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Report on 3rd Natural Climate Buffers Study Tour

A co-created publication

Community Wetlands Forum

A Report Detailing the **3rd Natural Climate Buffers Study Tour Learnings**

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And approved by the participants

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An Roinn Tithíochta, Rialtais Áitiúil agus Oidhreachta
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Summary

Climate challenges pose substantial challenges that vastly exceed our ability to adapt using purely technical solutions. Fortunately, nature also offers Nature-based Solutions (NbS) for climate change challenges. Wetlands, for example, provide these 'Natural Climate Buffers' (NCB)[1] for free and on a huge scale. Thus, the importance of wetlands in Europe is now more apparent than ever. Protecting and restoring these areas, which often have a challenging suite of stakeholders and vested interests, is best achieved by sharing knowledge and practical experience. The 3rd Eurosite Natural Climate Buffers Study Tour, in Ireland in September 2021, aimed to foster this sharing, through on-the-ground observations and collaborative workshops. The study tour focused on peatland restoration.

The Eurosite network of experts offers substantial knowledge sharing potential in terms of tangible on-the-ground restoration, governance challenges and community engagement experience. Thus, the Eurosite Study Tour is an invaluable opportunity to use this knowledge and experience to advance the practice of restoration of wetlands. Having visited four sites in Ireland, the group have learnt lessons, observed shortcomings, and reflected on their own practice in their respective national settings. The 'world café' workshop dialogues have re-examined the catalysts and barriers to effective conservation and restoration. We have conducted an examination of the mechanisms to mobilise existing recommendations for overcoming barriers, and the challenges inherent in these solutions.

The Irish Minister of State for Heritage & Electoral Reform Malcolm Noonan as well as the Minister of State in the Department of Agriculture Senator Pippa Hackett were both in attendance with us throughout the workshop on Wednesday 29 September. Both gave impassioned endorsements of wetlands and their importance:

> *"Great work has been done over the years by a number of different actors - the National Parks and Wildlife Service (NPWS) of my Department, by state agencies, environmental organisations and through community and volunteer efforts to restore degraded peatlands in Ireland. I am delighted that we can share our experiences and lessons learned in a forum such as this. I truly do believe that local communities and volunteers are the custodians of our heritage and must be supported in their efforts. […] Although the full benefits of rewetted wetlands as climate buffers may not be seen until into the future, it has an immediate effect in slowing current carbon emissions. It is clear that we need to act now and to act quickly."*
>
> - **Malcolm Noonan, Irish Minister of State for Heritage & Electoral Reform**

> *"[…] By adopting the EU Green Deal, the Farm to Fork and Biodiversity strategies are set to afford us all the opportunity to promote biodiversity and agricultural practices in a more blended way on our journey towards a more sustainable future."*
>
> - **Senator Pippa Hackett, Minister of State in the Department of Agriculture**

Aside from this clear political prioritisation in Ireland, what the international participants also found inspiring was the engagement of the large amount of volunteers at the sites visited who, together with other local stakeholders such as farmers and scientists, ensure the sites are restored and taken care off.

Importantly, this study tour did not aim to re-state existing barriers to wetland restoration, but rather to analyse the reasons why pre-identified solutions have not been applied to date. In other words, to discuss the "barriers to implementation", so that real progress can be made on this highly time-sensitive endeavour. These barriers included a lack of cross-sectoral cooperation (as alluded to by both ministers, above), and the opaque nature of communicating the benefits of wetlands to a broader set of stakeholders, especially in terms of climate adaptation. When relying on the support of a network of voluntary community actors, this latter perception barrier is fundamental.

We would like to thank everyone who, in any way, contributed to making the third edition of the Natural Climate Buffers Study Tour a success, and look forward to the next Study Tour which is foreseen to take place in 2023.

[1] https://www.eurosite.org/wp-content/uploads/EUROSITE-NCB-leaflet-v04-A4.pdf

The Third Natural Climate Buffers Study Tour

From 27-29 September, a group of 19 international site managers and 58 Irish stakeholders gathered for the third edition of the Natural Climate Buffers Study Tour which this time took place in Ireland. Organised by Eurosite - the European Land Conservation Network, hosted by the Community Wetlands Forum and supported by Eurosite member the National Parks and Wildlife Service as well as the Environmental Protection Agency, the group visited four sites where Natural Climate Buffers are implemented. The tour was an initiative of the Eurosite Wetlands and Climate Change working group and organised as part of a Specific Grant Agreement between Eurosite and the European Commission, funded under the LIFE programme of the European Union. [2/3]

Natural Climate Buffers are areas where natural processes are given space. As a result, they evolve with climate change, adapt to it and can play a vital role in retaining and collecting water (thus preventing floods or water shortages), tempering heat and reducing carbon dioxide in the atmosphere. Healthy peatlands can function as Natural Climate Buffers, and are one of the most important habitats in Ireland, for carbon, climate and people; a fact which is increasingly recognised through investment, community action and political support. Ireland now hosts a vibrant peatland restoration network, across LIFE funding streams, the investment of carbon tax revenues and direct government support. Aside from the unique biodiversity this protects, these efforts are promoting a 'Just Transition' from peat harvesting, whilst ensuring that community dividends accrue, whether in the form of boardwalks, diversified employment, or mitigation of the long-term effects of climate change.

[2] https://www.eurosite.org/eurosite-news/looking-back-on-the-3rd-natural-climate-buffers-study-tour/

[3] Video The Eurosite Natural Climate Buffers study tour: Peatlands must be wet! https://youtu.be/K_0wvPmKgB4

Gathering knowledge on site – visiting Natural Climate Buffer examples

The tour showcased the strides being taken by Ireland to mitigate climate change via Nature-based Solutions at four key Natural Climate Buffer sites.[4] The group visited the Cabragh Wetlands and Scohaboy Bog on Monday 27 September, and Clara Bog and Abbeyleix Bog on Tuesday 28 September 2021.

I) Cabragh Wetlands

Natural Climate Buffer type: carbon sink – natural sponge – blue green space

Cabragh wetlands form part of the active floodplain of the upper River Suir, is the biggest single area of freshwater semi-natural floodplain habitats on the River Suir, and are important for wintering and breeding birds. Current habitats are developed on cutover fen peat and alluvial soils, influenced by grazing, mowing, flooding and the discharge of calcareous groundwater/springs on the wetland margins.

The remaining wetlands were part of a larger area of wetlands, some of which were used as settlement ponds by the Thurles Sugar Factory. When the factory closed in 1989, and the ornithologically important settlement ponds were infilled, local people established the Cabragh Wetlands Trust and purchased some of the remaining wetland for wildlife protection. Since then Trust volunteers have developed conservation, recreation and education activities at the site and built a multi-purpose centre for the local community.

[4] See appendices II – V for the factsheets

ii) Schohaboy Bog

Natural Climate Buffer type: carbon sink – natural sponge – blue green space

Schohaboy Bog is a raised bog in North County Tipperary in the midlands of Ireland. Located at the southern limit of raised bogs in Ireland the site demonstrates good diversity of microhabitats including hummock/hollow complexes and cutover areas which add to the scientific value of the site. It serves as a climate buffer by being a carbon sink and natural sponge. The site comprises 71ha of high bog and cutover areas and is bounded by agricultural land and coniferous plantation.

Scohaboy is one of 17 Sites in a LIFE restoration project (09NAT/IE/000222) Demonstrating Best Practice in Bog Restoration in Ireland. Project actions included felling and removing trees, blocking drains, monitoring vegetation change and water levels and installing information signage on site about the project.

iii) Clara Bog

Natural Climate Buffer type: carbon sink – natural sponge – blue green space

Clara is one of the largest raised bogs in Ireland and has peat up to 10m deep. It originally covered over 1,000ha but over the last 3 centuries has all been affected by drainage and over 50% has been cut away for fuel. Of the remaining 440ha only 100ha still supports active peat-forming vegetation. Hydrologically and biologically the outstanding feature of Clara are the very rare 'soak' systems (fen, swamp, pond and bog woodland habitats) developed in areas of focussed surface water flows or where calcium-enriched water from the basal fen peat reaches the bog surface.

IV) The Abbeyleix Bog

Natural Climate Buffer type: carbon sink – natural sponge – blue green space

The Abbeyleix Bog Project is a site covering 200 ha of peatlands and other supporting habitats. The primary objective is conservation and restoration through multi-level and multi-disciplinary stakeholder collaboration. A secondary objective is the provision of a community amenity for recreation, education and research, in conjunction with a network of local, regional, national, and international organisations. The project came about in 2000 when the local community opposed the development of the site for horticultural peat production.

Workshop

On the morning of Wednesday 29 September, a workshop took place to reflect on knowledge and information gathered during the first two days of the tour. Participants were divided into break-out groups discussing how to break the cycle of merely talking and identifying barriers regarding Nature-based Solutions towards taking implementation action. For this purpose, attendees were asked to read a paper by the ENCA and EPA Networks on recommendations for overcoming barriers to mainstreaming the delivery of Nature-based Solutions in advance.[5] This section attempts to gather the views of the participants.

Method

World Café Facilitation
A world café style workshop was the format used. The World Café is a creative process for facilitating collaborative dialogue and the sharing of knowledge and ideas to create a living network of conversation and action. In this process a café ambiance is created, in which participants discuss a question or issue in small groups around the café tables. After each dialogue the participants move to a new table. One table host remains and summarises the previous conversation to the new table guests. Thus the proceeding conversations are cross-fertilised with the ideas generated in former conversations with other participants. At the end of the process the main ideas are summarised in a plenary session and follow-up possibilities are discussed.

World Café was utilised in this case as it catalyses the sharing of knowledge which is authentic, innovative, in-depth, real life, and allows exploration of action.

Minister speeches

The Irish Minister of State for Heritage & Electoral Reform Malcolm Noonan as well as the Minister of State in the Department of Agriculture Pippa Hackett were both in attendance with us throughout the workshop on Wednesday 29 September. Their speeches were inspiring and can be found in Appendix VII and VIII.

[5] https://epanet.eea.europa.eu/reports-letters/reports-and-letters/nature-based-solutions_interest-group-climate-change-and-adaptation.pdf

Reflection and SWOT Analysis

The workshop started with a reflection on the Natural Climate Buffers Study Tour, on the basis of a SWOT Analysis (Strengths, Weaknesses, Opportunities, Threats), facilitated by Dr. Shane Mc Guinness, Development Officer of the Community Wetlands Forum and Research Fellow in the School of Architecture, Planning and Environmental Policy of University College Dublin.

The intention of this session was to assess the response of attendees to the preceding two days of site visits, briefings and interactions. Overall, it was hoped to garner information on the perception of foreign visitors of Ireland's progress on peatland conservation and restoration as natural climate buffers, whilst also ascertaining the lessons and experience which will be brought back to respective organisations and projects across the Eurosite network.

Results of SWOT Analysis

Strengths

- **Local community involvement:** Visiting Eurosite delegates expressed deep respect for the level of community involvement exhibited across all four sites visited, an element which is often lacking in their own sites, either through being top-down in nature, or not having a local engaged community present.
- **Science-based:** Delegates were impressed by the volume and quality of scientific data which supports the actions at each site, through collaboration with State scientific bodies, private consultants or the voluntary efforts of a network of dedicated scientists.
- **Low nitrogen deposition:** In comparison to other sites represented by visiting delegates, the level of nitrogen deposition appeared low at the four Irish sites visited, although this is certainly not the case across the board in Ireland.
- **Long-term vision:** All four sites were lauded for their long-term vision in terms of planning, strategy and strength of network allowing this to happen.
- **Support of CWF:** Related to this long-term vision, the support of the CWF for the four sites visited was strongly acknowledged.

- **National + European investment:** The above support could not be achieved without the support of government funding and funding originating from other sources, such as EU LIFE, INTERREG, LEADER or private sources. Across all four sites, it was recognized by delegates that a robust funding mix was key to their continued support and growth.
- **Multi-stakeholder involvement:** At all four sites, it was highlighted that a key strength is the positive mix of stakeholders involved. This extends much further than landowners or community groups, but includes government bodies, local farming organisations and semi-State bodies involved in forestry or peat mining.
- **Storytelling, e.g., cosmic walk at Cabragh:** Of particular note for delegates was the offering of Cabragh Wetlands of a Cosmic Walk. This was seen as a highly novel and valuable contribution to the amenity and educational value of the wetland.

Weaknesses

- **Vulnerability of the sites:** Despite the acknowledgement of low nitrogen deposition at sites, delegates recognized the ongoing risk to all four sites from continuing peripheral drainage, intensified land-use practices surrounding these sites and their small and often isolated nature.
- **Community capacity:** Though delegates highlighted community involvement as a strength, the overreliance on this voluntary capacity was identified as a weakness, especially when relying on a small number of dedicated individuals, without whom momentum would falter.
- **Sharp edges and fenced protection:** Related to the isolation of these sites, their sharp edges in relation to the surrounding landscape and the requirement for continued fencing was highlighted as a weakness, as hydrology will not be maintained in the absent of transition zones.
- **Long-term funding is needed:** Reflecting on capacity and the ability to realise a long-term vision, the lack of long-term funding was a prominent weakness, especially given the over-reliance on voluntary effort to date.
- **Alignment of priorities and policies:** At present, though great work is being achieved at all four sites, delegates noted that policies and priorities at a national level do not always guide these actions or present a cohesive single front for action.

Opportunities

- **FarmPEAT project:** Farm Payments for Ecology and Agricultural Transitions. As an exemplar of results-based payments schemes (RBAPS), this project was seen by delegates as a great opportunity, both in an Irish context where RBAPS are well-tested and increasingly utilized, but also for potential application in delegates home nations.
- **Economic and environmental value:** Aside from the conservation value of each site, delegates noted the potential to quantify the economic values of sites for continued justification of protection. The nature-based solutions of some of these sites could be (and in some cases already have been) quantified and valued.
- **Link + sell climate and biodiversity:** The coupling of biodiversity with climate change abatement was an important opportunity recognized by delegates, a point which underpins much of the natural climate buffers concept and the tour itself.
- **Stakeholder participation and benefits (e.g., water for farmers):** Beyond the existing strengths of stakeholder involvement, additional benefits could be communicated as an opportunity for other less engaged stakeholders, such as water provision for farming communities, reduced flood intensity, or water filtration and reduced sediment load.
- **Emphasizing all ecosystem services and communicate the values:** It was emphasized by delegates that a great opportunity exists to use these sites to showcase the ecosystem services values of wetlands.
- **Raising awareness locally (on biodiversity, incubating the champions):** Linked to the above, communicating these values through local champions with existing local respect, was identified as a logical opportunity.

Threats

- **Lack of consideration in planning / coordinated policy oversight:** As described to visiting delegates, the nature of Irish policies relating to the environment were highlighted as a significant threat, in their often contradictory or competing natures, such as agricultural or forestry policy adversely affecting the potential to meet national conservation obligations.
- **Intensive agriculture / peat banks:** Linked to the above, the intensified agricultural sector, promoted by national policy to increase productivity and extent, was identified as an ongoing threat to the provision of climate buffer services from the four wetlands visited. The perception of peatlands as ‘peat banks’ persists in some sites and remains a threat to their protection.

- **Because these sites are 'safe', privately owned peatlands are increasingly not:** Finally, delegates acknowledged that these four sites represent small islands of much wider areas of wetlands which remain at risk. A significant threat was therefore highlighted by these small areas justifying the destruction of other sites in the wider countryside which remain in private ownership.

To conclude this session, moderator Shane Mc Guinness asked attendees which messages they would take home from the tour to respective countries, organisations and wetlands sites. He also asked them what could be done better in Ireland towards protection of wetlands and the climate buffer potential on offer.

Take home message:

1. **Steps made / developed on transition zones**: The hydrology of transition or interstitial zones between wetland sites should be improved, aiming for a compromise between the biodiversity needs and the necessity to retain agriculturally productive land. This links to the soft edges noted above.
2. **The value of community engagement:** The engagement of community groups on a wholly voluntary nature was greatly respected by visiting delegates, lessons around which will be taken back to respective locations. It was acknowledged, though, that not all locations will have such engaged or supportive communities.
3. **The storytelling:** At some sites, the novel use of storytelling as an engagement tool was greatly respected and will be brought back to sites across Europe where possible.
4. **We must work towards ending peat extraction and importing peat:** Across numerous statements confirming this issue, the cessation of peat extraction and import from foreign locations was firmly stated. Steps towards achieving this were suggested, such as mobilizing a policy statement from this event.

What could be better in Ireland? - Advice

1. **Nitrogen emissions:** Though deposition at sites was lower than the sites represented by visiting delegates, nitrogen emissions in general from Irish farming could be improved. As noted above, antagonistic policy priorities continue to hinder this.
2. **Safeguard steady income for conservation purposes:** Aside from voluntary effort, some conservation work is financially supported. However, this support tends to be short-term in nature and rarely covers costs. This leads to 'leakage' of capacity and the inability to make long-term plans.
3. **Strong NGO section to bridge gap between communities and decision-makers:** Ireland's NGO sector remains limited in scale and scope, especially in comparison to the environmental NGO sector of other nations (even on this island; Northern Ireland). The value for Ireland of supporting this sector was emphasised by delegates.
4. **People on the ground to learn from international colleagues:** Finally, though international connectivity is highly valued by operatives in Ireland, having people on the ground to directly learn from this experience and apply these lessons is also important. This point is linked to several points of advice, above, notably and long-term support to have such people in place.

Barriers to mainstreaming the delivery of Nature-based Solutions

Rather than have barriers become central points in our dialogues, we chose to identify and discuss these briefly first. Barriers from the EPA Network - Recommendations for overcoming barriers to mainstreaming the delivery of Nature-based Solutions (2020)[6], were discussed, highlighting that much of the thinking has already been done on this. Nine barriers were discussed and the group did not choose to add any more when asked.

1. Increased organisational focus on providing guidance and training on the role of Nature Based Solutions where gaps are identified in delivery – this may be applicable both within ENCA/EPA agencies and more widely in other organisations
2. The Agencies within the Interest Groups should consider use of the published IUCN Standard, where applicable, along with raising the awareness of the terms, their scope and benefits to improve working across the sectors
3. There is a need for more well monitored and documented case studies at larger scale to demonstrate the potential for NbS delivery with European institutions, National Governments and Agencies all having a potential role to play in their development
4. Agencies and the academic community should better evaluate, quantify and communicate the crucial capacity of NbS projects to provide multiple benefits, including the merits of either green or a combination of green/grey infrastructure.
5. Ensure that long term monitoring and evaluation is incorporated into NbS project design and implementation to provide the evidence to address this concern. Identify and ensure that case studies cover the long-term benefits or disbenefits.
6. Adopt use of ecosystem approach and valuation using natural capital or related approach to identify and quantify the full range of benefits of NbS, including carbon mitigation, adaptation and biodiversity as part of proposal development and delivery.
7. Ensuring the development of a clear narrative around risk and ambition early in the process of NbS project development
8. Promoting the development of generic documentation or online resources that would provide a clear accessible narrative on the case for NbS for a wide range of stakeholders. Encouraging that a local stakeholder assessment is undertaken as part of planning for NbS to ensure that relevant local influencers are identified at the outset of any proposals.
9. Agencies should seek to integrate NbS goals within National Adaptation Strategies, and consider including them across multiple sectors with appropriate targets and monitoring.

[6] https://epanet.eea.europa.eu/reports-letters/reports-and-letters/nature-based-solutions_interest-group-climate-change-and-adaptation.pdf

Solutions towards taking implementation action

The Facilitator established guidelines around appreciative enquiry and identified a table host at each table who recorded the dialogues. Three facilitators circulated between tables to encourage everyone to participate in the dialogues. Facilitators reminded people they could doodle and draw.

Time allowed for 3 dialogues to be catalysed: each about 20 minutes in length with 10 minutes for reporting each table dialogue to a facilitator who recorded this on a flipchart. The first and second dialogues focussed on solution orientated actions. The third dialogue attempted to go beyond mere brainstorming or discussion, and tease apart causal pathways and opportunities to streamline these or circumvent barriers. In the third dialogue participants were asked to map action pathways.

The participants numbered 43 and were divided amongst 6 tables, a summary of each dialogue at each table was shared with the group. Key points from the individual dialogues are discussed in the next section together with the summaries - Recommendations.

Plenary Reviews
Plenary reviews of each dialogue are compiled below with a focus on the main points raised.

i) Plenary Review of Dialogue 1 on the day

NbS solutions discussed included:

- A National Strategy focus on NbS is needed.
- Address deficits between local systems and professionals using training.
- A landscape regional based approach is needed.
- Solutions need to support community where every voice is heard.
- Local Plans need to be flexible/adaptable and ‘living plans’.
- Need respect and cooperation with all stakeholders, recognition and visibility is important.

- NbS awareness raising needed.
- Need a common language understood by all. Need to speak to people in their own language, there is too much terminology making the subject too abstract.
- Need competing sectors like horticulture and peat to support NbS.
- Need to research NbS solutions and plan alternatives.
- Need studies to identify benefits of wetlands – to include practical benefits and ecosystem services.
- Implementation of a National Plan is needed.
- Need multi-platform communication.
- Need education and engagement activities with schools and artists (creative).

ii) Plenary Review of Dialogue 2 on the day

NbS solutions discussed included:

- Case studies of lighthouse projects needed to guide the way for others.
- Need an interface organisation(s) to facilitate and empower all stakeholders with a front office and a back office. Connection between stakeholders is important as is translation to an understandable narrative.
- Need to engage them all and explore benefits, need to impact those not bothered about NbS and the young. The idea that something is not missed until it's gone is important.
- Need to build high level and multisectoral support potentially using interface organisation.
- Need a focal point for all stakeholders, the narrative used is key.
- Awareness guide needed to disseminate the concept of NbS.
- Peat import and export issues are currently causing a huge dilemma, clear public and stakeholder awareness is needed.
- Emphasise the cost of NbS versus diverse benefits and this will get support.
- Address fees with landlords highlighting gains and benefits.
- Need financial incentives to de-risk.

- Need policy sticks as well as carrots.
- A connection to nature is very important as is storytelling, the latter translates the importance of NbS.
- Need to feed into the fact that communities value small actions on small plots.
- Measurement scorecard is important and makes things tangible.

iii) Plenary Review of Dialogue 3

Applying solutions operationally was discussed and included the following:

- Rural Social Schemes needed, offering peer to peer support, farmer to farmer schemes.
- Scorecards are the measurement communication tool needed, good citizen science, can be understood by a 7 year old.
- Need to listen to community interests and share concerns and aspirations.
- Peat Ban (EU) needs to be explained in all countries. Research needs to visualise the impact of peat and make it tangible.
- EU initiative against peat both export and import.
- A tree diagram created by participants illustrates base, seed, roots, agencies, government etc. While branches and stems are NGOs and land owners. The crown of the tree shows the benefit of the collaboration of stakeholders. The sky provides a clear context.
- Risks are institutional mitigated by seed distribution.
- Circle diagram. Person and communication at the centre. Across sectors and stakeholders. Funding can be private, state or EU. Bureaucracy.
- 4 level map, bubbles (knowledge) and squares (money). A national agency funded by the EU gets knowledge from EU strategy, impacts local planning – devolution. At the on-site level stakeholders - volunteers, professionals, etc. - report back to national agencies at the heart of it.
- Timeline stakeholders – common ground, top down and bottom up. All organisations need to be listened to.

Review of the Individual Table Records

The following is the summary of the dialogues recorded at each table in note form. We start with dialogue 1 and 2 and work through to dialogue 3.

Dialogue 1 and 2

Some participants recording the conversations had integrated the dialogues so the format below is to integrate dialogues 1 and 2. The request for both dialogues was to discuss solutions to NbS, the contributions for each table from dialogues 1 and 2 are gathered below under 8 themes.

i) Education and awareness needs:

1. Talk with people not to them, inclusion is critical – find a common goal.
2. Try to convince the wider public of the importance of the issues that site managers see and how NbS can solve these.
3. A multi-platform communication for example: ‘How To’ brochures, podcasts, videos, practical demonstration on-site.
4. To make sure one person takes responsibility for their ideas.
5. To engage with schools, colleges, and community education facilities.
6. To collaborate with creatives and artists for inspiration.
7. To underline the value of even small parcels of wetland to species diversity, ecosystem services, and local benefits. Ecosystem services can be a challenge to estimate at small scales, and a scorecard could be developed for this. It would be worthwhile to convert ecosystem services into monetary value.
8. Citizen Science Approach could be of great value.
9. To include peer to peer support, awareness and training (farmer to farmer), shadow ecologists, Rural Social Scheme might be a good approach.
10. Disseminate this report and have our participants brief high level staff and their colleagues.

11. Develop an NbS reference guide for the wider public.
12. Awareness raising needs a physical centre as a focal point, connecting to people. This enables recruitment. Creates a platform for exchange supporting the human element not just the technical.
13. Incorporate huma aspect rather than challenges, e.g.: farmers day, open day.
14. Disseminate practical ways to enhance your environment.
15. Need training on NbS awareness.
16. Develop a better evidence base, case studies can help this.

ii) Inter-discipline and cross-sector actions need:

1. To ensure that interdisciplinarity looks beyond environmental/ecological spheres to business, agriculture, economics and social development.
2. To develop pilots to deliver cross-sectoral action, collaboration in practice, building on existing projects and networks.
3. Not selecting one sector but making all sectors sit together for solutions, translating the NbS vision to all sectors.
4. Involving all stakeholders at a high level makes the result more acceptable, achievable and gains wider public buy-in.
5. Build multi-sectoral trust and address fears by highlighting gaps and benefits.
6. Recognition and visibility of all stakeholders and their input is critical.
7. Need funding knowledge on how to build good schemes.

iii) Engagement, outreach and dissemination

1. This group of European countries should reach out to Latvia to help protect their bogs.
2. Young people have a connection to nature and understand the issues, we need to support and enhance this. Something equivalent to the cosmic walk but on NbS.
3. Highlight the wins and benefits of NbS adaptations.
4. Show the multiple benefits of NbS: economic, wellbeing etc.
5. Empower all stakeholders, exclude nobody. Facilitate an open conversation. Use Eurosite and CWF.
6. Hold regular meetings with stakeholders to discuss expectations and differences.
7. Develop case studies of lighthouse projects in NbS.
8. Need an appreciation for engagement at all levels and timeframes.
9. Working together and citizen science.
10. Need to engage communities in the solutions, need good science based data,
11. Some sectors (e.g.: farmers) afraid of the future, need to understand their culture.
12. Support farmers to speak to farmers about the benefits of NbS.
13. Need to reach the uninvolved.

iv) Peat Use

1. Explain peat practices in every country in gardening groups and in gardening magazines etc.
2. Call on the EU to phase out the use of peat for horticulture. European Citizens Initiative to stop peat selling, import and export.
3. A ban on peat use with alternatives for a just transition.
4. Sharing of information between countries on their action plans and how they are reducing peat use, together with information on the alternatives.
5. Use the UK example of banning peat in horticulture as a case study.
6. Research on the impacts of peat use on carbon emissions. Visualise the impact and make this tangible. Example translate the use of a bag of peat into the equivalent emissions in car kms.
7. Activate NGOs to work on peat use.

v) Narrative

1. Find a common language for NbS, translate into clear communication.
2. Communities do not necessarily understand NbS – clearer English needed.
3. Successes like *Youghal Island Pollinator Plan* or the UK *Slow the Flow* could be learned from here.
4. Develop an inclusive narrative.
5. Focus on personal stories, greater emphasis on stories is needed: sparkchange.ie is an Irish portal to host your NbS stories.
6. Give more value to earth literacy.
7. Work our connection to nature into the narrative of NbS. Make it personal as every person needs to understand their own connection to nature.
8. Work the value to people of NbS, focus on enhancing the connection and wellbeing of people. Too much focus on protecting nature alone.
9. Language around ecosystem services is too abstract for local people.
10. Framing the message is important e.g.: the cosmic walk story helped people to understand their role.
11. Careful and respectful communication. No dictation but cooperation.

vi) Benefits

1. Holistic approach identifying benefits.
2. Studies to identify practical benefits for each wetland in Ireland.
3. Benefits need to be broadened, emphasise the costs versus the benefits, make it simple.
4. Identify methane impacts and benefits.

5. Show ecosystem services value.
6. Need to include the benefits of a clean environment to health, wellbeing and happiness.
7. The inherent reduction in health costs following from the last point, so factor in the avoided costs of healthcare.
8. Cost benefits need to be illustrated.
9. Benefits might include archaeological, cultural, etc. – studies needed to identify these.
10. Reduced flooding benefits.
11. NbS in themselves are integrated solutions – this is a benefit.
12. Identify and include the benefits for all stakeholders in the community.

vii) National Strategy focus in NbS

1. Need long term political plans on NbS with partners in the plans taking ownership.
2. Needs a national agency to lead. They need to support and deliver on actions and initiatives.
3. National agency connected to European agency. Making the agricultural sector responsible for NbS.
4. NbS should be part of EIS actions.
5. NbS at the centre of all planning decisions and preparations for new applications.
6. Local planning practice in Ireland is lax in regard to consultation in relation to land use change, adverse environmental impacts etc. Consultation needs to be transformed into deeper engagement.
7. Currently too dependent on the strength of local professional/councils experience, capacity and interest.
8. Local planning staff need to be trained in NbS. Flooding water catchment issues are addressed through the NbS prism.
9. NbS to be CO2 neutral with regard to climate action and change.
10. Make NbS sexy, it's a climate adaptation solution.
11. Land usage is fragmented at all levels including official and local, there are competing agencies and competing visions.
12. Adaptable plans and planning increase flexibility.

13. Need a front office and a back office e.g.: a surgeon needs the technical skills to operate on you (back office) but also needs the front office skills to explain things to you.
14. Identify local champions for spreading the message. Support and train them.
15. Results based payment/compensation for farmers and others works.
16. Need political willingness to act.

viii) Land Ownership
Need to identify approaches to land ownership issues.

Dialogue 3
The third dialogue focussed on making the solutions happen and the actions required for that. Causal pathways and opportunities to streamline these or circumvent barriers was a core part of this dialogue.

One table's participants discussed the following points in relation to developing an EU wide plan and citizens initiative:

1. Develop an EU peat ban plan.
2. Outreach and explain the facts about import and export of peat in each EU country.
3. Utilise garden groups and gardening magazines in the countries to spread the word.
4. Develop a European citizens initiative.
5. Research peat's impact on carbon emissions.
6. Visualise peats' impact and make it tangible.
7. Animate NGOs in each country to start a European citizens initiative.

Another table's participants provided an organisational map where stakeholders enhance and support NbS, please see figure below:

Another table's participants provided an organisational view of the stakeholders necessary to develop more NbS:

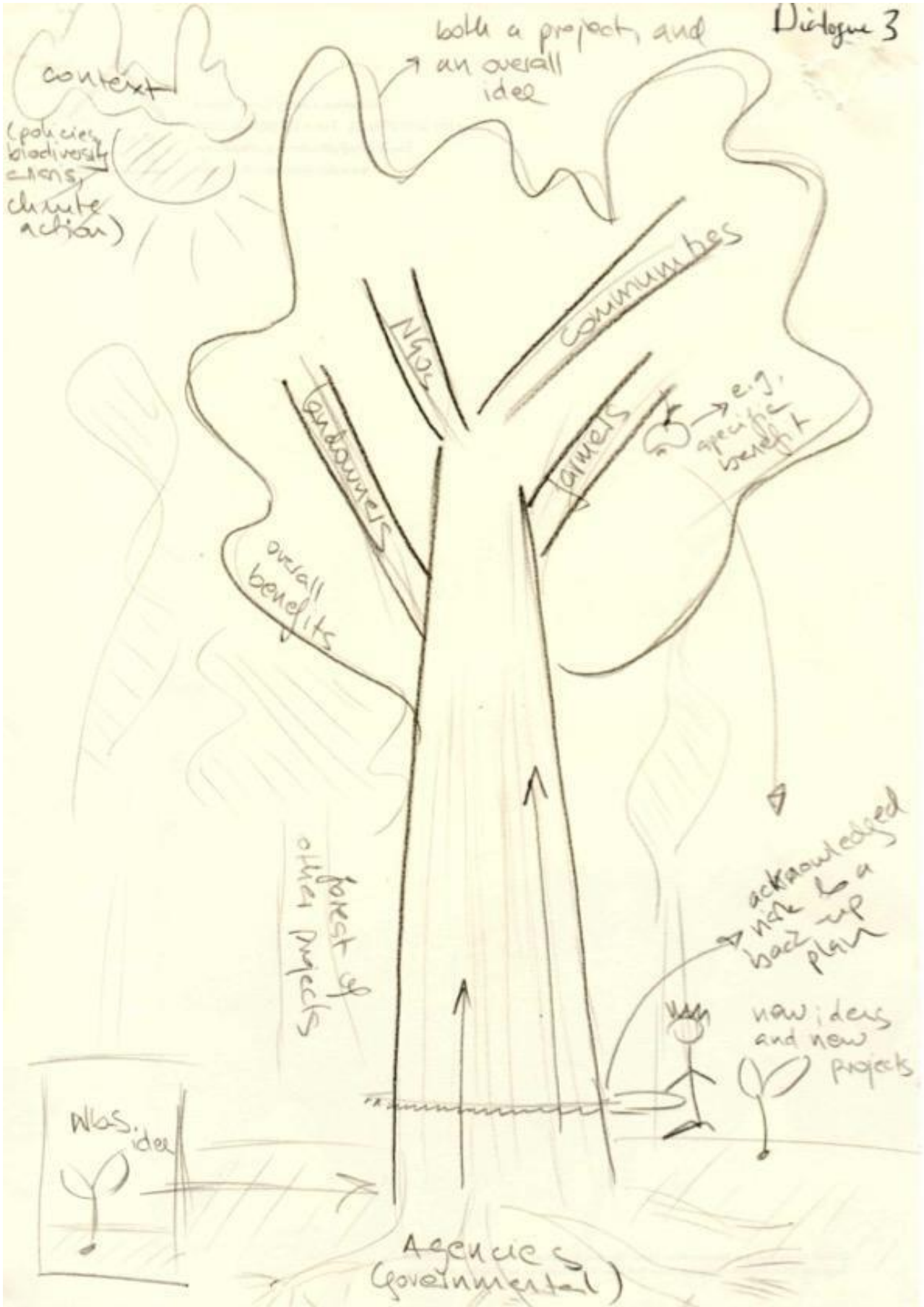


Figure: Structural illustration of stakeholders required to develop NbS

Another table's participants discussed the stakeholders and actions needed to make NbS happen and mapped this in an illustration in the figure below.

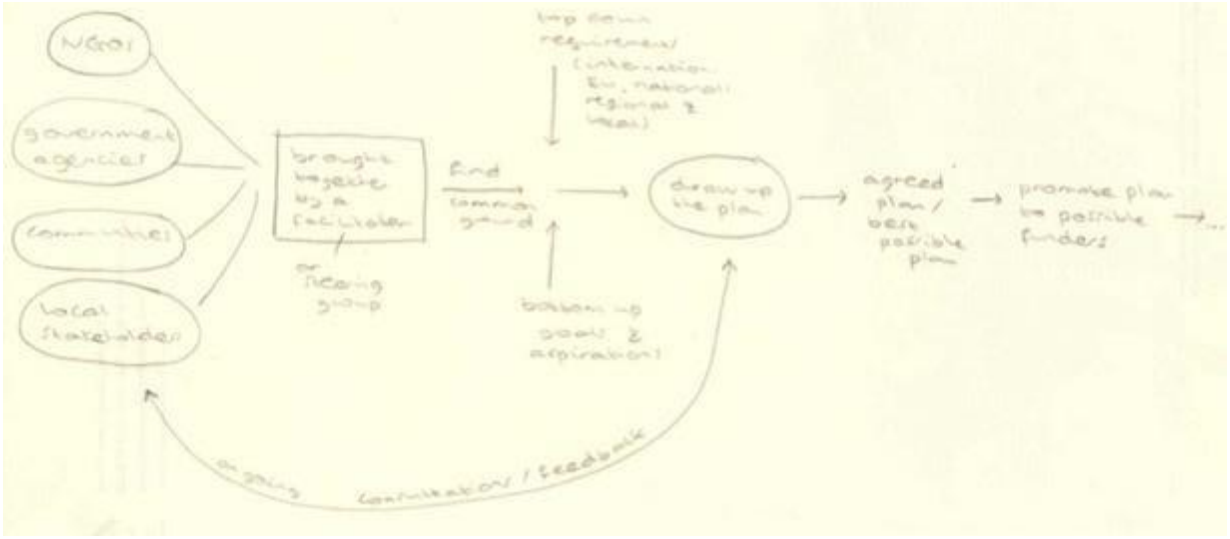
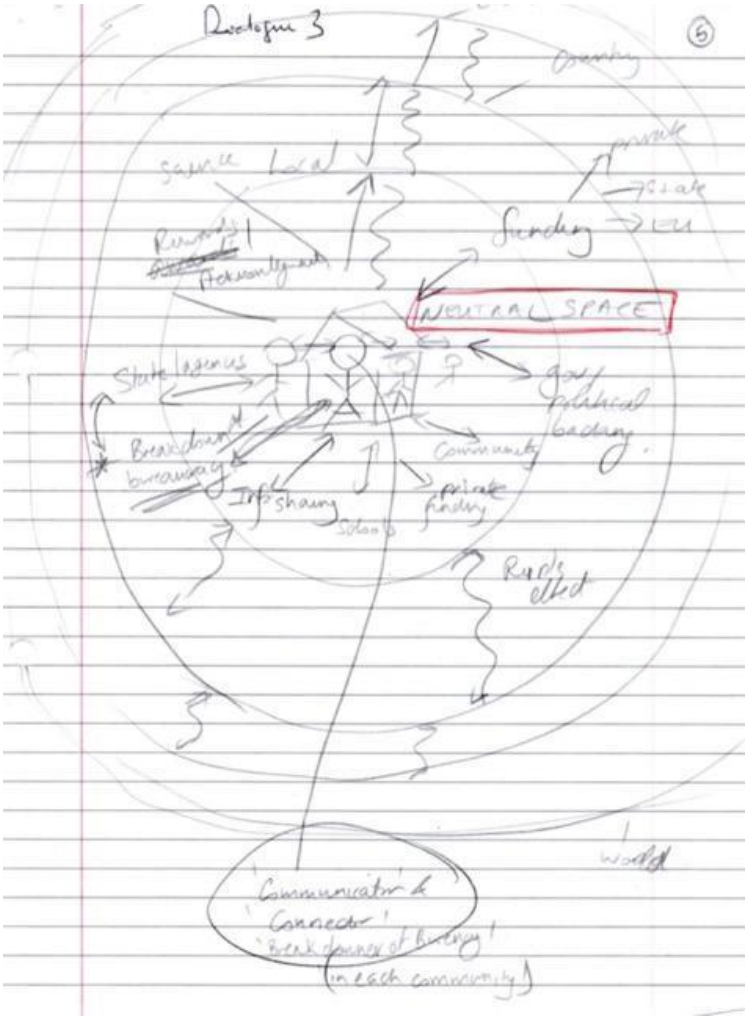


Figure: Stakeholders and actions needed to develop more NbS.

Another table provided the figure below illustrating action flows to NbS solutions. They remarked on the technical requirements of working with multidisciplinary teams, and assessment of operational impacts through monitoring. They discussed the need for an overall plan/strategy and an implementing agency to support and deliver.

Participants added the following requirements:

1. Need a long-term vision.
2. Need NbS training.
3. Need greater cross sector cooperation.
4. Need case studies and better evidence base especially on benefits. Benefits need to be treated holistically.
5. Need to mobilise stakeholders, communities and politicians.
6. Need to review land ownership issues.



Another table's participants discussed the need for:

1. peatland protection therapy to change people's minds.
2. a peatland management plan.
3. EU, national and/or local funding.
4. Identifying stakeholders including government and community.
5. Identifying the benefits of NbS.
6. Talking, listening and hearing the problems, concerns and aspirations of everybody.
7. Reaching a common ground through engagement.
8. Reaching the uninvolved in communities.

Conclusions

Protecting wetlands is not easy. Labelled as historical marginal land of little value, changing perceptions to something more respectful will not be a quick process. However, achieving this modified outlook becomes much easier when the ecosystem services they provide are recognised and valued. This is especially true of the services they offer in buffering the effects of climate change: i.e., their role as natural climate buffers. Visits such as that outlined in this report present a vital opportunity to build knowledge around the role of wetlands as natural climate buffers, share experiences in protecting and restoring them, and communicating these values to an audience that transcends the scientific or practitioner community.

The Eurosite network of experts offers substantial knowledge sharing potential in terms of tangible on-the-ground restoration, governance challenges and community engagement experience. Thus, the Eurosite Study Tour is an invaluable opportunity to use this knowledge and experience to advance the practice of restoration of wetlands. Having visited four sites in Ireland, the group has learnt lessons, observed shortcomings, and reflected on their own practice in their respective national settings. The 'world café' workshop dialogues have re-examined the catalysts and barriers to effective conservation and restoration, and avoided re-inventing the wheel in identifying barriers, which are now well understood. Importantly this study took the opportunity to examine the mechanisms to mobilise existing recommendations for overcoming barriers, and the challenges inherent in these solutions.

The outcomes of the workshop underlined the essence of the minister speeches. The strengths of the Irish approach include local community involvement, science-based restoration activities and the support of the Community Wetlands Forum, which presents a resilient model of community-led stewardship. However, limited funding and community capacity remain prominent weaknesses of this system. Conversely, opportunities such as working together with farmers and other stakeholders and raising awareness locally were identified as obvious advantages of such systems. It would be naïve to presume that this model would be easily transposed to other jurisdictions or socio-ecological settings. Nevertheless, the current study tour has exposed the Eurosite network to an alternative way of organising and effecting change.

Amongst these, the most relevant barriers to restoring the natural climate buffer potential of wetland sites are related to the knowledge and perception of community and governance partners of nature-based solutions provided by

wetlands. This meeting also co-created tangible mechanisms to overcome these barriers, like clarifying the linkages of NbS to climate adaptation, amenity value and fostering a sense of place. Further, encouraging more effective cross-sectoral action is imperative, as otherwise national priorities will continue to contradict one another, such as agricultural productivity priorities versus national obligations to reduce emissions and begin sequestering carbon. A platform to facilitate this interaction and cooperation, at both local and higher governance levels, is an important starting point, and one which the membership of Eurosite can offer invaluable experience on.

The protection and restoration of wetlands around Europe is no longer a niche endeavour, limited to a passionate few or requiring substantial scientific investigation. They are now seen as important ecosystems, valuable in their own right, but especially with the NbS they now offer to buffer the effects of climate change. However, their protection is more time-sensitive than ever. To achieve this, relying solely on top-down governance structures or the scientific expertise of a select few is no longer viable. The value of engaging with a broad range of stakeholders is now more apparent than ever, not least the diverse suite of community actors demonstrated on this study tour.

References

(1) https://www.eurosite.org/wp-content/uploads/EUROSITE-NCB-leaflet-v04-A4.pdf
(2) https://www.eurosite.org/eurosite-news/looking-back-on-the-3rd-natural-climate-buffers-study-tour/
(3) Video The Eurosite Natural Climate Buffers study tour: Peatlands must be wet! https://youtu.be/K_0wvPmKgB4
(4) Natural Climate Buffers factsheets (Wetlands and Climate Change working group) https://www.eurosite.org/eurosite-network/working-groups/
(5-6) https://epanet.eea.europa.eu/reports-letters/reports-and-letters/nature-based-solutions_interest-group-climate-change-and-adaptation.pdf

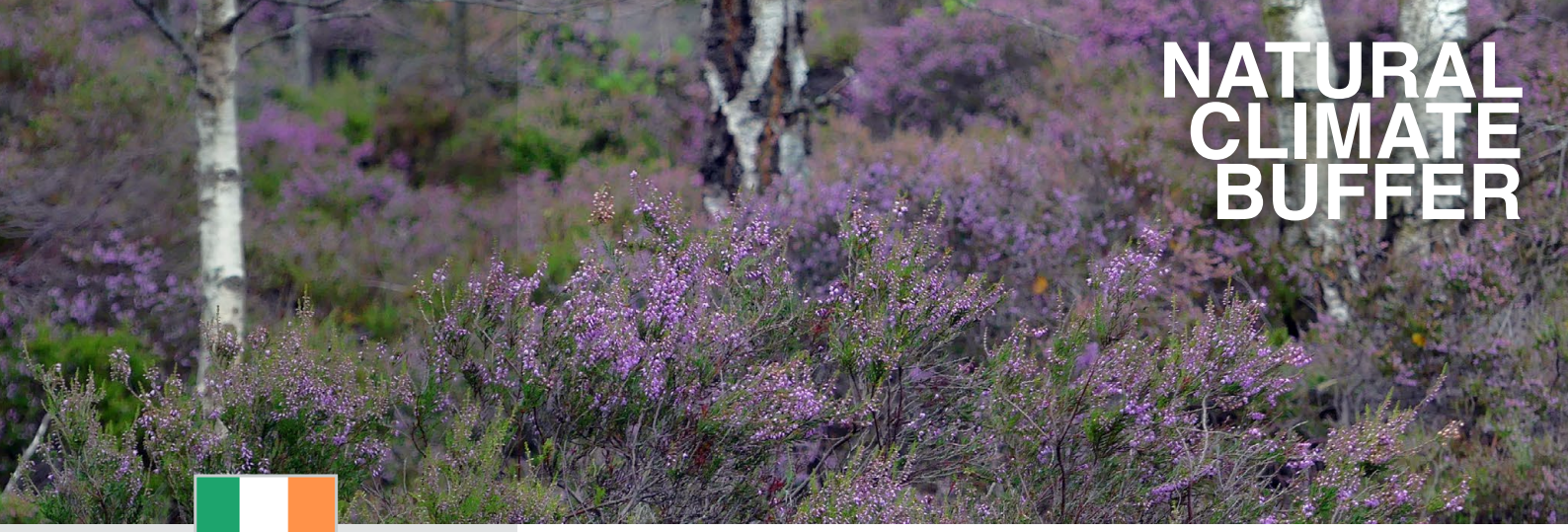
Background information

Eurosite - the European Land Conservation Network provides networking, capacity building, training, information, advocacy, and awareness raising services for conservation practitioners all over Europe. Their members and partners are organisations and individuals working on and caring for land and nature conservation in governmental and civic society organisations, within and outside the EU. They work across a broad range of topics and geographic levels, but always with a keen interest in practical aspects of day-to-day natural site management, restoration and conservation as well as the implementation of nature conservation policies, both inside and outside protected areas.

The **Community Wetlands Forum** (CWF) is a representative platform for community-led wetland conservation groups in Ireland. The CWFs work is based on the principles of community development namely empowerment; participation; inclusion; self-determination; and partnership. Since its establishment, the Community Wetlands Forum has continued to grow its membership, with 30 community groups now part of the forum and a further 15 stakeholder organisations attending its meetings.

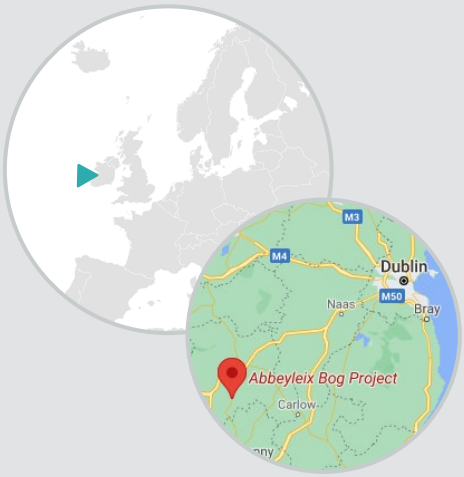
The **Eurosite Wetlands and Climate Change working group** (WCC WG) is one of various working groups functioning under the auspices of Eurosite. In 2018, the first Natural Climate Buffers Study Tour (NCBST) was organised by Dutch member Natuurmonumenten with the support of the Natural Climate Buffers Coalition (Dutch acronym CNK). It inspired the WCC WG to promote the concept of natural climate buffers across Europe. They subsequently published a leaflet Defining Natural Climate Buffers. In 2019, a second study tour took place in Scotland, organised by Nature.Scot and partners. Following this, the working group decided to develop factsheets to promote the natural climate buffers concept, describing issues and key challenges, but also outcomes & benefits and lessons learnt based on sites managed by members organisations. The first factsheets were developed in 2020 based on 2 sites in the Netherlands: De Onlanden and the Regge River. The third factsheet was published in the summer of 2021 based on Roudsea Wood and Mosses in the United Kingdom. As part of the Natural Climate Buffers Study Tour in Ireland a further four Irish factsheets were developed: Abbeyleix Bog Project, Cabragh Wetlands, Clara Bog and Scohaboy Bog.

The CWF joined the WCC WG in 2020 and hosted the 2021 study tour in Ireland, with an emphasis on multi-stakeholder collaboration, the role of community engagement, as well as lessons regarding restoration of peatland and support habitats.



NATURAL CLIMATE BUFFER

Ireland



Abbeyleix Bog Project

Introduction

The Abbeyleix Bog Project is a site covering 200 ha of peatlands and other supporting habitats. The primary objective is conservation and restoration through multi-level and multi-disciplinary stakeholder collaboration. A secondary objective is the provision of a community amenity for recreation, education and research, in conjunction with a network of local, regional, national, and international organisations. The project came about in 2000 when the local community opposed the development of the site for horticultural peat production.

Issues & key challenges

- No national or international designation or legal protection
- Multiple land-use impacts over centuries affecting the whole site
- Ongoing impact and threat from neighbouring extraction industry
- Complex hydrological dynamics with associated micro habitats

Legal Status

No legal designation, but a candidate for national designation

Habitats and Protected Species

Active and degraded raised bog, transition mires, alkaline fen, petrifying springs, wet woodlands, mixed woodlands and orchid-rich grassland.

Common frog, Pine Marten, Marsh Fritillary, Brook Lamprey, Red Squirrel

Management

Voluntary and community-led conservation project in collaboration with multidisciplinary stakeholders

Information and Videos

www.abbeyleixbog.ie

Facebook, Twitter & Instagram: @abbeyleixbog

Outcomes & benefits

- Local community prevented the site from being harvested for horticultural peat and the local town now benefits economically, socially and environmentally
- 50-year lease agreement with landowner since (2009)
- 64 km of drains on 100 ha raised bog blocked with peat dams (2009)
- Active raised bog increased by 1250 percent in 11 years and led to a reduction direct CO_2 emissions by more than 50% (2020)

Lessons learnt & future

Community-led multi-stakeholder collaboration essential for long term success of natural habitat conservation and management

Natural Climate Buffer management should be integrated with all the other sustainable development goals

Plans are well advanced for the phased restoration & rehabilitation of the rest of the site

Abbeyleix Bog Project

More info

NATURA 2000 Eurosite Life Community Wetlands Forum

Eurosite Factsheet
Wetlands and Climate Change

www.eurosite.org | info@eurosite.org

NATURAL CLIMATE BUFFER

Ireland

Cabragh Wetlands

Introduction

Cabragh wetlands form part of the active floodplain of the upper River Suir, are the biggest single area of freshwater semi-natural floodplain habitats on the River Suir, and are important for wintering and breeding birds. Current habitats are developed on cutover fen peat and alluvial soils, influenced by grazing, mowing, flooding and the discharge of calcareous groundwater/springs on the wetland margins. The remaining wetlands were part of a larger area of wetlands, some of which were used as settlement ponds by the Thurles Sugar Factory. When the factory closed in 1989, and the ornithologically important settlement ponds were infilled, local people established the Cabragh Wetlands Trust and purchased some of the remaining wetland for wildlife protection. Since then Trust volunteers have developed conservation, recreation and education activities at the site and built a multi-purpose centre for the local community.

Issues & key challenges

Sustaining community engagement and developing the site as the Tipperary Centre for Environmental Learning.

Balancing and sustaining conservation goals, visitor access and business needs, particularly in view of total reliance on volunteer resources for operational costs.

Risks and challenges of managing habitats via informal grazing arrangements and undertaking small-scale management works such as mowing, clearance of ponds, cutting of vegetation, etc., in the absence of a long term management plan and the resources to implement it.

Reducing quality of habitat for breeding waders possibly due to factors such as changes in water levels and land use (grazing, scrub encroachment and intensification in surrounding areas), predation and human disturbance.

Lack of baseline and monitoring data on hydrology, quantification of the ecosystem services provided and of survey data on faunal populations.

Vulnerability of wetland habitats to wider intensification of land use pressures in the catchment.

Legal Status

Part of Natura 2000 Special Area of Conservation - Lower River Suir SAC (Site Code: 002137)

Part of proposed Natural Heritage Area (pNHA) (Site Code: 1934) - a non-statutory site of national importance

Habitats and Protected Species

A mosaic of habitats including extensive reedbed, tall herb swamp, wet grassland, calcareous fen, transition mire, alluvial woodland, watercourse, lake, ponds and springs.

The wintering waterbird assemblage regularly exceeds 1000 birds and is regionally important. Wintering species include Wigeon, Mallard and Teal and red listed species Pintail, Shoveler, Wigeon, Lapwing, Golden Plover, Curlew. Breeding birds include Barn Owl, Meadow Pipit, Yellowhammer and declining numbers of Sedge Warbler

Other important animal populations include: White-clawed crayfish, Otter, Pine Marten, Salmon. Also nationally rare and scarce invertebrates, such as caddis flies *Limnephilus pati* and *L. tauricus*.

Notable plants include regionally rare species: Brookweed / Grass-of-Parnassus / Blunt-flowered rush / Summer Snowflake / Buckthorn

Management

Cabragh Wetlands Trust in collaboration with the National Parks and Wildlife Service

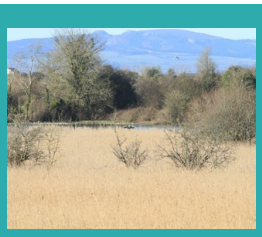
Adjacent wetlands are in the private ownership of neighbouring farmers

Information and Videos

http://www.cabraghwetlands.ie/blog/

https://youtu.be/5QhAObXt5OI

https://birdwatchireland.ie/app/uploads/2019/03/Site-Guide-Cabragh-Wetlands.pdf



Outcomes & benefits

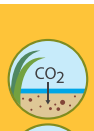
- Reduction in water/flood damage risk in downstream areas
- Water retention; fewer problems from drought (nature and agriculture)
- Reduction of greenhouse gas emissions
- Improvement of fresh water quality
- Habitat for plants and animals, especially wintering waterbirds; retaining and restoring biodiversity
- Adaptive habitat management agreements (horse grazing) with neighbouring members of the travelling community
- Improving the quality of the landscape
- The Wetland Centre serves as focal point for community groups, academia, businesses and public bodies to hold meetings, training and events
- Bolstering tourism and environmental values, expanding recreational opportunities

Lessons learnt & future

Significant role of local community in protecting, restoring and appreciating wetlands and engaging them in the long term protection and wise use of local natural resources

Opportunities for enhancing environmental awareness and knowledge through citizen science projects and educational programmes, including lifelong learning

Use of technical advisory group to progress projects and lead sub-committees on Habitat Management, Education and Training, Social Media and Events, informed by management recommendations in the independent report *Cabragh Wetlands Habitat Study (2020)*



CARBON SINK

NATURAL SPONGE

BLUE-GREEN SPACE

More info

An Roinn Tithíochta, Rialtais Áitiúil agus Oidhreachta
Department of Housing, Local Government and Heritage

An tSeirbhís Páirceanna Náisiúnta agus Fiadhúlra
National Parks and Wildlife Service

Community Wetlands Forum

NATURA 2000

Eurosite

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Nasc Tuaithe na hÉireann

Eurosite Factsheet
Wetlands and Climate Change

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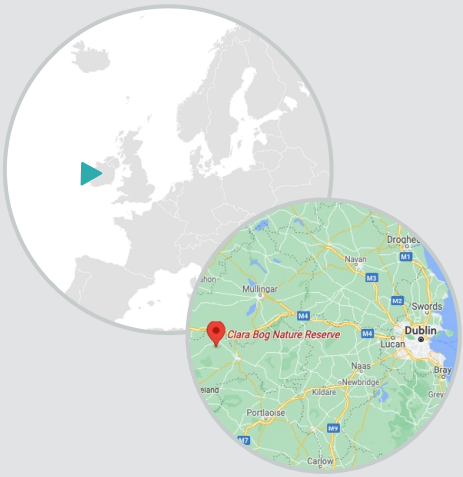
NATURAL CLIMATE BUFFER

Ireland



Legal Status

Ramsar Wetland, National Nature Reserve (NNR), Special Area of Conservation (SAC), Ownership: State and multiple private owners.

Habitats and Protected Species

Active raised bog, Degraded raised bog, Depressions on peat substrates of the Rhynchosporion, Bog woodland, Semi-natural grassland and scrub on calcareous substrates

Marsh Fritillary, Peregrine, Curlew, Common Frog, and rare mosses and invertebrates

Management

National Parks and Wildlife Service of the Department of Housing, Local Government and Heritage in cooperation with local land and rights owners.

Information and Videos

Clara Bog: Peat land history and conservation

https://www.npws.ie/protected-sites

http://raisedbogs.ie/eu-life/

Clara Bog

Introduction

Clara is one of the largest raised bogs in Ireland and has peat up to 10m deep. It originally covered over 1,000ha but over the last 3 centuries has all been affected by drainage and over 50% has been cut away for fuel. Of the remaining 440ha only 100ha still supports active peat-forming vegetation.

Hydrologically and biologically the outstanding feature of Clara are the very rare 'soak' systems (fen, swamp, pond and bog woodland habitats) developed in areas of focussed surface water flows or where calcium-enriched water from the basal fen peat reaches the bog surface.

Issues & key challenges

Peat subsidence of up to 6 metres, due to long term drainage and turf cutting, has increased surface slopes and rainfall runoff rates so much that water levels are now too low to support active peat growth over much of the uncut bog. In addition, drainage in the 1990s intercepted a sand and gravel layer under the bog, causing extensive subsidence of the basal peats and caused the loss of 10ha of active raised bog since 2009.

Turf cutting at Clara ceased in 2012 due to both compensation and relocation of turf cutting to an adjacent dried-out bog. However, to reach the site conservation objective of 180ha of active bog it will be necessary to stop/limit further subsidence by blocking the subsurface drainage and carrying out restoration of the surrounding cutover bog.

Outcomes & benefits

- Most of the uncut bog was purchased by the state as a nature reserve in 1986 and EU-funded restoration work was undertaken in 1995-6 and 2018-21. While these have been successful in restoring active raised bog growth in some areas they have not been able to reverse the ongoing drying out process of significant parts of bog due to past activities. Stabilisation of the bog will require further extensive works on the surrounding privately owned cutover.
- Multidisciplinary studies into the ecohydrology of Clara, beginning in 1989, led to the development of an integrated set of ecological and hydrological assessment tools which have provided the basis for Ireland's current conservation, restoration and monitoring methods for raised bogs. Such methodologies are being constantly improved by further research work at Clara and elsewhere.

Lessons learnt & future

Discussions on conditions for the cessation of turf cutting at Clara helped develop a national compensation scheme for turbary right owners. Detailed consultation with the local community and landowners is essential in the development of restoration plans which should include a socio-economic plan to maximise the benefit of site conservation for the local community.

To ensure long term success in the achievement of conservation and ecosystem service objectives, site restoration plans need to be based on the management of complete hydrological units.

More info

THE LIVING BOG
An Roinn Tithíochta, Rialtais Áitiúil agus Oidhreachta
Department of Housing, Local Government and Heritage
An tSeirbhís Páirceanna Náisiúnta agus Fiadhúlra
National Parks and Wildlife Service
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Eurosite Factsheet
Wetlands and Climate Change

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NATURAL CLIMATE BUFFER

Ireland

Scohaboy Bog

Introduction

Schohaboy Bog is a raised bog near Cloughjordan in North County Tipperary in the midlands of Ireland. Located at the southern limit of raised bogs in Ireland the site demonstrates good diversity of microhabitats including hummock/hollow complexes and cutover areas which add to the scientific value of the site. It serves as a climate buffer by being a carbon sink, natural sponge and a blue-green space. The site comprises 71ha of high bog and cutover areas and is bounded by agricultural land and coniferous plantation. Scohaboy is one of 17 Sites in a LIFE restoration project (09NAT/IE/000222) Demonstrating Best Practice in Bog Restoration in Ireland. Project actions included felling and removing trees, blocking drains, monitoring vegetation change and water levels and installing information signage on site about the project. In 2019, Scohaboy had another major restoration intervention at the southern end of the bog funded by the National Parks and Wildlife Service under the National Raised Bog Special Areas of Conservation (SACs) National Management Plan 2017 - 2022.

Issues & key challenges

The site was subject to peat cutting along the northern and eastern margins and afforestation on the high bog to the north of the site. These activities along with drainage and burning caused significant impact to the hydrological regime of the site resulting in habitat loss and degradation. Community-led consultation with landowners and the wider community has had very positive outcomes in changing perceptions on the value of and management practices on the site. Scohaboy is now a popular outdoor amenity and walking trail for North Tipperary and the wider region and the site requires provision of ancillary services such as car parking to meet increased visitor usage.

Legal Status

Special Area of Conservation (SAC)

Natural Heritage Area (NHA)

Habitats and Protected Species

Ling Heather *(Calluna Vulgaris)*, Cottongrass *(Eriophorum spp)*, Bog Asphodel *(Narthecium ossifragum)*, White Beak-sedge *(Rhyncospora alba)*, Bog Rosemary *(Andromeda polifolia)*, Cranberry *(Vaccinium oxycocccos)* and bog mosses *(Sphagnum spp)* including the rare bog moss *Sphagnum imbricatum*. Bog Bean *(Menyanthes trifoliata)* and Great Sundew *(Drosera anglica)*.

A unique feature is the presence of Annex 1 Species White-clawed Crayfish *(Austropotamobius pallipes)*.

Mammals such as Fox, Pine Marten, Red squirrel and Stoat are known from the surrounding forest area along with a range of birdlife including Buzzards and the elusive Cuckoo.

Information sources

www.raisedbogrestoration.ie

https://www.npws.ie/protected-sites/sac/002206

https://eunis.eea.europa.eu/sites/IE0002206

https://www.facebook.com/scohaboybogcloughjordan/

https://www.coillte.ie/site/sopwell-and-scohaboy-bog/

Outcomes & benefits

- Following the LIFE Project, where conifer trees were removed and drains blocked, the high bog appears to be re-wetting with wet pools and hollows developing and high water levels maintained throughout the year.
- There is much regeneration of pine and birch and thus raised bog vegetation will not establish in the former plantation area, but the hydrology regime is now much improved to the benefit of the high bog and areas of degraded raised bog now have pools of standing water with regenerating *Sphagnum* moss.

Lessons learnt & future

The success of this project, as not only a demonstration site for raised bog restoration but also a significant community resource through development of a recreational and information trail, was based on active collaboration between statutory agencies and the local community.

More info

An Roinn Tithíochta, Rialtais Áitiúil agus Oidhreachta
Department of Housing, Local Government and Heritage

An tSeirbhís Páirceanna Náisiúnta agus Fiadhúlra
National Parks and Wildlife Service

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Wetlands and Climate Change

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Schedule of the Proceedings

Natural Climate Buffers Study Tour workshop
Abbeyleix, Ireland, 29 September 2021

09:00	Registration & Refreshments
09:30	NCBST Welcome – Eurosite and CWF
09:35	Ministers' statements
09:45	Reflection on study tour - message to COP26
10:15	Tea/coffee
10:30	World Café Workshop - Breaking the Cycle: From Recommendations to Action: facilitated group session
12:00	Report back to group, wrap-up and next steps
12:30	Light lunch and networking
13:30	Departure of participants

Appendix VII Speech notes of Minister of State Malcolm Noonan

Speech by Minister of State Malcolm Noonan at the closing of the Eurosite Study Tour (Natural Climate Buffers Study Tour), Abbeyleix Manor Hotel, Abbeyleix, Co. Laois, 29 September 2021

Opening

A chairde, friends,

- I am delighted to have been asked here today to speak in person at the 3rd Eurosites Natural Climate Buffers Study Tour. It is a privilege for Ireland to host the tour this year and I would especially like to extend a warm welcome to all of you who have travelled from all across Ireland and other parts of Europe.
- I hope you had an enjoyable tour over the last couple of days visiting some of the best examples of Ireland's wetlands and got a practical insight into some of the nature based solutions we are implementing.
- It is vital that we can share experiences and learn from each other so thank you for making the journey and joining us.

Importance of volunteering and community

- We have been brought here together by the Community Wetlands Forum and Eurosite with the EPA and National Parks and Wildlife Service of my Department to celebrate the fantastic strides that community-led projects and volunteer groups have made in helping promote and implement peatland conservation and restoration in Ireland.
- I, myself, have been a volunteer and have always found it a very rewarding experience. An essential part of volunteering is that it connects you to others in your community and I congratulate all involved on their admirable work.
- This work is of great importance. It is clear from research on emissions from degraded peatlands and air quality that there is need for urgent action for the benefit to our environment and health.

Wetlands Restoration and Rehabilitation

- Irelands Programme for Government commits to achieving net zero emissions by 2050. This will involve polices and measures for decarbonisation in each sector of our economy and society.
- In this, the UN Decade of ecosystems restoration, is it more important than ever that countries recognise that wetlands can offer effective nature based solutions for the environmental challenges that we are facing.
- Great work has been done over the years by a number of different actors - the National Parks and Wildlife Service (NPWS) of my Department, by state agencies, environmental organisations and through community and volunteer efforts to restore degraded peatlands in Ireland. I am delighted that we can share our experiences and lessons learned in a forum such as this.
- I truly do believe that local communities and volunteers are the custodians of our heritage and must be supported in their efforts.
- Since the publication of the National Peatlands Strategy in 2015 and the National Raised Bog Special Areas of Conservation Management Plan in 2017 and with EU and national funding supports, more significant and concerted progress has been made in peatlands restoration in recent years.
- The importance of peatlands in combating climate change is widely recognised and will feature in the upcoming UN Climate Change Summit (COP 26) in Glasgow which I hope to attend. There are a number of great examples of the work done to date in Ireland:

Abbeyleix Bog

- Due to a determined local community involvement the exploitation of **Abbeyleix Bog** was halted and restoration works implemented. Due to this foresight the bog is slowly becoming a functioning peatland again.
- The success of this works made it an ideal candidate to be one of the first bogs in Ireland where carbon emission factors associated with specific vegetation types, both high bog and cutover were assessed.
- These factors are now used at national level in raised bogs Greenhouse Gas emissions assessments. My Department are keen to work closely with the local community on further conservation measures for this bog.

Clara Bog

- Like Abbeyleix Bog, Clara Bog now a Special Area of Conservation, was once proposed for commercial peat extraction but due to efforts by NGOs with assistance from the Dutch-Irish Bog Conservation campaign the plans were halted. This started a long history of restoration and scientific investigation and is now consider an exemplar example of a raised bog in Ireland. The collaboration between Dutch and Irish scientists makes it one of the best studied bogs in Ireland and possibly Europe.

Cabragh wetlands

- With the input of a group of committed volunteers the Cabragh wetlands are now a unique amenity and natural resource that is used to promote the value of wetlands both locally and nationally, The Creation Story/Cosmic Walk at Cabragh Wetlands is a unique and intriguing way for us all to understand how protecting the natural environment is if critical importance in the current climate and biodiversity crises.

Scohaboy Bog

- There has been two significant conservation interventions at **Scohaboy Bog** the first in 2013 as part of a national EU/LIFE funded project managed by Coillte Forest and NPWS.
- The second at the end of 2020, was funded by the NPWS of my Department as part of our commitments to the National Raised Bog Special Areas of Conservation (SACs) Management Plan 2017-2022
- Scohaboy Bog was designated as one of the two national demonstration sites for the project and I hope you enjoyed your visit to look at the work on Monday.

Polices and future funding

- Through the review and implementation of the National Peatlands Strategy, current and future policies for biodiversity and climate action, continued support, training, resources and collaboration with stakeholders; I am hopeful that we can leave our natural environment in a better place and not for just future generations but for the current generation.
- Although the full benefits of rewetted wetlands as climate buffers may not be seen until into the future it has an immediate effect in slowing current carbon emissions. It is clear that we need to act now and to act quickly.
- I was delighted to see my colleague Minister Hackett launch a new locally led scheme for rewetting of farmed peatlands and her plans to review land use nationally which, will ultimately inform future decisions on land use.
- From a local level via our county development plans and upwards to a European Union level, a whole-of-government approach is required to advocate for a comprehensive programme for wetlands conservation which is done in consultation with all relevant stakeholders.
- From the experience of my Department we know it is crucial that the government helps and supports community projects to achieve positive climate change results.
- The work at Clara, Scohaboy, Cabragh and Abbeyleix superbly demonstrates the power of communities to effect positive change.
- I would like to again thank everyone for all their work to date and looking forward to the workshop and achieving our future aims together.

ENDS

Appendix VIII Speech notes of Minister of State Pippa Hackett

Speech by Minister of State Pippa Hackett at the closing of the Eurosite Study Tour (Natural Climate Buffers Study Tour), Abbeyleix Manor Hotel, Abbeyleix, Co. Laois, 29 September 2021

"I am delighted to be invited to join you at this event to say a few words. I hope everyone has enjoyed the site visits over the last couple of days in this area which hosts wonderful examples of our wetlands.

Many or all of you here today and who have been taking part in this tour over the last few days understand the importance of these varied wetland sites and their very role as Natural Climate Buffers as well as their rich biodiversity and other ecosystem services such as providing clean water. But we also know that this is not the case for many and that the importance of wetlands and indeed an understanding of what wetlands are, is something that needs more public awareness.

The work of groups like the Community Wetlands Forum in Ireland plays a huge role in promoting awareness and improving understanding of their importance for biodiversity and conservation. The ongoing work of the IRWC in protecting Ireland designated RAMSAR sites is obviously very important and my department plays an active role in this.

It is the role of the farming community in protecting the network of those lower profile or unknown wetland sites across our landscape that I would like to highlight today. Although there is continued work needed on awareness, policy and protection for these sites there is also excellent work being carried out by our farming community on the ground.

Techniques of drain blocking and wetland restoration that have been demonstrated over the last couple of days are also being employed in the wider countryside by farmers on their own land. Project such as the Wild Atlantic Nature LIFE IP (WAN), which is supported by DAFM, the Pearl Mussel Project and Hen Harrier Project (DAFM Locally Led EIP projects) all employ specifically adapted locally led results based agri-environmental schemes to benefit habitats and species. This locally led and landscape scale approach means that farmers truly are at the heart of wetland habitat restoration and protection in these areas as they learn how best to sustainably manage their land through the support of the scheme.

The WAN is focused on blanket bog in the western SAC network while the Pearl Mussel Project wetland habitats along Pearl Mussel River catchments. The Hen Harrier supports a variety of wetlands in the network of 6 Hen Harrier SPAs again including peatland. The projects provide budgets for supporting actions along with expert advice to incentivise wetland restoration and therefore increasing results-based scores and future payments.

It is through work like this on the ground by farmers across the country that we can begin to see real progress and I hope to continue and grow the work and learnings of these schemes into the next CAP and future AECMs.

In addition, by adopting the EU Green Deal, the Farm to Fork and Biodiversity strategies are set to afford us all the opportunity to promote biodiversity and agricultural practices in a more blended way on our journey towards a more sustainable future.

My department will continue to work with the RAMSAR committee, look to the advice of experts and engage with farmers to ensure wetlands are given the attention and support they deserve.

I hope you all have an enjoyable "reflection" on your study visits over the last couple of days and you have a fruitful workshop and I wish everyone safe travelling after your study tour ends today"

ENDS

Appendix IX Participants list

First name	Last name	Organisation
Boukelien	Bos	Staatsbosbeheer
Paul	Brandehof	Retired
Jelke	Brandehof	Eurosite – the European Land Conservation Network
Vincent	Carragher	Trinity College Dublin
Tina	Claffey	Photographer
Derry	Connolly	Abbeyleix Bog Project
Jacob	de Bruin	Natuurmonumenten
Maurice	Eakin	National Parks & Wildlife Service
Catherine	Farrell	Trinity College Dublin
Fernando	Fernandez	National Parks & Wildlife Service
Des	Finnamore	Abbeyleix Bog Project
Vera	Geelen	Staatsbosbeheer
Pippa	Hackett	Department of Agriculture
Trevor	Halpin	Abbeyleix Bog Project
Una	Halpin	Abbeyleix Bog Project
Hannah	Hamilton	Department of Heritage
Viera	Horáková	The Krkonoše Mountains National Park
Anna	Josefovičová	The Krkonoše Mountains National Park
Letícia	Jurema	NABU
Aoife	Kirk	Community Wetlands Forum
Ruben	Kluit	Staatsbosbeheer
John	Lawlor	Abbeyleix Bog Project
Michael	Long	Cabragh Wetlands
Garry	Luttrell	Abbeyleix Bog Project
Shane	Mc Guinness	Community Wetlands Forum / University College Dublin
Yvonne	Murphy	Abbeyleix Bog Project
Suzanne	Nally	National Parks & Wildlife Service
Malcolm	Noonan	Department of Heritage
Patrick	Nuvelstijn	Natuurmonumenten
Gearoid	O Foighil	Scohaboy Bog
Mara	Pakalne	University of Latvia
Rosie	Palmer	Department of Agriculture
Carlijn	Poirters	Eurosite – the European Land Conservation Network
Carola	Pynaker- Heijnen	Staatsbosbeheer
Jim	Ryan	Community Wetlands Forum
Lorcan	Scott	Heritage Council
Hugh	Shepherd	Abbeyleix Bog Project
Luka	Skunca	Association BIOM
Marina	Škunca	Geonatura Ltd
Evelyn	Slevin	Living Bog LIFE Project
Eddie	Smith	Umeras Community Development
Rebecca	Synnott	Waterford Institute of Technology
Chris	Uys	Abbeyleix Bog Project CLG
Roos	Veeneklaas	Natuurmonumenten
Paul	Vertegaal	Natuurmonumenten
Hans	von Sonntag	Hans von Sonntag