delivered in a way that ensures that progress towards conservation objectives such as Favourable Conservation Status can be tracked over time.**

The NBAP must support the reform of the NPWS

We remain strongly supportive of the reform of the National Parks and Wildlife Service which has been ably championed by the incumbent Minister of State - 1A2 – '*DHLGH will implement the Strategic Action Plan resulting from the NPWS Review*.'

The Strategic Action Plan for the renewal of the National Parks and Wildlife Service contains a number of important actions which should strengthen the NPWS's ability to lead our national response to biodiversity loss. Important actions relate to the staffing and resourcing of the organisation, changes to senior management, human resourcing and the establishment of the NPWS as an executive agency. It remains unclear however if either the Strategic Action Plan or the NBAP will address all of the issues which have hindered the NPWS. According to the Stout & Ó Cinnéide (2021) report on the NPWS, stakeholders in general felt that "*the NPWS has not achieved its objectives of protecting and conserving nature in Ireland...Underlying explanations for this perception were varied but can be broadly summarised as: a lack of political priority, a history of being under-resourced and undervalued, an inappropriate organisational structure or mandate, and insufficient power for enforcement. Better engagement and communication with local and rural groups was another frequent theme cited as a pathway for improving the future of the NPWS*." The Government's own review echoed these findings[76] highlighting chronic under-investment for many

[76] Stout J.C., Ó Cinnéide, M. (2021). Review of the NPWS 2021: Key findings and recommendations. Report to the National Parks and Wildlife Service (NPWS), Department of Housing, Local Government and Heritage (DHLGH), Government of Ireland. https://www.gov.ie/en/publication/fbb81-national-parks-and-wildlife-service-strategic-action-plan-and-review/

years and a lack of political champions at high levels. The NPWS Strategic Action Plan and the NBAP should aim to make progress on all the issues highlighted by the NPWS review.

Recommendation: The NPWS Strategic Action Plan and the NBAP must address all of the issues highlighted during the review of the NPWS including a lack of political support, insufficient power for enforcement and poor engagement and communication with stakeholders. These are key issues which require clear targets and timelines within the NBAP and the NPWS Strategy Statement 2023-25

Full implementation of Environmental Law and Policy Commitments

As part of the EU Ireland has some of the best environmental laws in the world. This is supported by the findings of the EU comprehensive policy evaluation of the Birds and Habitats Directives; which examined the performance of these Nature laws against five criteria: effectiveness, efficiency, relevance, coherence and EU added value. The evaluation showed that the laws were fit for purpose and have already delivered positive benefits for Nature, "*but achievement of their objectives and realisation of their full potential will depend upon substantial improvement in their implementation both in relation to effectiveness and efficiency."* All laws are only as good as their enforcement. According to the European Commission themselves "*protection has been incomplete, restoration has been small-scale, and the implementation and enforcement of legislation has been insufficient*."[77] At a National level Ireland has various frameworks, task forces, threat response plans and National Biodiversity Action Plans but the actions they contain are rarely implemented due to a combination of a lack of political will, effective industry lobbying, inadequate resourcing and the prioritisation of environmentally destructive policies.

According to the National Biodiversity Forum[78] "*the biggest transgressor of environmental law in Ireland is the State. Non-compliance is rife at all levels of society, from Government non-compliance with EU laws down to local wildlife crime by individuals*." This is supported by the latest European Commission Environmental Implementation Review (EIR) which summarised the number of active and closed infringements proceedings against Ireland for breaches of EU environmental legislation. As of November 2020, the European Commission had a total of sixteen infringements and four European Court of Justice open cases against Ireland. Between January 2002 and November 2020, the European Commission opened and closed 112 cases against Ireland relating to breaches of EU environmental legislation[38]. These infringements reflect very poorly on the State's attitude to environmental protection. As many of the infringements also relate to air and water pollution this also reflects poorly on the States attitude towards public health and wellbeing.

These infringements can also have significant financial implications for the State. For example, the EU's Court of Justice fined the State €5 million over its failure to comply with EU legislation by failing to carry out an Environmental Impact Assessment prior to the construction of the wind farm in Derrybrien, Co Galway. The State is subject to an additional daily fine of €15,000 until the government carries out an Environmental Impact Assessment for the project. These significant fines are due to the "*seriousness and duration*" of the failure to carry out an environmental impact

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[77] EC, 2020 , Biodiversity Strategy for 2030, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions (COM(2020) 380 final) https://eur-lex.europa.eu/resource.html?uri=cellar:a3c806a6-9ab3-11ea-9d2d-01aa75ed71a1.0001.02/DOC_1&format=PDF

[78] National Biodiversity Forum (2021) National Biodiversity Forum Recommendations https://www.biodiversityimpactplan.ie/

assessment on the wind farm in the 11 years since a previous ruling on 3 July 2008, the court said in 2019[79].

The NPWS and the EPA are complicit in these failings through their ongoing failure to properly enforce environmental law even within protected sites and through the ongoing failure to intervene in planning applications that are a clear and obvious threat to threatened habitats and species. We will not speculate here on the root of these failings which have been highlighted recently in the failure to prosecute OPW over disturbance to protected bat species at Emo Court House in Co Laois and in the European Commissions stated intention to reinitiate infringement proceedings against Ireland over the failure of the state to end turf cutting within SACs.

Recommendation:

- **As part of the ongoing changes within the NPWS there should be an overhaul of the structures that are in place to facilitate the participation of the NPWS in planning and licensing.**
- **The NPWS must do much more to ensure that other departments and public bodies are legally compliant and that government policy is fully compatible with environmental law and policy commitments.**

The EU's Biodiversity Strategy for 2030 and the Nature Restoration Law

We would significantly improve our relationship with nature in Ireland if we fully implemented our existing commitments and supported ambitious new proposals for nature restoration at an EU level. The EU's Biodiversity Strategy for 2030 contains a range of ambitious actions designed to set Nature on the pathway to recovery across Europe[109]. Earlier this year the European Commission published a draft regulation known as the EU Nature Restoration Law. This new regulation now needs the support of the Irish government. It contains a range of ambitious actions such as targets to restore carbon-rich ecosystems such as bogs and forests; restoration targets for threatened habitats and species; targets for pollinators and farmland birds. The scope of the plan goes beyond protected areas and looks to protect nature across farmland, forests, in our rivers and seas and even in our cities[80].

The targets outlined in the EU Biodiversity Strategy 2030 and the draft Nature Restoration Law (NRL) are essential to achieve the EUs objective of putting Europe's biodiversity on a path to recovery by 2030 with benefits for people, the climate and the planet. We therefore welcome the fact that the Minister of State has highlighted the opportunities presented to us by the development of a new Global Biodiversity Framework, the EU Biodiversity Strategy for 2030 and the Nature Restoration Law and the need to integrate the objectives and actions they contain within an ambitious and deliverable NBAP for Ireland. Despite this commitment the draft NBAP needs to be significantly amended to ensure that it is capable of fully implementing both the EU Biodiversity Strategy and Nature Restoration Law. There are no actions within the plan that explicitly reference the NRL.

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[79] ESB to decommission 70-turbine Derrybrien wind farm in Co Galway https://www.thejournal.ie/derrybrien-wind-farm-decommissioned-5713470-Mar2022/

[80] EC 2022 REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on nature restoration, Brussels, 22.6.2022 COM(2022) 304 final 2022/0195 (COD) Proposal for a (Text with EEA relevance) {SEC(2022) 256 final} - {SWD(2022) 167 final} - {SWD(2022) 168 final}

Recommendations:

- **The NBAP should fully integrate all of the commitments outlined in the EU Biodiversity Strategy 2030.**
- **The NBAP should be updated to fully integrate the commitments within the Nature Restoration Law as soon as the regulation comes into force.**

We are supportive of action ME1 relating to monitoring and evaluation of the 4th NBAP which states that '*DHLGH and NBDC will develop a progress tracker for this Plan comparable to the EU Biodiversity Strategy Actions Planner and which also maps this Plan to the Multilateral Environmental Agreements*.' **Recommendation: the Nature Restoration Law should be explicitly mentioned within action ME1.**

We are supportive of target 2E1 which commits to '*Adherence to statutory targets under the EU Biodiversity Strategy*'. While a number of the key commitments from the EU Biodiversity Strategy have been included within the draft plan there are issues with transposition and significant gaps. For example, action 2A4 states that '*In line with the EU Biodiversity Strategy, habitats and species under the Habitats and Birds Directives show no deterioration in conservation trends and status by 2030, and at least 30% of those not in favourable status will reach that status or show a positive trend*'. The actual wording of the EU Biodiversity Strategy is that '*Member States ensure no deterioration in conservation trends and status of all protected habitats and species by 2030. In addition, Member States will have to ensure that at least 30% of species and habitats not currently in favourable status are in that category or show a* ***strong*** *positive trend. The Commission and the European Environmental Agency will provide guidance to Member States in 2020 on how to select and prioritise species and habitats (emphasis added)*.' **Recommendation: Action 2A4 should be updated to reflect the need to ensure that at least 30% of species and habitats protected under the Bird and Habitats Directives not currently in favourable status are in that category or show a strong positive trend as opposed to a positive trend.**

Another major indication of the inadequacy of the NBAP is its failure to clearly commit to one of the EU Biodiversity Strategies' flagship commitments namely to "*Legally protect a minimum of 30% of the EU's land area and 30% of the EU's sea area and integrate ecological corridors, as part of a true Trans-European Nature Network*" with "*at least one third of protected areas – representing 10% of EU land and 10% of EU sea – should be strictly protected*." The draft NBAP does refer to the 30% target within the draft Global Biodiversity Framework, stating that "*the GBF has been considered in developing this NBAP.*" The status of the GBF however is irrelevant in many regards because the 30% protection and 10% highly protected targets are already adopted within the EU Biodiversity Strategy. **Recommendation: Ireland through the NBAP should clearly commit to protecting at least 30% of our land and sea area by 2030 with at least 10% strictly protected in line with the EU Biodiversity Strategy for 2030.**

We are strongly supportive of the target of 2B11 and 2B12 which is in line with the EU Biodiversity Strategy commitment to reverse the decline in pollinators by 2030. However, we would question if action 2B11 is sufficiently targeted to address site specific conservation issues for particularly threatened pollinators. **Recommendation: There should be an expert review of the adequacy of existing conservation interventions for pollinators and other threatened invertebrates.** We are supportive of indicator 2B12 but again highlight the need to utilise existing and future data

to protect and restore the habitat of threatened pollinators and enhance connectivity between isolated populations.

We are supportive of target 2B4 which is '*In line with the EU Biodiversity Strategy, the use and risk of pesticides is reduced by 50% by 2030*.' The commitment within the EU Biodiversity Strategy is slightly more nuanced and highlights that the risk posed by '*hazardous pesticides is reduced by 50%*'. **Recommendation: Indicator 2B4 should be changed to reflect the need to prioritise a reduction in pesticides that are hazardous to human health and the environment.**

Under the EU Biodiversity strategy at least 10% of agricultural area must be under high-diversity landscape features by 2030. Ireland's CAP Strategic Plan accounts for the 4% requirement under GAEC 8 for biodiversity, habitats or landscape features, while the Space for Nature Agricultural Practice Eco-scheme allows farmers to increase space for nature to 7 - 10%. Research has shown that a minimum of 10-14% of agricultural land needs to be set aside for wildlife to recover at a landscape level, while a figure of 26-33% has been suggested by other studies. A target of 4% is therefore totally unambitious. **Recommendation: The NBAP, in line with the EU Biodiversity Strategy should commit to ensuring that at least 10% of agricultural area must be under high-diversity landscape features by 2030.**

While Ireland's target to increase the land under organic farming to 7.5% (2B3) is below the EU Biodiversity Strategies target of at least 25% of agricultural land is under organic farming management, we do recognise that Ireland is starting from a low baseline and therefore we support the 7.5% target as a stepping stone. However, there is no target linked to the EU Biodiversity Strategies associated target that "*the uptake of agro-ecological practices is significantly increased*." **Recommendation: Specific targets, actions and indicators should be adopted by DAFM within the NBAP that promote a significant increase in the uptake of agro-ecological practices.**

We are supportive of target 2E2 that 300 km of rivers be restored to a free-flowing state by 2030 which supports the EU Biodiversity Strategy commitment that at least 25,000 km of free-flowing rivers are restored. However, the action that relevant State actors will "explore" the possibility of restoration is too vague and non-committal. **Recommendation: The NBAP must explicitly commit to the restoration of a specific length of rivers to a free-flowing state by 2027.** This action needs to be significantly strengthened and linked to overlapping objectives such as the protection of designated water bodies and high-status water bodies under the Water Framework Directive. Inland Fisheries Ireland already has a National Barriers Programme to identify and map barriers around the country which specifies the most appropriate interventions to improve fish migration in rivers. Indicators linked to this initiative should be included in this action e.g. € invested in implementing the National Barriers Programme.

Enhanced implementation of the Habitats and Birds Directives

If implemented, the targets of the EU Biodiversity Strategy 2030 will help to put the habitats and species listed under the Birds and Habitats Directives which are currently in unfavourable conservation status on the pathway to recovery. However, the scope of these directives is too narrow to fully address Ireland's biodiversity emergency. According to the IUCN threatened 'red' species list, a total of 24% of assessed Irish species are classed as threatened (14.8% critically endangered, endangered or vulnerable and 9.2% near threatened). The IUCN assessment suggests

that the species groups of most concern, are non-marine molluscs (34%), bees (43%), Amphibia, Reptiles and Freshwater Fish (40%), Butterflies (34%) and Mosses, Liverworts, Hornworts (30%). Very few of these species are afforded meaningful protection in Ireland. There should be an assessment of habitats and species which are to be subject to priority conservation measures. This assessment by the DHLGH should include species which are not currently protected by Irish or EU law. Ongoing measures to protect Basking Sharks should be replicated for other Irish species. The draft Nature Restoration Law is particularly progressive in its recognition of the gaps in the Habitats and Birds Directives when it comes to the protection of marine species. As previously stated, strong Irish support for an ambitious NRL would help to address the gaps in the existing legislation.

Recommendation: Ireland should look to extend legal protection to threatened species which are not currently protected by Irish or EU law.

We are supportive of action 1E1 which commits to revised legislation arising from a review of Wildlife legislation. The review of the Wildlife Acts is long overdue given the known gaps and incoherencies with EU law. However, the deadline of 2027 is totally inappropriate given the urgency of this matter and considering the pace with which some legislation has passed through the Oireachtas under this government. Stakeholders should be engaged during the pre-legislative scrutiny stage.

Recommendation: Irish Wildlife legislation should be revised as soon as possible.

Increased compliance with Wildlife legislation through increased enforcement (1E3): We are strongly supportive of action 1E3 which states that '*By 2030, there is increased compliance with Wildlife legislation through increased enforcement*.' Increased compliance of environmental law is essential for protection to be meaningful and effective. Ensuring that wildlife legislation is enforced on the ground is a core responsibility of NPWS rangers and much greater efforts should be made to support rangers and other enforcement bodies. The government have previously committed to the establishment of a dedicated Wildlife Crime Unit. This commitment appears to have been altered to the establishment of a Wildlife Crime Operations team who will provide a supporting role to other enforcement bodies. While there is an obvious need for collaboration across relevant bodies it is important that there is a dedicated team established to provide the relevant expertise across enforcement bodies. NPWS rangers have an important role as first responders to wildlife crime and this role should be strengthened. As stakeholders this action and the strategy that underpins it is too vague. **Recommendation: Greater clarity is provided on how the NPWS's role in enforcement will be enhanced over the life of the NBAP.**

The Establishment of Site-Specific Conservation Objectives (2A2): We strongly welcome the commitment under action 2A2 to the adoption of Site-Specific Conservation Objectives (SSCOs) for all SACs and SPAs. On the adoption of Site-Specific Conservation Objectives; SSCOs are a tool to maintain or restore Favourable Conservation Status (FCS) for individual species and habitats listed under Annex I of the Birds Directive and Annex I and Annex II of the Habitats Directive respectively. To define and assess the Favourable Conservation Status (FCS), it is necessary to determine favourable reference values (FRVs) for the range of habitat types and species (FRR), for area of habitat types (FRA) and for population size of species (FRP). The establishment of Favourable Reference Values (FRVs) for the species and habitats, in line with the best available guidance and

science is in our view an essential foundational step that must be carried out to inform the establishment of FCS within the Natura 2000 network but more importantly at a population / natural range and Member State level, which in turn underpins SCCOs.

Unfortunately, it is our experience that the current NPWS approach to setting SSCOs needs to be clarified and potentially amended. In the case of the adopted SSCOs for the six Hen Harrier SPAs, the SSCOs are not based on the best available scientific evidence, they are not based on the bespoke guidance from the Commission outlined in Bijlsma et al (2019)[81] and the scope of the SSCOs is not designed to deliver FCS at a population or a Members State level. According to an assessment of the approaches taken by Member States in setting reference values[82] Ireland has indicated that best practice is followed when establishing FRVs including considering both current and historical range, potential extent and area required for viability and variability are used in the assessment of FRR. Based on this feedback it would appear that it is government policy that the 2019 guidelines should be followed within the HHTRP process. The Environmental Pillar, An Taisce, BirdWatch Ireland and the Irish Raptor Study Group highlighted our concerns with the NPWS in regard to the then draft SSCOs in a detailed submission back in January 2022. The NPWS have since failed to address our concerns and outline why the relevant guidelines have not been followed, in contradiction of the department's stated position.

Recommendation: The NPWS should make publicly available their approach to the establishment of Favourable Conservation Status (FCS), Favourable Reference Values (FRVs) and Site-Specific Conservation Status (SSCOs) and justify any deviation from the approach outlined in the bespoke guidance from the European Commission.

DHLGH review of its licensing and consent system for Natura 2000 sites (2A3): The current regulation of activities within the Natura 2000 network is poor with notable deficiencies in regard to commercial activities in the aquaculture, agriculture, turf cutting and forestry sectors. This has contributed to the inadequate conservation status of the vast majority of Natura 2000 sites. We would strongly support a review of licensing and consent systems (2A3) which is designed to address ongoing issues and provide clearer guidance for applicants and licensing authorities. We are strongly opposed to any review that is designed to streamline the licensing of damaging activities in Natura 2000 sites. We call for greater transparency and engagement with eNGOs and civil society in the development of these guidelines. This should include a public consultation and any review should be subject to SEA, EIA and AA.

Recommendations:

- **DHLGH should ensure that eNGOs and civil society are engaged during the proposed review of its licencing and consent systems to facilitate sustainable activities within Natura 2000 sites**

[81] Bijlsma, R.J. ; Agrillo, E. ; Attorre, F. ; Boitani, L. ; Brunner, A. ; Evans, P. ; Foppen, R. ; Gubbay, S. ; Janssen, J.A.M. ; Kleunen, A. van; Langhout, W. ; Pacifici, M. ; Ramirez, I. ; Rondinini, C. ; Roomen, M. van; Siepel, H. ; Swaaij, C.A.M. van; Winter, H.V. (2019a). Defining and applying the concept of Favourable Reference Values for species habitats under the EU Birds and Habitats Directives: examples of setting favourable reference values https://library.wur.nl/WebQuery/wurpubs/fulltext/469035

[82] European Commission (2016) Compilation of Member States replies to the questionnaire on setting reference values Original replies available at https://circabc.europa.eu/w/browse/6903abd7-704e-469d-abe7-0b8dd1acae2e

- **DHLGH's review of its licensing and consent system for Natura 2000 sites should address serious outstanding issues with the licensing of activities such as forestry and aquaculture.**
- **NPWS guidance on the management of sedimentary habitats which states that a 15% threshold of overlap between a disturbing activity and a qualifying interest habitat is deemed to be non-significant, should be scrapped as it is not consistent with EU law.**
- **The moratorium on further afforestation within Hen Harrier SPAs should be extended to other nationally and internationally important sites for habitats and species which are not compatible with commercial forestry.**

The implementation of Species Action or Threat Response Plans (2A4): While we are strongly supportive of the use of Species Action and Threat Response Plans it must be said that to date many of the recommendations of the Curlew Task Force remain unimplemented and the Hen Harrier Threat Response Plan has failed to progress essential actions such as habitat restoration or enhanced safeguards for breeding and wintering Hen Harrier outside of the Natura 2000 network.

Recommendations:

- **A review of the existing Species Action Plans and Threat Response Plans should be carried out in consultation with stakeholders with a view to improving future initiatives.**
- **Species Action Plans and Threat Response Plans should not just be limited to species which are protected under the Birds and Habitats Directives but should include species which are classified as Endangered and Critically Endangered by the IUCN.**

Species and habitat-specific conservation programmes (2A5): Habitat restoration measures should be informed by the establishment of Favourable Reference Values for habitats through the establishment of Favourable Reference Area and Favourable Reference Range. This in turn will inform Favourable Conservation Status for habitats. Achieving FCS for many habitats in line with the objectives of the EU Biodiversity strategy and the Nature Restoration Law will require an ambitious restoration programme.

Recommendation: Identifying sites that shall be subject to restoration measures should involve an assessment of habitats in public ownership including peatlands, wetlands and native woodlands owned by Bord Na Mona and Coillte. These sites are likely to represent the low hanging fruit from an implementation perspective.

Future designations under the EU Biodiversity Strategy (2A7): We are supportive of target 2A7 which states '*By end 2023, Ireland has identified areas that will be pledged as future protected areas under the EU Biodiversity Strategy*.' Under the EU Biodiversity strategy Ireland must submit to the Commission a list of existing protected areas which fulfil the criteria as well as an initial pledge for new areas to be designated explaining: (1) which criteria were used for their identification; (2) the scientific evidence that leads to their selection for designation; (3) the mechanism that will be put in place to ensure adequate site management and monitoring. ENGOs should be consulted in

this process and there should be transparency around the criteria used to identify pledged sites. As stated under action 2A5 there is significant potential for habitat restoration on public lands, particularly those owned by Coillte and Bord Na Mona. An assessment of public lands should be carried out to identify low hanging fruit for early habitat restoration measures.

Recommendation: ENGOs should be consulted in the process of identifying areas that will be pledged as future protected areas under the EU Biodiversity Strategy and there should be transparency around the criteria used to identify pledged sites.

Measures and support tools to maintain and enhance biodiversity and ecosystem services associated with agro-ecology systems including High Nature Value farming (2B5): We are strongly supportive of the further development of tools to maintain and enhance biodiversity and ecosystem services associated with agroecology systems including High Nature Value farming (HNVf). Ireland has shown leadership in the development of results-based agri-environmental schemes to incentivise farmers and landowners to manage HNVf sustainably and excellent work has been done to improve the mapping of HNVf across the country. However, many of the existing maps of predicted HNVf distribution lack the required resolution or ground truthing and even when HNVf has been ground truthed it is poorly protected both within and outside of protected sites. This situation highlights the shortcomings of the DHLGH when it comes to ensuring that licensing activities managed by DAFM are properly regulated.

A clear example of this is the ongoing failure of the Forestry Service to accept a definition of HNVf and ensure that it is safeguarded from inappropriate afforestation. The concept of High Nature Value Farmland (HNVf) has been around since the early 1990's[83]. High Nature Value farmland has most commonly been defined as "*those areas in Europe where agriculture is a major (usually the dominant) land use and where that agriculture supports or is associated with either a high species and habitat diversity, or the presence of species of European, and/or national, and/or regional conservation concern, or both*[84]." Indeed "*the highest grade of HNV farmland is that which supports the presence of species of European conservation concern*[85]."

According to the Forest Service's Land Types for Afforestation Document, the SEA[70] of the current Forestry Programme and Council for Forest Research and Development (COFORD)[86] the expansion of forestry in Ireland will occur on marginal agricultural land. This same marginal farmland is strongly associated with the occurrence of HNVf[97]. Because of this relationship there is a direct overlap between land which is being earmarked for afforestation[87] and HNVf[97]. An overlap between newly planted forests and HNVf which is associated with has already been established for Birds of Conservation Concern in Ireland (BoCCI)[88]. Which led researchers to conclude that "*afforestation may represent a threat at a regional and national scales to some of these bird species in the near future. At least for the already threatened species, which depend on grassland areas for foraging,*

[83] Baldock,D., Beaufoy,G., Bennett,G., and Clark,J.(1993). Nature Conservation and New Directions in the Common Agricultural Policy. London: Institute for European Environmental Policy.
[84] Andersen,E.,Baldock,D.,Bennett,H.,Beaufoy,G.,Bignal,E., Brouwer,F.,et al. (2003). Developing a High Nature Value Indicator. Report for the European Environment Agency, Copenhagen.
[85] Cooper, T, et al. 2007 HNV Indicators for Evaluation, Final report for DG Agriculture. Brussels: European Commission, Institute for European, Environmental Policy
[86] COFORD (2016) Land Availability Working Group. Land Availability for Afforestation - Exploring opportunities for expanding Ireland's forest resource. COFORD, Dublin: http://bit.ly/2AAGcx1
[87] Farrelly & Gallagher (2016) Potential availability of land for forestry, TResearch Volume 11: Number 1. Spring 2016, ISSN 1649-8917 https://bit.ly/3fTSTEZ
[88] Corkery, I, et al. (2015) Overlap of afforestation and birds of conservation concern on farmland habitat. Teagasc Biodiversity Conference 2015. Ed. D Ó hUallacháin and J Finn. Wexford: Teagasc, 2015. 74-75.

plantation forests may already be having a negative impact." The need to protect HNVf has been recognised within the EU's Common Agricultural Policy the Rural Development Policy[95]. Aside from the protection afforded to habitats and species associated with HNVf through EU and Irish legislation HNVf itself is also afforded protection from afforestation through Article 6 of the supplementing regulations of the Rural Development Regulations (No. 1305/2013)[89] (emphasis added): "*Minimum environmental requirements with which the afforestation of agricultural land must comply should be laid down ensuring that* ***no inappropriate afforestation of sensitive habitats including areas under high natural value farming takes place***."

These obligations are acknowledged within the current Forestry Programme[1]. The need to protect HNVf is mentioned in Priority 4 (a) of the programme: in order to preserve, restore and enhance "*biodiversity, including in Natura 2000 areas and high nature value farming, and the state of European landscapes*." Unfortunately, there are no corresponding objectives or actions under priority 4 which mention HNV farmland. By way of explanation for this omission the Forestry Programme states that "*the concept of High Nature Value land is not yet fully established in Ireland and HNV land has not been specifically designated or mapped*." There has been an obligation on Member States to use HNVf as an indicator since 2005[90]. There is a common definition of HNVf but the European Commission has imposed no common methodology for the identification of HNVf in order to allow Member States to tailor their approaches to their own regional conditions and their available data[102]. The European Commission have also provided guidance on the identification and monitoring of HNVf since 2009[91]. Member States like Ireland have had ample time to ensure that HNVf is mapped and protected.

Recommendations:

- **The DHLGH must ensure that a national definition of High Nature Value farmland is adopted which is in line with the European Commission's position.**
- **The DHLGH must ensure that all existing data on the distribution of threatened habitats and species is utilised by licensing authorities.**
- **The next Forestry Programme must fully recognise the need to protect High Nature Value farmland from afforestation by ensuring that the necessary definitions, tools and safeguards are in place.**
- **DHLGH must actively work to ensure that relevant government policies recognise the need to safeguard High Nature Value farmland and that the necessary definitions, tools and safeguards are in place to achieve this objective.**

Progress has been made in mapping the predicted distribution nationally of HNVf[92] and there is existing data on the distribution of many semi-natural habitats[9394] and species of European

[89] European Commission delegated regulation No 807/2014 supplementing regulation (EU) No 1305/2013 http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0807&from=en

[90] European Commission (2016) Directorate-General for Agriculture and Rural Development – Unit E.4 (2016): Report. Preparing the assessment of HNV Farming in RDPs 2014-2020: practices and solutions. Good Practice Workshop, Bonn 7-8 June 2016. Brussels.

[91] IEEP, 2007. Guidance Document to the Member States on the Application of the High Nature Value Indicator. Report for DG Agriculture. Contract Notice 2006-G4-04.

[92] Matin, S., Sullivan, C.A., Ó hÚallacháin, D., Meredith, D., Moran, J., Finn, J.A. and Green, S., 2016. Map of High Nature Value farmland in the Republic of Ireland. Journal of Maps 12: 373–376.

[93] O'Neill, F.H., Martin, J.R., Devaney, F.M. & Perrin, P.M. (2013) The Irish semi-natural grasslands survey 2007-2012. Irish Wildlife Manuals, No. 78. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Ireland.

[94] Perrin, P.M., Roche, J.R., Barron, S.J., Daly, O.H., Hodd, R.L., & Devaney, F.M. (2014). National Survey of Upland Habitats (Phase 4, 2013-2014), Site Report No. 16: Caha Mountains cSAC (000093), Cos. Cork and Kerry. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

conservation concern[95]. However, the predicted distribution map of HNVf occurrence which has been produced has its limitations. As a predictive map it has not been ground truthed and land cover based approaches to HNVf identification can miss sites which are HNVf due to the presence of species of conservation interest[109] [96] [97]. The development of new Forestry Sensitivity mapping tools in tandem with other existing biodiversity data sets and existing land cover based approaches to HNVf identification should be used to protect HNVf from afforestation and other licensed activities.

Recommendation: Develop new High Nature Value farming mapping tools using species and land cover data to safeguard farmland biodiversity.

The protection and retortion of Irish peatlands: Target 2B6 has the objective that '*Measures under the National Peatlands Strategy are implemented by 2025 and updated by 2026*.' The National Peatlands Strategy has been overtaken by policy initiatives such as the EU Biodiversity Strategy and National Climate Policy positions such as the Climate Change Advisory Councils (CCAC) Carbon Budgets report which have clearly highlighted the need for urgent action to restore peatlands and wetlands and rewet organic soils as a rational policy response to the biodiversity and climate emergency. The National Peatlands Strategy has become outdated before it was even implemented and needs to be urgently updated with a view to delivering relevant national objectives within the lifetime of the NBAP and by 2030 at the latest. In the interim the NBAP should ensure that ambitious targets, actions and indicators are adopted for peatland and wetland restoration.

In the most recent EPA inventory, LULUCF was a net source of 4.8Mt CO2eq in 2018. The most recent projections published by the EPA for LULUCF indicate that, with current policies and measures, net emissions for the sector will increase from 4.5 Mt CO2eq in 2019 to 7.1Mt CO2eq in 2030. **The CCAC proposes that in order to achieve a 51% reduction in net emissions in the LULUCF sector, urgent action is needed to reduce emissions from drained organic soils.**

Grassland is the largest net source of emissions within the LULUCF sector, estimated at 7.0Mt CO2eq, in 2018. The main source of emissions is the drainage of an estimated 337kha of organic soils, which emit 8.3Mt CO2eq. **The CCAC illustrative scenario assumes rewetting of over 110,000 hectares of drainage organic soils.**

Wetlands, including peatlands are also a net source of emissions within the LULUCF sector, estimated at 2.5Mt CO2eq, in 2018. The main source of emissions is the drainage of an estimated 75.6kha of peatland for peat extraction. **The illustrative scenario assumes 90% of peatlands currently used for peat extraction are rewetted.** Recent EPA research[98] on peatland properties influencing GHG emissions and removals highlight key areas where urgent intervention is needed to secure carbon sinks and enhance sequestration. The EPA estimated that the carbon stocks held in natural and managed peatlands in Ireland at 2216Mt of carbon, with c.42% in raised bogs, c.42% in lowland blanket bogs and c.15% in mountain blanket bogs. Natural and cutover peatlands together

[95] Balmer, D.E., Gillings, S., Caffrey, B., Swann, R.L., Downie, I.S. and Fuller, R.J., 2013. Bird Atlas 2007-11: the breeding and wintering birds of Britain and Ireland. Thetford: BTO.
[96] Morelli, F., & Girardello, M. (2013). Buntings (Emberizidae) as indicators of HNV of farmlands: a case of study in Central Italy. Ethology Ecology & Evolution, (ahead-of-print), 1–8.
[97] Morelli, F., Jerzak, L., & Tryjanowski, P. (2014). Birds as useful indicators of high nature value (HNV) farmland in Central Italy. Ecological Indicators, 38, 236–242.
[98] Renou-Wilson, F. et al (2022) Peatland Properties Influencing Greenhouse Gas Emissions and Removal https://www.epa.ie/publications/research/land-use-soils-and-transport/research-401-peatland-properties-influencing-greenhouse-gas-emissions-and-removal.php

contain just under half of the national peatland carbon stock. National emissions are estimated at around 860,000t of carbon per year (or 3.15MtCO2 y–1). Importantly, GHG emissions from domestic (residential) peat extraction are suggested as being strongly underestimated, highlighting the need for enhanced engagement, regulation and enforcement. **Natural and cutover bogs hold just over half of all of the Soil Organic Carbon stored in Irish peatlands, which represent two-thirds of the national soil carbon stock.** This has major implications for policy decisions and requires an urgent suite of actions to (1) ensure that these carbon stocks remain in the ground and (2) promote the development of carbon sinks in all types of land use.

The legacy issues associated with the afforestation of peatlands have been largely ignored by policy makers in Ireland and are unfortunately unaddressed by the CCAC Carbon Budgets Technical report and other national strategies. Forestry covers 450,940 ha of peatlands in Ireland[99]. 60% of the Irish forestry on peat being State owned[100], with Coillte being responsible for 232,500 ha of forestry on peatlands making them the largest owner of peatland habitat in Ireland[101]. This includes formerly priority and Annex I raised bog and blanket bog habitat. The EPA calculate that forestry on organic soils may emit from 0.59 t C/ha/yr to 1.6 t C/ha/yr[102] [103] which implies national emissions in the region of 0.2Mt CO_2 y-1 to 0.7 Mt CO_2 y-1. The State and Coillte need to urgently address the significant legacy issues in Irish forestry. While official policies no longer support industrial scale afforestation of bogs we know that peatlands and peat soils continue to be afforested and the ongoing management and reforestation of these habitats is failing to address legacy planting with significant biodiversity, water quality, climate and health impacts with additional negative ecological impacts on species at a landscape level and on adjoining habitats. Action needs to be taken to end the practice of clear-felling on peat soils (where doing so would be compatible with other legal obligations) and there needs to be significant investment in the restoration of afforested peatlands. Research has confirmed the multiple benefits of forest removal on deep peats, highlighting the removal of trees from areas where yields are particularly low as a clear win-win scenario[104].

International biodiversity and climate change conventions [Convention on Biological Diversity and United Nations Framework Convention on Climate Change (UNFCCC)] now recognise peatlands as a priority for action, with peatland rewetting and restoration identified as "*low-hanging fruit, and among the most cost-effective options for mitigating climate change*"[105]. This is reflected in the EU Biodiversity Strategy which states that significant areas of carbon-rich ecosystems, such as peatlands, grasslands and wetlands, should also be strictly protected. This is backed up with the key commitments that "***By 2030, significant areas of degraded and carbon-rich ecosystems are restored****; habitats and species show no deterioration in conservation trends and status; and at least 30% reach favourable conservation status or at least show a positive trend (emphasis added)*."

While significant public attention has been given to industrial peat extraction for energy and fuel there has been much less focus on the horticultural peat industry. The horticultural peat industry is

[99] Duffy, P., Black, K., Fahey, D., Hyde, B., Kehoe, J., Murphy, B., Quirke, B., Ryan, A.M. and Ponzi, J., 2020. Ireland's National Inventory Report 2020. Greenhouse Gas Emissions 1990-2018 Reported to the United
Nations Framework Convention on Climate Change. Environmental Protection Agency, Johnstown Castle, Ireland.
[100] NPWS (2015) National Peatlands Strategy
https://www.npws.ie/sites/default/files/publications/pdf/NationalPeatlandsStrategy2015EnglishVers.pdf
[101] NPWS (2015) A National Peatlands Strategy 2015. Dublin: National Parks & Wildlife Services. Department of Arts, Heritage and the Gaeltacht.
[102] EPA (2022) Ireland's National Inventory Submissions 2022 https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/irelands-national-inventory-submissions-2022.php
[103] Jovani-Sancho, A. J., Cummins, T., & Byrne, K. A. (2021). Soil carbon balance of afforested peatlands in the maritime temperate climatic zone. Global Change Biology, 27(15), 3681-3698.
[104] Hermans, R., Andersen, R., Artz, R., Cowie, N., Coyle, M., Gaffney, P., & Subke, J. A. (2019). Climate benefits of forest-to-bog restoration on deep peat–Policy briefing. ClimateXChange, 1-5.
[105] Renouu-Wilson et al 2022 Research 401: Peatland Properties Influencing Greenhouse Gas Emissions and Removal

just as unsuitable as every other peat mining industry. The UK government recently announced that the sale of peat for use in the amateur gardening sector will be banned by 2024 to protect peatlands and the natural environment[106]. The Irish Government should adopt a deadline for a ban on the use of horticultural peat in the Irish armature gardening industry.

Based on Irish Climate Policy and EU Biodiversity Policy it is clear that a major restoration programme needs to be urgently implemented to restore degraded peatlands and wetlands and rewet drained organic soils right across the country. Past experience has shown that early and sustained engagement with farmers and rural communities is essential to the success of any form of habitat restoration or rehabilitation. This has not happened to date and the result has been a predictable groundswell against rewetting or peat soils.

Recommendation:

- **A major new national strategy needs to be adopted to deliver the scale of restoration of peatlands and wetlands and the rewetting or organic soils that is necessitated by the biodiversity and climate emergency.**
- **Natural and cutover bogs which represent two-thirds of the national soil carbon stock should be a priority for intervention with an emphasis on sites which are of high conservation value and those in public ownership.**
- **There is an urgent need for a strategy to address the legacy issues resulting from the afforestation of peatlands.**
- **It is essential that farmers and rural communities are central in shaping and driving this process through early and sustained engagement. Wherever possible management interventions should look to deliver multiple environmental and social benefits and reward practitioners for the ecosystem services provided.**
- **A deadline should be adopted for a ban on the use of horticultural peat in the Irish armature gardening industry.**
- **Greater efforts should be made to ensure that Westland, Bulrush, Clover, Erin, Harte and Klasmann-Deilmann and smaller entities rehabilitate the peatlands in their possession.**

A new mandate: Public lands managed in the public interest

Coillte is the largest landowner in the Irish State, managing a landholding of 440,000 ha or 7% of Ireland's land area. It controls the vast majority of the 50.8% of Irish forestry which is in public ownership. Coillte owns 232,500 ha of peatlands making them the largest owner of peatland habitat in Ireland. Tens of thousands of hectares of rare raised bog and blanket bog habitat have been drained and afforested in past decades[107]. Coillte also owns a significant area of approx. 96,000 ha of Special Protection Areas (SPA) and Special Areas of Conservation (SAC), Natural Heritage Areas (NHA) and proposed Natural Heritage Areas (pNHA). According to Coilltes' own assessment, their landholdings support a number of Rare, Threatened or Endangered, which is equivalent to the IUCN conservation status of "*critically endangered, endangered or vulnerable*"[108].

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[106] UK Government (2022) Sale of horticultural peat to be banned in move to protect England's precious peatlands https://www.gov.uk/government/news/sale-of-horticultural-peat-to-be-banned-in-move-to-protect-englands-precious-peatlands#:~:text=and%20habitat%20conservation-,Sale%20of%20horticultural%20peat%20to%20be%20banned%20in%20move%20to,peatlands%20and%20the%20natural%20environment

[107] NPWS (2015) A National Peatlands Strategy 2015. Dublin: National Parks & Wildlife Services. Department of Arts, Heritage and the Gaeltacht.

[108] Coillte (2011) Sustainability Report, Coillte Teoranta http://sustainabilityreport2011.coillte.ie/index.php?id=130

As a public authority and leader in Irish forestry, Coillte has the ability and the responsibility to lead the Irish forestry sector towards a more sustainable model of forestry and land use. Coillte also has significant expertise when it comes to habitat restoration. Given the amount of internationally and nationally important areas for biodiversity within Coillte landholding and the importance of peatlands, wetlands and forests in Ireland's efforts to tackle climate change, Coillte clearly has the expertise and an obligation to play a leading role in acting on Biodiversity loss and climate change. Coillte reported revenue earned of €422m with an operating profit of €124m in 2021[109].

It is therefore of serious concern to us that there are no actions within the draft NBAP which relate to Coillte. This is despite Coillte having a seat on the National Biodiversity Forum.

Bord na Móna owns a landholding of approximately 80,000 ha[110], which would formerly have supported an incredible array of wildlife across a mosaic of raised bog, blanket bog, wetlands, grasslands, woodlands and freshwater habitats. Though much has been lost since Bord Na Mona was established in the 1940s, the potential for rehabilitating both remnant habitats and degraded habitats is incredible. Cutaway bog (post production bogs) areas account for up to 30% of the total Bord na Móna bog area, while areas still in active production which are destined to become cutaway bog account for up to 55% by area. Cutaway bog supports a range of pioneer habitats such as wetlands, species rich grasslands, scrub and emergent bog woodlands; to more complex poor fen and rich fen habitats and established bog woodland. Already these sites support internationally important wintering Whooper Swans and breeding Lapwing and a range of waterfowl[111].

Bog remnants account for 12% of the bog area and largely comprises areas of degraded raised bog, patches of active raised bog (a priority habitat under the Habitats Directive). These remnants support threatened species such as Curlew and Sphagnum pulchrum, Marsh Fritillary butterfly. Drained raised bogs account for <3% of total bog area which have the potential to be restored and have a high conservation value. Some of these bogs still retained active raised bog habitat and all showed good potential for restoration of active and degraded raised bog habitat. Such is the conservation value of these sites that they have already or may be afforded national or EU protection[112]. Bord na Móna has reported a near-trebling in its operating profit, which was €78.9m in 2022[113].

While we welcome action 2B7 which commits that '*Bord na Móna will develop and publish an updated Biodiversity Action Plan*' and action 4B1 which commits that '*33,000 hectares of Bord na Móna owned peatlands will be rehabilitated by 2026 under the Enhanced Decommissioning Rehabilitation and Restoration Scheme (EDRRS);*' **Bord na Mona can and must do much more given the urgent need to restore peatlands and wetlands in response to the biodiversity and climate emergency and given their position as a public body.**

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[109] Coillte's Record Financial Performance In 2021 Shaped By Strong Global Demand For Timber And Resultant Strong Pricing https://www.coillte.ie/coilltes-financial-performance-2021/

[110] Bord Na Mona (2016) Bord Na Mona Biodiversity Action Plan 2016 – 2021 https://www.bordnamona.ie/wp-content/uploads/2021/03/Biodiversity-Action-Plan-2016-2021-1.pdf

[111] ibid

[112] ibid

[113] RTE News (2022) Bord na Móna sees profit jump to €78.9m as renewable investments boost revenue https://www.rte.ie/news/business/2022/0720/1311356-bord-na-mona/#:~:text=Bord%20na%20M%C3%B3na%20has%20reported,%E2%82%AC27.2m%20a%20year%20ago.

The untapped potential of Coillte and Bord Na Mona's land holding for biodiversity is unprecedented in the history of the Irish State. We have the opportunity to restore public lands at scale for nature, public amenity and sustainable development. **This is public land and the Irish people should have a greater say in how it is utilised. Coillte and Bord Na Mona need new mandates which empower the state to utilise public lands in the public interest.** Coillte and Bord Na Mona's legal mandates must be reviewed and brought in line with societal expectations and the stark realities of the biodiversity and climate emergency. The review should be informed by input from the public. The Programme for Government[114] commits to "*Ensure that Coillte's remit supports the delivery of climate change commitments and the protection of biodiversity. We are fully committed to the retention of the commercial forests of Coillte in public ownership*." To deliver on this commitment and to expand it to include Bord Na Mona it will be necessary to amend both public bodies legal mandates to prioritise the delivery of biodiversity conservation and climate change commitments.

Recommendations:

- **Coillte and Bord Na Mona's legal mandates must be reviewed and brought in line with societal expectations and the stark realities of the biodiversity and climate emergency.**
- **Coillte should develop and publish a Biodiversity Action Plan which commits to ambitious targets for habitat restoration by 2030.**
- **Bord na Mona should develop and publish an updated Biodiversity Action Plan which commits to the rehabilitation of all cut-over bog and priority and Annex habitat within its landholding.**

Under the EU Biodiversity strategy Ireland must submit to the Commission a list of existing protected areas which fulfil the criteria as well as an initial pledge for new areas to be designated explaining: (1) which criteria were used for their identification; (2) the scientific evidence that leads to their selection for designation; (3) the mechanism that will be put in place to ensure adequate site management and monitoring. ENGOs should be consulted in this process and there should be transparency around the criteria used to identify pledged sites. As stated under action 2A5 there is significant potential for habitat restoration on public lands, particularly those owned by Coillte and Bord Na Mona. An assessment of public lands should be carried out to identify low hanging fruit for early habitat restoration measures.

Recommendations:

- **ENGOs should be consulted in the process of identifying areas that will be pledged as future protected areas under the EU Biodiversity Strategy and there should be transparency around the criteria used to identify pledged sites.**
- **Public land and in particular Coillte and Bord na Mona's landholdings should be assessed under target 2A7 as part of the process of identifying future protected areas under the EU Biodiversity Strategy and habitats that will be subject to restoration interventions under the Nature Restoration Law.**

[114] Programme for Government: Our Shared Future https://assets.gov.ie/130911/fe93e24e-dfe0-40ff-9934-def2b44b7b52.pdf

Origin Green and Biodiversity

We welcome action 3C8 in principle which commits that '*Bord Bia and relevant Departments will work to ensure that the Origin Green programme produces measurable benefits for biodiversity, including through the Farming for Nature programme, in collaboration with the All-Ireland Pollinator Plan and other initiatives*.' Firstly, it is essential that the Origin Green programme delivers tangible benefits for biodiversity if its sustainability criteria are going to be credible. The failure of Origin Green to deliver biodiversity benefits on the ground since its inception has massively undermined its sustainability credentials, fostering a view among many that the programme is essentially a marketing campaign without any real ambition to drive forward the sustainability of the Irish agri-food sector.

As far as we are aware there are still no measures within the Origin Green programme which are targeted at improving biodiversity at farm level. While it is accepted that initiatives such as biodiversity assessments have taken place these have not been operationalised into conservation initiatives at farm or business level. Origin Green was founded as an industry initiative. In the past we have seen this marketing initiative try to take credit for the actions of farmers, such as the level of participation in agri-environmental schemes, which have absolutely no connection to Origin Green. It is therefore deeply concerning to see action 3C8 make links between Origin Green and the Farming for Nature programme and the All-Ireland Pollinator Plan which are totally independent of Origin Green. Farming for Nature is an independent, not-for-profit initiative that is unaffiliated with Origin Green; while the Farming for Nature Technical group focuses on the development and delivery of locally-adapted Agri-Environment Climate (AEC) Schemes which are paid for with public money and again are unaffiliated with Origin Green. Origin Green must set its own ambitious targets for biodiversity and not look to claim credit for tax-payer funded initiatives. More ambitious indicators are needed linked to the delivery of tangible biodiversity actions as a direct result of Origin Green membership. Greater clarity is needed within the NBAP on exactly what Origin Green are proposing to do for biodiversity.

Recommendations:

- **Greater clarity is needed within the NBAP on exactly what Origin Green are proposing to do for biodiversity.**
- **Origin Green must set ambitious targets for biodiversity linked to measurable performance indicators.**

Embed Biodiversity at the Heart of Climate Action

The world's leading biodiversity and climate experts the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and The Intergovernmental Panel on Climate Change (IPCC) recently co-authored a report on biodiversity and climate change[115]. They agreed that the rapid decline of biodiversity and changes in climate are tightly intertwined: they share underlying direct and indirect drivers (land use change, pollution), they interact, and can have cascading and complex effects that impact people's good quality of life and compromise societal goals. Indirect drivers of climate change and biodiversity decline include key institutional and governance

[115] Pörtner, H. O., Scholes, R. J., Agard, J., Archer, E., Arneth, A., Bai, X., ... & Ngo, H. T. (2021). IPBES-IPCC co-sponsored workshop report on biodiversity and climate change; IPBES and IPCC. In IPBES-IPCC co-sponsored workshop report on biodiversity and climate change; IPBES and IPCC.

structures in addition to socio-economic and cultural factors which drive consumption and energy use.

There is evidence to indicate climate change is impacting on global biodiversity driving geographic range shifts, altering phenology and migration patterns and the availability of suitable habitat for species and disrupting key ecological interactions in communities. All of these factors have implications for the way ecological communities and ecosystems function, and thus their capacity to deliver nature's contributions to people.

The impact of climate change is projected to intensify in the coming decades adversely impacting genetic variability, species richness and populations, and ecosystems. In turn, loss of biodiversity through deforestation and the loss of peatlands and wetlands will increase emissions from the land use sector. Both climate change and biodiversity loss have the potential to exacerbate each other and conversely biodiversity and climate action offer intertwined solutions to this dual ecological crisis. International biodiversity and climate change conventions [Convention on Biological Diversity and United Nations Framework Convention on Climate Change (UNFCCC)], the EU Biodiversity Strategy and more; have highlighted the need for nature-based solutions as part of the international response to climate change. In particular there is a clear need to protect and restore carbon-rich ecosystems, such as peatlands, grasslands and wetlands as well as marine ecosystems.

Despite this we have seen the evolution of climate policies in Ireland which fail to consider biodiversity loss or the socio-economic wellbeing of rural communities. These policies are a continuation of the same market driven approach which has exacerbated inequalities within society, while driving biodiversity loss and climate change. Rather than prioritising the need for holistic solutions, policies continue to protect the polluter and exacerbate our biodiversity emergency. This is highlighted in our marine area by the developer-led roll out of off-shore wind in the absence of proper marine spatial planning, adequate baseline data on marine biodiversity or zoning for potential Marine Protected Areas. On land, policies to reduce emissions in the agriculture and land use sectors have prioritised the ongoing expansion of intensive models of dairy farming and forestry which are leading drivers of biodiversity loss, water and air pollution and greenhouse gas emissions at a national level. Rather than tackling pollution at source the national approach has been to safeguard the economic interest of the most profitable farmers in the wealthiest parts of the country while shifting the burden of climate action onto the poorest farmers in the poorest parts of the country, who have contributed the least to emissions. These policies have ignored the principles of social and environmental sustainability and the need for a just transition when it comes to sharing the obligations and opportunities arising from the climate and biodiversity emergency.

We believe that the various policy scenarios that have been produced by the Climate Change Advisory Council (CCAC) and Teagasc are not fit for purpose. They do not reflect the complex multifaceted legal or policy framework that underpins our modern democracy and our aspirations for a fair and sustainable society. We need new scenarios that maximise the benefits of nature-based solutions such as a new model of forestry that enhances biodiversity and is resilient to climate change. We need to address legacy issues in the land use sector such as the drainage of Ireland's peatlands, wetlands and rivers. Agricultural emissions need to be tackled at source by shifting the burden of addressing pollution onto the greatest polluters, by placing limits on synthetic fertiliser use and by destocking intensive farms where environmental indicators such as water quality, air pollution and soil type indicate that the intensity of farming has exceeded the environment's carrying capacity. We need new policy scenarios that recognise that many extensive farmers, deliver a range of ecosystem and cultural services such as carbon sequestration, flood attenuation, biodiversity and recreational space and important cultural landscapes which are not captured in

overly simplistic economic indicators. We need to give greater recognition and support to the farmers who provide the greatest public goods and services to society.

We need an all of government response to both the biodiversity and climate emergencies. So far, the DHLGH have not been effective at influencing Ireland's climate change policies which as things stand will exacerbate our biodiversity crisis rather than maximising the win – wins presented by nature-based solutions. This has to change and the department needs to take a leadership position in determining the direction of travel in our national response to climate change. In this context we strongly welcome Objective 4 of the NBAP – '*Embed Biodiversity at the Heart of Climate Action*.' In particular we welcome target 4A3 '*By 2024, climate adaptation policy and practice is strengthened through explicit consideration of biodiversity in the next cycle of sectoral climate adaptation plans*' and its associated action that the National Adaptation Framework (NAF) will consider the biodiversity within the context of national climate adaptation policy. However, the NBAP must deliver more than just references to biodiversity within policy documents. It is essential that our national policy framework as outlined in the Climate Action Plan is based around the need to ensure that climate policies are complementary to policies and objectives linked to restoring biodiversity. We therefore also welcome actions 4C1, 4C2 and 4C3. The draft NBAP has not addressed the current failings in Ireland's approach to climate change policy such as afforestation which will seriously exacerbate biodiversity loss.

Recommendation:

- **Moving forward Ireland's climate action and adaptation strategies such as the Climate Action Plan and the National Land Use Strategy are brought fully in line with our national and international obligations to protect and restore biodiversity.**
- **DHLGH will ensure that Ireland's climate action and adaptation strategies maximise the potential of nature-based solutions and sustainable land management in order to tackle both biodiversity loss and climate change.**

Education and awareness

One of the greatest threats to biodiversity is apathy, which is exacerbated by a general lack of understanding among the public, decision makers and the judiciary about the scale of biodiversity loss, its drivers and its consequences. Fisheries scientist Daniel Pauly conceived the concept of 'shifting baseline syndrome' to describe how our perception of what a healthy marine ecosystem is like is shaped by our own observations during our lifetimes[116]. Therefore, as fish populations are overfished and marine ecosystems are degraded each generation lowers the bar of what they believe 'normal' to be. This phenomenon has resulted in many fisheries scientists considering the status of highly degraded marine ecosystems as an appropriate reference point for fisheries management. Shifting baseline syndrome is also at play in our collective perception of what a healthy environment is in Ireland and unless we improve awareness through education our expectations may deteriorate with each passing generation.

[116] Pauly D. 1995. Anecdotes and the shifting baseline syndrome of fisheries. Trends Ecol Evol 10:430.

It is therefore critically important that the NBAP strengthens public awareness of biodiversity loss and also public engagement in our national response. The ongoing Citizens Assembly on Biodiversity Loss and the associated Children and Young People's Assembly on Biodiversity Loss are positive initiatives that are demonstrating the benefits of civil society engagement. We need more of these kinds of initiatives and an enhanced role for civil society and NGOs in the design and implementation of biodiversity policy. We therefore welcome the actions outlined under Outcome 1D – '*Biodiversity initiatives are inspired and supported across the whole of society*,' but believe much more needs to be done to deliver enhanced public awareness and engagement with biodiversity conservation.

Recommendation:

- **The Government should encourage greater understanding of ecology and natural history by supporting initiatives that facilitate education and public engagement with Nature.**

- **The Government should introduce legislation to allow public and community co-operatives to acquire public land to develop community collaborative conservation projects like the one at Abbeyleix Bog, Co. Laois. A Forestry Commission model for this exists in the UK, developed for Scotland who have approximately 200 Community woodlands some on ex-Forestry Commission sites.**

- **The media plays an important role in education and awareness-raising. Ongoing state support is needed to increase coverage of biodiversity loss and climate change.**

Enhance the Evidence Base for Action on Biodiversity

Conservation management and environmental protection must be informed by the best available scientific advice, which in turn is determined by the resources available to fund research, data collection and monitoring and the accessibility to that information. We therefore welcome the ongoing commitment within Objective 5 to – '*Enhance the Evidence Base for Action on Biodiversity*' and we are broadly supportive of the targets and objectives outlined within Outcome 5A – 5E.

Recommendation:

- **There should be transparency and NGO engagement during the process of identifying research gaps.**

- **The Government should better resource biodiversity research, data collection and monitoring. In particular a greater emphasis needs to be placed on our marine environment where there are serious gaps in our understanding of the distribution of threatened habitats and species.**

Citizen Science is hugely important in both enhancing public awareness and engagement with biodiversity conservation while also delivering important data that might otherwise be prohibitively difficult to collect due to the logistics and resources required. We therefore strongly welcome the

numerous actions within the NBAP linked to the collection of citizen science. Our only reservation is that the NBAP gives the impression that the National Biodiversity Data Centre (NBDC) is the only body coordinating the collection of citizen science. Within the Irish Environmental Network, we have many members such as BirdWatch Ireland, Coastwatch and the Irish Wildlife Trust who have been heavily involved in citizen science projects for many years. Outside of the IEN there are also great organisations such as the Golden Eagle trust and the Irish Raptor Study Group that have done excellent work in coordinating citizen science input into biodiversity surveys. For example, action 2F12 which relates to citizen science in the marine environment only mentions the NBDC when organisations like Coastwatch, the Irish Whale and Dolphin Group, the Irish Sea Sanctuary and BirdWatch Ireland have a long-established record of carrying out citizen science monitoring around Ireland's coast. We are supportive of any move to strengthen the role of the NBDC in meeting Ireland's biodiversity data and information needs, however the NBDC is just one body that is actively involved in coordinating the collection of biodiversity data through citizen science. There is a need for a broader action reviewing the role of citizen science, how relevant bodies and eNGOs can be better supported and what the barriers are to the utilisation of citizen science (1B3). We are supportive of the development of a Biodiversity Citizen Science Strategy (1D4) but a broader range of stakeholders need to be involved.

Recommendation: The NBAP should have actions linked to enhancing the role of eNGOs in the collection of citizen science. All relevant organisations should be supported to participate in initiatives such as the Biodiversity Citizen Science Strategy.

An all-island approach to Biodiversity Conservation

Biodiversity doesn't recognise political borders and neither does pollution or climate change. It is therefore critically important that our response to biodiversity loss is transboundary and looks to build upon the opportunities presented by EU membership, international agreements and North South engagement. Nature provides a common ground where people of all faiths and denominations can find a space for peace and reconciliation. Cross-community collaboration on biodiversity initiatives between Northern Ireland and the Republic of Ireland presents an opportunity to strengthen the peace process and progress an all-island approach to conservation. We therefore support Outcome 6A – '*Science, policy and action on biodiversity conservation and restoration is effectively coordinated in an all-island approach*' and the associated actions 6A1 – 6A5. In addition to these actions it is important that the establishment of Favourable Conservation Status, Species Action Plans, Threat Response Plans and other conservation initiatives consider an all-island approach where a species population or a habitat range is transboundary in nature. This has not been the case in many conservation initiatives so far e.g. the Hen Harrier Threat Response Plan. The expansion of Ireland's MPA network over the coming years is an exciting opportunity to explore the potential for greater coordination between the UK and EU Member States on cross-border site designation and management.

Recommendation: The NBAP should look to build upon the existing draft actions encouraging an all-island approach to nature conservation.

National Land Use Review

We welcome the government's commitment to a National Land Use Review. How we manage our landscape is critical to Ireland's economy, our environment and our wellbeing. Key land use sectors such as agriculture, forestry and peat extraction have a major impact on terrestrial and freshwater biodiversity and emissions from the land use sector are a critical issue in regard to our national response to climate change. It remains a serious concern to us that biodiversity is not being prioritised within the National Land Use Strategy (NLUS) just as it has not been in national climate policy. The Environmental Pillar engaged with the EPA during the phase one evidence gathering exercise for the National Land Use review and we were dismayed to find out that biodiversity was not a key priority and that instead the review was being directed by the Climate Action Plan. In particular the scope of the land use review appears to be prioritising the achievement of Ireland's afforestation targets which as we will outline in more detail later are a major concern, as the expansion of Ireland's unsustainable forestry model will only drive further biodiversity loss. There has been no consultation with the Irish eNGO sector around the next steps in the NLUS. Given the failure of the DHLGH to shape either forestry or climate policy in the past we don't have confidence that biodiversity will have a strong voice unless eNGOs and civil society are engaged meaningfully in this process. So, while we welcome action 1C1 – '*Departments and Agencies with responsibility for the National Biodiversity Action Plan will also contribute to the National Land Use Review*' and the target to complete the review by 2023 we believe it is essential that civil society and eNGOs ae involved in the design of the NLUS and that there is a clear government commitment that biodiversity restoration is a primary objective of the strategy.

Recommendations:

- **Biodiversity conservation must be a core component of the NLUS. All relevant land use and biodiversity relevant spatial targets should be fully integrated into the NLUR such as designation and restoration targets under the EU Biodiversity Strategy, the Nature Restoration Law and the River Basin Management Plans.**
- **Civil society and eNGOs should be involved in the National Land Use Review.**
- **The National Land Cover Map should include biodiversity layers.**

The Reform of the OPW

As previously stated in the midst of a state declared biodiversity emergency the state remains the greatest transgressor of environmental law in Ireland. Few public bodies have transgressed environmental law in such a systematic way as the OPW. The OPW have done incalculable damage to Ireland's freshwater environment through the arterial drainage schemes which have fundamentally altered the Irish landscape. The ongoing maintenance of a national land drainage regime and the roll out of Flood Risk Management Schemes have devastated rivers and wetlands right across the country. It is clear that the way in which many Flood Risk Management Schemes have been implemented is not in line with environmental law or sustainable flood risk management. It is unfortunate that as a result of these activities the name of the OPW has been badly damaged overshadowing the good work that is done in the management of the OPW estate and through heritage services. We therefore strongly welcome the large number of actions which have been attributed to the OPW in the draft NBAP.

In particular we are supportive of Action 1A7 – '*OPW will implement its Biodiversity Action Strategy 2022-2026, including the appointment of a Biodiversity Officer, in support of NBAP targets*'. It is

critically important that the OPW's Biodiversity Action Strategy addresses the policies which have facilitated so much environmental damage. The action strategy must have an obligation to bring the arterial drainage and Flood Risk Management works fully in line with environmental law. The OPW Biodiversity officer should be empowered and supported to make the necessary changes within the organisation and should work closely with the DHLGH to reshape the OPW's relationship with nature. In this regard we are supportive of action 2B14 – '*OPW will work with relevant authorities to ensure that Flood Risk Management planning and associated SEA, EIA and AA, minimises loss of biodiversity and ecosystem services through policies to promote more catchment-wide and non-structural flood risk management measures*'. It will be important that there is a national move towards catchment-wide and non-structural flood risk management measures and this needs to come from the very top. These can't just be options that are included tokenistically and then screened out when it comes to the final design of Flood Risk Management Works. Assessment of the shortcomings of past Flood Risk Management planning must be part of this action.

We are also strongly supportive of 2B16 – '*The OPW, in coordination with other relevant stakeholders, will continue to enhance its knowledge and capacity with regards to Nature-based Solutions for Catchment Management (NBS-CM) and will assess the potential NBS-CM as part of the development of the future flood relief schemes.*'

We are strongly supportive of action 2B15 – '*OPW will ensure that all significant drainage (arterial drainage), including both initial drainage and maintenance drainage will be assessed for its implications for biodiversity, particularly for wetlands*.' This action should be part of a wider review of arterial drainage linked to the EU Biodiversity Strategy and habitat restoration, the National Land Use Review and other relevant policies. In particular it should help to inform the identification of rivers and wetlands for restoration. This process should be transparent and integrate action 2E2 – '*DHLGH, Inland Fisheries Ireland, OPW and other relevant bodies will explore the restoration of 300 km of rivers to a free-flowing state in line with the EU Biodiversity Strategy 2030*.' As previously stated the EU Biodiversity Strategies river restoration target should include clear targets and timelines.

We are also strongly supportive of action 2B17 – '*OPW will review existing flood relief schemes, identifying opportunities for retrofit of biodiversity enhancement measures, and developing biodiversity good practice from the lessons learned into guidance for new schemes*' but there are no targets, budgets or timelines to indicate the extent of the review or the extent of enhancement measures that will be taken. The scale of the commitment that is being made should be much more explicit.

We are also strongly supportive of actions 2B10, 3A9, 3A10 and 5B3 which will deliver positive benefits for biodiversity through the OPW's estate management and heritage services work.

Recommendation:

- **We are strongly supportive of the actions attributed to the OPW within the draft NBAP. These should be further strengthened by adding more detailed targets and timelines.**
- **The Arterial Drainage Act 1945 should be reformed and brought in line with Irish and EU environmental law.**
- **There should be an independent review of the OPW's past failure to comply with environmental law.**

- **The OPW review of existing flood relief schemes should be part of a wider review of arterial drainage linked to the EU Biodiversity Strategy and habitat restoration, the National Land Use Review and other relevant policies. In particular it should help to inform the identification of rivers and wetlands for restoration.**
- **The dredging of rivers during the statutory salmonid close season should be banned.**

Amend the Irish Constitution

A 2017 High Court judgment held that the Irish Constitution implied "*A right to an environment that is consistent with the human dignity and wellbeing of citizens at large*." However, in its landmark "Climate Case Ireland" judgment in 2020, the Supreme Court held that such a right to an environment could not in fact be derived from the Constitution. In finding this, the Chief Justice noted that such a right could instead be "*the subject of debate and democratic approval*".
The Citizens' Assembly on Biodiversity Loss provides an opportunity for debate and democratic approval for the constitutionalising of the right to a healthy environment. To signal Ireland's intention to live in harmony with the natural environment and its intention to discharge its international responsibilities for the environment, Ireland must insert and imbed protection for the environment in its Constitution.

Recommendation: We call for amendments to clauses such as Article 10 of the Irish Constitution and the insertion of new clauses to declare protection of the environment as a core and fundamental value to Irish society.

On Land

Towards a New Agricultural and Food Policy for Ireland

Ireland's leading environmental and civil society coalitions the Environmental Pillar, the Stop Climate Chaos Coalition, and the Sustainable Water Network have set out policy recommendations for the Government that would deliver much needed change in Irish agriculture policy. Our 'Towards a New Agricultural and Food Policy for Ireland' paper provides a foundation for a deeper discussion on what a new model of agriculture for Ireland could look like – a model that works within the ecological parameters essential to a healthy society, economy and planet.

We recognise that agriculture is by far the most significant pressure on Ireland's nature, water and air, and greenhouse gas emissions. There has been a long-standing failure to align the sector with Ireland's obligations under environmental law. However, we also know that farming is essential to the future of a multitude of our most beloved plants, animals and habitats that are dependent on farming. Agricultural habitats cover approximately half the EU territorial area and an estimated 50% of all species and several habitats of conservation concern in the depend on agricultural management[117] [118]. The world's food and agricultural systems feed more people than ever before, supplying large volumes of key commodities to domestic and international markets. Yet, the intensification of agricultural practices across the world is causing potentially irreversible damage to

[117] Halada, N., Evans, D., Romão, C., Peterson, J-E. (2011) Which habitats of European importance depend on agricultural practices? Biodiversity and Conservation 20(11), 2365-2378.
[118] Batáry, P., Dicks, LV., Kleijn, D., Sutherland, WJ. (2015) The role of agri-environment schemes in conservation and environmental management. Conservation Biology 29(4), 1006-1016.

the planet's living systems – its soils, air, biodiversity and water. Exceeding planetary limits threatens to weaken the very support systems that are crucial to food production and ecosystem health.

We believe that the solutions to our biodiversity crisis will be found in empowering farmers and rural communities through capacity building and innovation, and rewarding farmers for the delivery of ecosystem services. Sustainable farming practices such as regenerative agriculture and agroforestry can provide economic and social benefits whilst enhancing biodiversity. We would like to share the relevant recommendations with the citizens' assembly.

1. Develop a Policy Framework Aligned with Ecological Limits and Environmental Commitments

The Government must ensure that Ireland's food production is in line with commitments to the Agenda 2030 Sustainable Development Goals, the Paris Agreement, the EU Green Deal and current legal obligations to protect biodiversity and water quality. It must phase out all environmentally harmful subsidies in the agricultural and food sector. This means re-orienting subsidies so that public money is channelled into the delivery of public goods. Public funding should deliver permanent cuts in greenhouse gas emissions and protect and restore water quality and biodiversity. It should also support rural livelihoods and communities. The following sections detail policy recommendations that are crucial to this framework.

2. Protect and Restore Biodiversity on Farmland

The Government must commit to ambitious restoration of biodiversity on farmland and at landscape scale. They must also implement the EU target of protecting (at least) 30% of land area for biodiversity by ensuring that, at the very minimum, 10% of agricultural area is under high diversity landscape features by 2030. The State should reward farmers for the public goods HNV farmland provides and ensure the socio-economic viability of rural communities. Scaling up locally adapted and financially attractive results-based agri-environment payment schemes will be important for restoring biodiversity on all farm types. As part of the proposed land use review, the Government should assess the potential for ecological rewilding at farm, catchment and landscape level.

3. Protect and Restore Peatlands and Woodlands on Farms

We call on the Government to cease the drainage of wetlands and peaty soils, and end all peat extraction. We recommend that targeted, customised supports for the management and rejuvenation of existing carbon stocks be put in place. We also call for the introduction of a suite of agroforestry measures to promote natural regeneration and ecological corridors for nature connectivity.

4. Ensure that Agriculture Delivers its Fair Contribution of the 51% Reductions in Greenhouse Gas Emissions by 2030 Committed to in the Programme for Government

We call for a revised roadmap for agri-related emissions reductions and a declining cap on total national reactive nitrogen usage. To rapidly bring down sectoral methane and nitrous oxide emissions, we recommend that regulatory, voluntary and combined measures be implemented to limit and reverse recent dairy expansion. Compensatory measures for farmers should be put in place

to incentivise herd reductions.

5. Urgently Improve Air Quality

We call for a roadmap that brings Ireland into compliance with binding commitments on ammonia. The roadmap should include implementation and enforcement measures, and funding for farm abatement measures. We also call for efforts by the Government to address barriers to compliance with the NECD, including improved mapping and monitoring.

6. Halt and Reverse Water Quality Decline

We call on the Government to conduct risk assessments of all intensive farms (greater than 130 kg livestock manure nitrogen/ha) in sensitive catchment areas. Nitrates derogations should only be granted where it can be demonstrated that no deterioration in the aquatic environment will result. If necessary, sub-catchment areas must be zoned ineligible for certain stocking rates. A national plan to co-ordinate and support on-farm measures to intercept pollution pathways must be implemented.

7. Support Sustainable Livelihoods and Incentivise Farm Diversification

We call on the Government to develop a farmer and community-centred Just Transition action plan for the sector that includes diversification options with environmental co-benefits. We recommend support for the scaling up of local and indigenous nature-friendly food production, especially in cereals and pulses for human consumption, fruit and vegetables – a large proportion of which are currently imported at the expense of the indigenous tillage and horticultural sector.

8. Contribute to Public Health and Sustainable Consumption

Ireland must ensure that its food production policy promotes global health and environmental protection. National food policy should incentivise and support a greater dietary intake of organic produce and plant-based foods that are sustainably produced.

9. Contribute Meaningfully to Food Security and Nutrition

We call for the implementation of clear principles and oversight mechanisms, including mandatory Human Rights and Environmental Due Diligence legislation, to ensure that the commercial links to the global food economy do not undermine Ireland's international development commitments.

10. Facilitate Inclusive Dialogue and Participation for an Alternative Model for Agriculture in Ireland

A transition to a sustainable agricultural system will not be possible without ongoing multi-stakeholder dialogue. Drawing on the recommendations presented in this report, the Environmental Pillar, Stop Climate Chaos Coalition, and SWAN are committed to engaging in dialogue and

discussion, with all relevant stakeholder groups, where there is genuine commitment to deliver an alternative, fairer model for Irish agriculture. More education, training and awareness-raising is needed to help landowners, local authorities, politicians and the general public to understand how these systems can work and funding is needed to help implement them.

Root and Branch Reform - A new vision for Irish Forestry

Sustainable forest management can benefit climate, biodiversity and water quality while also generating space for recreation and reflection and supporting sustainable employment. However, the opposite also holds true, with poorly planned afforestation resulting in greenhouse gas emissions, biodiversity loss, pollution and negative socio-economic impacts on affected communities. Ireland needs more native woodland and a forestry sector which has high environmental credentials. There is a huge opportunity to develop connective nature corridors by increasing planting of native species or where possible by allowing natural regeneration using riparian 'buffer' zones, extending hedgerows and utilising steep ground that is difficult to farm.

To enhance Ireland's environment our forestry sector must adopt best practice in sustainable forest management that simply puts, delivers **the right tree, in the right places, under the right management.**

Recommendations:

1. Change the current narrowly focused forestry model and transition to a three-strand forestry strategy, for 1. Timber production, 2 Biodiversity/Ecological services/water protection and long term Carbon storage, and 3. Community Woodland Social/Recreational to ensure a balance of the 3 Pillars of Sustainable Forest Management (SFM), Ecological, Social, and Economic, based on the 1992 Rio Forest Principles for Sustainable Forest Management and subsequent EU Ministerial Conferences on the Protection of Forests treaties for SFM as well as the legally binding UN Convention on Biological Diversity relating to native woodlands and broadleaves to increase biodiversity.

2. Move to a Closer-to-Nature Forest Management, Continuous Cover Forestry (CCF) model with a focus on native broadleaves and other high valuable broadleaves, including more use of our native conifer, scots pine to grow better quality softwoods, and non-native conifers such as Cedar, Douglas Fir, European Larch. Natural regeneration, ecological corridors for nature connectivity and traditional coppice management of suitable native and other species should be put into practice at scale.

3. Phase out the damaging practices of clear felling and chemical dependency, as forest management tools. Include compensation for forestry contractors to ensure a just transition and introduce training in Closer-to-Nature Forest Management to help foresters make the transition.

4. Ensure that wildlife is protected from afforestation and forestry management in line with the requirements of Irish and EU law. Develop tools such as Forestry Sensitivity Mapping and implement species specific safeguards to support ecological assessment.

5. Reform, Refocus and Repurpose Coillte, the Irish Forestry Board, legislation via the 1988 Forestry Act, to deliver the multiple known benefits of a modern sustainable forestry model, which creates higher quality timber, meaningful employment and contributes to Climate and Biodiversity Action, while ensuring that communities' benefit.

6. Embrace a broad-based agroforestry model that includes sustainable hedgerow management and conservation which facilitates the establishment of native tree species. Reward farmers for verifiable ecosystem services.

7. Assist the development of small scale local Combined Heat and Power (CHP) systems in public and other buildings utilising locally produced tree thinning's and other sustainably produced biomass/firewood including from farm hedgerows in tandem with the development of a national certified small-scale Sustainable Forest Management standard.

8. Introduce Community Woodland legislation to allow public and community co-operatives access to funding and support to buy unproductive Coillte and other public lands to develop long term native community woodlands[119]. A Forestry Commission model for this exists in the UK, developed for Scotland who have approximately 200 Community woodlands some on ex-Forestry Commission sites[120].

9. Establish a broad multi stakeholder forestry-land-water-soil management use Forum, with cross departmental inputs to oversee afforestation and guide the forestry strategy implementation, to ensure joined up thinking so that new woodlands and forestry plantations are based on the sustainable principles of the right tree, in the right place, under the right management, utilising the existing River Basin Management Plans and existing environmental data.

10. Ensure that full lifecycle carbon accounting is an integral component of all schemes within the Forestry Programme, including any woodland creation supported under CAP.

Additionally:

11. Ensure that the Government's afforestation strategy is not impacting on Biodiversity by establishing a monitoring system for the Forestry Programme. Ensure that licensing requires site-by-site ecological assessments to ensure that afforestation is not negatively impacting on biodiversity both within or outside protected sites. Develop and implement a 'Forestry Sensitivity Mapping Tool' which will help to inform the future sustainable expansion of forestry in Ireland. This tool will provide the best available information on the distribution of species and habitats which have known sensitivities to forestry. Adopt a definition of High Nature value farmland and ensure that it is protected in line with EU policy. A prohibition on afforestation on peat soils in acid sensitive headwater catchments should be implemented as recommended by the EPA Hydrofor research project[121]. An action plan should be developed and resourced to address legacy issues associated with past afforestation of peatlands and sites of high conservation value.

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[119] https://forestryandland.gov.scot/what-we-do/communities/community-asset-transfer-scheme
[120] https://rbg-web2.rbge.org.uk/ethnobotany/ntfp/communitywoods.htm
[121] EPA Research Report No 169: HYDROFOR: Assessment of the Impacts of Forest Operations on the Ecological Quality of Water https://www.catchments.ie/epa-research-report-no-169-hydrofor-assessment-impacts-forest-operations-ecological-quality-water/

These recommendations are taken from the Environmental Pillar's 10 Point Action Plan to fix Forestry in Ireland and Greening Irish Forestry - Recommendations for Nature Friendly Forestry[122].

12. Genetic diversity is one of three levels of diversity that the Convention on Biological Diversity has committed to safeguarding. Ireland has an obligation to protect the unique genetic diversity of our native tree species by sourcing seed as locally as possible. We are deeply concerned by the ongoing importation of non-native seedstock for use in the Native Woodland Scheme and broadleaf planting. In addition this policy is resulting in the flow of public money out of the country which could be used to support jobs in Irish nurseries. Further concerns arise in respect of phytosanitary considerations, invasive species and diseases. This policy needs to be urgently revised. It is essential to use seed from certified Irish sources to ensure provenance and biosecurity. Funding is needed to provide education and training in best practice and to construct protective fences and seed beds.

13. There are serious legacy issues within the Forestry sector which need to be addressed. 60% of the Irish forestry on peat being State owned, with Coillte being responsible for the vast majority. The ongoing management and reforestation of peatlands and other High Nature Value farmland habitats on drained organic soils is resulting in significant ongoing biodiversity, water quality, climate and health impacts with additional negative ecological impacts on species at a landscape level and on adjoining habitats. Action needs to be taken to end the practice of clear-felling on peat soils (where doing so would be compatible with other legal obligations) and there needs to be significant investment in the restoration of afforested peatlands. The legacy of drainage in our upland blanket bogs is also resulting in flooding downstream and has been linked to bog slides which damage the local environment and threaten lives and livestock. Addressing upland drainage channels should be part of a holistic approach linked to close to nature flood risk management.

Protecting Soil Biodiversity

Soils are essential to life on Earth but are rapidly degrading worldwide due to unsustainable human activities, such as soil erosion, contamination, and the loss of soil organic carbon[123]. In the European Union alone, costs related to soil degradation exceed €50 billion a year[124]. Given the importance of soil health and soil biodiversity the European Commission proposed a directive framework for the protection of soil[125]. The European Soil Framework Directive was the first policy approach of soil protection at the European level. It had an objective to protect soils across Europe and maintain the

[122] Environmental Pillar (2019) Greening Irish Forestry - Recommendations for Nature Friendly Forestry
[123] Kraamwinkel, C. T., Beaulieu, A., Dias, T., & Howison, R. A. (2021). Planetary limits to soil degradation. Communications Earth & Environment, 2(1), 1-4.
[124] Veerman, C. et al. Caring for soil is caring for life Ensure 75% of soils are healthy by 2030 for food, people, nature and climate Report of the Mission Board for Soil health and food. (2020).
[125] COM(2006) 232 final https://eur-lex.europa.eu/legal content/EN/TXT/PDF/?uri=CELEX:52006PC0232&from=EN

sustainability of soil functions[126]. The legislative proposal was unfortunately withdrawn due to the opposition of a minority of countries in the European Council. Given the cross-sectoral nature of soil issues and the diversity of environmental and socio-economic pressures and governance conditions across Europe, we believe that the need for an EU Soil Framework Directive is more urgent than ever.

Recommendation: Ireland should support the European Commission in the re-initiation of a European Soil Framework Directive to protect soils and soil biodiversity across Europe.

Rivers running free and clear

Outcome 2C is that – '*All freshwater bodies are of at least 'Good Ecological Status' as defined under the EU Water Framework Directive*.' While we are supportive in principle with this outcome which is linked to the general objective of the Water Framework Directive (WFD) it is however inadequate because it fails to take account the High-Status Objective Water Bodies which have a target of restoring them to high status by 2027. Outcome 2C should be redrafted to say – '*All freshwater bodies achieve the targets set by the EU Water Framework Directive for 2027*.' Likewise, target 2C1 is also not in line with the basic requirements of the WFD as the scope of ambition for restoration is limited to the achievement of good ecological status, ignoring the High-Status Objective. The level of ambition in action 2C1 is also underwhelming and not directly linked to the achievement of the WFDs objectives by 2027. **The overarching outcome and the actions outlined in section 2C should be redrafted so that they are fully in line with Ireland's legal obligations to protect and restore our aquatic environment.**

Ireland is on its 5th Nitrates Action Programme (2022 – 2025), which coincides with a water quality crisis where nearly half of our rivers (47%) and a third of lakes are failing to meet their environmental quality standards for nutrients, with serious consequences for the health of Ireland's freshwater environment. Rather than making progress towards the protection and restoration of good-high ecological status, water quality is actually deteriorating with more than one third of river sites (38%) experiencing increasing levels of nitrate pollution. The situation is particularly critical in the South and South East of the country where dairy intensification is resulting in an increasing level of pollution. Radical change is needed to tackle nitrogen usage if Ireland is going to comply with the Nitrates and Water Framework Directives and the Habitats and Birds Directives. Target 2C2 has the objective of implementing all actions of the Nitrates Action Plan by December 2025 but the NAP itself is failing to protect water quality from agriculture. In order to meaningfully tackle agricultural pollution, **we support the Agriculture and Water recommendations of our partner network the Sustainable Water Network in their submission on the 3rd cycle of the River Basin Management Plan[127].**

- **Introduce WFD-specific risk assessments for all intensive farms, including derogation farms, through a permitting/licensing system similar to pigs and poultry.**

[126] Chen, Y. (2019). Withdrawal of European soil framework directive: reasons and recommendations. Journal of Sustainable Development, 13(1), 1-9.
[127] SWAN (2022) Draft Third Cycle River Basin Management Plan for Ireland 2022-2027 https://swanireland.ie/wp-content/uploads/2022/04/SWAN-Response-to-3rd-River-Basin-Management-Plan-RBMP-Consultation.pdf

- **Intensification, in particular to derogation stocking rates, should only be permitted if it can be demonstrated that it won't impact on the WFD objectives for associated water bodies.**
- **The RBMP must provide for the monitoring and strict limiting of total catchment imported N (fertiliser and feed) in catchments already saturated, based on EPA analysis. Certain sub-catchments should be zoned ineligible for certain stocking rates, if necessary, based on catchment carrying capacity.**
- **For existing farms deemed to be a risk, regulatory, voluntary and combined measures should be implemented to reverse pollution impacts, including through herd reductions, with compensatory measures put in place to support this, where necessary.**
- **Conduct an independent review of the final CAP to assess its strengths and weaknesses to meet the WFD objectives. Where weaknesses are highlighted, additional measures must be proposed.**

We are supportive of action 2C3 – *'Irish Water will implement its Water Services Strategic Plan (2015-2040), in particular its objective to protect and enhance the environment, together with its Biodiversity Action Plan'* - however, it critical that Irish Water are properly resourced to ensure that the necessary investment is made to ensure that waste water pollution is addressed by the WFD 2027 deadline. An indicator should be included which requires that an assessment of the resourcing of Irish Water is completed.

We are strongly supportive of the WFDs High Status waterbody objective and Ireland's associated Blue Dot Catchments Programme. The protection and restoration of high-status water bodies is critically important for Ireland's freshwater biodiversity and it is directly linked to compliance with the Habitats and Birds Directives. Action 2C4 commits – '*DHLGH and LAWPRO will ensure that high status water bodies are effectively protected and restored via the Blue Dot Catchments Programme*' – however it is clear that addressing the pressures on high-status waterbodies requires an all of government approach. In particular it is important that the Forest Service, Coillte, the agricultural licensing and enforcement divisions of DAFM, the EPA, ABP, OPW and local authorities are contributing to the protection and restoration of high-status sites. DHLGH and LAWPRO alone will not be able to address the range of threats and pressures impacting on high-status sites. This is also the case with action 2C5 – '*DHLGH will develop an Action Plan to urgently protect 3110 Oligotrophic Lake Habitat that was assessed as having a Bad Conservation Status as part of Article 17 Reporting 2019'* – where clearly the responsibility for delivering on the recommendations of the action plan will fall on a range of state agencies, public bodies and departments. Both actions 2C4 and 2C5 should include all of the Partners / Key Actors that we have outlined.

At Sea

Ireland may be a small island nation, but we are a large Ocean state. Ireland's marine environment supports a rich diversity of coastal and marine ecosystems including internationally important habitats and species. The marine environment provides essential planetary functions such as producing oxygen, sequestering carbon and driving global weather patterns. The blue economy also plays an important role in the lives of many communities with the jobs created by fisheries and aquaculture being the most obvious examples. Our treatment of the ocean does not reflect our dependence on it

however. Marine ecosystems are under unprecedented pressure from overfishing, climate change and pollution[128]. These stressors may have synergetic effects on marine ecosystems and their ability to deliver ecosystem services. There is a serious risk that these stressors will result in tipping points resulting in cascading impacts that could accelerate biodiversity loss and critically impair the functioning of ecosystems.

The recent Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) global assessment on biodiversity and ecosystem services report[129] found that human activities have had a large and widespread impact on the world's oceans. These include direct exploitation, in particular overexploitation, of fish, shellfish and other organisms, land- and sea-based pollution, including from river networks, and land-/sea-use change, including coastal development for infrastructure and aquaculture. Only 3 per cent of the ocean was described as free from human pressure. There has been a 10 percent decrease per decade in the extent of seagrass meadows from 1970-2000 and a 50 percent decrease in live coral cover of reefs lost since the 1870s. Over 245,000 km2 of ocean are effectively 'dead zones' due to low oxygen levels caused by fertilizers.

Commercial fisheries have the largest global footprint of any human activity. Industrial fishing has a footprint four times larger than agriculture, in which more than the 70,000 reported industrial fishing vessels cover at least 55% of the oceans[10]. The northeast Atlantic is one of the most intensively fished regions on the planet[10]. Of the monitored commercial fish stocks in the Northeast Atlantic the proportion of overexploited stocks has remained at close to 40% over the last ten years; while in the Mediterranean 83% of stocks are overfished[130]. Climate change is becoming an increasingly dominant threat to the functioning of marine ecosystems with knock on impacts on seabirds and commercial fisheries. Climate change is projected to drive a 3-10 percent decrease in ocean net primary production by the end of the century and a 3-25 percent decrease in fish biomass by the end of the century in low and high climate warming scenarios, respectively.

Already in Europe a high proportion of marine species and habitats are of unfavourable or unknown conservation status[131]. Only a small fraction of Ireland's marine habitats and species are offered protections under the Birds and Habitats Directives. According to the National Parks and Wildlife Service[132] out of the 23 marine habitats protected under Habitats Directive only 5 are in favourable condition, 14 are in unfavourable-Inadequate and 4 are in unfavourable-bad condition. 10 out of the 23 are shown a declining trend in their conservation status.

Seabirds are more threatened globally than any other comparable group of birds with over one quarter of species threatened and 5 percent of species critically endangered[133]. According to the fourth assessment of Birds of Conservation Concern in Ireland 2020-2026, of Ireland's 19 breeding

[128] European Environmental Agency (2019) Marine messages II Navigating the course towards clean, healthy and productive seas through implementation of an ecosystem-based approach ISBN 978-92-9480-197-5 ISSN 1977-8449 doi:10.2800/71245 https://www.eea.europa.eu/publications/marine-messages-2/

[129] IPBES (2019): Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES secretariat, Bonn, Germany. 1148 pages. https://doi.org/10.5281/zenodo.3831673

[130] Scientific, Technical and Economic Committee for Fisheries (STECF) – Monitoring the performance of the Common Fisheries Policy (STECF-Adhoc-21-01). Publications Office of the European Union, Luxembourg, 2021, ISBN xxxxxxxxxxx, doi:xxxxxxxxxxx, PUBSY No.

[131] European Environmental Agency (2019) Marine messages II Navigating the course towards clean, healthy and productive seas through implementation of an ecosystem-based approach ISBN 978-92-9480-197-5
ISSN 1977-8449 doi:10.2800/71245 https://www.eea.europa.eu/publications/marine-messages-2/

[132] NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill

[133] Croxall, J.P., Butchart, S.H.M., Lascelled, B., Stattersfield, A.J., Sullivan, B., Symes, A., Taylor, P. 2012. Seabird conservation status, threats and priority actions: a global assessment. Bird Conservation International, 2012, Vol. 22, 1-34.

seabird species, only 1 species is green listed, 11 are Amber-listed birds of medium conservation concern, 4 are red-listed birds of high conservation concern (Kittiwake, Puffin, Razorbill & Leach's Storm-petrel).[134] Post Brexit, Ireland is the most important EU27 state for these 4 Red listed species. Ireland also has a number of red-listed 'passage' species such as Balearic Shearwater and Sooty Shearwater.

Marine fish species are offered very little protection under Irish law. An assessment of 58 cartilaginous marine fish found that 6 were critically endangered, 5 species were assessed as endangered and 6 as vulnerable[135]. According to the Marine Institute[136], under the Marine Strategy Framework Directive (which mirrors the CFP's 2020 MSY obligation), only 20 percent (18 of 92) of commercial fish stocks analysed in 2019 met the criteria for achieving Good Environmental Status (GES). Across the EU only 26.7% of assessed exploited stocks are deemed to be at Good Environmental Status while the status of 89.5% of stocks remains unknown due to data gaps.

The health and resilience of marine ecosystems is closely interlinked with the prosperity and wellbeing of the coastal communities that depend directly on the ocean. While the recovery of some commercially important fish stocks has contributed to the improved economic performance of the EU fishing fleet; the ongoing decline in the status of inshore fish and shellfish populations due to overfishing has contributed to the ongoing decline in the number of active vessels and direct employment within the sector or the fact that the Small-Scale Coastal Fisheries (SSCF) in many Member States (MS) continue to make gross and net losses[137].

Clearly a new approach is needed to how we interact with the ocean and therefore we welcome '*Outcome 2F: Biodiversity and ecosystem services in the marine environment are conserved and restored.*'

We welcome the target and indicators associated with action 2F1 – '*DHLGH will implement and update national programmes of measures to achieve High or Good Ecological Status and Good Environmental Status within transitional, coastal, and marine waters, acting further to support OSPAR Decisions, Recommendations and Other Agreements, and to bolster marine biodiversity throughout the North-East Atlantic region',* however the action itself is very high-level and gives no indication of precisely what the DHLGH will do differently to ensure that the objectives of the WFD, MSFD, OSPAR and other marine obligations are met. Effective action delivering GES under the MSFD is critical to achieving healthy seas in Ireland, and for conserving and restoring marine biodiversity. Despite 10 years of MSFD measures to achieve GES (and 2 programmes of measures cycles – need to check), Ireland has not yet achieved its GES aims. Therefore, the new measures brought forward in the latest POM must be truly transformative, ambitious and drive effective change on the ground in our seas or else we will continue to fail delivery of this critically important aspect of EU law. It is of particular concern to us that Ireland has failed to fully implement the Common Fisheries Policy and in particular the deadline to end overfishing by 2020 and the implementation of the landing

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[134] Gilbert, G., Stanbury, A., & Lewis, L. (2021). Birds of Conservation Concern in Ireland 4: 2020–2026. Irish Birds, 43, 1-22.

[135] Clarke, M., Farrell, E.D., Roche, W., Murray, T.E., Foster, S. and Marnell, F. (2016) Ireland Red List No. 11: Cartilaginous fish [sharks, skates, rays and chimaeras]. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. Dublin, Ireland.

[136] Irish government (2020) Marine Strategy Framework Directive 2008/56/EC_Article 17 update to Ireland's Marine Strategy Part 1: Assessment (Article 8), Determination of Good Environmental Status (Article 9) and Environmental Targets (Article 10) https://bit.ly/2P5aG09

[137] Scientific, Technical and Economic Committee for Fisheries (STECF) - The 2020 Annual Economic Report on the EU Fishing Fleet (STECF 20-06), EUR 28359 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-27164-2, doi:10.2760/500525, JRC123089

obligation. Likewise, Ireland is one of the worst Member States within the EU when it comes to marine conservation and the designation of Marine Protected Areas.

We are supportive of action 2F2 - '*DHLGH will adopt and complete the integration of Ireland's marine environmental targets established under the MSFD, and Water Framework Directive Status Objectives, into the planning, consenting and operational systems for human activities in Ireland's maritime area*'. The achievement of High or Good Ecological Status and Good Environmental Status, will require truly transformative, ambitious and far reaching action across the marine economy. This will require changes in how we interact with marine biodiversity that go well beyond marine planning. The ongoing roll-out of offshore renewables in the absence of a network of Marine Protected Areas or sufficient baseline data on the status of marine biodiversity in proposed sites for development raises serious concerns around the state's interest in protecting marine biodiversity. The failure of the DHLGH to ensure that policies enacted by DAFM and DECC are compliant with Ireland's policy obligations and environmental law raises serious questions about the ability of the NBAP to safeguard marine biodiversity. The NMPF doesn't deliver an ecosystem based or spatially explicit approach to marine planning and therefore presents a huge risk to marine biodiversity in Ireland. We do not have confidence that the NMPF is capable of protecting biodiversity from the inevitable pressures associated with the roll-out of Offshore Renewable Energy.

We strongly welcome action 2F3 – '*DHLGH will enact and implement comprehensive legislation enabling the designation and management of Marine Protected Areas (MPAs) and the expansion of Ireland's network of area-based conservation measures in the coastal and marine environment*.' We very much welcome this action and target. New legislation is essential to safeguard and restore Ireland's marine biodiversity. We also welcome the mention of additional features other than EU and OSPAR features including blue carbon. To meet the government's own targets and targets laid down within the draft NBAP, the government will need to move with pace on MPA legislation and quickly follow it up with a comprehensive process of site selection, and management design and implementation.

We are supportive of action 2F4 – '*DHLGH will continue to work nationally, internationally with OSPAR contracting parties, and with external organisations and bodies to support and ensure effective delivery of the 12 strategic objectives and 54 operational objectives set out in OSPAR's North-East Atlantic Environment Strategy 2030*.'

We are supportive of action 2F5- '*DAFM and other relevant stakeholders will continue to implement the EU's Common Fisheries Policy in order to provide for the long-term conservation and survivability of fish and shellfish stocks and marine biodiversity. Ensure the ongoing implementation of both Multiannual Plans and remedial measures for vulnerable stocks, which aim to ensure that the exploitation of living marine biological resources restores and maintains populations of harvested species above levels that can produce maximum sustainable yield. Number of fish and shellfish stocks that are being fished sustainably*.' However, we have little faith in DAFMs willingness to implement the CFP given the negative role that the Irish state has played in undermining the implementation of the CFP at an EU level. The question has to be asked: what role will DHLGH play in the conservation of marine biodiversity and in the sustainable exploitation of marine ecosystems, given the lack of engagement we have seen from the department with these issues so far? The DHLGH must do more to protect marine biodiversity and not simply be content to report on the status of Annexed marine species. The biodiversity aspects of the CFP have also not been implemented or achieved, and Article 11 is an ongoing impediment to marine conservation in the EU.

We are supportive of action 2F6 – '*DAFM, the Marine Institute and other relevant stakeholders will continue to develop and implement fishery management measures at national level within the 6 nautical mile limit and at regional EU level outside the 6 nautical mile limit to conserve biodiversity and fish and shellfish stock levels*,' however too little progress has been made to date to progress an ecosystem based approach to fisheries management within either the 6nm zone or within Ireland's EEZ. This action should be amended to include explicit commitments such as a commitment to control damaging fishing activities within MPAs, the adoption of an ecosystem-based approach to fisheries management including stock recovery plans and full catch documentation within all fisheries which are deemed to be a high risk of discarding. We believe that more detailed indicators are needed to achieve this target. We suggest that the following indicators are included: The number of stock recovery plans in place to effectively reduce bycatch and set the relevant stocks on a pathway to recovery above levels capable of producing MSY. The number of commercially exploited fish and shellfish species outside safe biological limits. The number of exploited fish stocks of unknown status. All fisheries which are deemed to be at high risk of discarding to be subject to robust monitoring and control measures, including full catch documentation by 2024 at the latest.

We are strongly supportive of action 2F7 – '*DAFM, DHLGH and other relevant stakeholders will implement measures to ensure that there are no significant adverse effects from marine fisheries and aquaculture in and adjacent to EU Natura 2000 sites*,' however the indicators listed are not directly linked to the ending activities within marine Natura 2000 sites that cause significant damage to the qualifying interests. The scope of the indicator of purely meeting the objectives of the Habitats and Birds Directives is also not sufficiently ambitious to reflect the ecosystem-based approach and the achievement of GES under the MSFD. We believe that indicators are needed that reflect the need to engage with fishing communities and end damaging fishing within core conservation areas within a newly established MPA network. Natura sites need site specific conservation objectives that incorporate the broader ecosystem obligations of the MSFD as well as proper management plans and control and enforcement of damaging activities.

We are supportive of action 2F8 – '*DAFM, SFPA and other relevant stakeholders will continue to take concerted action to combat illegal, unreported, and unregulated fishing*,' however again we must acknowledge the role of the Irish state including DAFM and SFPA in allowing overfishing and illegal and unregulated fishing activities to flourish in Irish waters through the ongoing failure to promote sustainable fishing practices, negotiate sustainable catch limits or implementing effective regime of monitoring and control of fishing activities. We are supportive of the listed indicators however they do not go far enough. We request that that additional actions and indicators are adopted that have the intention of implementing the landing obligation e.g. The number of Irish fishing vessels fitted with CCTV.

We are supportive of action 2F9 – '*DHLGH and DAFM will continue to undertake high quality research into and mapping of Ireland's coastal and wider marine environments*,' this is an important action that is needed to inform marine conservation and ecosystem-based fisheries management. However, the research gaps within our marine environment are much broader than just research into and mapping. There are significant data gaps when it comes to even commonly exploited fish species. Much more needs to be done to improve our understanding of our marine environment, investing in research into exploited fish and shellfish species, MSFD indicators and rare and threatened habitats and species.

We are supportive of the 2F10 targets and actions – '*DAFM, DHLGH and other relevant stakeholders will build and enhance engagement with coastal and marine stakeholders, maritime sectors and the wider community to promote the benefits of marine biodiversity and ecosystem services, and the*

responsible, sustainable use of marine resources,' however more public consultations are not a meaningful way to ensure engagement in marine conservation and fisheries management. More must be done to support stakeholder engagement through EMFF funding with an emphasis on building capacity within the eNGO and Inshore fishing sectors. The designation and management of MPAs will require significant engagement with stakeholders at a local, regional and national level. Indicators should be drafted to reflect the government commitment to early and sustained grass-roots engagement during all the steps involved in expanding Ireland's MPA network.

We are supportive of actions and targets 2F11 and 2F12 however greater recognition needs to be given to the range of NGOs that are engaged in citizen science initiatives in the marine and coastal environment.

The Programme for Government contains a number of commitments which would benefit the marine environment and the coastal communities that depend on its wellbeing. All of these commitments should be included in the NBAP and supported by clear targets, timelines, responsible actors and clear indicators.

- **Ensure that inshore waters continue to be protected for smaller fishing vessels and recreational fishers and that pair trawling will be prohibited inside the six-mile limit.**
- **Support the inshore fishing fleet in generating greater marketing and promotional capacity, by facilitating the establishment of a Producer Organisation for these smaller fishing vessels, thereby providing additional opportunity for the island and coastal communities involved in the inshore sector.**
- **Aggressively tackle the issue of waste, ghost nets and illegal dumping in the marine environment, through rigorous implementation of the Port Reception Facilities Directives and by requiring all Irish fishing trawlers to participate in the Clean Oceans Initiative, ensuring that plastic fished up at sea is brought ashore.**
- **Work to develop the aquaculture sector in a sustainable way, including shellfish aquaculture, using native species, and implement the recommendations of the report of the Independent Aquaculture Licencing Review Group, to ensure that feed products for aquaculture are sourced and produced in the most sustainable manner possible.**

Fair Seas is a coalition of some of Ireland's leading environmental non-governmental organisations and networks seeking to protect, conserve and restore Ireland's unique marine environment. A number of our members are actively involved in the Fair Seas campaign. They have identified a series of recommendations that would put our marine ecosystems back on the road to recovery.

1. Designate and manage at least 30% of Irish waters as a Marine Protected Area

The Irish Government committed to expanding Ireland's network of Marine Protected Areas (MPAs) in its 2020 Programme for Government, stating '*We will realise our outstanding target of 10% under*

the Marine Strategy Framework Directive as soon as is practical and aim for 30% of marine protected areas by 2030'[138].

It is only when designated areas *are* effectively managed for nature and achieving their conservation objectives, that they can positively contribute to reversing biodiversity loss. Unfortunately, the extent and the quality of Ireland's current MPA network is poor, with only 2.1% of Ireland's seas designated, and many sites lacking adequate management[139]. Therefore, it is essential that the Irish Government fulfil previous environmental and biodiversity commitments, and begin the MPA legislative and designation process as soon as possible.

2. Implement ambitious marine conservation measures to ensure 'Good Environmental Status' of Ireland's seas

Ireland failed to achieve Good Environmental Status under the Marine Strategy Framework Directive (MSFD) for over half (6 out of 11) of the descriptors assessed in the latest 2020 report[140]. The failing descriptors include 'Biological Diversity' as well as others that are closely linked to biological diversity including 'Commercial fish & shellfish', 'Foodwebs', 'Sea-floor integrity', 'Marine litter' and 'Energy including underwater noise'. The MSFD is an important legislative driver for obtaining '*ecologically diverse, dynamic oceans and seas which are clean, healthy and productive*'. An ambitious suite of marine conservation measures, with adequate resourcing, is needed to ensure Good Environmental Status for all descriptors is achieved.

3. Invest in restoration programmes to recover our most vulnerable and biodiverse coastal habitats and endangered species

Establishing priority habitat restoration zones, including a focus on 'blue carbon' habitats which help capture and store away carbon from the atmosphere (e.g., seagrass, saltmarsh, shellfish reefs), will help tackle Ireland's biodiversity, water quality and climate crises. This process should be co-developed alongside the expansion of Ireland's MPA network.

4. Review and amend the National Marine Planning Framework to ensure planning decisions are considerate of whole ecosystems

The Sustainable Water Network recently published an assessment[141] of the National Marine Planning Framework (NMPF), and found that its lack of adequate spatial planning or ecosystem-based approach means the mistakes of poor planning on land risk being repeated at sea. Without an ecosystem-based approach to consenting and regulating activities and developments at sea, it is unlikely the NMPF will

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[138] Ireland's Programme for Government: Our Shared Future. 2020.

[139] Expanding Ireland's Marine Protected Area Network. A report by the Marine Protected Area Advisory Group for the Department of Housing, Local Government and Heritage October 2020.

[140] Marine Strategy Framework Directive. Update to Ireland's Marine Strategy Part 1: Assessment, Determination of Good Environmental Status, and Environmental Targets.

[141] Walsh, C. (2022) 'An Evaluation of Ireland's Marine Spatial Plan – The National Marine Planning Framework'. Sustainable Water Network (SWAN). May 2022.

contribute positively to the achievement of Good Environmental Status in Irish waters. The NMPF needs to be reviewed and amended to explicitly address these concerns**.**

5. Implement an ambitious and effective National Biodiversity Action Plan to jumpstart nature's recovery in Ireland

Fair Seas eagerly anticipates the public consultation on Ireland's new National Biodiversity Action Plan (NBAP). Considering Ireland's seas are over seven times the size of its land mass, much of Ireland's biodiversity occurs in the marine environment. A new, ambitious and comprehensive plan to tackle Ireland's marine biodiversity loss is fundamentally important to the future health of our seas, as well as the survival of nationally and globally important species and habitats which are already rare, vulnerable and threatened in our waters.

6. Pursue the full implementation of the Common Fisheries Policy to ensure fishing is sustainable, and MPAs are effectively managed

The rigorous and full implementation of the EU Common Fisheries Policy (CFP) is essential to achieve the sustainable management of all commercially exploited species. Putting an end to overfishing and driving the recovery of fish stocks, the CFP should also contribute to the protection of the marine environment, and in particular to the achievement of Good Environmental Status under the MSFD.

Fisheries management in current and future MPAs (offshore and inshore) is crucial to secure an ecologically coherent and well-managed network of MPAs. Fortunately, the CFP provides the mechanisms for implementing conservation measures within offshore and inshore MPAs, including fisheries management. However, to date these mechanisms are underused and failing. Ireland must pursue and implement all aspects of the CFP to help secure well-managed protected areas, healthy seas, and a strong, sustainable fishing industry.

In the report 'Common Fisheries Policy 2020 – A Discarded Opportunity'[142] BirdWatch Ireland provided an analysis of Ireland's and the EU's failure to fully implement the Common Fisheries Policy. The positive environmental and socio-economic benefits of sustainable fisheries management remain within reach. Within the report BirdWatch Ireland also provided recommendations to support the delivery of the promise of sustainable fisheries management without further delay. These recommendations are still relevant and should be reflected within the commitments made by DAFM, the Marine Institute and the SFPA within the NBAP.

1. Set sustainable fishing limits

- In 2020 TACs should be set not exceeding ICES advice on the basis of the ICES MSY approach or, in the absence of defined FMSY reference points, not exceeding the ICES Precautionary Approach advice.
- ICES catch advice for stocks subject to the MSY and precautionary approaches should be treated as an upper limit for fishing mortality.

[142] Kelly (2020) Common Fisheries Policy 2020 – A Discarded Opportunity https://birdwatchireland.ie/common-fisheries-policy-2020-a-discarded-opportunity/#:~:text=A%20new%20report%20by%20BirdWatch,the%20reformed%20Common%20Fisheries%20Policy.

2. Improve Data Collection

- Managers should improve data collection to inform the science, fisheries management, and ensure compliance with the CFP.
- Member States should support ICES in the development of MSY proxy reference points for data deficient stocks.

3. Rebuild Depleted Stocks

- Stock recovery plans should be developed to effectively reduce fishing mortality, putting overfished stocks on a pathway to recovery above levels capable of producing MSY.
- Managers should follow the best available advice from ICES and STECF on fisheries management. This should include following mixed fisheries advice scenarios that ensure the sustainable management of all stocks in a mixed fishery.
- Managers should implement measures aimed at minimizing the misalignment between fishing activity and stock shares for the fleets, such as changes in gear selectivity, spatio-temporal management measures, or reallocation of stock shares, should also be implemented.

4. Fully Implement the Landing Obligation

- Managers should invest in cost-effective at-sea monitoring and control systems such as REM, to ensure the full implementation of the Landing Obligation, delivering benefits such as transparency, improved data collection and enhanced compliance.
- All fisheries which are deemed to be at high risk of discarding should be subject to robust monitoring and control, including full catch documentation in 2020.

Reorientate economic activity towards societal and ecological wellbeing and a circular economy

Expansionist economic policies in agriculture and other economic sectors are a key driver of biodiversity loss. Indeed, numerous studies[143] have shown that economic growth tends to be closely linked with increased resource consumption and emissions, which in turn harm biodiversity.

The drive to constantly expand overall economic production in Ireland and elsewhere has many causes and therefore needs to be addressed in a multifaceted way. The interconnected nature of the economy means that actions taken in one economic sector will inevitably affect the other sectors, for better or worse. Changes to economic dynamics in Ireland to relieve expansionist pressure will need to be wide-ranging, with an emphasis on 'upstream', systemic measures that have broadly beneficial effects. Such measures include substantial improvements to housing provision, welfare services, and taxation and financial services both in Ireland and at the EU level[144]. These measures would be reinforced by a redefinition of economic progress in EU and international governance. This

[143] https://conbio.onlinelibrary.wiley.com/doi/10.1111/conl.12713

[144] These measures are summarised in Feasta's submission to this consultation call and they are explored in more depth in this discussion paper: https://www.feasta.org/2022/04/28/online-discussion-may-18-cross-sectoral-economic-measures-to-support-biodiversity-in-ireland/

includes firstly, a conscious reorientation of economic objectives towards achieving a 'wellbeing economy' in which both human and ecological needs can be satisfied, as depicted in the 'safe and just space of humanity space' on the economic doughnut (Fig. 13). As the World Wildlife Fund has stated[145], '*a wellbeing economy monitors and values what truly matters: our health, nature, education, and communities*'.

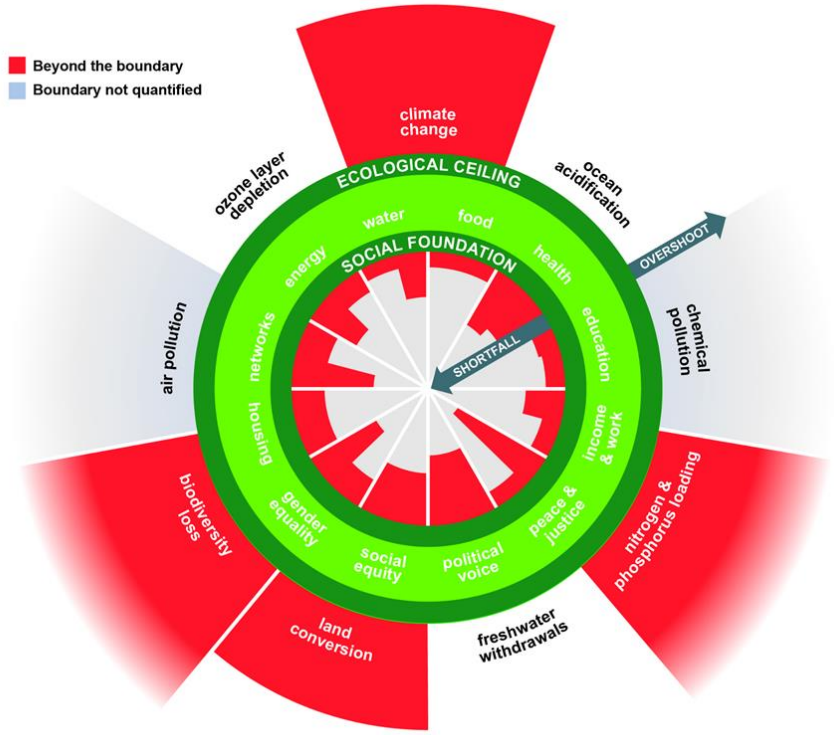

Figure 13. Ecological economist Kate Raworth's Doughnut of Social and Planetary Boundaries represents a model of an economy which functions within a 'safe space' where physical and social needs are met, but environmental limits are not breached (Source: WikiCommons[146]). Based on 2017 data from the Stockholm Resilience Centre it shows that biodiversity loss is one area where the planet's Ecological Ceiling is being breached.

The new Irish Wellbeing Framework[147] could play an important role in providing more accurate measurements of economic, social and environmental progress, and thus helping Ireland to achieve a wellbeing economy. But the Framework needs considerable improvement. A detailed breakdown of suggested improvements, and ways in which the Framework could be incorporated into policy, can be found in section 7 of the Environmental Pillar's submission on the National Economic Dialogue.

Secondly, the Government must foster a socially equitable transition to a circular economy. A circular economy seeks to keep materials in economic circulation for as long as possible thereby reducing material consumption. In turn, a circular economy thereby helps to reduce pressure on ecosystems and allows space for nature to regenerate (Fig. 14). In the Irish context, this transition

[145] https://www.wwf.eu/what_we_do/eu_affairs_governance/towars_an_eu_wellbeing_economy/
[146] https://commons.wikimedia.org/wiki/File:Doughnut-transgressing.jpg
[147] https://www.gov.ie/en/campaigns/1fb9b-a-well-being-framework-for-ireland-join-the-conversation/

will involve full implementation of the Whole of Government Circular Economy Strategy, the Waste Action Plan for a Circular Economy, and the now legally ratified Circular Economy Act. More stringent targets are needed in this area, particularly in relation to setting national and sectoral reuse targets that are legally binding. In terms of implementation, increased financial and tax incentives are needed for enterprises active in the circular economy. Social enterprises are a particularly valuable vehicle for implementing circular initiatives while delivering social benefits. Current initiatives such as an Meitheal Rothar[148], Rediscover Fashion[149], Revamp Furniture Longford[150], and members of the Paint Reuse Network[151] all examples of this approach in practice.

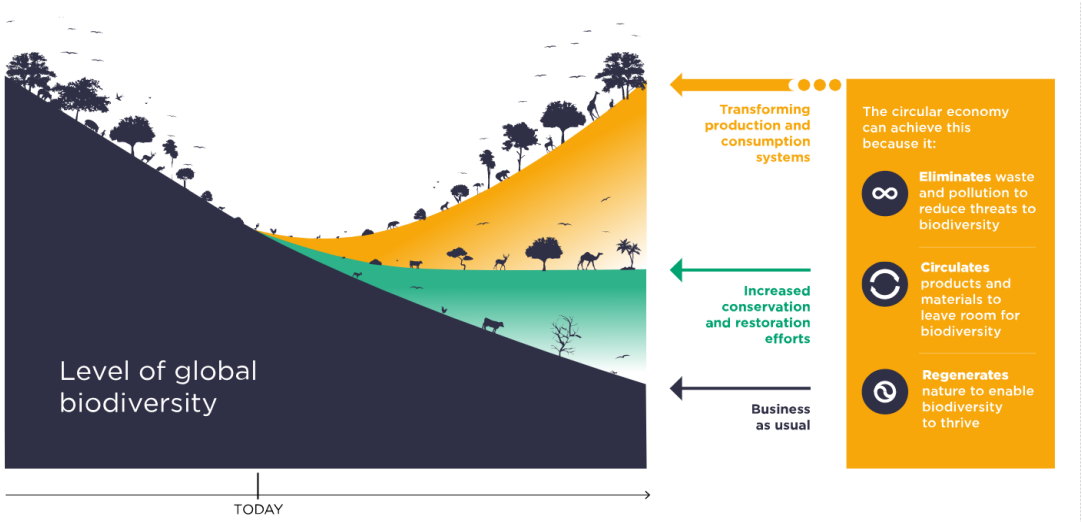

Figure 14. Potential benefits of a circular economy transition to biodiversity

Recommendations:

- **Cross-sectoral measures to help ease expansionist pressure on the Irish economy are urgently needed, including reforms to taxation, financial services, housing provision, and welfare services.**
- **The Irish government should advocate for a shift in emphasis in EU and international economic policy away from GDP expansion as a goal in itself and towards the goals of societal and ecological wellbeing.**
- **The Irish government should fully implement existing policy initiatives in the area of circular economy, implement specific targets for reuse at national and sectoral level, and support social enterprise approaches for this purpose.**
- **The Irish Wellbeing Framework should be modified so that it more accurately measures economic, social and environmental progress in Ireland, and it should be given a strong role in shaping policy, including in the annual budgeting process.**

[148] https://bikeworkshops.ie/
[149] http://www.rediscoverycentre.ie/rediscover-fashion/
[150] https://revamplongford.ie/
[151] https://www.paintreuse.network/