



The All-Party Parliamentary Group for Nature and RSPB

Climate Crisis: Nature's Solutions

Minutes of the Meeting

9 December 2020 – 10:00-11:30 – Online via Zoom

Agenda

- Welcome and Introductions
- A Global Standard for Nature-based Solutions; Chris Buss, IUCN Director -Forest Conservation Programme
- The Potential for Delivery of Nature-based Solutions; Bethany Chamberlain, British Ecological Society
- Mapping the Potential Contribution of Nature-based Solutions to Climate Change Mitigation in the UK; Tom Finch, RSPB
- Questions and wider discussion on what action is needed, implementation of Nature-based Solutions and how they relate to COP15, COP26, and the Prime Minister's 10-point plan.

Attendees

Parliamentarians: Barry Gardiner MP, Kerry McCarthy MP, Tony Lloyd MP, Lord Blencathra

Secretariat: Amber Connett (CIEEM)

Guest speakers: Tom Finch (RSPB), Bethany Chamberlain (British Ecological Society), Chris Buss (IUCN)

External organisations:

- Oliver Newham (Woodland Trust)
- Ed Rowlandson (Countryside Alliance)
- Mark Prina (Halcyon Ecology)
- Murray Davidson (Hastings Borough Council)
- Steve Oram (PTES)

Minutes

Welcome

Barry welcomed all to the meeting and noted the importance of finding solutions which address as many of the issues we face as a society as possible.

A Global Standard for Nature-based Solutions; Chris Buss, IUCN Director - Forest Conservation Programme

Chris presented his talk which outlines the context of Nature-based Solutions (NbS) and introduces the IUCN's Global Standard for NbS.

Key messages from the talk are outlined below:

- The UK Government's commitment to make nature one of the priorities for the UN Climate Conference (COP26) is welcomed.
- The IUCN definition of NbS, "actions to protect, sustainably manage and restore natural or modified ecosystems, that address societal challenges (e.g. climate change, food and water security or natural disasters) effectively and adaptively, simultaneously providing human well-being and biodiversity benefits", was agreed in 2016 with buy-in from member states.
- Nature plays a critical role in all other sectors. NbS are also complementary to traditional nature conservation but also seek to utilise and value nature to address societal challenges.
- NbS possess significant potential to address our societal challenges, for example, they could deliver 37% of climate change mitigation but they currently receive minimal funding in comparison. They are often seen as a no-regret option but are also not a silver bullet. They are complementary to grey infrastructure and a hybrid approach is needed.
- There is a difference between nature-based, nature-derived, and nature-inspired solutions. The EU definition for NbS incorporates these different forms but the IUCN definition focuses specifically on nature-based solutions which relies on functioning natural or modified ecosystems.
- The Global Standard seeks to deliver a framework for ensuring high quality delivery of NbS and allows practitioners to understand and scale up projects. The development of the standard was driven by IUCN members through consultation with over 100 countries.
- The Global Standard is framed around eight criteria: societal challenges, scale and integration, governance, economic feasibility, gains to biodiversity, understanding trade-offs, adaptive management and sustainability.
- The IUCN is working to build capacity and roll out a strong Global Standard, while ensuring scientific robustness in NbS and full understanding of their impacts, for example on the Sustainable Development Goals.
- Discussions with Defra are ongoing about how the standard can be applied in UK, for example as completed in the Medmerry water catchment in Sussex. The IUCN is also working with the COP26 finance team to identify the necessary balance between public and private funding.
- NbS must be delivered in the right place. Links with other areas, such as the Global Biodiversity Summit COP15 should be recognised.

Resources for further reading are included in the slides circulated to attendees.

The Potential for Delivery of Nature-based Solutions; Bethany Chamberlain, British Ecological Society

Bethany delivered her talk which presents the high-level findings of a forthcoming report on NbS by the British Ecological Society which will be launched in early 2021.

The key messages from this talk are set out below:

- The report focuses on NbS that provide multiple benefits including to climate, biodiversity and people. The report also focuses on major habitat types in the UK but draws on international evidence where relevant.

- It should be recognised that NbS are not a pancea – there is also a need to reduce emissions, and it is important to explicitly set out how NbS will work in Nationally Determined Contributions. There must be target for emission reductions and negative emissions through the use of NbS.
- 17 jobs are provided for every million dollars spent on restoring coastal habitat.
- Widespread uptake of NbS is needed, for example, by utilising Environmental Stewardship Schemes.
- A robust regulatory baseline is needed, along with environmental assessments to ensure the right habitat is in the right place.
- Coastal and marine habitats we shown to have high biodiversity value but lower and slower sequestration rates than many terrestrial habitats. Salt marsh presents great potential for carbon sequestration, having the highest rates of all coastal and marine habitats, and present a great return on investments as they also reduce wave energy. It is recommended these are a priority for NbS.
- Acid grasslands in uplands contain four times as much as soil carbon than other grassland types. It is recommended that hotspots for grasslands are protected, for example, remaining areas of semi natural grassland. Grazing pressure should also be reduced as this reduces capacity for storage.
- More research into balancing requirements is needed, and the history of grasslands is important as it could be historical peatland/heathland.
- Peatlands are the most carbon dense ecosystem on Earth and cover 10% of the UK land area. They have the potential to be one of our biggest climate assets but are currently our biggest climate liability due to mismanagement. Restoration and the banning of burning must be a priority.
- Woodlands absorb 4% of the UK's emissions currently, but it is not a simple solution. Planting should be targeted towards low biodiversity mineral soils to deliver climate benefits, but this tends to be the most expensive and productive land so important policy decisions must be made.
- Natural regeneration reduces disease risk and is better for biodiversity, but planting will deliver better short term climate benefits which represents a trade-off. Expanding woodland for timber should not be done at the expense of native woodland as this has far greater biodiversity benefits.
- There is a need to integrate NbS into the landscape through arable land. For example, hedgerows are a priority habitat and are important for carbon absorption and soil support. Agroforestry also reduces pesticide run-off and encourages natural pest management. Silvopasture (the integration of trees, forage, and grazing animals) may also potentially store more carbon than traditional pasture.
- Woodland can help to make hostile agricultural land better for wildlife and carbon absorption, but this must be balanced with productivity.

Bethany clarified the importance of ensuring tree planting is not a monoculture or completed on organic soil, adding that organic soils, including peatland, have at least 60% organic matter and are very carbon rich, while mineral soils have reduced organic matter content and are potentially more productive for agriculture.

Planting trees on peatland will dry out the soil and release carbon. If tree planting for climate mitigation is completed this way, it will not offset carbon emissions within the 2050 timeframe, so it

is preferential to plant on mineral soils. However, a balance must be struck with soils that are important for food production etc.

Mapping the Potential Contribution of Nature-based Solutions to Climate Change Mitigation in the UK; Tom Finch, RSPB

Tom presented his talk, highlighting new research from the RSPB which maps the potential for NbS across the UK.

Key messages for this talk are outlined below:

- NbS must follow a hierarchy which seeks to first protect what we have got, then restore habitats, and finally, create new NbS.
- It is important to focus on restoring the UK's peatlands first as they are currently emitting carbon.
- Currently only 53% of the carbon stored in high conservation value habitats is currently protected and even less is in good condition.
- It is important to ensure that high conservation value habitats remain a sink of carbon by protecting and maintaining good condition. Bringing these habitats into good condition would increase their carbon absorption by 60%.
- Peatlands cover around 12% of the UK land area and, currently, three quarters of this is degraded. Not all peatlands are high conservation value habitats as some are under agricultural or forestry management. Peatlands should be climate neutral but are currently (net) emitting the equivalent of around half of transport emissions.
- With no action peatlands would have emitted 70 million tonnes by 2050, whereas if 100% of peatlands are restored, this avoids around six and a half years of agriculture emissions. Restoring peatlands also brings benefits to hydrology and biodiversity.
- The land requirements for woodland planting to reach climate ambitions vary from 1-9% of the UK's land area. The RSPB has mapped the opportunities for this planting which recommends avoiding higher quality agricultural land, designated sites, peatlands, archaeological sites and existing infrastructure.
- Lower risk land which is better for planting includes mineral soils as highlighted by Bethany. Two million hectares of lower risk land is available, However, it is important to assess risks on a site-by site basis to identify biodiversity impacts or missing data. There may be some opportunities to plant in excluded areas, for example, in agroforestry.
- The carbon sequestration value of new planting depends on the species choice and management. Current work suggests native woodland (unharvested) will outperform commercial woodland from a climate perspective, however, there is of course a need for timber products, so a balance is required. Planting of 50,000 hectares per year to 2050 will remove around five to six years' worth of agriculture emissions.
- There are opportunities for the creation of new salt marsh through managed realignment. There is 30,000 hectares of land that could be returned to saltmarsh. When combined with area, this presents a relatively minor contribution to carbon sequestration but it has many other benefits such as protecting communities from flooding and biodiversity.
- The summed potential of the habitats covered equates to around 10 years' worth of agricultural emissions sequestered. Therefore, all sectors must continue to reduce emissions in addition to using NbS which are an important part of the toolbox.

- NbS are not just about climate mitigation. They can deliver a whole suite of benefits but there are trade-offs that need to be considered.
- The RSPB are starting a new project looking at land use scenarios and the estimated consequences for greenhouse gas emissions, bird populations, food, and timber productions. This will report in 2021.

Question and Answer Session

The emphasis on the role of peatlands and the need to recognise the multiple benefits of land was welcomed.

A question was raised on the need for global solutions and what the capacity is for transferring knowledge. Chris noted this is critical but there are challenges in relation to climate change, carbon offsets and framing. There is a tendency to underestimate the role of the global south and the role of nature there. People rely on forests for their livelihoods and have a deep knowledge and understanding so we must focus on helping them to develop policies and funds.

Chris added that there is a need to break down silos in funding streams to incorporate environmental management and reshape how funds are directed.

It was noted that COP15 and COP26 are “two sides of the same coin” and there is a need to connect them.

It was recognised that the discussion around NbS is highly technical and a simple message is needed: reduce carbon and halt habitat destruction. It was also noted that Natural England are working with the Forestry Commission to ensure no planting on peatlands. It was agreed that planting must avoid the best agriculture land and will happen on poor quality agriculture land and some uplands.

The significant amount of work on planting along rivers was noted, however, it was agreed that habitat creation along rivers should match the local ecosystems.

Attendees particularly agreed with the need for native species in planting.

Chris clarified that the Global Standard is designed at sectoral level to support practitioners. It is not designed to frame legislation, but to deliver it. He also agreed with the key message to avoid habitat destruction but there is also a need for habitat regeneration/restoration.

It was agreed that the hierarchy of protect-restore-create is an important message.

Bethany added that there is also a need to restore correct management of sites and it is important to understand what the different measures will afford for the environment by understanding what value is already there. There is therefore a need for expert ecological knowledge to assess environmental quality.

Tom agreed with the note on riparian planting, adding that it helps to create wildlife corridors, reduce run-off, and is often low cost in terms of production, however it should be the correct habitat.

Concerns were raised over the issue of enforcement of environmental measures going forwards as the Office for Environmental Protection will not be established until July next year and the Shadow Secretariat cannot take enforcement measures. It was also noted there have been regulatory failings even with protections in place.

The possibility of integrating NbS solutions with other land uses was raised, for example on Ministry of Defence land and Church of England land.

Attendees raised the importance of engaging both politicians and local communities as there are risks of a top-down approach without a sense of local ownership. Examples from Bangladesh have shown initiatives do not work unless you engage people which also enables the continuation of projects as people take ownership. The need to support ideas that are initiated at the local level was also recognised, for example, by allowing grassroots bids to NbS budgets with cases being made locally and heard nationally.

The idea of the Climate Assembly was welcomed as it can encourage politicians' interest new policy areas.

A question as raised on what the approach should be on loss and damage at COP26 which is often an issue of contention. The possibility of using funding for this to enable implementation of NbS was noted.

Chris agreed that a suite of financing mechanisms will be needed as there is not one pot of money for NbS. Various strategies must also be complementary, for example, Official Development Assistance, the economic Covid-19 recovery and systems involving people.

The need to diplomatically engage with China to ensure both COP15 and COP26 are a success was recognised.

It was noted that Local Authorities own and manage large areas of land and have responsibilities for NbS. There is a lot of work being done on biodiversity net gain (BNG) and what it means, Nature Recovery Networks and the Environmental Land Management Scheme (ELMS). However, neither initiatives have finalised the details. It was noted that the new Environment Bill provides scope to discuss implementation of NbS and what they mean to Local Authorities who will be making decisions on BNG and ELMS. Attendees also recognised the need for greater skills and capacity in Local Authority Ecologists and it was noted that ALGE are working on a pilot project with Defra on assessing this.

It was suggested that the APPG for Nature convene a meeting in 2021 with leaders of Local Authorities to discuss how they will deliver 25-Year Environment Plan and encourage discussions with Local Authority Ecologists.