An Taisce
The National Trust for Ireland

An Taisce Submission

Re: Public consultation on the draft National Biodiversity Action Plan 2017-2021

Fintan Kelly

Natural Environment Officer
An Taisce

fintan.kelly@antaisce.org

Biodiversity and EU Programmes
NPWS
Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs
7 Ely Place
Dublin 2

20th January 2017

Re: Public consultation on the draft National Biodiversity Action Plan 2017-2021

Dear Sir/Madam,

An Taisce would like to make the following comments in relation to the Biodiversity forum public consultation on the draft National Biodiversity Action Plan 2017-2021.

Yours sincerely,

Fintan Kelly

Natural Environment Officer

An Taisce - The National Trust for Ireland

fintan.kelly@antaisce.org

Contents

Table of Actions 13

Objective 1: Mainstream biodiversity into decision-making across all sectors 13

Target 1.1: Shared responsibility for the conservation of biodiversity and the sustainable use of its components is fully recognised, and acted upon, by all sectors 15

Target 1.2: Strengthened legislation in support of tackling biodiversity loss in Ireland 24

Objective 2: Substantially strengthen the knowledge base for conservation management and sustainable use of biodiversity 27

Target 2.1: Knowledge of biodiversity and ecosystem services has substantially advanced our ability to ensure conservation, effective management and sustainable use by 2021 28

Objective 3: Increase awareness and appreciation of biodiversity and ecosystem services 37

Target 3.1: Enhanced appreciation of the value of biodiversity and ecosystem services amongst policy makers, stakeholders, local communities and the general public 38

Objective 4: Conserve and restore biodiversity and ecosystem services in the wider countryside 42

Target 4.1: Agricultural, rural development, forestry and peatland policies and strategies to achieve net benefits for biodiversity and ecosystem services 44

Target 4.2: Principal pollutant pressures on terrestrial and freshwater biodiversity substantially reduced by 2020 54

Target 4.3: Optimised benefits for biodiversity in Flood Risk Management Planning and drainage schemes 55

Target 4.4: Harmful invasive alien species are controlled and there is reduced risk of spread of new species 57

Target 4.5: Effective management and restoration in place for biodiversity and ecosystems in the wider countryside by 2021 58

Target 4.6: Improved enforcement of Wildlife Law 62

Objective 5: Conserve and restore biodiversity and ecosystem services in the marine environment 63

Target 5.1: Substantial progress made towards good ecological and environmental status of marine waters over the lifetime of this Plan 63

Target 5.2: Fish stock levels maintained or restored to levels that can produce maximum sustainable yield, where possible, no later than 2020 63

Objective 6: Expand and improve management of protected areas and legally protected species 64

Target 6.1: Natura 2000 network established, safeguarded, designated by 2018 and under effective conservation management by 2020 64

Target 6.2: Sufficiency, coherence, connectivity and resilience of the protected areas network substantially enhanced by 2020 66

Target 6.3: No protected habitats or species in worsening conservation status by 2020; majority of habitats and species in, or moving towards, favourable conservation status by 2027 69

Objective 7: Strengthen international governance for biodiversity and ecosystem services 70

Target 7.1: Substantially strengthened support for biodiversity and ecosystem services in external assistance 70
Target 7.2: Enhanced contribution to international governance for biodiversity and ecosystem services 70
Target 7.3: Enhanced cooperation with Northern Ireland on common issues 71
Target 7.4: Substantial reduction in the impact of Irish trade on global biodiversity and ecosystem services 72



Our Organisation

Founded in 1948, An Taisce is one of Ireland's oldest and largest environmental organisations. An Taisce is a charity that works to preserve and protect Ireland's natural and built heritage. We are an independent charitable voice for the environment and for heritage issues. The work of our staff is focused in three areas: Advocacy, Properties and Education.

Advocacy: Our Advocacy Unit is dedicated to promoting the conservation of Ireland's nature and biodiversity as well as its built heritage.

Properties: We own a range of heritage properties in trust, including historic buildings and nature reserves.

Education: Our Environmental Education Unit is responsible for developing and operating some of Ireland's most popular and successful environmental programmes and campaigns.

The Environmental Education Unit is the National Operator for all international environmental education programmes of the Foundation for Environmental Education (FEE), including the Blue Flag Award for Beaches and Marinas and Green-Schools, the international environmental education programme in operation across 93% of Irish schools. It also operates a number of national programmes including: Green Campus, Neat Streets, Clean Coasts, National Spring Clean (Ireland's largest anti-litter campaign), Green Home, Green Communities, and the Irish Greening Community Award Programme.

Background

An Taisce is one of two Environmental Pillar representatives who sit on the Biodiversity Forum. The Environmental Pillar is made up of 28 national environmental non-governmental organisations (NGOs) who work together to represent the views of the Irish environmental sector. While An Taisce represents the Environmental Pillar within the Biodiversity Forum, this submission reflects the views of An Taisce alone. An Taisce has fed into the current draft of the National Biodiversity Action Plan 2017-2021 through our participation in the Biodiversity Forum and we have previously made a submission on an earlier draft of the NBAP. That submission and the previous draft of the NBAP are referred to in our submission.

Overview

As an organisation that engages directly with biodiversity and conservation issues on a daily basis, through the work of our staff in the advocacy and environmental education unit (EEU) and through our broad membership base, we welcome the opportunity to contribute to Ireland's third National Biodiversity Action Plan. It is clear that a lot of work has been invested in the NBAP to date. It is greatly improved in many areas since the original draft was presented to the Biodiversity Forum. It is

positive that the National Parks and Wildlife Service (NPWS) engaged with a broad range of stakeholders through the forum. The forum was well attended by stakeholders who are actively involved in conservation such as the staff of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAH), environmental Non-Governmental Organisations and Biodiversity/Heritage Officers. Sectors such as agriculture, forestry, fisheries and mining have been less well represented to date. Close cooperation with these stakeholders will be key over the life of the NBAP and it is important that steps continue to be taken to nurture collaboration through the Biodiversity Forum and other initiatives.

The work of the NPWS is extremely important. The National Biodiversity Action Plan will form the guiding framework for the NPWS over the next four years and will therefore play an important role in protecting biodiversity, human health, water quality, climate regulation, land protection, coastal protection, etc. As the responsibilities of the NPWS are broad and of critical importance it is important that they are resourced properly. Currently this is not the case, and unfortunately the Government Department which it falls under, the Department of Arts, Heritage and the Gaeltacht (DAHG), is under-resourced compared to other Departments. Either more resources are given to the DAHG to help fund the work that the NPWS do or the NPWS be moved to fall under the remit of another Department such as the Department of Communications, Climate Action, and Environment, then it could have access to more resources than it currently receives.

The resources at the disposal of the NPWS will play a pivotal role in determining what objectives will be achieved. This draft NBSAP 2017 – 2021 does not mention anything about what financial resources will be allocated to the Department of Arts, Heritage and the Gaeltacht to implement the actions within this plan. It is noted however that there is a newly created action (1.1.15) on developing and implementing A National Biodiversity Finance Plan which is a good step forward for increasing the visibility of funding for biodiversity within government departments and should be kept within the final document.

In our opinion, one of the most obvious issues with the current plan is that far too many of the actions relate to gathering further data on the threats and pressures driving biodiversity loss. These actions seem to have been prioritised within the plan ahead of clear targeted actions to halt biodiversity loss, based on the substantial evidence which exists on what the critical threats and pressures are and what needs to be done to address them. It is clear from the NPWS's Article 17 and Article 12 reports on the conservation status of Annexed habitats and species under the Habitats and Birds Directives respectively that current and future conservation threats and pressures on habitats and species are well known. The species which need prioritised action are also known. It is also clear, based on the terminal declines in the conservation status of many habitats and species over the last twenty years that if serious action is not taken immediately, there is no hope of saving many of our most cherished species from the abyss of extinction. Many of these issues are not unique to Ireland or even the EU. It is accepted that we are living through the Earth's sixth mass extinction event and that this stark chapter in our planet's history is being driven by human activities. The major pressures on biodiversity globally include: loss, degradation and fragmentation of natural habitats; overexploitation of biological resources; pollution; the impacts of invasive alien species on ecosystems; and climate change and the acidification of the oceans. We know that in Ireland the main drivers of biodiversity loss are unsustainable land use change and unsustainable resource use. The main sectors driving these pressures are the agricultural sector, the forestry sector, mining including peat extraction, fisheries and aquaculture, and infrastructure. These sectors are regulated by the government, driven by government policy, subsidised by public money and in the case of Bord na Mona or Coillte state or semi-state owned. It is very clear that the government

therefore has it within its power to make huge strides in tackling biodiversity loss over the next four years, if the political will to do so exists. This could be achieved by improving environmental regulation and enforcement. By ensuring that the most damaging sectors start operating in a sustainable way and that they are legally compliant with Irish and EU law. Government and sectoral policies and strategies must be reviewed and altered so that they are compatible with the cross-cutting challenges of biodiversity loss and climate change. Biodiversity loss is one of the most critical issues of our epoch. The response from our leaders must me commensurate with the scale of the challenge we face.

In the past, top down approaches to conservation have in many instances hindered progress and created distrust and resentment towards the NPWS and environmentalists. Communities must be educated about the importance of biodiversity and empowered to lead the way in its conservation. Bottom-up solutions are clearly the way forward but they are not strongly emphasised within the NBAP. Conservationists must work closer together in collaboration with each other and with the broader community. Agri-environmental schemes should be place-based, targeted, multi-annual and developed in collaboration with farmers and environmental experts. Structural supports for farming, such as decoupled area-based payments, have driven environmental degradation and failed to protected small and marginal farmers or prevent the ongoing collapse of many rural communities. We need rural development policies which offer more than socialism for the rich and free market economics for the poor. We need to reward the custodians of biodiversity and offer incentives which are consistent with the true services they provide. This means looking beyond the myopic lens of the volume of food produced and start looking at the quality of food produced, the added value, the ecosystem services supported and the true socio-economic benefits. The intangible benefits of biodiversity must be valued while at the same time we must not reduce them to commodities which can be dispensed with by the highest bidder.

The Polluter Pays Principle must be enforced. Our environment belongs to us all, to all living things and to future generations. No one should have the right to damage or degrade our shared birth right for their own short term benefit. Anyone who does damage the environment should have to pay to have it restored. Any industries which are externalising the true cost of their operations on the environment and society are not compatible with the indivisible reality that we live on a finite planet with a limited capacity to absorb our pollution and replenish its resources. Such industries must evolve to reflect this reality or be forced to go extinct and be replaced with systems which operate in a way which ensures that species have the right to exist and that the long-term interests of society are more important than the short-term interest of the few.

It is true to say that biodiversity does not recognise political boundaries and Ireland and Northern Ireland share the same biogeographic space with many species moving between the two territories. Ireland is a single geographic entity and therefore an all-Ireland approach is necessary to safeguard biodiversity on this island. It is positive to see that are many actions where North/South co-operation on biodiversity issues is highlighted. There are actions where more of a one island approach would be beneficial and we have highlighted this in our comments.

The format adopted in the report to outline the actions is positive. The use of Timeframe, Actors/key partners, Performance indicators, Baseline and Related Actions is good in principle but could be strengthened in the final draft. A major issue with this report is that there is very little coherence, continuity or accountability between the previous two action plans and this one. It is very hard to get any sort of grasp of what the relationship between the actions in the previous plans is to the actions in the current draft. In many cases, actions in the previous plans which have not been achieved are carried forward into this plan without any explanation on why they were not previously

achieved. Shockingly there are key actions in the previous plans which have disappeared from the current draft without explanation. The baseline column in the report should refer to whether the action is related to an action in the previous plan and what was achieved or otherwise and why?

There is a clear need for a mid-term review and an ex-post review. This should be carried out in consultation with the Biodiversity Forum. Funding should be allocated to stakeholders to facilitate meaningful input. This mid-term review will be imperative to ensure that actions are being progressed and if necessary actions are reassessed. The previous draft of the NBAP contained a mid-term target column and this should be reinstated. The timeframe for most actions is far too open, generally, and should be tied to the mid-term review. This would create extra onus to achieve actions early on which are part of the purpose of indicating timeframes in the first place.

The list of Actors/Key partners is far too restricted and this point strikes upon one of the core shortcomings of the NBAP and the Irish approach to conservation and governance in general. Most actors mentioned are public authorities. There is an underrepresentation of grassroots engagement. There is little reference to eNGOs or community groups. Wherever grassroots stakeholders are mentioned such as farmers it is usually in relation to top-down schemes or education rather than grassroots engagement, the notable exception being the Locally Led Agri-Environmental Schemes. ENGOs are very poorly represented in the current draft. Despite the Irish Environmental Network (IEN) representing 33 Irish eNGOs, representing thousands of Irish people spread across communities covering the length and breadth of the country, they are mentioned twice. The Sustainable Water Network, a key stakeholder on all water related issues are not mentioned. For example, there are five eNGOs in the IEN alone who specialise in native woodland conservation. These groups, like An Taisce, are membership based organisations who roots are deeply embedded in grass-roots conservation. Despite this none of these groups are mentioned and instead Woodlands of Ireland, a quango funded by the Forest Service (Department of Agriculture, Food and the Marine), National Parks and Wildlife Service (Department of Arts, Heritage and the Gaeltacht) and the Heritage Council is seen to tick the stakeholder box. There is a fundamental difference between communicating to communities how you intend to conserve the environment, and asking them what needs to be done and empowering them to be the guardians of their own heritage. There has been a poor record in engaging communities on conservation, an issue that we will not elaborate on further here, but it is clear that while things are improving there is still a long way to go. Broader Irish society, outside of the farming community, is not meaningfully empowered to influence key government policies which are fundamentally altering the nature of our present and future environment and our standards of living. This is unlikely to change over the life of this NBAP, but it is key that the plan is altered to include more public engagement and participation. Actions must be developed to empower communities to get down in the trenches and tackle local level conservation issues head on. There are some great examples of what can be achieved both by local organisations of Ireland's eNGOs and by independent community groups such as those in Abbeyleix (Laois), Ballydangan (Roscommon) and Boleybrack (Leitrim). Community level action must be encouraged by ensuring that groups have access to targeted funding, expertise and land. Groups need to have access to important conservation sites if they can play their part. These sites may be National Parks or land in the ownership of semi-states like Bord na Mona or Coillte. In the case of Abbeyleix the bog has been leased to the community from Bord na Mona. In the case of An Taisce owned Mongan Bog, the bog was acquired by An Taisce from Bord na Mona. An action should be adopted which considers the opportunities of renting or selling important habitats to communities or conservation bodies on the basis that they will forever be managed for conservation purposes.

Biodiversity, ecosystem services, and the need for protecting nature is vital to our economies, human health and wellbeing. Ireland needs the NPWS to be more outspoken on these issues. The NPWS needs not just people with a background in ecology, policy and law, but experts in communications and marketing as you really need to sell the benefits of nature to the public to increase the general understanding of its importance to us in our everyday lives. A Communications Plan/Campaign should be considered a high priority to address the above concerns. There should be staff within the NPWS who focus specifically on communication and community engagement. The NPWS should take a leaf out of the book of their equivalent bodies in the United States of America who use social media to promote the good work that they do and encourage people to visit National Parks. The National Parks System is a symbol of great pride in the USA with President Obama launching a campaign in 2016 to ensure that every child in the country has the opportunity to visit a National Park. The EPA Catchments Unit is doing some excellent work in public outreach by using e-zines and magazines to educate and raise awareness of their work. A lot could be taken from their example.

The distribution of designated sites is concentrated in marginal farming land in the West and in upland areas. The perceived or real burden of designation is therefore often unfortunately placed on the shoulders of communities who are already struggling to make a living against a backdrop of social issues such as emigration, the loss of jobs and services, and an ageing population. There are also other external pressures which undermine livelihoods such as market pressures resulting from globalisation. National and EU policies have not gone far enough in countering these issues as farming policies continue to support intensification and there are insufficient market mechanisms to differentiate between intensively and sustainably produced produce. Many of the conflicts which arise from designation are due to the lack of consideration given to the role of the prevailing socio-economic situation within these rural communities. Greater efforts should be made to identify the connection between conservation and the sustainable development of farming communities on marginal land. Teagasc the DAFM and the DAH have a role to play in identifying any cross over. The connection may be well known to members of the NPWS but unless explicitly documented and addressed with other departments such as the DAFM, then policies will continue to fail to consider biodiversity and the environment when designing national policies around the development of the agriculture, forestry and fisheries for example.

The scapegoating of the EU and the Habitats and Birds Directives for political expedience seriously undermines the public perception of the Natura 2000 network and emboldens communities to openly defy environmental legislation. Cross party support for the National Biodiversity Action Plan should be sought. The outcomes of the Fitness Check of the Habitats and Bird Directive must be accepted by all political parties. This is to say that the Nature Directives are fit for purpose and that national level implementation must improve.

The report touches upon many of the key conservation issues but not in enough detail to give any indication of what specifically will be done, by who and in what timeframe. Many of the most important actions in the plan are too high level to be meaningful. This in effect means that any action that is carried out which falls within the very broad definition of the action will be reported in the fourth NABP as having progressed this issue. For example action 5.1.2 states "*Implement measures to achieve good ecological and environmental status of marine and coastal habitats as required by the Habitats, Directive, Water Framework Directive and Marine Strategy Framework Directive (MSFD) and in line with the OSPAR Convention."* The NBAP should set out detailed actions which will contribute to the achievement of good ecological or environmental status under the

Habitats Directive, Water Framework Directive, Marine Strategy Framework Directive (MSFD) and the OSPAR Convention. These should be supported by details on Key Actors/Partners, Timeline etc.

While it is vital that specific targeted actions are developed, and implemented to address conservation issues it is important that we do not forget to see the wood for the trees. Species function as an element of a broader interconnected whole. Greater effort should be made to identify overlap is conservation priorities. Identifying measures that will benefit habitats and a number of species of conservation concern will be a more efficient use of resources than tailoring very specific measures for individual species. The overlap between upland designation of terrestrial habitats and High Status Sites under the WFD is an example of this. Efforts should be made to expand agri-environmental schemes which support traditional High Nature Value farming. Measures which are blinkered by the need to address issues in one species alone may have knock-on negative impacts on other habitats and species. For example riparian measures within forestry plantations may be of benefit to freshwater pearl mussel but the facilitation of further commercial forestry in upland areas will ultimately have negative impacts on many upland habitats and species.

One of the most glaring omissions from the NBAP is our network of Natural Heritage Areas. Ireland's Natural Heritage Area (NHA) network is the basic designation for wildlife. Along with our national parks and the Natura 2000 network they form the foundation of our network of protected sites. The protection they provide is critical to prevent the biodiversity loss. In addition, they provide connectivity between other protected sites and help to reduce the negative impacts of fragmentation and are important in providing resilience against pressures such as climate change. On a basic level these sites have been protected under national legislation, the Wildlife (Amended) Act 2000, because they are considered important for the conservation of habitats and species which need protection and are of national importance. Given the pivotal role that Ireland's NHAs and proposed National Heritage Areas (pNHA) play in the conservation of biodiversity, An Taisce would have expected them to feature strongly in the NBAP. Incomprehensibly this is not the case.

The July draft of the NBAP contained action "*6.15.1 By 2018, review policy regarding designation of Natural Heritage Areas*." With a performance indicator of "*Review completed"* and a Baseline of *"Policy in regard to pNHAs is currently under review*."

This was the sole action within the NBAP which related to NHAs and it has been removed from the current draft. An Taisce find it incomprehensible that one of the most important tools for biodiversity conservation has been completely deleted from the agenda. Based on the text and the Irish state's record of conserving the NHA network it is not entirely clear whether a review of the pNHAs would benefit biodiversity, at least not the kind of review that could be implied. Only 148 peatland NHAs out of the 800+ NHAs identified in the 1990s have been statutorily designated and given legal protection. This is unacceptable. At the moment, we have a situation in this country where the only sites that are protected are either estates that were gifted to the Irish people and made National Parks or SACs and SPAs which are the result of European Directives. The NHAs that have protection have only been designated as the result of legal action by the European Commission.

Under the previous NBAP it was identified under target 16 that "*Although some NHAs have been designated, a systematic programme for NHA designation has not been undertaken and some 600 areas proposed as NHAs in the 1990s have not been protected yet by designation*."
This target had two associated actions:

16.1 By 2015, review previously proposed Natural Heritage Areas and designate as appropriate under the Wildlife (Amendment) Act, 2000.

16.2 By 2015 strengthen the coherence, connectivity and resilience (including resilience to climate change) of the protected areas network using, as appropriate tools that may include flyways, buffer zones, corridors and stepping stones.

The performance indicators for these actions were:

- Number and area of NHAs designated
- Number and area of sites that meet criteria for NHAs but are not designated
- Fragmentation index

There must be an action within the NBAP which commits to the full designation of a large proportion of the 600+ identified pNHAs to full NHA status. Many of our pNHAs also have SAC and/or SPA designation already so designating these sites should not be complicated. An Taisce call of the DAH to reinstate target 16 of the second NBAP and ensure that designation process of Ireland pNHA is completed.

In the advocacy section of An Taisce we use our prescribed functions within the planning and forestry consent systems to ensure that Ireland's built and natural heritage is conserved. We have first-hand experience of the enforcement of environmental regulations and legislation. It is clear that the level of protection afforded to Ireland's pNHA and NHA network is not adequate. Indeed there is so little information available on the pNHA network that it makes it almost impossible to identify how projects will impact upon their qualifying interests. NHAs need site synopsis, conservation objectives and management plans. The Wildlife Act should be amended to ensure that NHAs are afforded the same level of protection as SAC and SPA. They should be subjected to the same level of protection as that provided under Article 6 of the Habitats Directive.

Another key conservation tool which is completely absent from the NBAP is the Threat Response Plan. Regulation 39 of the European Commission (Birds & Natural Habitats) Regulations 2011 (SI No. 477), provides a mechanism to fulfil the objectives of the Habitats Directive or the Birds Directive, to protect designated habitats and species through the development of an appropriate threat response plan to "*cease, avoid, reverse, reduce, eliminate or prevent the threat, pressure, hazard, combination of threats, pressures or hazards, adverse effect, pollution, deterioration or disturbance."*

The July draft of the NBAP had identified the implementation of threat response plans as a fundamental tool for achieving the objectives of Target 6.3 over the duration of the NBAP. It contained Action "*6.16.1 Implement species' threat response plans where necessary and review and update as required*," which has been removed from the current draft. An Taisce believes that Article 39 of the Bird and Natural Habitats Regulations is a critical tool to bring about a rapid response to imperative conservation issues. Given the scale of biodiversity loss over the last two decades and the poor conservation status of many of Ireland's designated habitats and species, it is obvious that the threat response plan will be more necessary than ever over the course of the next four years. An Taisce calls on the NPWS to reinstate an action on threat response plans and extend its scope to include habitats i.e. Implement species and habitat threat response plans where necessary and review an update as required.

Through the work of the advocacy unit of An Taisce, we are very aware of the key role that environmental law and regulation plays in protecting biodiversity. The Wildlife Act (amended) 2000 is one of the pillars of Irish environmental protection. It is therefore of great concern to An Taisce

that the protection afforded by Section 40 of the Wildlife Act is under direct attack within this NBAP. Based on the actions which relate to the Heritage Bill in the NBAP dismantling Section 40 of the Wildlife Act will be a key goal within the life of this NBAP. As we have highlighted in our later comments, the proposed changes to the dates for hedge cutting and burning are not in line with the objectives of this plan and it undermines many of the actions and targets throughout the plan. Based on the available scientific evidence from Ireland and the UK this action will drive biodiversity loss and may drive the regional extinction of species like yellowhammer even over the course of the envisaged two-year trial. We call on the NPWS to remove any reference to the Heritage Bill from this NBAP. In addition to the fact weakening Section 40 of the Wildlife Act is not aligned with conserving and enhancing Irish biodiversity the Heritage Bill has yet to be debated by both houses of the Oireachtas. It is therefore completely inappropriate to assume that any such changes will be enacted over the life of this NBAP.

Some of the other pillars of Irish environmental protection are Birds Directive [79/409/EEC as amended 2009/147/EC] and the Habitats Directive [92/43/EEC], the Water Framework Directive [2000/60/EC] and EIA Directive [85/337/EEC]. In 1997, the Habitats Directive was transposed into Irish national law and the relevant Regulations, through the European Communities (Natural Habitats) Regulations, SI 94/1997. These Regulations have since been amended by SI 233/1998 & SI 378/2005. The Regulations were subsequently revised and consolidated in the European Communities (Birds and Natural Habitats) Regulations 2011, SI 477/2011. The Birds and Habitats Directive were submitted to a 'Fitness Check' over recent years by the European Commission. This process had two important outcomes. Firstly, it demonstrated that Irish and EU citizens care deeply about biodiversity and believe a lot more should be done to tackle biodiversity loss in the EU. An EU record of over 500,000 people spoke for nature, signing the documents of the European Commission's consultation process in summer 2015. On a per-capita basis Ireland had one of the strongest public responses to the consultation process. The second outcomes was that the European Commission's 'Fitness Check' concluded that the directives were fit for purpose and that their failure to halt biodiversity loss to date was attributable to poor implementation at member state level. The Commission identified many challenges and problems, such as insufficient management and lack of adequate investment in the Natura 2000 areas, among other issues. The evaluation discovered the need for improved implementation and better coherence with 'broader socio-economic objectives'. It is clear that in Ireland and the rest of the EU, poor implementation is the greatest hindrance to the Directives in their capacity for preventing biodiversity loss. Many of the reasons for this are well known by the NPWS and are outlined in their own department's submission to the fitness check consultation.

The next step of the Commission will be to develop an Action Plan to 'correct the deficiencies' in terms of implementation of the Directives. This will include, "*in partnership with Member States and relevant stakeholders, appropriate implementation guidelines for regional actors, reducing unnecessary burdens and litigation, and incentivising national and regional investment in biodiversity*". There is a need for this process to be mirrored at national level and there should be a number of actions in the NBAP which look to address ongoing implementation issues. An Taisce are in on-going contact with the Commission on a number of implementation issues and will continue to work for better nature conservation. An Taisce, BirdWatch Ireland and the Friends of the Irish Environment have extensive expertise in ongoing implementation issues across are Birds Directive, Habitats Directive, the Water Framework Directive and EIA Directive. We are more than willing to support actions which seek to identify and resolve compliance and implementation issues.

In the summary for Objective 1, there is a small paragraph on the importance of the role of local action in conserving biodiversity. However, all it mentions is that local authorities shall review and update their respective Biodiversity/Heritage plans. There are no specifics on what they should contain, how they can be used to assist the Irish Government in achieving national and international biodiversity targets, and definitely no mention on how they will be supported, other than producing more guidelines to deal with appropriate assessment etc. In essence, this draft National Biodiversity Plan (NBP) doesn't seem to recognise how important Local Biodiversity Action Plans (LBAPs) could be to contributing towards national, EU and international biodiversity targets that Ireland is obliged to meet. Decisions and actions that affect biodiversity are often taken at the local level, and this NBP will only be implemented if there are corresponding action plans developed and implemented at the sub-national and local levels. What is crucially needed by local authorities is a sustained investment and increase in their capacity, in terms of financial and human resources, from the Department and much more in the way of Local-National alignment and collaboration with respect to the NBP and LBAPs. There should be a Biodiversity Officer in every local authority in the country who can actually implement local actions, and there should be a dedicated national Biodiversity Fund for implementing actions within LBAPs, similar to the programme for Heritage Officers and the Heritage Plan Fund administered by the Heritage Council. Speaking of the Heritage Council, a way to strengthen the ecological expertise within that body would be the reinstatement of the post of a technical officer for Wildlife. That post was a crucial link between local authorities and the relevant National Department. Also, more people with environmental science and policy backgrounds should be employed across national government departments so as to allow them to work on biodiversity-proofing plans and policies, as is called for in Objective 1of the NBP, "Mainstream biodiversity into decision-making across all sectors".

Table of Actions

Objective 1: Mainstream biodiversity into decision-making across all sectors

A lot more detail has been put into outlining specific commitments that will be made to strengthen/ mainstreaming of biodiversity in the new cycle.

> "*Under this NBSAP further action will be undertaken to raise awareness within Government Departments, Local Authorities and state agencies of the implications of policy and decisions on biodiversity, through, for example, the articulation of no net loss biodiversity targets in plans/policies and the strengthening of ecological expertise. In addition, engagement with the private sector will be improved through the establishment of a national Business and Biodiversity Platform under the CBD's Global Business Partnership*.
>
> *In previous Plans, local action was highlighted as being very important in tackling biodiversity loss. Local Authorities will review and update their Biodiversity and Heritage Action Plans as well as their Development Plans and policies, giving due consideration to the protection and restoration of biodiversity. To support locally-led action to safeguard biodiversity and ecosystem services additional biodiversity-related guidance for Local Authorities will be published. For example, on screening for Appropriate Assessment for Planning Authorities as well as best practice guidance for use of GIS in Strategic Environmental Assessment (SEA), for cumulative effects assessment and for better practice in SEA for the energy sector.*
>
> *Ireland will continue to implement key EU Directives to improve Ireland's environment and wildlife. The EU Directive on SEA came into force in Ireland in 2004, obliging consideration of biodiversity in public plans and programmes, mainly due to the need to meet reporting requirements for various EU Directives. A recent review shows that SEA is fulfilling its role and is providing a vital tool for environmental protection in Ireland35. SEA ensures that environmental considerations are taken into account in policy development and implementation and is raising the profile of environmental issues in decision-making at plan level among 11 sectors applying SEA.*
>
> *Under the EU Nature Directives Ireland must contribute to Natura 2000 network of sites for the protection of Europe's most valuable and threatened habitats and species (see Objective 6). The Government intends to streamline financial expenditure tracking relating to Natura 2000 and biodiversity more broadly, including linkages to the Prioritised Action Framework for Natura 2000 (PAF). The Prioritised Action Framework is a tool used by EU Member States that aims to integrate financing for Natura 2000 into EU financial instruments"*

With regard to the following section, how does the polluter pays obligation fit in with agriculture, forestry Bord na Mona and other relevant agencies?

> "*The European Communities (Environmental Liability) Regulations establish a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage. In Ireland, the EPA has been designated as the competent authority for all aspects of these Regulations. The Regulations achieve the prevention and remediation of environmental damage by introducing, among other things, a reporting obligation on operators in respect of actual or threatened environmental damage."*

The following paragraph on limitations/issues with the capitalist system is excellent;

> *"In addition to being essential for our survival and human well-being, healthy ecosystems are the bedrock of a sustainable economy. Gross Domestic Product (GDP) can give misleading signals about the economic performance and well-being of a country as it looks at income,*

only one part of economic performance, and not the wealth and assets that underlie this income. GDP does not show the full contribution of natural capital such as forests, wetlands, and agricultural land. Natural capital accounts can therefore provide detailed statistics for better management of the economy. Natural capital accounting has advanced with the aid of the UN Statistical Commission of the System for Environmental and Economic Accounts (SEEA), which provides an internationally agreed method to account for material natural resources like minerals, timber and fisheries36. Progress in measuring and valuing elements of Ireland's biodiversity will be made under this NBSAP through the valuation of water services, the production of guidelines for natural capital accounting and reporting for government and industry, and the development of national forest accounts using the SEEA framework"

It is positive that the Actors column in the July draft has been expanded to include Actors/ Key Partners. It is important to identify partners from the outset.

The new actions have a *related actions* column which has replaced the *mid-term target* column. It would be more beneficial if the NBAP contained mid-term and full-term actions columns. The mid-term target places urgency on certain actions before the mid-term review. Given that so many of the actions are carried over from the previous two plans I think that it is important that certain actions have a temporal target. This will greatly assist the mid-term review. There may be an overlap with the use of performance indicators with targets.

As the NBAP stands there are no *related actions*.

Target 1.1: Shared responsibility for the conservation of biodiversity and the sustainable use of its components is fully recognised, and acted upon, by all sectors

1.1.1. All public authorities and private sector move towards no net loss of biodiversity through strategies, planning, mitigation measures, appropriate offsetting and/or investment in green-blue infrastructure

There are no related actions identified for this point. As the performance indicator is "*1. Number of Departments /Agencies articulating a no net loss target in plans and policies*" then there should be an action where the number of Departments /Agencies articulating a no net loss target in plans and policies is measured. Questions to be addressed here are; how the need to a no net loss target in plans and policies will be communicated and, if Departments /Agencies want to biodiversity proof their plans and policies, how they will be supported.

In the previous Draft NBAP released to the Biodiversity Forum in July point 1.1.1 stated;

> "*All government departments and agencies to commit to no net loss of biodiversity through strategies and planning, mitigation measures, offsetting and/or investment in green-blue infrastructure.*"

While the new measure has been improved upon the action in that the list of Actors/ Key partners has been expanded to include private sector it is weaker in that it does not call on all "***All*** *government departments and agencies to commit to no net loss of biodiversity through strategies and planning, mitigation measures, offsetting and/or investment in green-blue infrastructure.*" The obligation to move towards no net loss is stronger than simply calling for a commitment to no net

loss. However, this obligation is not time-constrained here, The EU is committed to halting the loss of biodiversity and the degradation of ecosystem services by 2020. This EU action calls for the development of a methodology to assess the impact of EU funds on biodiversity and foresees that the Commission proposes "an initiative to ensure there is no net loss of ecosystems and their services (e.g. through compensation or offsetting schemes)." Therefore, the commitment has already been made by the Ireland and accordingly, government Department and Agencies. Identifying how this commitment can be implemented and implementing it must be the Action. Without a mechanism to ensure that this commitment is taken seriously however it may just lose its efficacy.

Through An Taisce's experience of the planning system we are aware that in the time-frame between a development or piece of infrastructure entering the planning system and a decision being made, the damage may have already been done, as the site will already have been chosen. It is much harder to try to mitigate the negative impacts of an inappropriately located and designed development than it is to avoid developing sites which are important for biodiversity. More often than not projects are designed with the cost of the development being the primary concern. This often leads to a bias towards developing marginal land which all too often supports higher levels of biodiversity than land in intensive use. A greater emphasis must be placed on avoiding impacts during the project design and pre-planning stage. In An Taisce's experience, adequate mitigation measures and appropriate offsetting rarely occur in Ireland. Mitigation measures are all too often tokenistic and lack an evidence base or proper monitoring to demonstrate their effectiveness. Aside from the general inadequacy of mitigation measures another major issue which needs to be improved is the general lack of consideration given to indirect and cumulative impacts on biodiversity. The situation could be improved by improved guidelines from an EU and national level.

For these reasons the action should be rewritten so it reads "1. *All Departments/Agencies to move towards a no net loss of biodiversity through strategies, planning, mitigation measures, appropriate offsetting and/or investment in green-blue infrastructure in line with the EU's target to achieve no net loss of biodiversity by 2020*." Retain the private sector in the Actors / Key Partners.

The EU's efforts to halt biodiversity loss and achieve no net loss in biodiversity by 2020 is linked to the development of a methodology to assess the impact of EU funds on biodiversity and foresees the development of compensation or offsetting schemes. Such a methodology would require national level input. Is such an undertaking part of this NBAP?

The idea of offsetting must also be treated with a certain amount of trepidation to ensure that they do not incentivise behaviours which actually accelerate biodiversity loss. They should not be considered conservation gains in their own right, as they are ultimately neutral in terms of biodiversity gains.

1.1.2. Public and Private Sector relevant policies and decisions explicitly consider implications for biodiversity and engage with this NBSAP

We have noted that point 1.1.2 was originally "Su*pport development of national Natural Capital accounting*", which has been moved to 1.1.9. and changed to "*Produce guidelines for natural capital accounting and reporting for government and industry in Ireland including for those companies that will need to comply with the EU Non-Financial Reporting Directiv*e."
Please see our comments relating to this point in 1.1.9 below.

The performance indicators in 1.1.2 are very positive:

Performance indicator: 1. New policies and plans explicitly state considerations of biodiversity
2. Number of policies and plans that take biodiversity into account (or fail to do so)

Having to state consideration of biodiversity may result in documents filled with baseless statements / standard paragraphs about the importance of biodiversity. Having to consider biodiversity will be positive in its own right, but ideally there needs to be a mechanism that ensures that policies are aligned with the No Net Loss objective.

It is important that the relevant actors in the Public and Private Sector who do not have an ecological or environmental law background are supported, to understand the biodiversity impacts and obligations of relevant policies and decisions and have the necessary support to make policies and decisions not only biodiversity neutral but enhance biodiversity.

If there is no legal obligation to consider biodiversity impacts, then encouraging their consideration is a positive first step. Encouraging reference to biodiversity and the environment however runs the risk of an increase in "green-washing" whereby lip service is paid to the environment but little effort is made to have a tangible positive impact.

Where there is a legal obligation to consider environmental impacts, for example, under the Strategic Environmental Assessment (SEA), more could be done to ensure that negative impacts are not occurring.

Under the heading *Baseline,* the NBAP states "*SEA Directive should ensure that policies are "biodiversity proofed.*" What mechanisms exist to ensure that this is the case? What proof exists that a SEA prevents biodiversity loss?

High level agricultural policies such as Food Harvest 2020 and Food Wise 2025 were always going to result in serious negative impacts across the board on biodiversity, water quality and greenhouse gas emissions. These policies have none the less gone ahead.

Food Harvest 2020 carried out an Environmental Assessment

> "In accordance with Article 6(3) of the EU Habitats Directive this report has carried out an Appropriate Assessment (AA) of Food Harvest 2020 as far as its impacts are measurable at a high level or national basis."

The report did not carry out an SEA but rather, stated "the processes in developing this report closely followed those required for a Strategic Environmental Assessment (SEA)."

Food Wise 2025 did carry out an SEA. Likewise SEAs have been carried out for Forestry Programme, EMFF, etc.

No mechanisms seem to exist to monitor the actual impacts of these policies, namely the effectiveness of the mitigation measures. There is a lack of accountability evident/present here. Proper mechanisms need to be developed with interim and ex-post reviews, the outcomes of which should be published and open for public scrutiny/comment.

It is essential that a framework is developed where SEA / Environmental Assessments are scrutinised and monitored and there is an assessment and accountability. This is essential not only to ensure that environmental impacts are assessed and thus avoided or mitigated but also that past mistakes are not repeated in future policies. In the absence of this kind of evaluation there is no sanity check to identify and address negative policies.

Point 1.1.2 would be better if treated as two points. Policies which do not have a legal obligation to consider biodiversity impacts should begin to take it into account. They should be supported in this and the actions could relate to support materials and relevant forums.

For policies which have a legal obligation to consider and prevent negative environmental impacts under European and Irish law then the aforementioned mechanisms should be put in place. Actions should relate to ex-post reviews of policies. Development of policies and procedures to improve environmental assessments, enforcement and create accountability.

1.1.3. Strengthen ecological expertise in public authorities

This action appeared stronger in the previous draft in that it specified the action referred to government Departments, agencies and Local Authorities - "*1.1.4 Strengthen ecological expertise in government Departments, agencies and Local Authorities*." Consider re-wording but it's not a major sticking point.

We support this action and as was stated in our previous submission, integrating sound ecological expertise into government departments would be hugely beneficial. It is evident that ecological expertise is lacking in many Departments and that many key national strategies only consider impacts on biodiversity as an afterthought.
In the July draft "*Biodiversity training material for Government Officials*" was identified as a mid-term target. In our view, this should be reinstated as a target, although we acknowledge the difficulty in altering people's worldviews with information packs alone. Ideally, improved structures should be developed to include NPWS input at an early stage in policy development. NPWS should have the right to be able to biodiversity proof plans/policies.

This action has no related action in the current draft.

Actors / Key partners are identified as "Public authorities, The Heritage Council."

An Bord Pleanala could be included in this action. There are currently nine members on the board. While some of the members of the board have an environmental science background I am not aware of any of them having a strong ecological background. One action could be that at least one of the members of the board moving forward should have an ecological background to ensure that negative impacts on biodiversity are consider at appeal stage. Many appeals and high court actions are taken on Habitats and Birds Directive grounds. It would therefore make sense that biodiversity concerns are well represented on the board.

We support the performance indicators for this action.

1. Number of full-time biodiversity officers in place in all Local Authorities
2. Training of Public authority staff with responsibility for biodiversity issues to further develop their skills and expertise

As a *Baseline* the NBAP states that "*23 Heritage Officers and four Biodiversity Officers are employed across 26 Local Authorities."*

An important action would be an assessment of the role of the Heritage and Biodiversity Officers to identify issues and put in place means to address them.

The action to employ biodiversity officers in all local authorities is a very important step.

This could be implemented more efficiently and effectively if approached and/or supported at a national level, similar to the Heritage Officer program for local government. Heritage Officers cannot be expected to implement Local Biodiversity Action Plans (LBAP) on top of the Heritage Plans and deal with a wider variety of biodiversity issues at the same time.

The Wildlife Officer post in the Heritage Council should also be reinstated.

Additionally, if the Biodiversity Unit in NPWS is not currently operational, it should then be a priority and sufficiently resourced. It should be charged with coordinating the implementation of the national Biodiversity Plan with all public authorities.

1.1.4. Local Authorities will review and update their Biodiversity and Heritage Action Plans as well as their Development Plans and policies giving due consideration to the protection and restoration of biodiversity.

This action is linked to action "*1.1.8 Local Authorities should review and update Action Plans for safeguarding biodiversity"* in the July draft.

In general, this action is much weaker than the action in the previous draft, "*1.19 All local government development plans should include proactive measures for the protection and restoration of biodiversity*".

Local authorities should be supported by the relevant public authorities to do this. The related action could then be linked to actions 1.1.3 and 1.1.5 for example. Additionally, a dedicated Biodiversity Fund for implementing LBAPs should be established and/or reinstated. This national funding source is essential and should be similar to the funding mechanism for Heritage Plans.

Development plans should be aligned with the relevant EU and Irish Environmental legislation the Habitats Directive, Birds Directive and Wildlife Act. Attention should be paid to EU case and Irish case law. The need to protect species and habitats outside of designated sites should be given special consideration. The NPWS should support these separate points through separate actions related to guidance and capacity building. Local authorities should be up to date with the NPWS Priority Action Framework and the need to address declines in habitats and species which are most pressing.

There should also be greater alignment between local and national levels of government as LBAPs and their outcomes complement Ireland's NBP and its objectives. The linkages between national policy makers such as those in the DAHG and NPWS and implementing agencies such as local authorities needs to be improved .
Ideally every Local Authority should identify the most important areas for biodiversity and developed linkages via protected habitat corridors and stepping stones. LBAPs should contain more specific, clearly defined actions, be time-specific, with outcomes that are measurable to a certain degree, and perhaps contain a baseline against which progress will be monitored. LBAPs should focus in particular on implementing the harder but more significant actions aimed at modifying management practices and daily actions in their respective counties that impact negatively on biodiversity. This would apply particularly in the case of limited resources.

An annual opportunity, such as a workshop, for the local and national stakeholders in biodiversity conservation to network and discuss experiences and feedback of issues surrounding LBAP implementation. In the context of biodiversity policy implementation, drawing upon the experiences of others could help those implementing the plans become more effective.

1.1.5. In consultation with Local Authorities, continue to publish guidance for Local Authorities regarding biodiversity

This is a positive action and should help to support other actions as well as improving the implementation of biodiversity-relevant laws.

This is strongly linked to the need to deliver action 1.1.1. *"1.1.1. All public authorities and private sector move towards no net loss of biodiversity through strategies, planning, mitigation measures, appropriate offsetting and/or investment in green-blue infrastructure."*
Please, refer to points made under 1.1.1 above. There is a need for guidance on the need to consider indirect and cumulative impacts on biodiversity. This is especially the case in Natura 2000 sites where habitats and/or species already have unfavourable conservation status and are likely to be negatively impacted by a development. It would be worthwhile collating examples of best practice mitigation measures from across the EU.

Guidance is also needed on the protection of non-designated habitats, wildlife corridors and stepping stone habitats.

1.1.6. Integrate Natura 2000 and Biodiversity financial expenditure tracking into Operational Programmes internal paying agency management procedures including linkage to the Prioritised Action Framework[46] and this NBSAP

This is another positive action. Funding for biodiversity has in the past mainly come from the Operational Programme through the European Agricultural Fund for Rural Development (EAFRD) via Agri-Environmental schemes. However, greater effort needs to be made to draw down funding for biodiversity from the other European Structural & Investment (ESI) funding streams:

European Regional Development Fund (ERDF);
European Social Fund (ESF);
Cohesion Fund (CF) [1];
European Maritime & Fisheries Fund (EMFF).
In particular, insufficient funding is being drawn from the EMFF to restore marine ecosystems. Over fishing and the decimation of marine ecosystems is the main driver of the collapse of Ireland's fishing sector. This reality is now recognised at an EU level and efforts are being made to restore fish stocks via the CFP. Despite this, however, virtually no actions were contained in Ireland's Seafood Development Programme to restore marine biodiversity. Overfishing, in fact, was barely mentioned throughout the document. More funding needs to be leveraged from the EMFF, to support the development of initiatives, such as Marine Protected Areas.

1.1.7. Begin the integration of environmental and economic statistics using the framework of the UN System of Experimental-Ecosystem Accounting (SEEA) beginning with delivery of national forest accounts by 2018

This is a positive action. Greater knowledge is needed about the value of ecosystem services. This will support conservation efforts. However, it is important to ensure that research will not be industry driven nor directed at supporting the ongoing expansion of unsustainable models of forestry and agriculture. Further research should not be targeted at supporting an argument that commercial forestry plantations or intensive grasslands are effective carbon sinks. Rather, research goals should be focused on investigating the negative impact that forestry on peat is having on

carbon sinks and on establishing the negative impact of agricultural intensification on carbon sequestration in high carbon soils.

1.1.8. Develop valuation of water services
This is a positive step but clear efforts should be made to communicate to the public, the cost-effectiveness of reducing water pollution at source compared with paying to treat polluted water. Once people start paying for water they will have less tolerance for major polluters such as the agricultural sector.

1.1.9. Produce guidelines for natural capital accounting and reporting for government and industry in Ireland including for those companies that will need to comply with the EU Non-Financial Reporting Directive

We have noted that this point was originally "*Support development of national Natural Capital accounting*." The original draft point of "*Support development of national Natural Capital accounting*" has been fleshed out with more specific detail giving specific commitments to "*Produce guidelines for natural capital accounting and reporting for government and industry in Ireland including for those companies that will need to comply with the EU Non-Financial Reporting Directive*." These specific deliverables are a big improvement.

1.1.10. Establish a national Business and Biodiversity Platform under the CBD's Global Business Partnership

No Comment

1.1.11. Ensure the agriculture sector produces tangible benefits for biodiversity with increased emphasis on conservation and restoration of biodiversity in Origin Green
In the previous draft this was the point "*1.1.14 Ensure that Origin Green leads to tangible biodiversity benefits*".

It is positive that this has been expanded to include the agricultural sector. However, this should really be two separate actions. Origin Green is "*a network of food companies who have committed to sustainable practices such as carbon efficiencies*". This is not representative of the whole agricultural sector.

There should be an action which states that the "*agricultural sector produces tangible benefits for biodiversity with increased emphasis on conservation and restoration of biodiversity*."

However even this would be inadequate. Agri-environmental schemes already demonstrate tangible benefits for biodiversity, yet the agricultural sector is the leading driver of biodiversity loss nationally. The entire NBAP must in large part be judged on its ability to halt biodiversity loss being caused by agricultural intensification and agricultural pollution. Given the vast sums of money being spent on biodiversity measures in Ireland's RDP, agri-environmental schemes should be required to demonstrate their cost effectiveness. Are they delivering on what they are supposed to and are they good value for money? On both counts the answer is probably negative apart from some notable targeted Locally Led Schemes (LLAES).

The supporting action must be an evaluation of the success and cost effectiveness of past agri-environmental schemes. A process must be put in place to develop mechanisms to identify the success and cost effectiveness of current schemes such as GLAS measures. The agricultural sector must be able to demonstrate that biodiversity loss is being addressed. Isolated success stories

against a backdrop of mass extinction are inadequate. There needs to be accountability at the end of RDP cycles when millions have been spent and the environment is still no better off.

Origin Green claims that biodiversity is one of the three environmental pillars on which Ireland's green image is based. To date however the programme has focused mainly on carbon efficiency and has failed to address total greenhouse gas emissions, biodiversity or water quality.
Origin Green have no biodiversity measures to date. Origin Green as a network of food companies should not take credit for the biodiversity benefits of tax payer funded agri-environment schemes which makes no direct contribution to.

Origin Green needs to develop tangible measures that will improve biodiversity. The identified performance indicators for Origin Green are quite good.

1. Origin Green reports include assessment of biodiversity benefits
2. Level of support for development of farmland habitat management plans
3. Methodology to assess farmland habitats developed
3. Development and trialling of a biodiversity Indicator in the Teagasc National Farm Survey
4. Number of Origin Green businesses actively engaged with other biodiversity actions

Hedgerows are one of the most common habitats across Irish farms. Teagasc guidelines exist on what kinds of management enhances biodiversity. Improving hedgerow management on Origin Green farms should be considered. Biodiversity enhancement projects such as habitat creation should be encouraged.

Origin Green should also develop measures that will improve water quality and compliance with environmental legislation. Market mechanisms should be created which ensure that High Nature Value farmers are paid a premium. Certification should be developed to distinguish them from intensive farmers. A performance indicator for this would also be required.

Original point "*1.1.14 Ensure that Origin Green leads to tangible biodiversity benefits*" should be reinstated an expanded to include water quality. i.e. ***"Ensure that Origin Green leads to tangible benefits for biodiversity and water quality."***

1.1.12. Identify and take measures to ensure that incentives and subsidies do not contribute to biodiversity loss, and develop positive incentive measures, where necessary, to assist the conservation of biodiversity

This should be part of the broader EU effort to develop a methodology to assess the impact of EU funds on biodiversity. A review of the CAP is needed. This is obviously beyond the power of the NBAP to achieve. Subsidies are still targeted towards production to the detriment of biodiversity, climate, water quality and small/medium farmers.

Forestry grants and tax breaks are directly driving biodiversity loss. The new Environmental Requirements for Afforestation Guidelines (2016) have no mechanism to protect either Annex I birds species under the Birds Directive or High Nature Value farming. This needs to be urgently addressed.

Land eligibility is still a huge driver of biodiversity loss.

As well as identifying perverse incentives, positive incentives must be created. Greater effort must be made to shift away from a system where farmers are paid not to pollute to a system where

pollution is regulated against and farmers are instead supported to carry out positive actions above and beyond what are delivered as a side benefit of farming.

The supporting performance indicators mentioned in this point are positive.

1.1.13. Establish and implement mechanisms for the payments of ecosystem services (PES) including carbon stocks, to generate increased revenue for biodiversity conservation and restoration

Peatlands are the greatest terrestrial carbon sinks despite covering a mere 3% of the earth's surface. There is an overwhelming argument to protect Ireland's peatlands from a carbon sequestration perspective. There is a positive correlation between the distribution of high carbon soils and High Nature Value farming systems due to the associated negative correlation with agricultural intensification. Efforts to conserve biodiverse carbon sinks should focus on habitats on high carbon soils such as peatlands, wetlands, rough grasslands etc.

An Taisce and several other eNGOs involved in the Environmental Pillar and Stop Climate Chaos published our 'Not So Green – Debunking Myths Around Irish Agriculture' report in 2016. This report highlights serious issues with the logic used to claim carbon offsetting in Irish forestry and highlights critical EU climate accounting errors, which incorrectly counts bioenergy from all biomass sources as carbon neutral. As mentioned above, there are problematic aspects associated with offsetting in general which must be considered.

'Not So Green – Debunking Myths Around Irish Agriculture'
http://www.antaisce.org/sites/antaisce.org/files/not_so_green_report.pdf

1.1.14. Monitor the implementation of this Plan

This action had the corresponding action **"***1.1.5 Biodiversity Working group to monitor implementation of this plan*."

This action makes obvious sense. However, a target needs to be set for the number of meetings of the Biodiversity Working Group. For the 2nd Report, the Biodiversity WG met four times. This seems insufficient given that the group should meet annually, at a minimum and more often in order to carry out mid-term and ex-post reviews, including perhaps interim meetings and consultation meetings in relation to these.

It is also vital that the 29 departments and agencies improve their representation at the meetings and that important stakeholders are encouraged to attend.

1.1.15. Develop and implement a National Biodiversity Finance Plan to set out in detail how the actions and targets of this NBSAP will be delivered from 2017 and beyond

This action is extremely necessary. Please refer to previous comment under 1.1.6 above regarding leveraging more biodiversity funding from Operational Programme.
Ireland draws down less LIFE programme funding than many other EU member states. There are several reasons for this, including the comparative dearth of NGOs and other partners with the resources to draw down LIFE funding. These constraints should be identified and communicated at an EU level.

Several very positive actions contained in the July draft under Target 1.2 have been deleted. An Taisce would like to see a number of them reinstated, in particular the following ***"1.1.7*** *Each Local Authority shall designate a dedicated Biodiversity Officer and provide resources to implement Biodiversity Action Plans.*

This would strongly support the actions 1.1.3 and 1.1.4 in the new draft. The previous draft had set an ambitious mid-term target of having biodiversity officers in 50% of Local Authorities.

1.1.15 Target around local communities

In the July draft of the NBAP action 1.1.15 was "*Target around local communities*." The importance of community level engagement cannot be overstated. A love of biodiversity must be integrated into Irish society at a grass roots level. Better education is needed, along with better consultation and engagement. Engagement may seem like an extra burden on an already stretched department but it can also ease the burden on rangers. There are numerous examples of communities being empowered to successfully manage sites for conservation both in Ireland and abroad. Ireland's NGOs for example work closely with local communities to manage protected sites, monitor wildlife and pollution.

LLAES are positive and Ireland is leading on this, with huge potential. However, local engagement and empowerment cannot be limited to the Locally Led Agri-Environment Schemes. Farmers are just one element of the broader community (albeit an integral part).

Greater efforts should be made to pool the resources of those who are working at a community level on citizen science and locally led conservation. There are many community groups which are doing positive work (initiatives such as the Ballydangan and Boleybrack Red Grouse Projects and the Abbeyleix Bog Project). An Taisce have organised very successful raised bog restoration and invasive species removal projects in 2016. A lot more of this kind of work could be done.

NPWS rangers, Heritage and Biodiversity Officers, NGOs and Local Authority Water Conservation Officers should work closely together where possible to empower and coordinate community action. The NPWS could better utilise the national good will towards nature conservation by involving eNGOs and local community groups (including for example Gun and Angling clubs) in hands on conservation measures and habitat management. As much of Ireland's designated sites are in private ownership, many communities do not have the space to carry out hands-on conservation. If communities have the space, direction and the tools (either from professional conservationists or from community level enthusiasts) then great things can be achieved. Greater efforts should be made to lease Coillte and Bord na Mona lands back to local community groups.

If individuals within a community are invested in conservation, then they are much more likely to stand up for conservation issues at a local level. Regulation and agri-environmental schemes alone will not halt biodiversity loss. Only by empowering conservationists at a local level can we start a new dialogue around the environment and its stewardship.

The NBAP should reinstate a specific action which focuses on local communities.

Target 1.2: Strengthened legislation in support of tackling biodiversity loss in Ireland

1.2.1 Incorporate into legislation a biodiversity duty to ensure that conservation and sustainable use of biodiversity are taken into account in all relevant plans and programmes and all new legislation

Formerly Point 1.1.6 in July draft of NBAP "*1.1.6 Include in legislation a biodiversity duty to ensure that conservation and sustainable use of biodiversity are taken into account in all relevant plans and programmes and all new legislation."*

The Biodiversity Forum had a very positive presentation from a representative from Northern Ireland on a similar piece of environmental legislation which they have. Everyone in the forum was in favour of this action and it should certainly be re-included.

The performance indicators under the last draft were "1. Legislation drafted. 2. Law enacted and enforced." These are stronger than the current action "Enactment of Biodiversity Duty".

A good mid-term target would be to draft legislation and consult with relevant departments such as DHPCLG, who should therefore be reinstated as a key actor/partner in the current draft.

1.2.2 Publish legislation to provide a legal basis for National Parks

Legislation should also include an obligation to ensure that National Parks are properly resourced and managed.

1.2.3. Consolidate the Wildlife Acts in a new Bill

The consolidation of the Wildlife Acts implies that they will be strengthened. The only current work being done on the Wildlife Act, is through the Heritage Bill. The Heritage Bill proposes to significantly weaken Section 40 of the Wildlife Act and will result in clear negative impacts on upland and farmland biodiversity. The greatest threat to hedgerow biodiversity aside from removal is intensive management. Allowing hedge cutting in August will seriously impact on already critical levels of biodiversity loss in farmland species. Yellowhammer, Linnet and Greenfinch nest well into September. Yellowhammers are a Red Listed in Ireland due to a 90% decline in breeding population (11-14 year trend). The proposed legislative changes may drive some species to national extinction. The inclusion of action relating to the Heritage Bill seriously undermines the credibility of this NBAP and does a disservice to the dedication and expertise of the staff working within DAH.

This action is not aligned to the fundamental objectives of this NBAP or its constituent actions.
How will the negative impacts of the Heritage Bill be mitigated/offset?
How will this action be reconciled with the core objectives of the NBAP and the specific obligations as set out by actions 1.1.2, 1.1.11 and 1.2.1?
How will the Heritage Bill help to deliver the overarching objective of target 2?

It is also of concern to An Taisce that a section of the Heritage Bill 2016 proposes to repeal a paragraph of the Wildlife Act which provides protection to authorised person or a member of the Garda Síochána exercising any power or function conferred on the authorised person or member by or under the Wildlife Acts, 1976 and 2000 from assault. Such a move would have serious implications for the safety of those enforcing environmental legislation in Ireland and undermines the government's commitment to environmental regulation and enforcement. In relation to the performance indicator "*1. Review of existing legislation published"*, will the scientific basis and all relevant research related to the legislative changes be published?

1.2.4. Review Flora Protection Order and Schedule 5 of the Wildlife Act in light of publication of new Vascular Plant Red Data list and other regional and global Red Lists. Further review Section 40 to ensure control of invasive species may be carried out subject to screening process in the summer months

Formerly, "*1.2.3 Review Flora Protection Order in light of publication of the new Vascular Plant Red Data list (expected end 2016).*"

The inclusion of the review of Section 40 to ensure control of invasive species may be carried out subject to screening process in the summer months is welcome. In this regard, it is important to define exactly what species are considered invasive and what means of control are permissible. Defining what, when and how invasive species can be exterminated is necessary to ensure that loop holes are not created which may result in further destruction of important habitats during the closed period. For example, it is widely accepted that the road safety exemption for local authorities which currently exists for hedge cutting is abused.

Updating the FPO list is a necessary action. FPO status should offer one of the strongest levels of protection under either Irish or EU law. In An Taisce's experience, FPO status means very little in practice. In planning applications, FPO species are given little attention. An Taisce has had the experience of having raised concerns about FPO species in submissions on planning applications which have been ignored by inspectors reports and ABP decisions.
In forestry applications, FPO species are not protected because foresters do not carry out detailed ecological assessments and there is no obligation to carry out ecological assessments when relevant species may be in bloom and most conspicuous.
There is little if any enforcement against farmers carrying out intensification.
There are to our knowledge very few mechanisms available to enforce FPO protection.
A review of FPO protection should be carried out. NPWS rangers and staff should have practical experience of the realities of trying to enforce FPO protection and of ways in which floral protection could be improved. Guidelines should be developed and sent to relevant parties in the planning system reminding them of FPO obligations. Without some form of mapping system of FPO species distribution it is likely that these species will continue to be ignored. Placing such data in the public domain may, however, also run the risk of endangering threatened populations.

1.2.5. Ensure the various provisions of the Forestry Act 2014 that protect biodiversity and the wider environment are brought into effect

This point was formerly *"Ensure that the Minister brings provisions in the Forestry Act 2014 that impact on biodiversity into effect."*

An urgent review of the Forestry Services' past compliance with environmental legislation is needed to ensure that the Minister brings relevant biodiversity provisions into effect. This must also include the role that relevant authorities and notice parties have played in non-compliance with environmental legislation.

Such a review could be included as a related action under this heading.

An Taisce has raised concerns many times about the failure of the forestry service to properly carry out their obligations under Article 6(3) of the Habitats Directive through our role in the afforestation consent process, through relevant consultations, submissions and engagement with forestry related issues, such as the Hen Harrier Threat Response Plan Consultative Committee. Our concerns are summarised in the following documents:

The Environmental Integrity of Irish forestry in the Context of the EU's Effort Sharing Decision (2016)
http://www.antaisce.org/publications/the-environmental-integrity-of-irish-forestry-in-the-context-of-the-eu%E2%80%99s-effort-sharing

An Taisce submission - Re: Draft Environmental Requirements for Afforestation (2016)
http://www.antaisce.org/articles/an-taisce-submission-re-draft-environmental-requirements-for-afforestation-2016

According to the EPA, forestry is now the greatest pressure on high status water bodies. This should be taken into consideration in light of the Minister's obligations under the Forestry Act.

1.2.6. Implement OSPAR recommendations on Habitats and Species and their implementation and ensure government resources available to engage with OSPAR and ICES

According to the baseline column of the NBAP "*From a Biodiversity perspective Ireland's engagement with OSPAR, and ICES as an advisory body to OSPAR, is insufficient at present. This hampers effective protection of biodiversity that is otherwise facilitated by international harmonisation, consensus building and agreement around appropriate action*."

Compliance with quotas set in accordance with maximum sustainable yield under the Common Fisheries Policy (CFP) and the obligations of the Marine Strategy Framework Directive are two mechanisms whereby Ireland can support the implementation of OSPAR recommendations. Likewise, the establishment of an effective network of Marine Protected Areas with specific conservation objectives will also support our OSPAR obligations.
In relation to specific OSPAR recommendations on Habitats and Species, a review should be carried out of all relevant actions taken to date and recommended future actions. Potential synergies will exist between obligations under the WFD, MSFD and the Habitats and Birds Directives. Government resources must be made available to engage with OSPAR and ICES, which can be justified due to multiple levels of obligation under different conventions and directives.

There are currently no actions or mid-term targets to improve Ireland's engagement with OSPAR and ICES.

Objective 2: Substantially strengthen the knowledge base for conservation management and sustainable use of biodiversity

Formerly, Objective 2 in the July NBAP draft read "*Strengthen the knowledge base for conservation, management, **restoration** and sustainable use of biodiversity."* The reference to restoration should be reinstated. The removal of restoration waters down the ambition of Objective 2. Actions 2.1.9, 2.1.19, 2.1.23 and 2.1.24 all make reference to biodiversity restoration.

It is of concern to An Taisce that sectors which are major drivers of biodiversity loss are responsible for carrying out research into their own impact on the environment. This fundamentally biases not only research recommendations but the very questions that are being asked in the first place. Research carried out by the Agri-food and the Forestry Sectors to justify the unsustainable intensification of agriculture and forestry in Ireland is unlikely to benefit biodiversity. An example of

this is the referenced “existing forest research programme on forest biodiversity, carbon accounting, and the interaction of climate change and forest systems” which to date has acted as a vehicle to justify further the expansion of a model of forestry which is a major driver of biodiversity loss. An Taisce have critiqued the relationship between agricultural intensification, forestry expansion, climate change and biodiversity loss in our report ‘Not So Green – Debunking the Myths around Irish Agriculture’ (2016) http://www.antaisce.org/sites/antaisce.org/files/not_so_green_report.pdf.

We need more research which seeks to challenge drivers of biodiversity loss rather than justifying the status quo. Research into the true cost of biodiversity loss and environmental degradation may help to change the dominant narrative of unsustainable growth. More research is needed into the true environmental, social and economic cost of current models of agriculture, forestry and fisheries. Whilst direct economic returns to individuals from carrying out environmentally destructive activities is easy to measure the broader economic and social costs are often much harder to ascertain. Indeed, it is clear that if the true environmental and social costs of production were to be placed on producers, many industries would not be economically viable. Likewise if the true costs to the environmental and human welfare of certain industries were common knowledge, they would not be considered socially acceptable. Gross Domestic Product (GDP) has failed as a means of indicating a nation’s progress, in that it only considers economic activity and not genuine improvements in the quality of our lives or the state of our environment. Research must be carried out which strengthens the argument for us to move to an economic system which factors in the environmental and social cost of economic development.

Target 2.1: Knowledge of biodiversity and ecosystem services has substantially advanced our ability to ensure conservation, effective management and sustainable use by 2021

2.1.1. Review needs for biodiversity research in 2019

Per the NBAP, the last Platform for Biodiversity Research (NPBR) recommendations were produced in 2012. A lot of new threats to biodiversity and research needs have emerged in the intervening years. Another meeting of the NPBR should be sought.

On-going research, needed to address identified knowledge, is lacking for many taxonomic groups.

Greater attention should be paid to the monitoring of flora and invertebrates as indicators of conservation status and biodiversity loss. Trends in conservation status of habitats and species covered by the Habitats and Birds Directives are useful but may fail to reflect biodiversity loss in the broader countryside or highlight biodiversity loss at lower trophic levels before it too late.

There is an urgent need to identify remaining High Nature Value farmland and in particular semi-natural grasslands. This information is key to tackle land-use change being driven by agricultural intensification, land abandonment and afforestation. This data would help An Taisce enforce EU regulations relating to the protection of High Nature Value farming systems from afforestation. Improved mapping of habitats and species will help to improve the targeting of agri-environmental schemes and in particular LLAES.

The effectiveness of agri-environmental schemes and their costs and benefits should be thoroughly researched.

Mapping the distribution of invasive species and in particular aquatic invasive species will have important implications. Research must also be carried out on the increased threat of invasive species colonisation in light of climate change projections and continental European and British shifts in species distributions. Given our comparatively low diversity of species relative to continental Europe and the fragmentation of many habitats, climate change and invasive species may have worse impacts on Irish biodiversity than is currently expected. Recent research from the UK has identified that many species are in fact not successfully adapting their distribution in response to climate change. Specifically, high-intensity land use appears to exacerbate declines in cold-adapted bird and butterfly species, and prevent increases in warm-associated birds. This has broad implications for managing landscapes to promote climate change adaptation. Further research which considers rates of community change in the light of climatic variability and whether interactions with land use are mediated by ecological traits and regional species pools, would provide additional valuable insights into changing biological communities under global change drivers.

Research should be carried out on the genetic diversity of many of Ireland's threatened species which are now restricted to fragmented and often isolated populations. This research should inform efforts to reconnect fragmented populations.

The impact of climate change on Ireland's peatlands and wetlands should continue to be researched. Likewise current research on the carbon sequestration capacity of commercial forestry does not sufficiently consider the long-term loss of organic soil carbon from oxidation, erosion and loss as DOC. This research should be carried out to balance the current drive to justify afforestation on peat and mineral peat. Research should also look towards finding means of reducing the negative impact of Irish forestry on the environment.

Research must be carried out on a local and a regional basis on the conservation needs of Natura 2000 sites. Research should seek to establish site specific conservation objectives and management plans. This should include wherever necessary the site level restoration works which need to be carried out to restore populations of species such as the Hen harrier which have declined since designation. One of the most fundamental knowledge gaps which exists in Irish conservation is the link between the socio-economic status of marginal farming communities and high nature value farming systems. The viability of rural communities is as integral a part of the management of many Natura 2000 sites. The roll that perverse incentives are playing in the afforestation of upland SPAs and the long-term socio-economic and environmental implications of perverse land use change requires urgent attention. The importance of Natura 2000 sites for species which are not qualifying interests of sites should be given greater attention. For example, Hen Harrier SPAs are important for a host of upland species which have been undergoing serious population declines over the last few decades. Management plans should be beneficial for as many species as possible and be cogniscant of the role individual sites play within the broader network.

Research should be carried out to identify the best sites to establish Marine Protected Areas and the benefits of MPA designation in an Irish context.

Ongoing research into the reduction of the impact of agricultural pollution on the aquatic environment should be carried out considering the implications of Food Wise 2025.

Research must be carried out to protect and restore high status water bodies and their associated biodiversity. Ensuring the viability of freshwater pearl mussel populations should be a high priority. The EPA HYDROFOR recommendations must be implemented.

2.1.2. Complete national terrestrial habitat, land cover, land use, and ecosystem service maps

This is of critical importance. Where possible, habitat quality should also be recoded.

2.1.3. Develop a vegetation classification scheme for Ireland including for marine habitats

No comment

2.1.4. Make available data and mapping on rare, threatened and protected species and habitats to all public authorities and developers and agents acting on their behalf to inform consent decisions including integrating this data into the FS-DAFM's iFORIS system and corresponding iNET system used by Registered Foresters

This is relevant to points made above in relation to the conservation of FPO species. This data should also be made available to An Taisce as a statutory consultee with a remit which includes the protection of natural heritage. Care should be taken that rare populations are not exposed to prosecution or exploitation. The NPWS are generally very good at keeping sensitive species data out of the public domain.

2.1.5. Continue to implement common data standards and quality assurance procedures in line with the INSPIRE Directive and ensure that data and mapping on rare, threatened and protected species and habitats are freely available

Again care should be taken that rare populations are not exposed to prosecution or exploitation. The NPWS are generally very good at keeping sensitive species data out of the public domain.

2.1.6. Support research on economic and societal valuations and non-economic valuations of ecosystem services and benefits and how biodiversity underpins these values

It is the view of An Taisce that it is equally important to carry out research investigating the economic cost of the destruction of biodiversity, seeking to answer such questions as, the cost of peatland destruction on water supply, water quality (trihalomethanes), carbon sequestration, flood attenuation, biodiversity etc. The destruction of Ireland's peatlands continues to be justified on that basis of job creation. These jobs, in the case of peat energy are subject to massive subsidies. In addition to this, the true cost of peatland destruction is externalised on the rest of society. This is also true of intensive livestock production. Research should be carried out which highlights the value of ecosystem services and the true cost of biodiversity loss on society and future generations. Research findings should be linked to the polluter pays principle.

2.1.7. Continue assessments on status, trends and distribution of all habitats and species of EU interest and additional habitats and species of national and regional importance

The Article 17 and Article 12 reports are critically important in assessing conservation priorities. The next Article 17 report is due in 2019 and the Article 12 report is due in 2020, both within the life of the third NBAP.
The July draft of the NBAP set a mid-term target of achieving a state of knowledge for 60% habitats and 100% species deemed sufficient. This mid-term target should be reinstated.

A more user-friendly summary version of the reports should be produced to raise public awareness about biodiversity loss, Ireland's *Natura 2000* network and to educate the public about the work of DAH. Comparisons should be made between data sets collected for each report.

As previously mentioned, research should look beyond EU obligations to Annexed habitats and species and should be targeted at ensuring the long-term viability of ecosystems, taking into account the need to allow for species and habitat distributions to shift in response to climate change.

2.1.8. Build on the National Biodiversity Indicators to develop state, pressures, and response indicators to allow assessment of Ireland's national and international biodiversity commitments by 2020, including the 3rd NBSAP, the EU Biodiversity Strategy, the Convention on Biological Diversity, and the Sustainable Development Goals

Many of the indicators relate to knowledge and awareness of biodiversity. An Taisce's Green Schools Programme should be included as a key partner.

2.1.9. Support and encourage the volunteer network and local communities to carry out biological recording and other citizen science projects including grants for such activities as habitat conservation management, monitoring and restoration research needs

The scope of this action has been greatly improved upon since the previous draft.

Those at the grassroots level of conservation must be empowered if we are going to halt biodiversity loss. Closer coordination between public authorities, Ireland's NGO network and community level conservation groups should be fostered. An assessment should be carried out to identify as many NGO and community level groups as possible. Angling and hunting groups should also be key allies in the conservation of species such as Atlantic salmon, red grouse and grey partridge.

The actors/key partners list needs to be expanded. Biodiversity and environmental research is also carried out by Clean Costs, Irish Wildlife Trust, Bat Conservation Ireland, Irish Raptor Study Group, Irish Seal Sanctuary, Golden Eagle Trust.

DAH should utilise volunteer networks in order to carry out habitat management and restoration. It has been demonstrated in several cases that community level conservation can yield great benefits for biodiversity. DAH should seek to provide funding and expertise to direct conservation efforts. This should include utilising international and Irish conservation volunteers to manage invasive species in National Parks, for example.

The education unit of An Taisce have an excellent track record of empowering communities to positively impact upon the state of their local environment. Excellent work is being carried out at a grassroots level by programmes such as Clean Coasts, Green Communities, National Spring Clean etc. These programmes should be included in the Actors/Key partners list.
http://www.antaisce.org/education

In terms of community grass roots initiatives An Taisce Green Communities has organised activities at Bridgefoot Street Community Garden and elsewhere over the last few years. These events are organised to facilitate skill sharing amongst community gardens, allotments, residents associations, and other community groups in and around Dublin. Green Communities has been supporting a network of some 30 community groups to work together since 2008, and its activity supports social interaction and the transfer of knowledge at a grass roots level.

In 2017 Green Communities will initiate Environmental Community Training within County Limerick based at Coillte's Curragh Chase Forest Park. This will see Tidy Towns Groups, Community Councils, Residents Associations, Community Gardens, and other voluntary groups engaging with practical environmental training that is tailored to the activities of such community groups. This training will be delivered as part of a two year project comprising; Biodiversity, the all Ireland Pollinator Plan, and Climate Change.

The Learning about Forests Programme (LEAF), coordinated by the Foundation for Environmental Education (FEE) on an international level, but in Ireland, operated under the Environmental Education Unit of An Taisce, is a programme which encourages environmental education through awareness-raising among students, teachers and the wider community. Through interactive learning and field-trips the programme reconnects students with their environment, giving them a sense of ownership of and incentive to protect, the natural world around them, specifically in the context of forests. (http://learningaboutforestsireland.org)

In the face of declining government funding the ability of Ireland's environmental NGOs to continue to fulfil key functions cannot be taken for granted. Environmental NGOs must be sufficiently funded in recognition of the functions they perform and as a key environmental stakeholder and social partner.

NBDC should continue to improve and promote online biodiversity recording tools and data availability.

2.1.10. Ensure that international collaborative funding opportunities are effectively targeted to assist implementation of this NBSAP through consultation between funders, researchers and users of research

No comment

2.1.11. Enhance knowledge of the most significant direct and indirect causes of biodiversity and ecosystem service loss including combined and cumulative stressors; develop and test prevention and mitigation options

Research findings should be made publicly available and ensure that enhanced knowledge on direct, indirect and cumulative impacts informs planning decisions, SEA etc.

Where direct, indirect and cumulative impacts are known, concrete steps must then be taken to address them. In the case where negative impacts are in breach of environmental legislation then enforcement must be carried out by the relevant authorities.

Research should be carried out to enhance the enforcement of environmental regulations.

2.1.12 Continue forest research programme on forest biodiversity, carbon accounting and the interaction of climate change and forest systems

None of the listed actors/key partners include an environmental body. DAFM, COFORD and the Forestry Service may be biased by the national targets for forestry expansion. In our experience the Forest Service, DAFM and Coillte are unwilling to accept concrete scientific evidence which shows that forestry is responsible for the ongoing collapse of species such as the Hen harrier. How then can these bodies be left responsible for carrying out research on the impact of forestry?

Given the aggressive targets set for afforestation, the age class structure of the forest estate and the distribution of existing forestry in Ireland it is clear that the negative impact of forestry on biodiversity will only increase over the lifetime of the current NBAP. Research needs to be carried out on how to address the already established negative impact of commercial forestry in Ireland on upland and freshwater biodiversity. This should include a mapping system which ensures that afforestation of land containing high nature value farming does not take place.

Research should be carried out on the benefits of agroforestry, continuous cover forestry and species diversification. The research recommendations of the HYDROFOR and EPA Strive report 99 on the Management Strategies for the Protection of High Status Water Bodies should be implemented.

See as mentioned above the following relevant documents:

The environmental integrity of Irish forestry in the context of the EU's effort sharing decision (2016)
http://www.antaisce.org/publications/the-environmental-integrity-of-irish-forestry-in-the-context-of-the-eu%E2%80%99s-effort-sharing

An Taisce submission Re: Draft Environmental Requirements for Afforestation (2016)
http://www.antaisce.org/articles/an-taisce-submission-re-draft-environmental-requirements-for-afforestation-2016

2.1.13. Enhance the capacity to build and maintain the human resources, systems and infrastructure needed to identify, obtain, collate and curate the biological specimens that are the basis for taxonomic knowledge through vocational training and specialised M.Sc. programmes

No Comment

2.1.14 Support capacity of the Local Authorities to monitor the ecological status of hedgerows

Given the fact that public authorities are already stretched and additional funding is unlikely to be easily obtained, it is perhaps doubtful that anything meaningful could be achieved under this heading. It lacks focus and strategy. Most LAs do not have a Biodiversity Officer and the Biodiversity Officers and Heritage Officers would might say that they are already overstretched. Additionally, have LAs the authority to enter private land to monitor hedgerows and if not will this action be restricted to roadside hedges?

Since 2004 17 County Hedgerow Surveys have been conducted, predominantly commissioned through LA Heritage Officers. The LAs concerned should be complemented on their initiative. Only one County Hedgerow Survey was conducted during the term of the 2011-16 Plan*. This leaves 9 counties (in the south and south-east) that have no baseline data on the composition and condition of their hedgerows. There is no requirement in the plan for this data deficit to be rectified. At the very least this Action in the new plan should be for Hedgerow Surveys to be conducted in the 9 Counties where they have not so far taken place to ensure that there is baseline data covering the whole of the Country.

No county that has conducted a hedgerow survey has undertaken a resurvey to assess any potential trends.

This seems like an action that could be encouraged through coordinated action between the NBDC, eNGOs, community groups etc. This would make a very positive citizen science programme. What more could be done to boost the consideration to biodiversity-friendly hedges and roadside verges in the TidyTowns programme? This could be a hedgerow related-action.

There needs to be a co-ordinated, structured and systematic national programme of monitoring hedgerow quantity and quality on an ongoing basis. Without a comprehensive knowledge base, it is difficult to achieve effective conservation management and sustainable use of biodiversity.

The Hedge Layers Association of Ireland should be included in the Actors/Key Partners column. The fact that 'Woodlands of Ireland', a charitable trust set up by various branches of public authorities are included as a key partner under this heading instead of the HLAI or any of the numerous eNGOs who focus specifically on native woodland conservation indicates a worrying reluctance to meaningfully engage with grassroots level within this NBAP.

The best way to positively impact upon the ecological status of hedgerows is to address road safety concerns through the Roads Act and ensure that landowners address problem hedges during the existing open period for hedge cutting.

Teagasc have developed best practice guidelines for hedgerow management from an ecological perspective. These should be implemented through education, Origin Green and/or agri-environmental schemes. LAs need to be educated about the importance of roadside verges for wildlife. A review of Wexford County Council's 'Life Lives on the Edge' pilot should be carried out and the recommendations should form the blueprint of how public authorities manage roadside verges and hedgerows moving forward.
http://www.wexford.ie/wex/Departments/Planning/BiodiversityNature/LifeLivesOnTheEdgeBiodiversityPilotProject/

It is, at this stage, insufficient to rely on monitoring and meetings to resolve the issue. It is necessary to take concrete actions based on knowledge already acquired and implemented by land owners and communities.

2.1.15. Produce conservation guidance for fisheries sector, aggregates, offshore wind and other industries for mitigation of impacts on elasmobranchs

This is positive. Effective conservation of elasmobranchs must be linked to MPAs which can support viable populations. A Threat Response Plan is needed for species like the Angel Shark.
There is a need for increased awareness around the conservation status of Irish elasmobranchs

including the global context and their importance from an ecological perspective.
This action should be linked with the need to promote knowledge on the benefits of MPAs, eco-tourism related to basking sharks and cetaceans being one example. According to a 2013 report angling is worth €755 million euro a year to the Irish economy. Sea angling (excl. Sea Bass) was ranked as the most popular form of angling in terms of participation, in 2012. The direct value of elasmobranchs from an angling perspective should be strongly emphasised when promoting the opportunities MPAs present to coastal communities.

2.1.16. Undertake Red List assessments for taxonomic groups (for which sufficient data can be gathered) and repeat existing Red List assessments at appropriate intervals to facilitate the development of a national Red List index
No Comment

2.1.17. Build upon Red List assessments to identify conservation priority species and identify knowledge gaps for those prioritised species

This is very important. Conservation objectives and management plans for priority species should not be developed in isolation from other threatened species and habitats. This is happening and is an unintended consequence of legal obligations under the Habitats and Birds Directives. There is a strong overlap between the distribution of many threaten species, both with each other and with SAC, SPA, NHA designations. Conservation objectives should be complementary for as many species and habitats as possible. An example where this is not the case is where there is an overlap between Hen Harrier and Freshwater Pearl Mussel designations. To protect FWPM from commercial forestry buffers of native trees are planted as aquatic buffers. If Hen Harriers were also considered, greater unplanted forestry setbacks would be implemented to protect FWPM from run-off and create foraging and nesting habitat for hen harriers i.e. corridors of open habitat mixed with scrub and a belt of deciduous trees adjacent to commercial forestry.

2.1.18. Identify and map nationally important Key Biodiversity Areas (KBAs) of Ireland's terrestrial and marine territories, including Ecologically or Biologically Significant Marine Areas (EBSAs)

This is extremely important. This must look beyond Natura 2000 designated sites and include if possible habitat stepping stones/corridors. Increased knowledge of marine habitats and species distribution is critical.

This is an action that should be carried out in coordination with Northern Ireland. Wildlife does not recognise territorial borders. An all-Ireland approach to conservation should be pursued over the life-time of this NBAP. An all island approach to conservation would be in line with the aspirations set out by the Good Friday agreement. Close cooperation in order to preserve and enhance the wellbeing of our shared environment and natural heritage is in the interests of all of the people on the island of Ireland and the many species which share our territories.

2.1.19. Implement biodiversity-related action from the Climate Change Adaptation Strategy and prioritise needs for research (and conduct it) into the mechanism and impacts of climate change on biodiversity including resilience of protected areas, green and blue infrastructure, and ecosystem restoration.

The draft version of the Climate Change Advisory Council's 'First Report' does not contain a single reference to biodiversity and word environment mainly refers to the built environmental and the climate role of the Environmental Protection Agency. It is vital that Ireland's attempts to adapt to and mitigate climate change do not become another pressure on biodiversity and the environment. National objectives for renewable energy and carbon sequestration must take biodiversity into account.

Climate change also makes a compelling case for the conservation of habitats which perform a carbon sequestration role. Given the high conservation value of Ireland's peatlands and the multitude of ecosystem services they provide, including carbon sequestration their ongoing destruction is not justifiable. The recommendation of the EPA BOGLAND report must be implemented. All industrial extraction of peat must end as soon as is feasible. All cutover bogs should be rehabilitated to reduce rates of carbon oxidation and enhance biodiversity and water quality.

We have made some specific points at the start of objective 2 on the biodiversity impact of forestry and the need for research into the impacts of climate change on biodiversity.

Research has shown that climate change is already impacting on many species and habitats in Ireland and the UK. In many cases, it is acting as an additional pressure on species and habitats which have already been experiencing a decline in their conservation status for many decades. Global warming and other impacts of climate change will continue to occur even in the absence of more greenhouse gas emissions over the coming century. It is therefore critical that other pressures on biodiversity, such as habitat loss and degradation are addressed. Large protected areas and populations are more resilient to change. The relevance of achieving good conservation status for habitats and species across the Natura 2000 network and ensuring that there are linkages throughout the network will become even more important as the natural world undergoes a climate driven upheaval.
It is important that the cost of climate action on the natural world and its feedbacks to human society are strongly communicated to decision makers. Individuals with ecological experience should be represented on relevant climate forums, committees, etc. Climate change is becoming the dominant environmental consideration in the 21st century. It is important that increased awareness of environmental issues resulting from climate change is complementary to the goal of halting biodiversity loss and does not overshadow the need for urgent action.

2.1.20. Expand the network of long-term monitoring schemes to enable tracking of biodiversity change over time (including diversity and ecosystem functioning) and environmental noise

No comment

2.1.21. Conduct research into the threat posed to Ireland's marine biodiversity by marine litter including microplastics, ocean acidification and noise

The threat posed by marine litter is well established. The money would be better spent tackling marine litter through regulation and education. Certain types of plastic should be banned. Clean Coasts have been running a campaign for several years calling for a ban on microbeads. France has recently introduced a ban on disposable plastic cutlery. We need to move towards a circular economy. Improving recycling facilities and options in line with other continental European countries should be targeted.

2.1.22. Update the Marine Research Strategy
No comment. Points on marine research priorities already made.

2.1.23. Review priorities for restoration of habitats and species in Ireland and develop a programme of restoration activities for priority biodiversity

The reintroduced Golden Eagle population is in a serious condition. Letting the species go extinct twice in Ireland is not acceptable.

Habitat restoration should be prioritised where there is a dual benefit for threatened species. For example, raised bog restoration will benefit species like curlew and red grouse.

The programme for restoration activities should include communities as elaborated on above.

2.1.24. Explore biodiversity offsets as a means to achieve no net loss of biodiversity under this Plan and as a source of revenue for biodiversity conservation and restoration

The onus of protect existing habitats and species should not be weakened by biodiversity offsetting. If environmental damage is inevitable due to approval of a project of over-riding public interest then proper mitigation measures should be implemented. The current use of mitigation measures in Ireland is extremely poor. The option of mitigating damage should not be used as an excuse not to take biodiversity impacts into account during project design.
The planning system in Ireland now focuses almost exclusively on Natura 2000 impacts with far less attention being paid to what the actual site level impacts are on biodiversity.

2.1.25. Explore areas/instruments and tax enablers that could be developed to precipitate biodiversity/conservation project funding by the private sector

Potentially positive ideas in this case would be to place a carbon offset levy on flights and reinvest this in peatland restoration or native woodland establishment, for example or reinvest revenue from water charges back into source water protection. These kinds of strategies would entail a proper implementation the polluter pays principle across society and reinvest the revenue into environmental rehabilitation and enhancement.

2.1.26. Explore the options of using the LIFE Programme to enable projects implementing the EU Biodiversity Strategy and this Plan
Greater levels of funding should be drawn down from the EU for restoration if possible. This should be considered in the context of Brexit. Many ongoing LIFE projects in the UK are targeted at upland peatlands and other habitats with a North Western distribution in the EU. If the UK does leave the EU then Ireland will contain an even more significant proportion of the EUs total distribution of certain habitats and species. This will only strengthen the case for more investment to properly conserve these habitats and the species they support.

Objective 3: Increase awareness and appreciation of biodiversity and ecosystem services

An Taisce would strongly agree with this passage;

"Public engagement with biodiversity issues facilitates greater awareness of the full range of benefits from nature such as strengthening local grass-roots community initiatives, as well as increased educational opportunities, health benefits from community activities and direct exposure to nature, and realization that local business opportunities often rely on the provision of ecosystem services, including for instance, nature based tourism. So further action is needed in raising awareness of biodiversity, ecosystem services and the benefits of biodiversity investments to the economy and society. Awareness also needs to be translated into public support for decisions that are taken to look after wildlife (even when at the expense of a particular development)."

There is an emerging awareness about the importance of engagement with the natural world, both from a mental health and child development perspective. This is an area where biodiversity would benefit from raised awareness. In 2012, the UK's National Trust published Natural Childhood, a report by Stephen Moss, which examines the phenomenon known as 'Nature Deficit Disorder' and gathers current thinking on establishing a connection between children and the natural environment. The benefits of developing a healthy relationship with nature at a young age are manifold and fall broadly into four categories: health, education, communities and environment.

Health benefits include a decreased risk of childhood obesity, improved physical fitness, improved mental health and even longevity. In one study, "exposure to nature improved symptoms of ADHD in children threefold compared with staying indoors. Exposure to the natural environment can reduce stress and aggressive behaviour in all children, and give them a greater sense of self-worth. Even short term 'doses' of nature can make a marked impact on mental health – indeed, as little as five minutes of 'green exercise' can improve mood and self-esteem by a significant margin." From an educational perspective, child psychologist Aric Sigman concluded that "children exposed to nature scored higher on concentration and self-discipline; improved their awareness, reasoning and observational skills; did better in reading, writing, maths, science and social studies; were better at working in teams; and showed improved behaviour overall."

The positive impacts of exposure to a natural environment can be far reaching, for communities, wider society and the environment. "Studies have shown that even in cases where the only variable is the view of green space from a window, incidences of crime are reduced by as much as 50%." Of particular relevance in terms of An Taisce's work is that "only adults who experience nature as children are likely to be motivated to protect the environment".

The work of the Green Schools programme has rightly been highlighted for its significant contribution to Irish society in raising awareness and appreciation of biodiversity. It is important that the many programmes being run by An Taisce which deliver so much public good continue over the life time of the third NBAP.

Target 3.1: Enhanced appreciation of the value of biodiversity and ecosystem services amongst policy makers, stakeholders, local communities and the general public

The addition of "local communities" to Target 3.1, since the July draft, is a very positive development.

3.1.1. Consult with local communities to develop actions and performance indicators to help achieve the objectives of this plan

Environmental NGOs should be included in the list of actors / key partners.

Communities should not only be consulted on actions and performance indicators but also engaged with and empowered to carry out agreed upon actions. Yes, "local communities are the ones who can most directly benefit from those ecosystem services" but they are also the ones who are best placed to protect and enhance the biodiversity which supplies the ecosystem services.

The inclusion of a public communications representative on the LIFE Raised Bog team is a very positive action.

3.1.2. Enhance training, communication, cooperation and concerted action between relevant sectors in support of biodiversity conservation

It is positive to see the inclusion of the IEN in actors/ key partners.

The funding provided to eNGOs to carry out actions around Biodiversity Week has been very successful in delivering the performance indicators:
2. Visits to natural heritage attractions
3. Number of biodiversity-related day events and number of Irish people involved.

An Taisce and other eNGOs often hold biodiversity excursions and events. The NPWS could support the eNGOs by hosting more lectures and guided walks in National Parks and important sites for biodiversity.

Communication and cooperation between relevant stakeholders should continue to be facilitated by the NPWS through initiatives such as the Consultative Committees on the Hen Harrier Threat Response Plan and the Peatlands Council. The range of stakeholders should be expanded to include farming representatives of hill farming and marginal farming communities.

The failure of Minister Heather Humphreys on numerous occasions to meet with eNGOs on the Heritage Bill or to respect the weight of opinion and scientific fact presented in the public consultation on the same should be reviewed considering the objectives and actions of the NBAP to enhance communication and cooperation.

As the baseline column suggests this action would benefit from more strategy and coordination.

3.1.3. Raise awareness in private sector organisations of impacts and dependencies on biodiversity and ecosystem services

An Taisce often works with businesses on conservation action days or litter picks as part of their Corporate Social Responsibility. Corporate Social Responsibility (CSR) is a concept whereby enterprises integrate social and environmental concerns into their mainstream business operations on a voluntary basis. It is a sustainable business model which maximises the creation of shared value through collaboration with all stakeholders.
An action could be taken to try to encourage CSR and actions which are beneficial to the environment. We have used Earth Day as a good option to work with businesses on their CSR.

3.1.4. Build public awareness and communications training into Biodiversity Research so that scientists and other stakeholders are empowered to communicate their findings and perspectives to a wider audience

An Taisce would strongly support this point.

3.1.5. Support radio, TV, web-based and other media products that emphasise or are centred around showcasing biodiversity, its importance, and current or future challenges

Funding should continue for effective programmes like Living the Wildlife, Eco Eye and Ear to the Ground.' New shows targeted at younger audiences should also be commissioned. It would be beneficial if public broadcasting agencies, commissioned more Wildlife documentaries independent of public authority funding. The BBC natural history unit produces some of the BBC's most popular shows out-competing a broad range of programmes with its viewer ratings.

Similar programmes to Spring Watch and Autumn Watch should be trialled in Ireland.

Greater efforts should be made to engage with farming media platforms which can often portray environmental issues in a biased and unfavourable light.

3.1.6. Establish an island-wide Biodiversity Awards initiative where local, sectoral and educational projects or groups with a "biodiversity enhancement" focus compete for innovative prizes that will support their on-going work and provide a springboard for public awareness and participation
An Taisce would strongly support this innovative idea. The comments made above, under point 2.1.18. about the need for an all island approach to conservation are relevant here.

3.1.7. Work with relevant Government Departments and stakeholders to include biodiversity and ecosystem services in relevant courses in primary, secondary and tertiary level education

The Environmental Education Unit (EEU) of An Taisce should be considered as a key partner under this action. As highlighted Green Schools play a vital role in raising awareness about biodiversity and the environmental. Green Campus and Neat Streets also work closely with tertiary and second level schools respectively.

As mentioned above,the Environmental Education Unit of An Taisce is introducing the international Learning About Forests (LEAF) programme to Ireland, and has recently launched the programme in 33 schools in Limerick. The LEAF programme offers a well-defined, measurable model for the delivery of national and international policy and objectives for education and awareness about forests. The LEAF programme provides a structured approach to education and awareness of forests and has the potential to create a highly educated, informed and skilled population, translating into many associated environmental, economic and societal benefits through better understanding of forests and related disciplines.

Back in the 90s, the ESSO Schools Wildlife Competition played an important role in getting primary school children actively involved in projects related to biodiversity loss. It would be beneficial if a similar competition was reinitiated.

3.1.8. Develop and implement a communications campaign in support of public and sectoral understanding of the value of biodiversity and full implementation of this NBSAP

The Irish Bioblitz and the National Biodiversity Week are growing in popularity every year. Increasing the duration over which biodiversity events could be hosted during National Biodiversity Week was a very positive step as it allowed eNGOs with limited resources to host more events and thus get more people involved in more parts of the country than would have previously been possible.
Both the Irish Bioblitz and the National Biodiversity Week should continue to be supported and greater media involvement should be promoted.

3.1.9. Work with farming organisations and landowners to promote wider understanding of ecologically sustainable land use and the benefit to farmers of biodiversity, e.g. soil protection

It is vital to work closely with the farming community on all issues relating to biodiversity conservation. The process of knowledge transfer is often a two way process and environmentalists can learn a great deal from farmers about the management of semi-natural habitats and about local biodiversity and changes in biodiversity regionally over time.
The actors/ key partners list includes INHA. This would presumably rather refer to the INHFA. INHFA and other farming groups should be added to the traditional list of farming representation groups which are consulted on biodiversity issues.

3.1.10. Increase awareness within the horticultural and constructed wetlands industries of native alternatives that can be used in place of invasive species

Greater efforts should be made to ban the sale of invasive species in Ireland. In particular aquatic invasive species currently being sold in garden centres should be targeted as a matter of urgency.
Rhododendron and laurel should be banned as a landscaping plant on public lands.
Native flora should be given preference when carrying out landscaping on public lands.

Legislation should also be brought forward to stop the sale of plants identified as being invasive.

3.1.11. Provide support, education and training opportunities necessary to inform local communities about important biodiversity in their area and to enable them to act as useful local monitors of environmental change

Again, eNGO's and community groups must be considered as important actors/key partners under this action. Existing community groups and forums must be utilised to better effect. DAH should continue to support eNGOs and educational institutions to coordinate citizen science and environmental monitoring. The DAH should look to utilise online training more effectively. This should be part of a wider initiative to increase the online presence of the NPWS.
While locally-led agri-environmental schemes have huge potential for engaging the farming community they are less likely to be successful in mobilising the broader rural and urban community. While farmers are key partners, the majority of the Irish population are not employed in farming and should not be ignored.

Objective 4: Conserve and restore biodiversity and ecosystem services in the wider countryside

There are a number of observations to make here.

"*Forest cover has increased in Ireland in recent years under various Forestry Programmes, but only about 16% of Ireland's forests comprise woodlands with more that 80% native species. However, a further 12.7% of forests comprise woodland with 20-80% native species, and many of these woodlands have a high degree of 'nativeness'*."

The above passage gives an overly positive impression of the status of native woodland in Ireland. Currently, native tree species comprise less than 25% of the forest stock. Only around 2% of the country is covered by what is termed native or semi-natural woodland, and much of this is highly fragmented and modified. [1]

Ireland's native woodland cover is amongst the lowest in Europe. What protected native woodland remains is being degraded by invasive species and diseases such as ash dieback.

This reinforces the vital need to follow through on the following point, "***It is only possible to reduce or halt the loss of biodiversity if the drivers of pressures on biodiversity are themselves reduced or eliminated***."

The main threats and pressures on Ireland's biodiversity have been clearly identified over the course of the previous two National Biodiversity Action Plans. The task of this NBAP must be to take concrete actions to reduce or eliminate these threats and pressures.

The NBAP reads;

> "*According to Ireland's report to the EU on the condition of habitats and species of European interest, the main pressures and threats to biodiversity are: agricultural intensification, natural system modifications (drainage, burning, reclamation, coastal protection), invasive and problematic species, and human intrusion and disturbances*."

On this point, the threats and pressures identified by the Habitats Directive in the Article 17 report on *The Status of EU Protected Habitats and Species in Ireland,* Habitat Assessments NPWS (2013) should be used as the basis to address biodiversity loss over the course of this NBAP.

The 2013 Article 17 report contains a standardised list of pressures/threats ranked in hierarchical order. This includes a standardised list of high level categories for pressures and threats. These are Agriculture, Forestry, Mining (Including mechanical peat extraction), Transportation, Urbanisation, Other Biological resource use Mainly hunting, fishing, aquaculture related, Human intrusion and disturbances Mainly recreation, Pollution (agricultural, forestry, household or industrial source), Invasive and problematic species, Natural system modifications (drainage, burning, reclamation, coastal protection), Natural biotic and abiotic processes (erosion or succession), Natural catastrophes, and Climate change.

Given that the NBAP has correctly identified that "*It is only possible to reduce or halt the loss of biodiversity if the drivers of pressures on biodiversity are themselves reduced or eliminated"* then the

[1] Gallagher, G., Dunne, S., Jordan, P., & Stanley, B. (2001). *Ireland's forest inventory and planning system*. Department of the Marine and Natural Resources, Wexford

NBAP must clearly identify using existing data how the threats and pressures on biodiversity are going to be addressed through specific actions. The most significant pressures identified in the high level category list should be prioritised e.g. Agriculture, Forestry and Mining.

Issues which are identified as high level threats and pressures on both habitats and species should be further prioritised e.g. agriculture, pollution, Human intrusion and disturbances.

Issues which are impacting on a high percentage of habitats and species should also be prioritised e.g. Agriculture, Natural system modifications, Human intrusion and disturbances, pollution.

Issues which are identified as threats such as climate change and invasive species should be the subject of research in order to take pre-emptive action on them over the course of the NBAP.

Where actions are being taken on these issues such as through agri-environmental scheme or the through the work of the EPA catchments division a review must be carried out of the effectiveness of these actions to date and the cost effectiveness of the actions. Such an analysis should form the basis of future actions.

Likewise, what has been done to analyse the previous two NBAPs? Actions which are on-going have been identified but why have these actions not been completed and why have some of the actions in the first and second plan been dropped.

Where issues have been the subject of research and recommendations have been made why have they not been enforced? For example how many of the recommendation in the BOGLAND report have yet to be addressed?

The NBAP has correctly identified that the "*responses to these pressures on biodiversity and ecosystem services include the EU Directives on Water, Habitats, Birds, and Nitrates, Regulation on Invasive Alien Species, and reform of the Common Agricultural Policy (CAP)*." The DAH must ensure that it continues to fulfil its role in enforcing environmental law and must continue to improve upon Ireland's poor record of compliance with the Habitats, Birds and EIA Directives.

The full implementation of the Birds and Habitats Directives must be conserved as a high priority under the lifetime of this NBAP. In this regard the recently completed the REFIT Fitness Check carried out by the European Commission provides a comprehensive policy evaluation of the Birds and Habitats Directives.
http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/nature_fitness_check.pdf

The Fitness check of the Birds and Habitats Directives reaffirmed something we had always know, that the citizens of the EU care deeply about the state of the natural world and are emphatic about the need for stronger action against biodiversity loss. Over 500,000 EU citizens took part in the European Commission's consultation process in summer 2015. An record for the European Union. On a per capita basis Ireland had one of the strongest responses to the consultation. This is an indication that we are a nation of nature lovers and also that Ireland's eNGO community are effective at mobilising communities in response to threats to our wildlife. Something that must be utilised to better effect over the life of this NBAP.

The conclusions of the fitness check are timely and highly relevant for the NBAP "*Within the framework of broader biodiversity policy the Nature Directives are fit for purpose but fully achieving their objectives and realising their full potential* ***will depend on substantial improvement in their implementation in relation to both effectiveness and efficiency, working in partnership with***

different stakeholder communities *in the Member States and across the EU, to deliver practical results on the ground*."

The Nature Directives must be better enforced. In Ireland this means practical actions like no more forestry in Hen Harrier SPA's, an end to turf cutting in SAC raised and blanket bogs, proper regulation of industrial peat extraction, effective action on diffuse agricultural and forestry pollution. Natura 2000 sites must be properly financed and managed through targeted and results based agri-environmental schemes. All Natura 2000 sites must have sites specific and ambitious management plans and conservation objectives. Government departments and semi-states must be compliant with the law. The new 'Environmental Requirements for Forestry Guidelines (2016)' for example contain no ecological assessment criteria for Annex I bird species under the Birds Directive or High Nature Value farmland. Bord na Mona had to be taken to the High Court by An Taisce in order for them to carry out an EIA for their power plant in Edenderry. It is unacceptable that such blatant disregard for environmental law continues to occur in this century.

Target 4.1: Agricultural, rural development, forestry and peatland policies and strategies to achieve net benefits for biodiversity and ecosystem services

4.1.1. Development and implementation of agri-environment schemes (AES) under the Rural Development Programme (i.e. Green, Low Carbon, Agri-environment Scheme (GLAS) and locally led AES (LLAES). Ensure AES achieve a quantifiable net gain for biodiversity and ecosystem services including significant habitat restoration measures

AES are probably the most important tool available to tackle biodiversity loss. Various studies have been carried out on the effectiveness and value for money of EU AES with varying conclusions. It is clear that AES can be effective for conserving wildlife on farmland, but they are expensive and need to be carefully designed and targeted. Given the importance of these schemes and the vast sums of money invested in them it is important that the impact of these measures are verifiable and quantifiable. In the past the DAFM and Origin Green have quoted the number of farms participating in AES as an indicator of the 'green' credentials of Irish agriculture. However, without any indication of compliance, effectiveness or value for money, this is a meaningless way of judging the performance of Irish agriculture. . The fact that agricultural intensification is a having a huge net negative impact on biodiversity means that serious improvements must be made if the target of achieving *"a quantifiable net gain for biodiversity and ecosystem services including significant habitat restoration measures"* is going to be achieved.

If we are to turn things around then effective baseline indicators are needed. Ecological evaluations must become an integral part of any AES, including the collection of baseline data, the random placement of scheme and control sites in areas with similar initial conditions, and sufficient replication. Results of these studies should be collected and disseminated more widely, to identify the approaches and prescriptions that best deliver biodiversity enhancement and value for money from community support. It is also important that farmers are involved in the design of schemes as AES have to be easy to implement, feasible on a large scale, and palatable to farmers. Locally-led and result-based AES which give farmers the freedom to farm and implement measures in their own way will bear the greatest fruits.

The economic costs of schemes must be integrated into their evaluation. Any expenditure of tax-payers' money must be subject to a cost-benefit analysis. There must be an indicator that reflects value for money and socio-economic benefits. Maintaining the area of rare or threatened habitats and populations of species associated with High Nature Value farming and improving the viability of farms in marginal areas should be considered as better value than increasing the numbers of common species on intensive farmland where the economic benefits to the farmer are not significant.

There are a number of important considerations with regard to *Performance indicators* in this section;

1. Length/area of habitats under AES measures.

The length and area of habitats under AES are not necessarily good indicators. The more farmers there are in AES, the less money there is available and the less that can be asked of farmers in return. Effective lobbying from the IFA to have as many farmers involved means that many of the actions under GLAS are generalized, whereas effective agri-environmental interventions need to be place-based and targeted. It also means that there is less money going to the farmers who deliver the greatest biodiversity services to society. From a social point of view these same farmers are all too often farming marginal land in areas with various socio-economic constraints and would benefit farm more from AES support.

Another fundamental issue with Irish AES is that they are not aligned with the polluter pays principle. Farmers should receive tax payer support not to pollute. Regulation and cross compliance should ensure that farmers do not cause environmental damage. AES should be reserved for rewarding farmers who go beyond this basic standard and deliver net positive environmental goods and services.

2. Ecological monitoring tools implemented which allow for quantifying real ecological benefits of AES

Being able to demonstrate ecological benefits from AES is obviously extremely important. Without monitoring, AES cannot be shown to be effective.

3. Area of habitat restored

The area of habitat restored is a positive indicator. However area only indicates quantity and does not reflect the quality of habitat. It is important that we have quality habitat both in the standard of the habitat restored but also in the types of habitats restored. There should be a distinction between different types of habitats and recognition that some habitats are of greater value than others. Restoring hedgerows is very positive but it will not benefit species which have no relationship with hedgerows. Some habitats will be more cost-effective to restore leading to a bias towards a few habitats.

4. Compliance rates of farms

As stated in the draft NBAP in regard to this point, all farms are required to meet *baseline* levels of Good Agricultural and Ecological Condition (GAEC) for cross compliance. Improving compliance will be beneficial. It is important that having compliance as an indicator of success does not bias inspectors against highlighting incidences of non-compliance. Improved enforcement would also be a good indicator.

4.1.2. Identify High Nature Value (HNV) farmland and develop measures to maintain and enhance its biodiversity and ecosystem services

The ongoing loss of biodiversity associated with semi-natural ecosystems, both within and outside of the Natura 2000 network, is an issue, right across the EU. More than 50% of Europe's most highly valued biotopes occur on low-intensity farmland. The need to protect farming systems in Europe of greatest biodiversity value or 'High Nature Value (HNV) farming' has been embraced at an EU level and it is recognised that the conservation of HNV farming is essential if the EU is to meet its 2020 biodiversity targets. Given that Ireland has a high percentage of HNV farmland relative to other countries in Western Europe it is vital that we protect these threatened habitats and species. HNV farming is also associated with marginal communities with socio-economic issues and is often associated with traditional forms of land management which have important cultural significance. This heightens the need to support the sustainable management of HNV farming.

The baseline column says "*Forest Service has safeguards to avoid afforestation on environmentally unsuitable sites, taking account of habitats and species of EU interest, water quality and acid sensitive areas*."

In EU regulation No 807/2014 of 11 March 2014 [supplementing Regulation (EU) No 1305/2013] of the European Parliament and of the Council on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) have provided some provisions relating to the protection of HNV farmland from afforestation: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0807&from=en

Article 6 of the regulation reads (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*** *and that the need for resilience to climate change is taken into account.* ***On sites designated as Natura 2000, afforestation should be consistent with the management objectives of the sites concerned. Special attention should be paid to specific environmental needs for particular sites such as the prevention of soil erosion. More stringent rules should be provided for afforestation operations leading to the creation of larger forests in order to take into account the impact of scale of those operations on the ecosystems and to ensure that they comply with the objectives of the Green Infrastructure Strategy (1) and new EU Forest Strategy*** **(2)."**

An Taisce know from experience that the forestry service are not regularly carrying out ecological assessments prior to approving afforestation and as a result inappropriate afforestation of sensitive habitats including areas of HNV farming is taking place. In effect there is no policy in place to implement the obligation to protect HNV sites.

In recent times there has been a lot of research carried out in relation to the availability of land in Ireland for forestry expansion. This research has been ongoing at a time when mapping projects are also identifying the distribution of HNV farmland in Ireland. Based on the most recently produced maps it is clear that there is a **direct overlap with land which is being earmarked for afforestation and HNV farmland**. This is a clear indication of the threat posed by forestry to Irish biodiversity.

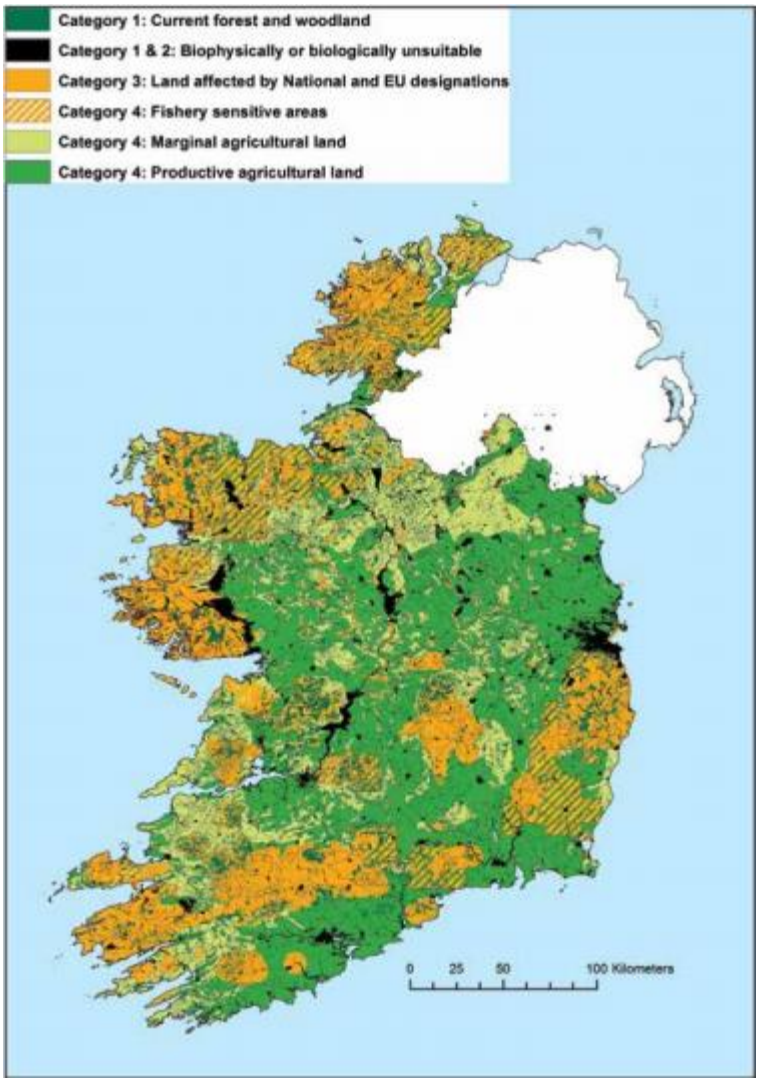


Figure 1. Classification of Ireland's land area in relation to availability for forestry expansion and the area of productive and marginal agricultural land with most potential for forestry expansion.

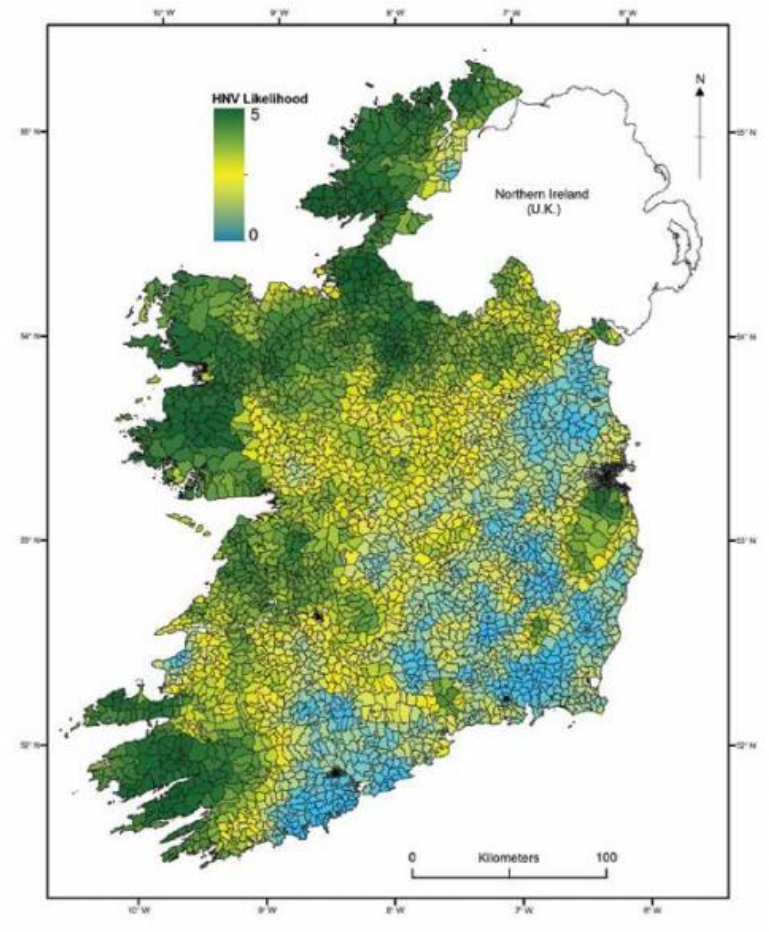


Figure 2. Likely occurrence and distribution of HNV farmland in each Electoral Division, based on a scale ranging from low (blue) to intermediate (yellow) to high (green). Note that non-HNV farmland may still occur in areas with high likelihood of HNV farmland, and vice versa

An Taisce is not aware of the definition of High Nature Value farming which the Forestry Service are using, but according to DG Agri the working definition of HNV farming is "*High Nature Value farmland comprises 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*." Indeed "*the highest grade of HNV farmland is that which supports the presence of species of European conservation concern*." Given that the forestry services do not carry out proper ecological assessment prior to granting afforestation and there are no guidelines which require surveying for either Annex I or Red-listed bird species, it says that the Forestry Service have safeguards to protect HNV sites. Rectifying this situation should be a key action in the NBAP.

A number of important maps have been produced highlighting the likely occurrence and distribution of HNV farmland. Ground truthing and superior satellite technology must be used to accurately map HNV distribution. AES and other sources of revenue must be utilised to protect the biodiversity and communities associated with HNV farming. Areas of Natural Constraint (ANC) payments should be linked to the presence of HNV farming, Natura 2000 site designation and ecosystem services. Linking payments to the presence of biodiversity will radically change farmers' perceptions of designation and the value of biodiversity.

4.1.3. Implement the National Peatland Strategy

An Taisce's opinion on the National Peatlands Strategy was covered in our submission to the draft document: "Draft Peatland strategy treats science as something to be bargained away or traded against".

http://www.antaisce.org/articles/draft-peatland-strategy-treats-science-something-be-bargained-away-or-traded-against

The draft treats science - and the scientific consensus on the future prospects for humanity without action on climate change – as capable of being bargained away, traded against, or 'balanced' against other factors. Such a view is the stuff of fantasy.

Bogs are a vital store of carbon and burning turf releases far more climate-altering gases than coal. Of all fuels, turf is the worst in terms of negatively affecting the climate.

The 2011 BOGLAND report by the EPA noted that the 10 million tonnes of annual emissions from peatland degradation and burning is equivalent to Ireland's annual car emissions.

The EPA set out ten leading recommendations advising government that "the continued carbon emissions from peat burning are contrary to the national interest".

Recommendations included the restoration of protected peatlands to stop carbon loss, and the management of non-designated peatlands (also to stop carbon loss), a review of the peat industry, and the creation of a National Peatland Park. Its recommendations also cover peatland management as well as reviewing the horticultural peat sector.

The EPA found Government policies "at odds with … international and national government policies and conventions, specifically those addressing climate change, biodiversity protection and environmental sustainability".

Published in Oct 2013, the summary of the Intergovernmental Panel on Climate Change's Fifth Assessment Report stresses how we must decarbonise energy, and protect, enhance and restore carbon stores.

In other words, in trying to accommodate vested interests, the Draft Strategy is inconsistent with both international and domestic scientific advice on carbon management.

The Draft Strategy continues the wholesale policy failures of the past by not addressing the carbon emission impact of continuing peat extraction for electricity generation, domestic fuel and horticulture.

Mary Robinson, having reviewed the science, has noted how we need to massively reduce carbon emissions and take urgent steps to avert further carbon loss. Protecting bogs plays an important part in protecting the climate. Speaking in advance of the release of the IPCC's recent summary Report, Mrs Robinson said:

There is a global limit on safe levels of emissions. That means that major fossil fuel reserves must be left in the ground. That has huge implications for economic and social development.

The issue now is the timing and sequencing of planned exit strategies for peat, coal, oil and gas, and the relevant amounts to be left in the ground.

“The Draft is so removed from scientific realities it is a counter-productive document. And putting electoral considerations ahead of the needs of Ireland’s young generations is similarly counter-productive over the longer term”, concluded An Taisce policy director James Nix, in our submission.

More generally on Irish peatland conservation, greater action needs to be taken to implement the recommendations of the EPA BOGLAND report. Since its publication in 2014 no further action has been taken on several its recommendations. A review of the horticultural peat industry was to be carried out. This has never happened and what’s more An Taisce are aware that companies such as Bord na Mona and Klassmann Dielmann have no intention of ceasing horticultural peat extraction. A stakeholder group should be set up to review the implementation of the recommendations of the BOGLAND report.

Bord na Mona and Klassmann Dielmann continue to operate outside of normal planning or environmental regulation. The light touch EPA IPCC licencing system used does not cover the broad range of climate and environmental impacts associated with the ongoing destruction of our peatlands.

The NPWS are to be commended on the recent court action against Klassmann Dielmann for their breach of Section 40 of the wildlife act. It is to be noted that the attempted harvesting of the bog in Bord na Mona Mostrim complex was also in open breach of the Habitats and Birds Directives and well as the EIA Directive. No planning permission or screening for Appropriate Assessment had been carried out. This precedent needs to be repeated. The NBAP should seek to ensure that any industrial and domestic extraction of peat is fully compliant with Irish and EU regulations and legislation and that any relevant regulations are consistent with the need to protect and restore Ireland’s peatlands.

The ongoing destruction of Ireland’s peatlands is totally inconsistent with the need to protect a number of Annex I and red/amber-listed bird species. One of the most pressing conservation issues over the life of this NBAP is the conservation of Ireland’s breeding Curlews. The ongoing destruction of Ireland’s remaining bogs and bog fragments is totally inconsistent with this obligation.

Many of the same issues threatening Ireland raised bogs are impacting on Ireland’s blanket bogs and other designated peatlands yet these habitats have received very little attention to date. The process of proetcting and restoring Ireland’s blanket bogs must be a key action for the life of this NBAP. It is unacceptable that turf-cutting is occurring within designated SAC/SPA and National Parks.

4.1.4. Implement Bord na Móna’s Biodiversity Action Plan 2016-2021

The restoration of Bord na Mona’s cut over bogs must be given high priority. The potential to restore these bogs throughout the Shannon basin must be seized upon. The potential for these wetlands to attenuate flooding and enhance biodiversity, fisheries, carbon sequestration, recreation and tourism is immense. The restoration of these sites would be the most ambitious conservation undertaking in the history of the Irish State. The potential exists to create a wetland National Park on Bord na Mona cutover bogs throughout the Shannon Basin and in particular the Mount Dillon complex. Sadly this opportunity will be lost if Bord na Mona move ahead with plans to blanket the area with wind farms.

Fantastic conservation projects have been carried out by community groups on Bord na Mona owned bogs such as Ballydangan, Co. Roscommon and Abbeyleix, Co. Laois. The potential to replicate these examples by leasing and selling bogs and cut-over bogs to community groups and eNGOs should be explored.

4.1.5. Implement actions in the Forestry Programme 2014-2020, ensuring maximised positive outcomes for biodiversity and ecosystem services and restoration of areas impacted by inappropriate forestry, including implementation of recommendations of HYDROFOR study and incorporating the inventory of native woodlands

Forestry is an important land use from a biodiversity perspective in that it has an increasing land cover in areas of the country which are very important for biodiversity. Forestry is targeted to expand in areas of marginal farmland. These areas are more likely to support High Nature Value farmland and designated habitats and species under the Birds and Habitats Directives. Many of Ireland's last remaining high status waterbodies under the Water Framework Directive are also in upland areas with high carbon soils. Forestry must be prioritised as an area which needs a lot of attention over the life of the NBAP. Its status as a high-ranking threat/pressure on biodiversity is reflected in the most recent (2013) Article 17 report. An Taisce's views on the various issues related to Ireland's current forestry model are covered in these two reports:

The environmental integrity of Irish forestry in the context of the EU's effort sharing decision (2016)
http://www.antaisce.org/publications/the-environmental-integrity-of-irish-forestry-in-the-context-of-the-eu%E2%80%99s-effort-sharing

An Taisce submission Re: Draft Environmental Requirements for Afforestation (2016)
http://www.antaisce.org/articles/an-taisce-submission-re-draft-environmental-requirements-for-afforestation-2016

This action corresponds with July draft action "*4.5.5 Implement actions in the Forestry Programme 2014-2020, ensuring maximised positive outcomes for biodiversity and ecosystem services and restoration of areas impacted by inappropriate forestry*."

This action has been considerably strengthened by the inclusion of the HYDROFOR study recommendations. The HYDROFOR study was a 7-year assessment of the Impacts of forestry operations on the ecological quality of water in Ireland. This comprehensive study reaffirmed the eutrophication, acidification and sedimentation impacts of commercial forestry during the closed canopy, harvesting and planting phases on rivers and lakes in Ireland. The study again highlighted the established negative impacts of forestry operations on surface water quality and freshwater ecology. The report recommended that some impacts could be reduced by careful onsite management. However on peaty soils the impact on hydrochemistry and aquatic macroinvertebrates was shown in catchments with both low and high forest cover, relating to elevated DOC concentrations and lower pH. These research findings, in combination with the potential for sediment and nutrient losses during harvesting and preparation for replanting and biodiversity concerns, support a recommendation for the cessation of conifer afforestation on peat soils (especially blanket and raised peat bogs) in acid-sensitive (< 15 mg CaCO3/L) headwater catchments. In relation to reforestation of sites in such catchments, there are serious concerns with respect to the aforementioned impacts. These recommendations have yet to be implemented. These recommendations should be implemented over the life of the NBAP.

Also in relation to the removal of inappropriate forestry it is clear that the six Hen Harrier SPAs should be prioritised under this heading. Wilson et al (2012) found that Hen Harrier breeding success can decrease noticeably when the percentage of second rotation pre-thicket forest in the surrounding landscape is greater than 10%. On this point Irwin et al (2012) sets out that 'In a forest landscape with a well-balanced age-structure, approximately one quarter of the forest estate will be

in pre-thicket stage at any one time. A maximum threshold of 40% for total forest cover in the landscape would therefore ensure that the percentage of pre-thicket forest did not regularly exceed 10%.'

The 'Hen Harrier Conservation and the Forestry Sector in Ireland (2015)' document written in consultation with the NPWS and the Forestry Services clearly outlines the negative relationship between Hen harrier and forestry and recommends the removal of forestry.

https://www.npws.ie/sites/default/files/publications/pdf/HHTRP%20-%20Forestry%20-%20V3.2.pdf

According to the Irish Raptor Study Group: Overall, nationally there has been a recorded 15% decline in confirmed breeding pairs nationally in the last 5 years; a 33% breeding population decline in all areas studied in every national quinquennial survey over last 15 years; and, a 52% decline in estimated breeding pairs over the last 40 years. The projected future decline and regional extinction of the breeding Hen Harrier population in Ireland has been known for a decade, however no action has been taken by the NPWS to prevent this reality unfolding. Contrary to the Departments statutory remit, NPWS openly facilitated further tax funded and incentivised Forest Service approvals for afforestation in SPAs despite the known negative impacts. Modelling data of the Hen Harrier population from both the 2010 and 2015 national breeding Hen Harrier surveys show that mortality rates are higher than productivity and the Hen Harrier population does not appear to be self-sustaining.

Afforestation of open habitats and further expansion of forest within SPAs is entirely contrary to achieving site-based conservation measures and will lead to known negative impacts – exacerbating even further the existing known drivers of population decline. Public funded forest-sector-led research has determined that Hen Harrier productivity drops to below a self-sustaining level when forest cover in the landscape is approximately ≤40%.

Forest cover within the six Hen Harrier SPA must be reduced to ≤40%. A stakeholder group should be set up to ensure that this is done in the best way for local communities and the Hen Harrier.

4.1.6. Continue to update the inventory of native woodlands, review and, where appropriate, incorporate the results of the Native Woodland Survey into the conservation and expansion of the native woodland cover

Ireland is one of the least forested countries in Europe with about 10.5% of its area under forest cover; however the majority of this is composed of non-native conifer species. These monoculture blocks of conifers account for 72.8% of the national forest estate, of this 52.4% is made up of just one species, Sitka spruce (*Picea sitchensis*). While trees like Sitka spruce support biodiversity in their native distribution along the North-western seaboard of North America they support relatively low levels of biodiversity in Ireland. Only around 2% of the country is covered by what is termed native or semi-natural woodland, and much of this is highly fragmented and modified (Gallagher, et al., 2001).

The native woodland scheme must be expanded. Schemes which encourage agroforestry and continuous cover forestry should be developed implemented. Sitka spruce continues to make up far too much of Ireland's forest cover. This is not good from a biodiversity or water quality perspective. It is also not good from an economic perspective as diseases or pests could floor the forestry sector in a short period of time if Sitka Spruce was affected.

Ireland has a number of eNGOs which focus specifically on Native Woodland Conservation, such as LEAF, for example, as mentioned above. These groups should be included in the list of Key Actors/Partners.

4.1.7. Progress implementation of BirdWatch Ireland's action plans for wider countryside birds

The drafting of BirdWatch Ireland's action plans for wider countryside birds was an outcome of the EU legal action Judgment of the Court of Justice of the European Union in Case C 418/04 Commission v Ireland "The Birds Case." One of the main issues identified was the lack of a coherent strategy for the protection of '*priority, migratory and dispersed'* bird species in the wider countryside (i.e. outside of protected areas) in Ireland.

As far as An Taisce is aware, no further action has been taken to implement conservation measures related to the actions plans since they have been drafted. This is reflected in the baseline comment "*BirdWatch Ireland has published comprehensive plans for the conservation of Irish birds*."

According to BirdWatch Ireland delivering tangible conservation actions for all 10 bird species groups birds in Ireland have been identified through the setting of a number of targets (total 150) and actions (total 455) which are grouped into four themes:

- Theme 1: Research & Monitoring (52 targets, 145 actions)
- Theme 2: Policy, Legislation and Advocacy (37 targets, 122 actions)
- Theme 3: Species and Site Protection (41 targets, 131 actions)
- Theme 4: Education and Awareness (20 targets, 57 actions)

A specific target must be set to achieve some or all of these actions over the course of this NBAP.

The previous draft of the NBAP stated "*Implement as resources permit, BirdWatch Ireland's action plans for wider countryside birds.*" The inclusion of "*as resources permit*" does not give the impression that this will be a high priority under the NBAP. Given the staggering collapse in many groups of birds and in particular farmland bird populations it is hard to understand how the implementation of these plans would not be given high priority.

The former draft of the NBAP contained the action "*4.5.6 Nationally and internationally threatened (i.e. Red-listed species and species listed as Birds of Conservation Concern) integrated into planning and environmental assessments and relevant sectoral policies*." It appears that this key action has been removed from the plan. An Taisce strongly feels that this action should be reinstated. It would support implementation of action 4.1.7 and potentially stop more bird species following the corn bunting towards national extinction.

4.1.8. Implement the National Genetic Conservation Strategies for animals and plants

No Comment

4.1.9. Implement the All-Ireland Pollinator Plan including: making the Irish countryside more pollinator friendly; raising awareness of pollinators; supporting beekeepers and growers; expanding knowledge of pollinators; and collecting evidence to track changes.

Please refer to relevant comments made under 2.1.14 and 1.2.3. The actions related to Section 40 of Wildlife Act within the Heritage Bill are not in line with the All-Ireland Pollinator Plan.

Teagasc's best practice hedgerow management guidelines should be promoted through communication with farmers and local authorities and through Origin Green and agri-environmental schemes.

Bee and pollinator decline is strongly linked to the loss of semi-natural grassland and High Nature Value farming. Actions relating to these issues should be tied in with this action.

Given the strong link between pollinator decline and pesticide use it is pivotal that Ireland increases the number of framers choosing to go organic. We have currently one of the lowest levels of organic farming in the EU. There is a growing demand for organic produce and there is an economic and environmental opportunity to promote growth in this area. The DAFM and World Wide Opportunities on Organic Farms (WWOOF) should be considered a Key Partner in this action. *Performance* indicator – The number of farmers going organic / the area of land under organic production.

4.1.10. Implement the management of deer in Ireland's woodlands as per recommendations in the Woodlands of Ireland strategy

The protection of Ireland native populations of Red Deer must be prioritised in any future deer management programme.

Target 4.2: Principal pollutant pressures on terrestrial and freshwater biodiversity substantially reduced by 2020

A specific action is required to address the increase in diffuse and point source agricultural pollution associated with agricultural intensification under Food Harvest 2020 and Food Wise 2025. A review should be carried out on the current measures to address agricultural pollution.

4.2.1. Continue to protect, enhance and monitor water quality during the second cycle of the Water Framework Directive (2015-2021) by reducing risks to water quality and utilising ecological expertise in decision-making, and in analysis of cumulative effects

Key threats to water quality and in particular diffuse agricultural pollution must be addressed in coordination with the EPA, DAFM and other key stakeholders.

4.2.2. Irish Water to implement its Water Services Strategic Plan (2015-2040) in particular its objective to protect and enhance the environment

An Taisce would strongly support this point.

4.2.3. Implement recommendations of EPA STRIVE Report Series No. 99 (Management Strategies for the Protection of High Status Waterbodies) including, amongst other measures: prioritisation for protection measures; planning/licensing control; assessment of cumulative impacts; and integrated monitoring and protection

The conservation of High Status Sites is an area which, An Taisce feels, needs to be prioritised by the NPWS and the EPA over the life of this NBAP and over the course of the current WFD cycle. We have raised the need to implement the recommendations of the of EPA STRIVE Report Series No. 99 through our input into the Biodiversity Form.
This action will tie in with the actions to restore areas impacted by inappropriate forestry, including implementation of recommendations of HYDROFOR study as outlined in action 4.1.5.
The conservation of the FWPM and the Atlantic Salmon will be key actions for the NPWS over this NBAP. Both species are dependent on High Status Sites and will benefit from this action.

High Status Rivers show a negative correlation with agricultural intensity. The protection of these waterbodies should be connected to the conservation of High Nature Value farming and relevant Locally Led Schemes such as Upland Scheme, Hen Harrier Scheme, and Freshwater Pearl Mussel Scheme.

Target 4.3: Optimised benefits for biodiversity in Flood Risk Management Planning and drainage schemes

4.3.1. Ensure that Flood Risk Management (FRM) planning and associated SEA, EIA and AA, minimises loss of biodiversity and ecosystem services through policies to promote use of "soft" options, landscape and habitat restoration and sustainable land management

The use of dredging as a solution to flooding should not be supported by the OPW, based on the failure of the dredging to meaningfully address flooding, coupled with its massive negative environmental impact. Solutions which reduce run-off and create space for flood water where it will have the least economic or social impact should be prioritised. It is clear that the EU Nature Directives (Birds and Habitats) do not prevent measures being taken to protect lives and property. In particular they provide for situations of 'over-riding public interest' to permit activities that might damage a Natura 2000 site but which are necessary for human welfare. The Directives do however require an assessment of the options available before a conclusion is reached that such damage is unavoidable. There is a clear obligation on the OPW to exhaust alternative options before causing significant negative impacts on Natura 2000 sites. Indeed at a time when we have lost so much of our wetland and peatland habitats there are opportunities for coupling ecosystem rehabilitation and restoration with flood relief. It is clear that such an approach would be aligned with the Water Framework Directive and the Habitats and Birds Directives.

Dredging may have limited positive impacts, particularly where stretches of rivers are located close to the sea. In some cases it may be an attractive option because it may help to sort out a local problem but in turn it may also just transport the problem downstream, sometimes from rural to urban areas where the damage on properties and economic activities can be much higher. Therefore the basin-wide approach included in EU policies is essential to find effective and long-term solutions.

Where biodiversity is impacted by FRM plans then meaningful mitigation measures should be adopted which replace and enhance habitat in other areas. There is an opportunity for wetland restoration throughout the country on Bord na Mona cut-over bogs for example.

4.3.2. All significant drainage (arterial drainage), including both initial drainage and maintenance drainage will be assessed for its implications for biodiversity, particularly for wetlands

The impact of arterial drainage schemes on wetlands should also be considered from a flood risk perspective. It is clear that arterial drainage schemes have in places undermined the flood attenuation capacity of many of Ireland's wetlands and have both within and outside of wetlands reduced the retention time of flood water across catchments resulting in an increase in the intensity of flooding. This has exacerbated flooding throughout many catchments impacting on the lives of many communities. It is clear that when ecosystem services such as flood attenuation are taken into account that there is a sensible argument that certain drainage schemes should cease. The biodiversity and carbon sequestration benefits of sustainable upland management, peatland restoration, native woodland creation and wetland restoration and rehabilitation should be given due consideration. Many of the actions which have been shown to prevent run-off will also reduce erosion with spin off benefits of soil protection and water quality improvements. The sustainable management of our waterways and wetlands will benefit local communities and tourism by enhancing the environmental and enhancing recreational opportunities. Where flood risk management results in a displacement of flood water onto agricultural land then farmers should be consulted and compensated for the ecosystem services they provide. Such a scheme should not compensate farmers for normal winter flooding.

The potential to restore Bord na Mona cut-over bogs throughout the Shannon basin must be seized upon. The potential for these wetlands to attenuate flooding and enhance biodiversity, fisheries, carbon sequestration, recreation and tourism is immense. The restoration of these sites would be the most ambitious conservation undertaking in the history of the Irish State.

An Taisce identified as far back as 2010 the need for a desk based assessment of the extent to which different wetlands contribute to flood mitigation in Ireland. This came on foot of the recognition that flooding may become more frequent due to changing weather patterns associate with climate change, with predictions for increased winter rainfall events and more intense summer events. In 2012 An Taisce launched our '*The Use of Wetlands for Flood Attenuation*' report. Among the main findings of the report were that wetlands alleviate frequent, low to medium rainfall events referred to as 'hydrological floods' best. However, floodplain and coastal wetlands do have the greatest potential to mitigate against large scale flood events. The report also highlighted the need for the CFRAM1 approach to be more specific in advocating the use of wetlands and washlands in flood risk management; for example through floodplain restoration. In the report we highlighted the clear imperative, to develop national policy on the ecosystem services of wetlands, including flood attenuation, where demonstrated to be effective.

The main objectives of the report were;

to provide current information on the use of wetlands for flood attenuation, as part of catchment based flood management strategies, as relevant to Ireland;

to evaluate the quality and quantity of flood attenuation services provided by different type's wetland for example floodplains, peatlands, and coastal wetlands, according to previous and current research from Ireland and comparable locations abroad;

to review the potential of wetlands and other ecosystems to deliver measurable and cost effective flood prevention services in Ireland; to formulate recommendations for the inclusion in national policy.

Our report examines technical aspects and explores the different types of wetlands, such as floodplains, peatlands, and constructed wetlands, and their role in flood attenuation. It also addresses

the management of wetlands, as well as the conflicts between flood attenuation and biodiversity. The cost-effectiveness and economic values that can be attached to wetlands in a flood attenuation role are looked at through both market and 'ecosystem services' views.

Part II identifies national legislation and policy affecting wetland habitat that may influence the potential for wetlands to become accepted as part of a national strategy for flood management.

The main findings of the report were that wetlands can alleviate frequent low to medium scale flood events through assimilating excess water, as well as delaying the run-off time. However, often the capacity of wetlands to attenuate large flood events, referred to as 'economic floods' is limited as their storage capacity limit is saturated during the heavy rainfall associated with the event.

The future management of wetlands requires a coherent framework on a national, regional and catchment scale; as it is the physical nature of individual wetlands that plays a large role in determining its flood attenuation value. Different wetland types influence flood attenuation in different ways thus, maintaining the combination of wetland types will be most effective in flood attenuation. The report recommends that opportunities for incorporating flood risk management at the farm level should be explored under new 'greening' measures proposed for CAP 2014-2020. It identifies that targeted land management changes can influence water retention in the future thus, measures such as 7% set aside of 'ecological' areas and use of 'innovative practices' could be applied to the concept of floodplain management in Ireland.

The Use of Wetlands for Flood Attenuation (An Taisce, 2012):
http://www.antaisce.org/sites/antaisce.org/files/final_wetland_flood_attenuation_report_2012_0.pdf

Target 4.4: Harmful invasive alien species are controlled and there is reduced risk of spread of new species

4.4.1 Develop national and whole island plans to implement the EU Invasive Alien Species (IAS) Regulation and relevant sections of Ireland's EU (Birds and Natural Habitats) Regulations 2011 including: development and adoption of biosecurity plans in relevant state bodies; a Rapid Response Protocol for the island of Ireland; and coordination and collation of invasive species surveillance and monitoring data; and work with Northern Ireland and UK authorities on invasive species of mutual concern

An Taisce strongly support this All-Island approach.

The Actors / Key Partners should include local community groups and eNGOS. Local communities should be empowered to remove invasive species. This would involve training, supervision and supplying them with the necessary tools.
Key stakeholders such as angling groups should be supported in tackling key species such as Himalayan Balsam. Gamekeepers should be encouraged to target American Mink.

The Nature's Way publication on Invasive Species launched by An Taisce should be reprinted to raise awareness about the impact of invasive species among children.

4.4.2. Continue and enhance measures for eradication, where feasible, control and containment of invasive species

Support local authorities in developing guidelines.
Remove legislative barriers to controlling invasive species.

4.4.3. Support horticultural nurseries to: produce native species, varieties and landraces from appropriate native sources for public, and private sector plantings and public bodies will endeavour to plant native species

As was said under action 3.1.10 Greater efforts should be made to ban the sale of invasive species in Ireland. In particular aquatic invasive species currently being sold in garden centres should be targeted as a matter of urgency. Rhododendron and laurel should be banned as a landscaping plant on public lands. Native flora should be given preference when carrying out landscaping on public lands. Legislation should be brought forward to stop the sale of plants identified as being invasive.

4.4.4. Continue to produce Risk Assessments for potentially invasive non-native species
An Taisce strongly supports this action

4.4.5. Establish a multi-agency working group to bring together all relevant parties to meet on an all-island basis to work to achieve this target
An Taisce strongly supports this action

Target 4.5: Effective management and restoration in place for biodiversity and ecosystems in the wider countryside by 2021

The July draft of the NBAP contained two actions which have since been removed from this target.

The action "*4.10.2 Maintain target of 30% broadleaf planting in afforestation*" should be reinstated. It's an important element of our national biodiversity strategy. There should be an assessment of the biodiversity benefits of how the 30% target is used.

In plantations on improved / enclosed land there is an obligation to plant a minimum of 10% broadleaves, site permitting. This usually results in a border of birch around a block of Sitka spruce. From a biodiversity perspective it may be more beneficial to plant the 10% broadleaves in one block and for there to be an obligation to use more native species than just birch in the mix.

A target for broadleaf planting in sites that are being replanted should also be set.

In areas which are not deemed suitable for broadleaves then Scots pine should be planted instead.

The action; "*4.10.3 Continue to update the inventory of native woodlands review and, where appropriate the results of the Native Woodland Survey into conservation and expansion of the native woodland cover*," should also be included in the final NBAP.

There was also a comment within the draft that "*We need a Forestry Service overview of their Biodiversity Actions 2017-2021*".

Actions from the Forestry Service Action Plan should be included in the NBAP. The Forestry Service should operate in a way which is compatible with the NBAP.

4.5.1. Review the effects of the revision of hedge cutting and burning dates in the Heritage Bill 2016 prior to the end of its two-year pilot phase

It is disrespectful to the Oireachtas and our democracy that this point has been included in the public consultation. The Heritage Bill has not been passed and has still to be debated by both houses of the Oireachtas.
A two year pilot is not a sufficient length of time to carry out a scientific study of this nature. To our knowledge no baseline analysis has been carried out. As this is a nationwide pilot, how will controls be established?

Given the large population declines observed in species like yellowhammer even a two year pilot study, allowing a hedge-cutting extension could do irreparable damage. Yellowhammers are now in serious decline with a 61% drop in breeding range since the 1970s. Their numbers are also down significantly and because of these factors Yellowhammer is on the Red List of Birds of Conservation Concern in Ireland. Yellowhammers nest almost exclusively in hedgerows throughout August and into September. This action does not support the overarching objectives of this target or the National Biodiversity Action Plan 2017-2021.

Thirty one of the reasons An Taisce, Birdwatch Ireland, Irish Wildlife Trust and the Hedge Laying Association think the Heritage Bill will negatively impact on the environment, landscape and biodiversity are within this document;
http://www.antaisce.org/sites/antaisce.org/files/31_days_31_reasons_complete.pdf

An Taisce understands that the Heritage Bill 2016 proposes to repeal a paragraph of the Wildlife Act which provides protection from assault or obstruction, to an authorised person or a member of the Garda Síochána exercising any power or function conferred on the authorised person or member by or under the Wildlife Acts, 1976 and 2000.

The section provides protection and a deterrent against assault to NPWS rangers who are often working on their own in isolated areas of the country and confronting criminals. Whereas, assaulting anyone is generally a criminal offence, with the repeal of this paragraph, Rangers will lose the protection from obstruction. Interestingly, within the same Bill, authorised officers of the Waterways are given that protection from obstruction.

The proposed removal of the section has been expressed by members of the Rangers' Union as an issue of grave concern. It suggests a serious lack of support of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, for NPWS rangers in their capacity to exercise their powers when necessary. An Taisce believes the relevant section of the Heritage Bill should be removed.

There has been extremely poor consultation on the Heritage Bill. The Minister has completely ignored the outcomes of the public consultation. She has ignored the weight of scientific evidence which clearly established the massive negative impact that altering Section 40 of the Wildlife Act will have on Irish biodiversity. She also ignored the majority of the consultation responses which sought to protect and strengthen the protection afforded to wildlife.

To date there has been a serious lack of proper consultation on the Bill, particularly with regard to Environmental NGOs. On the issue, Minister Humphreys has stated in the Seanad, "*I have been available to meet with all stakeholders. I have met with the Environmental Pillar*." According to the Environmental Pillar, it has, on multiple occasions, been denied the opportunity to meet with the Minister, despite repeated requests. In contrast, the Minister has met with the Irish Farmers'

Association (IFA) at least four times and the Irish Creamery Milk Supplier Association (ICMSA) and Irish Cattle & Sheep Farmers' Association (ICSA) at least once.

It is also clear that the Minister is not following the expert advice of her own staff. In the Seanad, it was put to the Minister twice (by Senator Mulherin) as to whether the National Parks and Wildlife Service (NPWS) supported the Bill, a point to which the Minister responded, "I have worked closely with my officials and the staff of the National Parks and Wildlife Service, NPWS, in preparing this legislation."

However, according to information obtained based on an Access to Information on the Environment (AIE) request, communications between the Minister and the NPWS indicate that there are serious flaws with the Bill. It was expressed by the Scientific Unit that "*there is little in the way of useful, specific data that will underpin any decision*" made on changing the current legislation for hedge-cutting. Additionally, it was concluded, that the current legislation was also deemed fit for purpose, indicating that the closed period is a "*strong, effective protection measure and any changes proposed will need to be underpinned by a robust, credible case*".

This action should be removed from the NBAP. The Heritage Bill should be withdrawn. Minister Ross should seek to address road safety issues through the Roads Act.

4.5.2. Develop, adopt and implement restoration programmes for Salmon, Sea trout and Eels. Improve passage of migratory fish species and address barriers to fish movement. Put in place traceability scheme for Eel

This action corresponds with action 4.10.4 in the previous draft "*Develop, adopt and implement restoration programmes for salmon, sea trout and eels and use European Maritime and Fisheries Fund to improve passage of migratory fish species and address barriers to fish movement*."

The European Maritime and Fisheries Fund is the relevant EU funding mechanism to improve passage of migratory fish species and address barriers to fish movement. It has been used for this purpose in other member states. This line should be reinstated into action 4.5.2.

As was said under point 1.1.6 not enough funding is being drawn from the EMFF to restore marine ecosystems. Over fishing and the decimation of marine ecosystems is the main driver of the collapse in Ireland's fishing sector. This reality is now recognised at an EU level and efforts are being made to restore fish stocks via the CFP. Despite this however virtually no actions were contained in Ireland's Seafood Development Programme to restore marine biodiversity. Overfishing in fact was barely mentioned in the whole document. More funding needs to be leveraged from the EMFF to support the development of Marine Protected Areas, for example.

There is a lot of cross-over with actions relating to High Status Sites under the WFD, pollution and flooding. Actions relating to the conservation of Freshwater Pearl Mussel will also be relevant. In particular action 4.2.3 is very relevant. The EPA catchments should be considered a key partner. Local authorities, conservation officers, Rivers Trusts and angling groups are all key stakeholders.

It is clear that the ESB's role in fisheries management on the Shannon and Erne systems in particular needs review.
A review of the effectiveness of elver traps and fish passes throughout the country should be a considered a performance indicator under this heading. Ecofact have done some excellent work in identifying barriers to fish migration and should be consulted.

When addressing fish migration Annex I lamprey species should also be catered for.

The EPA funded Reconnect project is a perfect example of how technology and citizen science can help to support research and conservation efforts. The project uses a mobile phone app to map the extent and impact of flow barriers or obstacles in rivers on freshwater biology, hydromorphology and connectivity in Ireland. https://www.catchments.ie/help-map-river-obstacles/

A review should be carried out of the benefits of removing hydroelectric power stations on key rivers such as the Shannon, Lee and Erne. Hydroelectric power stations removal is being used as a key tool in the United States in recent years to restore salmonid populations and restore freshwater ecosystems.

There is overwhelming evidence that salmon farms are negatively impacting on wild salmon and sea trout populations. This evidence is not being reflected in the aquaculture licencing decisions. No further salmon farms should be given approval until a review of the sustainability of salmon farms and the labelling of farmed salmon as organic has been carried out. The compliance of the existing salmon farming model with the Habitats Directive and other relevant environmental legislation should be carried out as part of the review.

4.5.3. Implement species action plans including for: Red Squirrel, Red Grouse, Grey Partridge and reintroduced raptors and initiate further management actions as necessary

As is the case with the threat response plans, species action plans will be a critical tool to address imperative species level conservation issues over the course of the next four years.

Given the positive trend in Red Squirrel distribution, the resources directed towards this species action plan should be re-evaluated.

The compatibility of the Hen Harrier Threat Response Plan with the Red Grouse Species Action Plan should be considered.

The Golden Eagle population in Donegal is not currently sustainable. A targeted upland LLAES is needed to improve habitat quality in the Donegal Uplands. This scheme should focus of improving prey populations and should be targeted to benefit as many upland species as possible. With regard to deer and livestock densities, cross-border cooperation should be sought on this action.

Illegal turf-cutting within the Derryveagh and Glendowan Mountains SPA, (Site Code: 004039) must be addressed.

Species action plans for species such as Curlew, Lapwing and Redshank need to be developed.

4.5.4. Identify and implement measures to substantially reduce Ireland's ecological footprint on biodiversity

The ecological footprint of imported biomass should be assessed. Domestic and imported sources of biomass which have a net negative impact on biodiversity should be phased out.

Steps should be taken to ban from Ireland, the sale of products which contain un-sustainable palm oil. Only certified environmentally friendly palm oil should be used in Irish products.

Target 4.6: Improved enforcement of Wildlife Law

4.6.1. Enhance understanding and role of An Garda Síochána and Customs and the judiciary in enforcing Wildlife legislation, including provision of specific training and guidance

Efforts should be made to educate the judiciary about the need for sentences which require habitat restoration. If someone is found to have damaged a protected site or species, they should have to pay the cost of rectifying their transgression.

There is no performance indicator or Actor/Key Partner identified which indicates how the judiciary will be engaged.

4.6.2. Ensure adequate training in Wildlife Crime detection and enforcement is provided to all DAH enforcement staff

In the UK the police have established a National Wildlife Crime Unit website and have supplied contact details for police stations which have staff trained in wildlife crime.

http://www.nwcu.police.uk/wildlife-crime-links/

The Gardai and DAH should commit to establishing an Irish Wildlife Crime Unit website. There should be personnel within the Gardai who have expertise in Wildlife Crime and can assist Gardai in implementing the relevant legislation.

The section of the Heritage Bill 2016 should be removed which proposes to repeal a paragraph of the Wildlife Act which provides protection from assault or obstruction, to an authorised person or a member of the Garda Síochána exercising any power or function conferred on the authorised person or member by or under the Wildlife Acts, 1976 and 2000.

The section provides protection and a deterrent against assault to NPWS rangers who are often working on their own in isolated areas of the country and confronting criminals. Whereas, assaulting anyone is generally a criminal offence, with the repeal of this paragraph, Rangers will lose the protection from obstruction. Interestingly, within the same Bill, authorised officers of the Waterways are given that protection from obstruction.

4.6.3. DAH enforcement staff will investigate along with An Garda Síochána and Revenue (Customs) officials (as appropriate) suspected and alleged wildlife crime affecting biodiversity

No Comment

4.6.4. Continue to enforce the Wildlife Acts and Regulations

The EPA have obligations in relation to environmental damage under regulation 15 of the European Communities (Environmental Liability) Regulations 2008 to 2011 (SI No 547 of 2008, as amended by SI No 307 of 2011; the ELD Regulations). The EPA should supply baseline data on their enforcement of these regulations. The EPA should be added to the list of Actors/Key Partners under this action.

4.6.5. Train and upskill enforcement officers in other agencies that are in the field on wildlife law

Upskilling should also be targeted at local authority inspectors so that they can identify incidences of wildlife crime.

As in 4.6.4 the EPA should be included as an Actor/Key Partner.

Objective 5: Conserve and restore biodiversity and ecosystem services in the marine environment

Target 5.1: Substantial progress made towards good ecological and environmental status of marine waters over the lifetime of this Plan

5.1.1. Continue to develop a Marine Spatial Plan for Ireland
No Comment

5.1.2. Implement measures to achieve good ecological and environmental status of marine and coastal habitats as required by the Habitats, Directive, Water Framework Directive and Marine Strategy Framework Directive (MSFD) and in line with the OSPAR Convention
The Number of Blue Flag beaches is listed as a performance indicator. The number of Green Coast Awards could also be considered as a performance indicator. Both programmes are run by the Environmental Education Unit (EEU) of An Taisce. The EEU should be added to the list of Actors/Key Partners. In particular the Clean Coasts and Blue Flag programmes have a number of campaigns which complement the objectives of this action.

5.1.3. Support, build capacity of and co-ordinate the citizen science network for near-shore and inter-tidal ecological monitoring

There are 519 Clean Coasts groups around the Irish coast. These community groups have an established track record in coastal environmental conservation http://cleancoasts.org/

Clean Coasts should be added to the list of Actors/Key Partners

5.1.4. Promote the incorporation of ecological engineering features in new and existing structures such as coastal defences
An Taisce strongly supports this action.
Adding research institutes to Actors/Key Partners should be considered.

Target 5.2: Fish stock levels maintained or restored to levels that can produce maximum sustainable yield, where possible, no later than 2020

5.2.1. Continue to ensure the Common Fisheries Policy (CFP) and marine fisheries provide for the conservation of fish species and marine biodiversity

The Irish Government continue to successfully lobby the EU for fishing quotas which are not aligned with MSY and the Common Fisheries Policy. The failure of the Irish fisheries sector to sustainably manage our marine resources is not beneficial for coastal communities in the long run. Ireland must

establish quotas which are aligned with the objective of restoring the marine environment and its resources. MSY is not an effective tool in itself to restore marine ecology. Marine protected areas must be established where trawling is banned.

The addition of the performance indicator is positive "*2. Accidental capture of non-target species under consistent and representative monitoring.*"

5.2.2. Implement stock recovery plans for any fish stocks outside safe biological limits, and management plans to maintain other stocks at safe biological levels as determined by the standards for Good Environmental Status in the Marine Strategy Framework Directive

Fishing quotas and fishing methods must be in line with achieving stock recovery and Good Environmental Status under the Marine Strategy Framework Directive.

5.2.3. Adopt and implement provisions under Common Fisheries Policy (CFP) for the establishment of appropriate management measure, (e.g. no-take zones) that conserve biodiversity and fish stock levels

According to the European Environmental Agency marine protected areas (MPAs) can act as a key conservation measure to safeguard marine ecosystems and biodiversity as well as the services these ecosystems provide. MPAs must be established in Ireland in consultation with local communities. Research must be carried out on the spin-off socio-economic benefits of MPA designation. These research findings should be communicated to local communities.

5.2.4. Take concerted action to combat illegal, unreported and unregulated fishing

An Taisce supports this action. The two performance indicators are fit for purpose "*1. Number of patrols. 2. Number of interceptions*."

Objective 6: Expand and improve management of protected areas and legally protected species

Target 6.1: Natura 2000 network established, safeguarded, designated by 2018 and under effective conservation management by 2020

6.1.1. By 2018 complete designation process for Special Areas of Conservation (SACs) and Special Protected Areas (SPAs), in particular, for marine coastal and offshore SACs

An Taisce strongly supports this. Designation should be based on scientific criteria.

6.1.2. Develop and utilise consent systems to facilitate sustainable activities within Natura 2000 sites

The Forestry and Aquaculture consent process are not functioning. Self-regulation has resulted in a system where the need to carry out Appropriate Assessments is ruled out inappropriately at the screening stage. In the case of Aquaculture AA's are not adequate. Forestry and Aquaculture consent should be taken out of the DAFM and transferred to the DHPCLG.

Destructive fishing practices such as trawling are not being controlled in *Natura 2000* sites.

The sustainability of salmon farming needs to be reviewed considering research highlighting the negative impact of salmon farms on wild salmon populations.

6.1.3. Prepare detailed site-specific conservation objectives for Natura 2000 sites

This is one of the most important actions in the NBAP. This is essential to ensure that the *Natura 2000* network can deliver on its potential. Detailed conservation objectives also require detailed management plans and the funding to implement them.

There is no ambition set out in this action to implement site-specific conservation objectives. Over the life of this NBAP there is only an obligation to prepare conservation objectives. There must be a commitment to implementing site specific conservation objectives and management plans.

There should be a performance indicator which states that X amount of sites will have site specific conservation objectives by 2021.

6.1.4 Implement the National Raised Bog Special Areas of Conservation (SAC) Management Plan (2016-2021)

The performance indicator for this action reads "*A system of management devised and implemented that will ensure turf-cutting on protected bog sites continues only in such a way that will not threaten the integrity of SACs*." Facilitating turf cutting in the some of the most important habitats left in the country is incomprehensible. Turf cutting should cease in all Natura2000 sites, NHAs/pNHAs. Domestic turf cutting should be subject to regulation. Alternatives to turf must be developed to move away from this extremely damaging source of fossil fuel. Agroforestry and permanent cover native woodland should be encouraged.
We suggest that the title of 6.1.4 should be changed to "*Implementation of National Raised Bog Special Area of Turf Cutting Management Plan.*"

The Turf Cutters and Contractors Association should be added to the list of Actors / Key Partners.

We suggest that a performance indicator is included which indicates the number of bogs within the SAC network which have had conservation measures such as drain blocking carried out on them. The number of bogs which still have unauthorised turf cutting on them should also be considered as a performance indicator.

6.1.5. Review the conservation measures necessary to achieve the published conservation objectives for Natura 2000 sites. If current measures are not adequate, develop and implement additional measures necessary to achieve favourable conservation status both nationally and at site level including for non-farmed habitats

Performance indicator 2 reads "*Improved conservation status of habitats reported to EU*."

There needs to be performance indicators which reflects the conservation status of Annex I species under the Birds Directive and Annex II species under the Habitats Directive.

This action should tie in with Threat Response Plans, Species Action Plans, BirdWatch Ireland Action Plans etc.

There should be a mechanism that ties this point in with the ongoing review of the effectiveness of agri-environment schemes.

6.1.6. Implement measures to ensure that, taking account of climate change, there are no adverse effects from marine fisheries and aquaculture in and adjacent to Natura 2000 sites

The National Strategic Plan for Sustainable Aquaculture needs to be updated to reflect the global explosion in the number of cases of lice (*Lepeophtheirus salmonis*) infestation in 2016. Global supplies of Atlantic salmon fell nearly 9% last year and are expected to fall during the first half of this year as lice problems worsen. Given the established negative relationship between infested salmon farms and wild salmon populations there is an urgent need for a review of the negative impact of salmon farming on wild salmon populations and the conservation objectives of *Natura* 2000 sites designated for salmon.

Research into species responses to intertidal oyster cultivation has established the following relationships.
Neutral/positive response: Oystercatcher, Curlew, Redshank, Greenshank and Turnstone Variable response (response varies between sites): Light-bellied Brent Goose, Black-headed Gull, Common Gull and Herring Gull.
Negative response: Shelduck, Ringed Plover, Lapwing, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Great Black-backed Gull
Exclusion (completely excluded from oyster trestles blocks): Grey Plover and Knot.

These results are not currently being reflected in aquaculture AAs and licensing.

Target 6.2: Sufficiency, coherence, connectivity and resilience of the protected areas network substantially enhanced by 2020

Ireland's Natural Heritage Area (NHA) network is the basic designation for wildlife. Along with our national parks and the Natura 2000 network they form the foundation of our network of protected sites. The protection they provide is critical to prevent the biodiversity loss. In addition, they provide connectivity between other protected sites and help to reduce the negative impacts of fragmentation and are important in providing resilience against pressures such as climate change. On a basic level these sites have been protected under national legislation, the Wildlife (Amended) Act 2000, because they are considered important for the conservation of habitats and species which need protection and are of national importance.

Given the pivotal role that Ireland's NHAs and proposed National Heritage Areas (pNHA) play in the conservation of biodiversity An Taisce would have expected them to feature strongly in the NBAP. Incomprehensibly, this is not the case.

The July draft of the NBAP contained action "*6.15.1 By 2018, review policy regarding designation of Natural Heritage Areas*," with a performance indicator of "*Review completed"* and a Baseline of *"Policy in regard to pNHAs is currently under review*."

This was the sole action within the NBAP which related to NHAs and it has been removed from the current draft. An Taisce finds it incomprehensible that one of the most important tools for biodiversity conservation has been completely deleted from the agenda. Based on the text and the Irish state's record of conserving the NHA network, it is not entirely clear whether a review of the pNHAs would benefit biodiversity, at least not the kind of review that could be implied.

Only 148 peatland NHAs out of the 800+ NHAs identified in the 1990s have been statutorily designated and given legal protection. This is unacceptable. At the moment we have a situation in this country where the only sites that are protected are either estates that were gifted to the Irish people and made National Parks or SACs and SPAs which are the result of European Directives. The NHAs that have protection have only been designated as the result of legal action by the European Commission.

Under the previous NBAP it was identified under target 16 that "*Although some NHAs have been designated, a systematic programme for NHA designation has not been undertaken and some 600 areas proposed as NHAs in the 1990s have not been protected yet by designation*."
This target had two associated actions:

> *16.1 By 2015, review previously proposed Natural Heritage Areas and designate as appropriate under the Wildlife (Amendment) Act, 2000.*
>
> *16.2 By 2015 strengthen the coherence, connectivity and resilience (including resilience to climate change) of the protected areas network using, as appropriate tools that may include flyways, buffer zones, corridors and stepping stones.*

The performance indicators for these actions were:

> Number and area of NHAs designated
>
> Number and area of sites that meet criteria for NHAs but are not designated
>
> Fragmentation index

There must be an action within the NBAP which commits to the full designation of a large proportion of the 600+ identified pNHAs to full NHA status. Many of our pNHAs also have SAC and/or SPA designation already so designating these sites should not be complicated. An Taisce call of the DAH to reinstate target 16 of the second NBAP and ensure that designation process of Ireland pNHA is completed.

In addition, it is clear that the level of protection afforded to Ireland's pNHA and NHA network is not adequate. The Wildlife Act should be amended to ensure that NHAs are afforded the same level of protection as SACs and SPAs. They should be subjected to the same level of protection as that provided under Article 6 of the Habitats Directive.

An example of the lack of protection afforded to NHAs is the approval given or a large forestry plantation (CN71582) partly within and partly outside of Slieve Rushen Bog NHA (site code: 00009). This site is of national importance for hen harriers and other upland habitats and species. This approval highlights the lack of protection afforded to Annexed species like hen harriers outside of their six SPAs and the lack of protection afforded to NHAs in general. It also highlights a failure to accept the clear negative impact of forestry on upland biodiversity and the damage that fragmentation and edge effects cause upland species. An Taisce successfully appealed the approval of this application and afforestation of plots within Slieve Rusheen Bog NHA. Our objection to another plot, on the basis that it would create a barrier to movement for species within the

landscape and would fragment suitable habitat, was also upheld. A field inspection by the Forest Service Ecologist deemed that plot 4 of the application was wet heath, an Annex I habitat. By virtue of the habitat's size and quality and its connectivity to Slieve Rusheen Bog NHA, the approval of afforestation in this plot was also overturned. The fact that approval was given by the Forest Service to afforest an Annex I habitat warrants review, as does the failure of the NPWS to object to this application.

The afforestation of NHAs is a recurring issue. Even NHAs containing habitats as threatened and sensitive as raised bogs have been approved for afforestation (CN67700 - Black Castle Bog NHA, Site Code:000570, CN68771 - Lough Tee Bog NHA, Site Code: 000307).

NHAs should have site specific conservation objectives and management plans.

Because target 16 of the second NBAP was subsequently dropped from the current NBAP there is no indication of why these actions were not carried out. This lack of coherence and accountability between the three NBAPs is a major flaw.

6.2.1. Increase connectivity of the protected areas network using appropriate buffer zones, corridors stepping stones and/or, flyways

This is a very important action. Fragmented populations are more vulnerable to losing genetic diversity and are at a higher risk of extinction. The need for increased connectivity will become all the more necessary as the impact of climate change intensifies. Linkages between designated sites are essential for maintaining the coherence of the network.

Ireland has an obligation to strive to increase ecological connectivity.

Article 10 of the Habitats Directive for example specifically refers to linear landscape features and stepping stone habitats: "*Member States shall endeavour, where they consider it necessary, in their land-use planning and development policies and, in particular, with a view to improving the ecological coherence of the Natura 2000 network, to encourage the management of features of the landscape which are of major importance for wild fauna and flora. Such features as those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species*."

There is no clear strategy that An Taisce is aware of what increasing ecological connectivity actually means in an Irish context. What increases connectivity for one species for example may not work or even be counterproductive for another. The potential of ecological corridors for habitat conservation in Ireland – A review, was written by Jervis A. Good back in 1998. This review suggested that "*it is often preferable to consider the total permeability of the landscape rather than specific corridors, unless the latter are linear features like streams."* Improving water quality and protecting and restoring existing habitats may be a more effective way of improving connectivity than focusing on linear habitat features. https://www.npws.ie/sites/default/files/publications/pdf/IWM2.pdf

Again it has to be said that weakening Section 40 of the Wild Life Act will not support this action.

The way this action is presented there does not appear to be any mechanism to promote or enforce this action. The performance indicators are passive. This action would be best advanced by improving the protection afforded to habitats outside of designated sites and ensuring that the role

habitats play in connectivity is considered in the planning process. One of the most straight forward ways the NPWS could implement this is to ensure that NPWS staff make these arguments when commenting in planning/consent processes. The performance indicator relates to a communication to DAH staff.

This is a strong performance indicator "*3. Number of County Development Plans with policies on these (if they're being updated in the time between now and 2020).*"

6.2.2. Extend the Marine Protected Area designation under the MSFD

An Taisce would strongly support this. Comments made under action 5.2.3 are relevant. Benthic habitats which have been obliterated by trawling should be prioritised for protection.

Target 6.3: No protected habitats or species in worsening conservation status by 2020; majority of habitats and species in, or moving towards, favourable conservation status by 2027

Regulation 39 of the European Commission (Birds & Natural Habitats) Regulations 2011 (SI No. 477), provides a mechanism to fulfil the objectives of the Habitats Directive or the Birds Directive, to protect designated habitats and species through the development on an appropriate threat response plan to "*cease, avoid, reverse, reduce, eliminate or prevent the threat, pressure, hazard, combination of threats, pressures or hazards, adverse effect, pollution, deterioration or disturbance.*"

The July draft of the NBAP had identified the implementation of threat response plans as a fundamental tool to achieve the objectives of Target 6.3 over the duration of the NBAP. It contained Action "*6.16.1 Implement species' threat response plans where necessary and review and update as required*," which has been removed from the current draft. An Taisce believes that Article 39 of the Bird and Natural Habitats Regulations is a critical tool to bring about a rapid response to imperative conservation issues. Given the scale of biodiversity loss over the last two decades and the poor conservation status of many of Ireland's designated habitats and species, it is obvious that the threat response plan will be more necessary than ever, over the course of the next four years. An Taisce call on the NPWS to reinstate this an action on threat response plans and extend its scope to include habitats, i.e., implement species and habitat threat response plans where necessary and review an update as required.

6.3.1. Provide and implement guidelines for Planning Authorities and other consent bodies on the protection of species listed in Annex II, IV and V and habitats in Annex I of the Habitats Directive including around preserving and increasing the connectivity of protected areas

Please include an action which relates to Annex I bird species under the Birds Directive.

Comments made under action 6.2.1 are relevant for "*preserving and increasing the connectivity of protected areas*."

6.3.2. Identify and subsequently fill critical gaps in ex-situ conservation programmes for wild species, in line with best practice

There are a number of freshwater species which would benefit from captive breeding such as Freshwater Pearl Mussel, Pollan, Arctic Char and Killarney Shad.
Further reintroductions are not currently justifiable in the context of potential future extinction of multiple species within the next few decades. Conservation efforts should prioritise tackling the main drivers of habitat loss.

6.3.3. Review, update and publicise the National Plant Conservation Strategy including updating the strategy in line with current global targets
There are a number of very good targets and actions within the National Plant Conservation Strategy. Achieving the implementation of many of its actions would be positive.

There is no performance indicator for this action which would facilitate the implementation of any of the National Plant Conservation Strategies action over the life of this NBAP. A performance indicator should be adopted which seeks to achieve the National Plant Conservation Strategies targets/actions.

Objective 7: Strengthen international governance for biodiversity and ecosystem services

Target 7.1: Substantially strengthened support for biodiversity and ecosystem services in external assistance

7.1.1. Biodiversity will be made a component of Ireland's development cooperation programme; and support to, and cooperation with, developing countries shall take into account biological diversity through the application of the CBD

One of the most effective policies Ireland could adopt to protect global biodiversity, ecosystem services and developing countries, is to embrace the principle of climate justice. Ireland must decarbonise our society and set sectoral targets for emissions reductions which are compatible with out EU and International Agreements to tackle climate change.

Target 7.2: Enhanced contribution to international governance for biodiversity and ecosystem services

7.2.1. International agreements (including CBD, CITES, CMS, OSPAR, ICES, GSPC, IPBES and NASCO) will be serviced to ensure that Ireland plays a role in the future of international biodiversity policy, particularly in the area of mainstreaming biodiversity and ecosystem services across all sectors
Strongly agree

7.2.2. Continue to contribute data and information to European and international networks (including Global Biodiversity Information Facility, and European Environment Agency) to support conservation research and policy

Wherever possible, data on the environment should be made publicly accessible, with caution taken in regard to rare species, for reasons elaborated above in point 2.1.5. An Taisce strongly support the presence of the Science and Biodiversity section of National Parks and Wildlife Service (NPWS) on twitter.

DAH should establish apps and websites where NPWS data can be complemented by citizen science data. DAH should work with the NBDC and Educational institutes to develop projects which integrate citizen science. The EPA funded Reconnect project is an excellent example of this.

Target 7.3: Enhanced cooperation with Northern Ireland on common issues

7.3.1. On-going communication and harmonized action on issues of common concern

Cross border cooperation should continue to be strengthened. Wildlife does not recognise territorial borders. An all-Ireland approach to conservation should be pursued over the life time of this NBAP. An all-island approach to conservation would be in line with the aspirations set out by the Good Friday agreement. Close cooperation in order to preserve and enhance the wellbeing of our shared environment and natural heritage is in the interests of all of the people on the island of Ireland and the many species which we share our territories.

Highly mobile species such as raptors and habitats and species which have important cross border populations should be targeted for close cross border cooperation. The Slieve Beagh SPA is one of six Hen Harrier SPAs in the country. It sits on the border of Monaghan with Northern Ireland. There are also a number of nationally important hen harrier populations which sit on the Donegal border with Northern Ireland. Despite this there has been cross border cooperation that An Taisce is aware of on the Hen Harrier Threat Response Plan. There should be an all-island approach to conserving genetic diversity and to species action plans where relevant. There should be cross border cooperation where designated sites are on the border. Where designated sites in the two jurisdictions have the same qualifying interests, there should be cross border coordination to harmonise conservation objectives and management plans.

The All-Island Species Protection Plans need to be resurrected.

There could also be better cross border cooperation in the implementation of the Marine Strategy Framework Directive.

Invasive Species Ireland was a very positive all-island initiative. It is more relevant now than ever.

There is no performance indicator for this action.

There should be an action relating to cross border coordination on wildlife crime.

7.3.2. Cooperation and coordination (where possible and relevant) on Species and Habitat surveillance initiatives under the Habitats and Birds Directives (e.g., All-Ireland seal surveys; All-Ireland cetacean strandings scheme)

The Bird Atlas 2007-2011 is an example of cross border cooperation and coordination.

7.3.3. Further cooperation on and co-ordination of All-Island Species Protection Plans

As the baseline says there has been no update since 2011. The All-Island Species Protection Plans should be resurrected. At the very least there should be some recognition of the need for rangers to coordinate on cross border conservation of relevant SAC/SPA (e.g. Slieve Beagh).

Target 7.4: Substantial reduction in the impact of Irish trade on global biodiversity and ecosystem services

Aside from implementing EU trade and environmental laws what do the Irish authorities do to verify the sustainability of imported tropical products?

Ireland should move to place a ban, by 2021, on all products and raw materials, which are sourced from the tropics which do not have sustainability certification. The Irish authorities should work with our EU partners and NGOs on the ground to verify the sustainability credentials of certification and take joint action against countries that are in breach of International conventions such as CITES.

Despite the 1986 IWC ban on commercial whaling, Iceland, Norway and Japan refuse to end their whaling operations. The DAH should encourage the Irish authorities to open a dialogue with countries who continue to carry out commercial whaling. In the case of Iceland and Norway many targeted species are migratory and also pass through Irish waters. Our cetaceans are part of our shared heritage. Illegal whaling is an attack on Irish and EU biodiversity and the moral consensus of the international community which led to the ban on whaling.

7.4.1. Adopt measures to significantly reduce major impacts of trade on biodiversity and (in the case of negative impacts) and/or enhance these impacts (in the case of positive impacts)

The proposed import of biomass from North America will involve deforestation on a massive scale. The DAH should oppose the trade in any products or raw materials which will drive biodiversity loss internationally.

7.4.2. Ensure CITES Regulations are effectively implemented and enforced

CITES is a vital international trade agreement. It is important that the NPWS are properly resourced to ensure that Ireland is fulfilling its obligations under CITES.

7.4.3. Implement legislation to control imports of illegally harvested timber into Ireland. Facilitate exchange of best practice in private and public sector procurement policies favouring wood products from sustainable sources, including certifiable wood products

The European Union's established policies to fight illegal logging and associated trade back in 2003 with the Forest Law Enforcement Governance and Trade (FLEGT). Despite this and subsequent actions to tackle illegal logging, it is clear that in countries like Cameroon these policies have had little effect. Improving governance structures is not effective in countries where there is endemic corruption and fraud at the highest level. All of the primeval rainforest in Cameroon for example has been felled, with the majority of this wood going to the European Union. Ireland must take action to halt trade in wood products and raw lumber with countries where there is evidence of illegal logging and corruption. Ireland should push for stronger action to be taken against countries that are carrying out illegal logging.

7.4.4. Investigate potential measures to prevent, minimise and/or mitigate deforestation due to non-wood imports

As the baseline comment says "*The main imports driving deforestation are palm oil and Brazilian beef*", actions should be taken to ban not only uncertified palm oil but also by-products of palm oil production, such as palm kernel. According to the Irish Times, "Between 2000 and 2012, 16 million hectares of virgin Indonesian forest fell, owing in large part to palm-oil plantations. Once the plantation matures, oil is extracted from the fruit, and the kernel husks left behind are sold internationally as biomass to fuel power stations in the West.

Since 2010, semi-State company Bord na Móna has bought more than 150,000 tonnes of these husks – known as palm kernel shells (PKS) – to burn at its Edenderry, Co. Offaly power station. So far this year, it has bought 36,000 tonnes. Three-quarters of it came from Indonesia."

http://www.irishtimes.com/news/environment/foreign-biofuel-defeating-bord-na-m%C3%B3na-sustainability-plans-1.2926448