NbSI NEWSLETTER

May 2022, Issue 14

Momentum behind nature-based solutions continues to build. The United Nations Environment Assembly recently adopted a multilaterally agreed definition of NbS that recognises the critical role they play in the global response to climate change and its social-environmental, economic, and ecological impacts. The challenge remains to ensure that evidence-based targets for NbS are fully aligned across different international policy processes and meet robust guidelines based on best practice. In this newsletter, we bring you highlights of recent research and policy developments relating to NbS, feature examples of good practice case studies, and highlight new research and education opportunities with the NbSI.

If you would like to subscribe to our newsletter, please sign up on our website, where you can also find an archive of past issues.

NbS CONFERENCE 2022

Ensuring that NbS support thriving human & ecological communities

5-7th July 2022

Natural History Museum, University of Oxford (+remote)

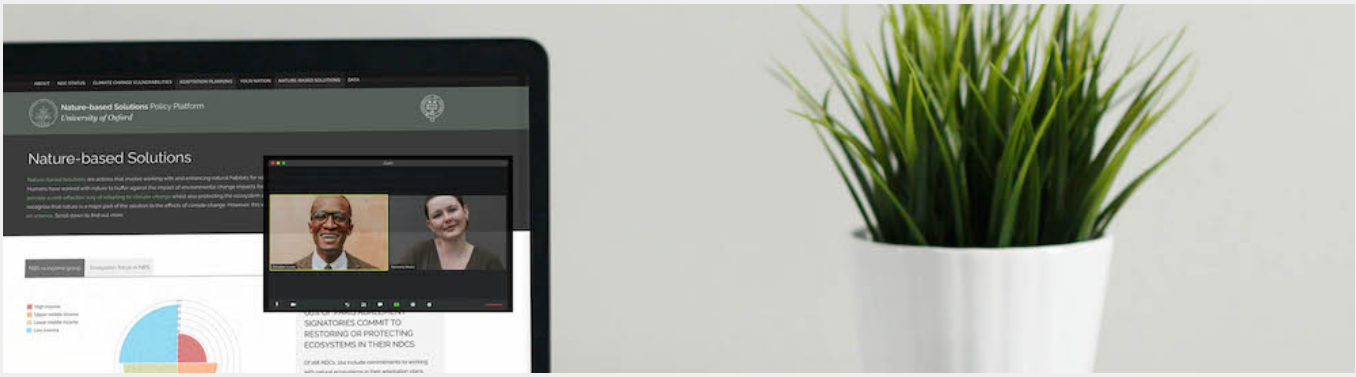
Through 13 interactive sessions held in person and streamed online, the conference aims to enhance understanding of nature-based solutions and to help ensure they support thriving human societies and ecosystems without compromising efforts to keep fossil fuels in the ground. Sessions will encompass urban and rural settings across the globe, on land and in the sea, and will embrace diverse values, interests and rights of those involved and/or affected by NbS.

Speakers include

- Lord Zac Goldsmith | Minister for Pacific and the Environment at the Foreign, Commonwealth & Development Office and the Department for Environment, Food and Rural Affairs, UK Government
- Inger Andersen | Executive Director of the UN Environment Programme.
- Ed Barbier | University Distinguished Professor, Colorado State University
- Pam McElwee | Professor of Human Ecology at Rutgers University
- Gregorio Mirabal | Head of Coordinadora de la Organizaciones Indígenas de la Cuenca Amazónica (COICA)
- Atossa Soltani | Director of Global Strategy, Amazon Sacred Headwaters Initiative, and Board President of Amazon Watch
- Stewart Maginnis | Global Director of the NbS Programme at IUCN
- Vanessa Perez-Cirera | Chief Economist at the World Resources Institute
- Marc Palahi | Director of the European Forest Institute
- Rhian-Mari Thomas | Chief Executive Officer at Green Finance Institute

…and many more

For information on the programme, speakers, and registration, please visit our conference website.



Nature-based Solutions to Global Challenges Foundation Course

The 8-week online course is an introduction to nature-based solutions for professionals working in a range of sectors – aiming to improve awareness and understanding of the science, policy, practice, financing, and governance of NbS.

Commencing September 2022 and January 2023, each week world-leading experts from Oxford University and beyond will cover a critical theme, during presentations and interactive workshops.

Find out more about the course and how to apply by visiting the course webpage.

Urban Governance Atlas - Call for contributions!

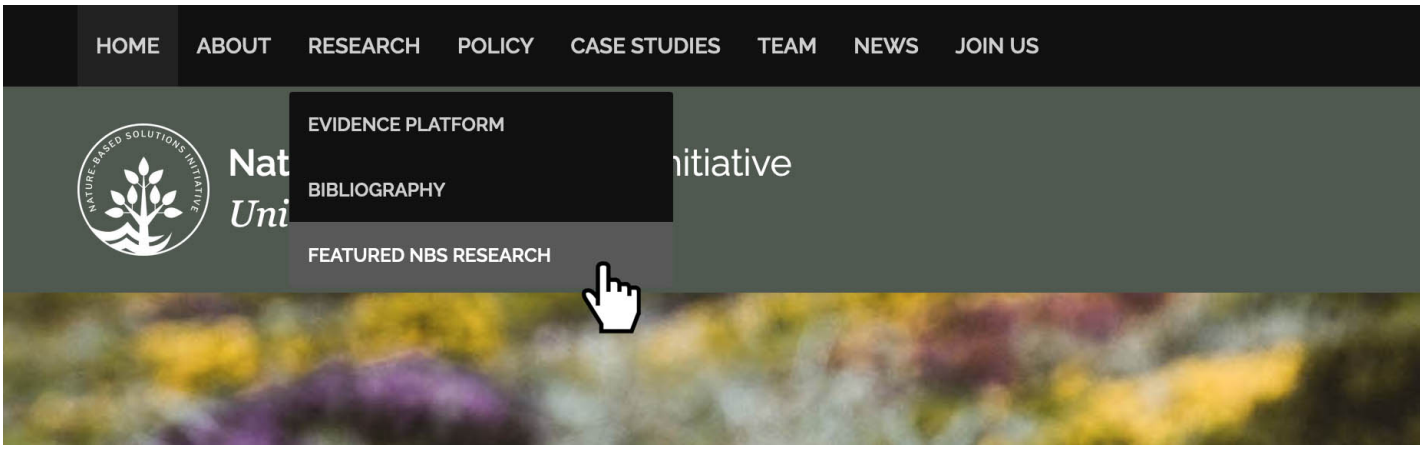
Deadline for submissions: 10th June 2022

Do you know of a policy instrument that has successfully supported nature-based solutions? If so, then the Ecologic Institute would love to hear from you and feature your examples in the Urban Governance Atlas (UGA): a new interactive database, designed for a global audience, as part of the INTERLACE project.

Find out more and get started on the UGA policy instrument information page and the introductory video.

Questions? Contact: mckenna.davis@ecologic.eu

NbS RESEARCH



Take a look at our Featured NbS Research page where we add digestible summaries of recent studies which make important contributions to the body of knowledge on NbS. Below are some recent highlights from the peer-reviewed literature:

Multispecies forest plantations outyield monocultures across a broad range of conditions. An experimental study across 255 sites published in *Science* by Feng et al. showed that compared to monocultures, diverse forest plantations had, on average, higher productivity (taller and more dense trees and greater aboveground biomass).

The biodiversity and ecosystem service contributions and trade-offs of forest restoration approaches. A global analysis published in *Science* by Hua et al. revealed that native forests outperform plantations in supporting biodiversity, above-ground carbon storage, soil erosion prevention, and water provisioning, with trade-offs in wood production.

Temporary nature-based carbon removal can lower peak warming in a well-below 2 °C scenario. A study in *Communications Earth & Environment* by Matthews et al. found that temporary nature-based carbon storage can decrease peak temperature increases associated with anthropogenic climate change, but only if implemented as a complement (and not an alternative) to ambitious fossil fuel CO2 emissions reductions.

Actions to halt biodiversity loss generally benefit the climate. A review in *Global Change Biology* by Shin et al. examines conservation actions that have the largest potential for mitigation of climate change, and strategies to maximise win-win synergies and nature's contributions to people.

We have added these and other new studies to our online bibliography, which features over 530 publications, which you can filter for habitat type, location, and societal challenge addressed by the NbS.

NbS IN POLICY

On our Featured NbS in Policy page, we summarise recent NbS-related developments in national and international policy. Below are some highlights.

United Nations Environment Assembly agrees Nature-based Solutions definition. The Fifth Session of the United Nations Environment Assembly (UNEA-5) has made a resolution on adopting a multilaterally agreed definition of NbS; recognising the important role they play in the global response to climate change and its social, economic and environmental effects.

Sink or swim: Forest Declaration Platform report on the role of IPLCs for NDCs. The briefing paper examines the role that IPLCs play in combating climate change in four countries – Brazil, Colombia, Peru, and Mexico. The analysis was used to develop recommendations for governments of forest countries with significant IPLC populations.

UK Government responds on the role of NbS for meeting Net Zero. NbSI recently gave evidence to a House of Lords Select Committee investigation into the role NbS could play in meeting Net Zero targets in the UK (Nature-based solutions: rhetoric or reality?) Our key messages were reflected well in the report, which emphasised the need to deliver high quality, evidence-based NbS that are carefully designed to maximise benefits for biodiversity and people while managing potential risks and trade-offs. The Government has now published their response, which addresses three key issues: avoiding unintended consequences from poorly designed NbS; directing more support towards neglected types of NbS; and enabling well-planned scaling up. Read our summary and analysis.

NbS IN ACTION

Explore our interactive global platform and the Case Studies page of our website to find summaries of a rich variety of examples of NbS in action from around the world.

Participatory watershed management in Yunnan province, China. The Green Watershed initiative promotes indigenous self-organisation and participatory watershed management for the benefit of environmental protection and sustainable livelihoods.

Farmer Managed Natural Regeneration (FMNR) in Ghana. FMNR is a low-cost, innovative technique to restore and regenerate trees from the stumps of previously cut-down (but still living) trees, restoring degraded land and countering soil erosion and water retention.

River restoration for natural flood management in Scotland. The project is investigating the effectiveness of natural flood management (NFM) techniques and habitat restoration measures at a catchment scale to reduce flooding and create new wildlife habitat.

NbS IN THE NEWS

Here we are featuring some recent NbS news. For more, explore NbS in the News.

New IPCC Climate report on Impacts, Adaptation and Vulnerability released. The latest climate report of the IPCC has been released, highlighting the risk of climate change to human wellbeing & the health of the planet. “Nature-based Solutions” are mentioned 457 times over the report’s 3675 pages, outlining the successes, limitations and recommendations for NbS for adaptation and resilience.

IPCC Climate Change Mitigation report released. The IPCC WGIII report highlights the potential of the Agriculture, Forestry and Other Land Uses (AFOLU) sector for significant mitigation opportunities while delivering food, wood and other renewable resources as well as biodiversity conservation. It finds that all mitigation pathways require carbon removal approaches, with an urgent need for further research, development and deployment of technological and natural approaches such as carbon sequestration in trees and soil.

New UNCCD report on global land degradation and drought. The second edition of the Global Land Outlook report, GLO2: Land Restoration for Recovery and Resilience, sets out the rationale, enabling factors, and diverse pathways by which countries and communities can reduce and reverse land degradation.

OUR NEWS & ANNOUNCEMENTS

Keep up to date with the activities of the Nature-based Solutions Initiative on our announcements page. Below are some recent highlights.

Professor Nathalie Seddon appointed to CCC's Adaptation Committee. NbSI Director Professor Nathalie Seddon has been appointed to the Climate Change Committee's (CCC) Adaptation Committee, leading the Adaptation Committee's work on the role of the natural environment and agriculture.

Leverhulme Centre for Nature Recovery launch. The Leverhulme Centre for Nature Recovery (LCNR) was launched with an event at the Oxford Botanic Garden. The Centre will tackle the challenge of halting and reversing this loss of biodiversity by addressing the ecological, social, cultural and economic dimensions of nature recovery in a single framework. The NbSI will be leading the Centre's workstream on nature-based solutions.

NbSI Joins the Circular Bioeconomy Alliance (CBA). The CBA is an organisation that promotes transition to a circular bioeconomy that is climate neutral, inclusive and prospers in harmony with nature.

We are delighted to welcome Postdoctoral Researcher Dr John Lynch as a new member of the NbSI team. John's research will explore the carbon sequestration capacity of different land managements, alongside the environmental co-benefits or potential trade-offs.
We are also thrilled to announce that Justin Mundy and Marc Palahi have both joined the NbSI's advisory board.

CO2RE event on Greenhouse Gas Removal and Innovation. The UK Greenhouse Gas Removal (GGR) Hub (CO2RE), of which the NbSI is a member, recently held an event to showcase GGR research & innovation for effective, sustainable & equitable climate action. NbS were highlighted as being expected to make a major contribution to achieving the UK's net-zero target, with discussions around issues of implementation and scalability.

The NbSI team is preparing for the launch of Sprint 3 of the Agile initiative. It will produce guidelines, mapping and modelling tools to help scale up the deployment of successful, sustainable and socially legitimate NbS in the UK, enabling local communities to maximise multiple benefits while managing land-use trade-offs. We will be co-designing the toolbox with our partners, including Defra, Natural England, the Environment Agency, RSPB, RBG Kew, Trust for Oxfordshire's Environment, WWF UK, UK CEH and the NFU, and we are looking forward to welcoming them to our first stakeholder meeting being held as a hybrid event on June 7th.

Finally, NbSI has strengthened its ties with Vietnamese research institutions as part of the HARP project led by our NERC Fellow, Dr Will Thompson. During preliminary fieldwork in Central Highlands, Will and Dr Vo Hung (Agriculture and Forestry Department) at Tay Nguyen University conducted farmer focus groups and visits to coffee farms in the Lak and Buon Ma Thuot districts of Dak Lak Province. They planned for a longer-term collaboration, where the team will work together to design the HARP toolkit – a set of tools to support coffee value chain actors in decision making relating to the design of agroforestry-related landscape-scale interventions

NbS BANGLADESH NEWS

The International Centre for Climate Change and Development (ICCCAD) organised the 'Economic Recovery Potentials (ERP) of NbS' workshop with the NbS Bangladesh Network to share the process of gathering evidence from three case studies, overall challenges and opportunities.

ICCCAD, NbSI and the Instituto de Montaña (NbSI Peru) ran a session on "How can we Build Back Better with Nature?" at the Gobeshona Global Conference - 2. Critical discussion focused on what building back better should mean, and the role NbS and broader investments in nature have to play. Read a session summary or watch the session recording.

A Learning Hub Event on the "Economic Recovery Potential of NbS' was organised by the General Economics Division of Bangladesh Planning Commission and ICCCAD with support from NbSI. Government officials, relevant line ministries and NGOs shared practical knowledge on how NbS could effectively enable sustainable development and identified the recommendations and next steps to explore the policy influencing options.

In the newly published piece on 'Let's not pay lip service to climate change' at the Daily Star, Dr. Haseeb Irfanullah explored the forthcoming COP27 as an opportunity for Bangladesh to prioritise climate action in three interconnected areas, which are to i) Harness leadership beyond the current CVF presidency, ii) Establish a Biodiversity Conservation Fund, and iii) Incorporate NbS in their post-disaster rebuilding initiatives, as well as post-pandemic recovery efforts.

KEY EVENTS

URBiNAT International Conference - Nature for Innovative and Inclusive Urban Regeneration | 16 & 17 June 2022, Milan, Italy.

Nature-based Solutions Conference - How can NbS support thriving human & ecological communities? | 5-7th July 2022 | Natural History Museum, University of Oxford (+remote)

Conference of the Parties to the Convention on Biological Diversity (COP15) | United Nations | Third Quarter 2022 (dates to be confirmed), Kunming, China.

JOBS

Associate Professor (or Professor) in Climate Change Biology.
A vacancy is open for a talented, highly motivated researcher & teacher within the dynamic new Department of Biology, in partnership with Wadham College, University of Oxford. With a doctorate & post-doctoral experience in Climate Change Biology, the role-holder will foster a collaborative, supportive atmosphere in their research group, supported through competitive grant proposals, & will offer high-quality lectures, practical classes & tutorials. The post is full time & will become permanent on successful completion of a five-year review. **Closing Date:** noon 27th May 2022.
Learn more and apply.

Post-doctoral Researcher in Ecology and Biodiversity Science.
The PDRA will examine the biodiversity dimensions of NbS and nature recovery, as part of the Agile Initiative and the Leverhulme Centre for Nature Recovery. They will work on determining how to scale up NbS & nature recovery in the UK to help address climate change while also supporting biodiversity and local communities, using two case study landscapes, in Oxfordshire & the central Scottish Highlands. **Closing Date**: noon 31st May 2022.
Learn more and apply.

Research Associate in NbS for resilient infrastructure systems.
As part of the Oxford Programme for Sustainable Infrastructure Systems (OPSIS) in the School of Geography and NbSI in the Department of Biology, the RA will develop geospatial tools to inform the prioritisation of NbS and their deployment where they will yield the greatest benefits for infrastructure resilience, biodiversity, livelihoods and long-term carbon sequestration. **Closing Date:** noon 16 June 2022.
Learn more and apply.

Nature-based Solutions to Climate Change

Key messages for decision makers

We are promoting the NbS Guidelines to encourage their broad adoption by businesses and governments. The goal is to ensure investment in NbS is channelled to the best biodiversity-based and community-led NbS and does not distract from or delay urgent action to decarbonise the economy. To continue to build momentum around this we are inviting additional signatories from research, conservation and development organisations across the globe. Watch an overview of the guidelines to learn more. If you would like to add your organisation as a signatory to this letter please contact: Nathalie Seddon: nathalie.seddon@zoo.ox.ac.uk.

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