IRISH PEATLAND CONSERVATION COUNCIL

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**Call for Expert Evidence 2022** **14th September 2022**
**Environment and Climate Action Plan Delivery Division**
**Department of the Environment, Climate and Communications**
**29-31 Adelaide Road**
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**Re: Call for Expert Evidence - Climate Action Plan 2023**

Dear Citizen's Assembly,

Thank you for providing the Irish Peatland Conservation Council (IPCC) an opportunity to comment within this call for expert evidence in regards to addressing the reductions of greenhouse gases needed to reduce the impact of climate change. The Irish Peatland Conservation Council (IPCC) was established in 1982 and has 40 years of experience in peatland conservation. Our aim is to conserve a representative sample of intact peatlands for people today and future generations to enjoy. Peatlands once accounted for ~21% of the habitat of Ireland (Hammond, 1979) but now only 25% of Ireland's original range of peatland habitats are deemed worthy of conservation. 75% have become degraded from multiple pressures such as peat extraction, agriculture, forestry, habitat fragmentation and developments (Peatlands and Climate Change Action Plan 2020 - 2030, Irish Peatland Conservation Council, 2021). This has had a major effect on biodiversity and the ecological functioning of the national indigenous habitats and species. Peatland is a wetland habitat where the annual accumulation of plant material, which is grown by photosynthesis and the removal of carbon from the atmosphere, is saturated under a high water table and protected from fully decomposing. The high water table, low oxygen conditions and acidity of the peat substrate creates a habitat that is dominated by specialised species, interesting because of the evolutionary answers that the plants and animals need to survive there. The peatlands of Ireland also account for 75% of the soil organic carbon (BOGLAND, Environmental Protection Agency, 2011). They are instrumental in Ireland's agenda at tackling climate change. Peatlands can either be climate heroes, sequestering and protecting carbon while providing habitats for globally unique and rare species - or - if left to continue degrading, climate change accelerators, releasing carbon into the atmosphere and waterways while reducing the habitat available for Ireland's peatland biodiversity. To share the importance of peatlands and their carbon protecting power, a study on Lodge Bog conducted by the IPCC showed that the 30.97ha raised bog nature reserve in County Kildare, which has an average peat depth of 3.03m, holds an average carbon store of 54,465.31 tonnes. If released through drainage and extraction the CO2 emissions would be similar to the amount of greenhouse gases produced by 66,629 cars on Irish roads annually (Peatlands & Climate Change Action Plan 2030, Irish Peatland Conservation Council, 2021). We must repair the damage we have done to the peatland habitats if we are to be serious about living in a sustainable and biodiverse low carbon society.

It is within this landscape that the IPCC ask you to take on board our following comments and concerns.

**Peatlands of Ireland**

Approximately 21% of the Republic of Ireland was once functioning peatland that provided climate regulation, water regulation, carbon sequestration and biodiversity services. The three main peatland types, Raised Bog, Blanket Bog and Fen accounted for 26.3%, 65.8% and 7.7% of this total peatland resource. Due to Ireland's intensive industrial/domestic and agricultural utilisation of peatlands it is estimated that only 10% of Raised Bog, 28% of Blanket Bog and 21% of Fen are now suitable for conservation. In fact, only 25% of the total remaining peatland resource in the Republic of Ireland is of a conservation worthy condition. To put this another way, 1/5th of the landscape in Ireland has been modified to the point that it is struggling to function ecologi-

cally and hydrologically. This was highlighted by Government in 2019 when it was declared that Ireland is in a Climate Change and Biodiversity Crisis.

**Raised Bogs**

Due to the climatic and natural history of Ireland, 50% of the intact European Raised Bog resource is still present here, giving us an international obligation to conserve and protect them. The international geographic range of Raised Bog has shrank so much that the European Union has ANNEXED them under the European Habitats and Species Directive, meaning that they are a protected habitat which member states have to designate, monitor and report on the ecological status of. If deemed that the designated site is failing to meet its conservation targets then the member state faces legal ramifications. Since 1997, Ireland nominated 53 Raised Bog Special Areas of Conservation (SAC) for designation and 75 Raised Bog Natural Heritage Areas (NHA). The bogs were chosen because of their condition, conservation potential and geographical representation of the array of Irish Raised Bog types. Due to the historical, traditional and cultural aspects of Irish communities that have utilised turf for energy the Government has had difficulties in enticing the complete cessation of peat extraction on these sites. Drainage and peat removal has continued on many of the designated areas. Between 1994 (when the EU Habitats and Species Directive came into effect) and 2013 the areas considered active and healthy within the SAC and NHA Raised Bog Network reduced by 37% and 42% respectively (National Raised Bog SAC Management Plan, National Parks and Wildlife Service (NPWS), 2017). It is only in the past few years that the NPWS have had the funding to start restoration measures on these sites. On many protected sites peat extraction is still a constraint hindering the full restoration. In fact, the Government are awaiting for the introduction of a new law which allows for the de-designation of protected sites as some NHAs have been so degraded since they were nominated for designation that they are no longer conservation worthy. The designations were not protected or enforced and the benefits of ending peat extraction was not sufficiently promoted. IPCC are awaiting the Government to confirm the new reshuffled Raised Bog NHA Network, as the delay has caused issues where the NPWS are legally meant to protect a site that has already been destroyed. For peatlands to support biodiversity and carbon sequestration Ireland must complete the designation of peatlands.

**Blanket Bog**

While Raised Bogs have particulary been in focus in recent years due to the cessation of peat extraction for energy and horticulture by the state and the controversies surrounding turf cutting on protected sites, Blanket Bog has also been erroneously impacted. Blanket Bog is a peatland habitat that has formed in the upland mountainous regions. Originally, 65.8% of the peatland resource in Ireland was Blanket Bog but today only 30.1% of this remains in a conservation worthy condition. Turf cutting (by hand and large scale mechanisation), afforestation, intensive agriculture and land reclamation are activities that are responsible for the loss of this rare habitat. Coillte, the state-owned forestry company manages 20% of the total peatland resource and has afforested large expanses. These areas are known to be monocultures that do not provide for biodiversity or climate change and the ongoing drainage and transpiration increases the drying out of the peat soils which pollute Ireland's waterways and releases the stored carbon. IPCC have questioned the sustainability of this practice as while trees may sequester carbon in the short term, peatlands are potentially sequestering to store the carbon for millions of years, such as the brown "lignite" coal found in Germany, which is 65 million years old fossilised peat.

Ireland has identified 50 Blanket Bog Special Areas of Conservation and 73 Natural Heritage Areas, yet, IPCC are still awaiting for the results of research into assessing the quality of Blanket Bog as nationally, we still do not know scientifically how to quantify the quality of designated blanket peatlands. This is important as we need to understand the implications of current land use methods and how to manage our impacts on the landscape. Over-grazing is an issue on many upland areas, and Irish agricultural policy is not joining up with international best practice. Irish stocking rates are higher than what has shown to cause damage and farmers can only receive their payments by using the nationally agreed stocking levels. The knock on effect is erosion on Ireland's Blanket Bog habitats where the reduction in vegetation furthermore increases the levels of bare peat, accelerating further erosion and degradation of the habitat (Technical Report by the European Commission, 2008) .

**Fens**

Fen is a peat forming wetland system that once accounted for 7.8% of the total peatland landscape in Ireland. Much like Raised Bog, fens started to form in Ireland after the last Ice Age 10,000 years ago where a high water table and low oxygen conditions did not allow the decomposition of plant material. Many of the fens were pushed towards raised bog development due to climate, geological and geographical differences but today some could be considered relics that contain vegetation that resembles that of the fens which covered Ireland 7,500 years ago. Today, only 21% of the original amount of fen is in a conservation worthy condition. Intensive agricultural practices are largely responsible with drainage, fertilisation, peat removal and reclamation being the main utilisation. As fens are groundwater dependent they are also susceptible to water pollution where the added influence of nutrients and chemicals from urbanisation and agricultural run-off can alter the delicate ecosystem. Currently, Ireland has nominated 53 Fen sites for designation as Special Areas of Conservation under the EU Habitats and Species Directive but the results of a national fen survey undertaken by the National Parks and Wildlife Service has yet to be finalised and published. There is still a lack of information regarding the full range of species that inhabit Irish Fen habitat and the variability of the type of fens present here. It is impossible to conserve a representative sample of them if we do not know what differences there are between the multitude types of fen present in Ireland. There are no Natural Heritage Areas as yet designated for fen.

**Peatlands & Climate Change**

Peatlands offer our communities many ecosystem services, that is the benefits we all receive from nature. This IPCC submission has been laid out to inform and share the challenges and losses that peatland has and is experiencing in Ireland. Within the IPCC Peatlands & Climate Change Action Plan 2030, 12 Actions have been identified that would put Ireland on the path to meet the targets as set out by the Climate Action & Low Carbon Development (Amendment) Act 2021. Arising to the challenge of a 51% reduction by 2030 and net-zero emissions by 2050 can only be possible if a road map of peatland restoration and representation is enacted on by Government. Highlighted within IPCC's action plan is the fact that 69% of the peatlands in Ireland are privately owned, and although the NPWS have made gains with the start of restoration works on the designated sites (while many are constrained with ongoing turf-cutting), and Bord na Móna are carrying out some restoration on a portion of peatlands that have come out of production (while most of the estate is only getting the basic rehabilitation which may not withstand the impacts of climate change), the majority are still emitting greenhouse gasses and peat silt into the environment. Coillte, the largest landowner of peatlands with 60% of the plantations on peat soil have yet to make progress in sustainable management for biodiversity and climate change and within their vision for a sustainable future have committed to managing only 13% of the peatlands they own for ecological and climate benefits by 2050. This is not ambitious enough. We must promote and engage with communities and corporations on a much more integrated and larger scale if we are to turn the tide and reverse the effects of climate change. It has been proposed that to restore all the carbon sequestering habitats in Ireland it is going to cost €1 billion but at the current funding level IPCC estimate that it would take centuries at which point many of the sites would be extinct (Regan, 2020).

IPCC have provided the 12 Campaign Actions Roadmap (See Table 1 below) which we see as the most important wide reaching actions that if strongly pursued by Government will have real gains for biodiversity and climate change. These actions range from establishing a overseeing group to direct and coordinate a national peatland restoration programme to implementing long term greenhouse gas monitoring projects across the continuum of various modified and intact peatland sites to report on the successes of restoration and greenhouse gas reductions. Please incorporate these into the Climate Action Plan 2023 and strengthen the programme to put Ireland on the right track to climate change and biodiversity recovery.

Yours Faithfully,

[redacted]

[redacted] Irish Peatland Conservation Council

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Table 1

| # | Campaign Actions for peatlands and climate change | Priority | Timescale On-going Short 0-3 yrs Medium 3-5 yrs Long 6-10 yrs | Bodies Responsible |
|---|---|---|---|---|
| 1 | Develop a 20-year, €1 billion peatland restoration and rehabilitation action plan to help combat climate change and set up an overseeing group to direct and co-ordinate the programme | High | On-going | National Parks and Wildlife Service, Bord na Móna, Non-Governmental Organisations, Local Authorities, Government Departments of Environment, Climate, Agriculture and Heritage, Peatlands Council |
| 2 | Set an annual target and funding stream for peatland restoration and rehabilitation quantifying the greenhouse gas emissions saved and the biodiversity enhanced | High | Short | National Parks and Wildlife Service, Government Departments of Environment, Climate, Agriculture and Heritage, Teagasc |
| 3 | A network of demonstration sites on best practice restoration and rehabilitation must be established and documented | High | Medium | Non-Governmental Organisations, Local Authorities, Community Wetlands Forum, Private Individuals, National Parks and Wildlife Service |
| 4 | Develop a decision tool to assist land managers in identifying the sites that will give the best short-term restoration or rehabilitation results | Medium | Short | National Parks and Wildlife Service, Bord na Móna |
| 5 | A carbon credit system which will allow private corporations and individuals to fund peatland restoration must be developed so as to increase and maintain the level of funding streaming through to peatland restoration | High | Medium | National Parks and Wildlife Service, Government Departments of Environment, Climate, Finance, Public Expenditure and Reform |
| 6 | A new story line in education regarding peatlands and climate change must be developed and implemented across all curricula, back to back with a strong public awareness campaign | High | Short | National Parks and Wildlife Service, Non-Governmental Organisations, Local Authorities, Community Wetlands Forum, Heritage Council, Government Departments of Education, Environment, Climate |
| 7 | A nationwide land-use and habitat mapping system needs to be made publically available to inform policy development, planning decisions and management actions in relation to climate change | Medium | On-going | National Parks and Wildlife Service, Bord na Móna, Local Authorities, Government Departments of Environment, Climate, Agriculture, Rural Affairs and Heritage, Ordnance Survey Ireland, Environmental Protection Agency, European Environment Agency, Teagasc, Universities |
| 8 | Industrial harvesting of peatlands for horticultural moss peat must be stopped and alternative products that are sustainably produced developed. Rehabilitation plans for cutaway areas must be developed and implemented | High | Short | Peatlands Council, Government Departments of Environment, Climate, Agriculture, Rural Affairs and Heritage, |
| 9 | Planning laws need to be extended to provide protection for peat carbon stocks remaining in man-modified peatlands | High | Short | Government Departments of Environment, Climate, Justice, Local Authorities |
| 10 | Burning turf in private homes must be phased out as a community led initiative, through the provision of grant aided, accessible, sustainable energy sources dovetailed with carbon credits for rewetting from turf-producing bogs | High | Short | Government Departments of Environment, Climate, Finance, Rural and Community Development, Sustainable Energy Association of Ireland, Local Energy Communities, Local Authorities |
| 11 | A field survey of fens, setting conservation targets and developing management plans for blanket bogs and fens and the completion of the designation of Special Areas of Conservation and Natural Heritage Areas for peatland habitats must be undertaken | High | Long | National Parks and Wildlife Service, Government Departments of Environment, Climate, Agriculture and Heritage |
| 12 | Long-term greenhouse gas monitoring projects on peatlands (to include dissolved organic carbon) need to be established for all peatland in a continuum from intact sites through to sites with a thin coating of peat to allow for reporting of the success of restoration and rehabilitation in terms of greenhouse gas reduction | Medium | On-going | National Parks and Wildlife Service, Environmental Protection Agency, Universities |