Nature-based Solutions Conference 2024

GROWING POSITIVE CHANGE

UNIVERSITY OF OXFORD

SMITH SCHOOL OF ENTERPRISE & ENVIRONMENT

Department of BIOLOGY

NATURE-BASED SOLUTIONS INITIATIVE

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Nature-based Solutions Initiative

Founded in 2017, the Nature-based Solutions Initiative (NbSI) is an international team dedicated to advancing impactful, interdisciplinary research that shapes policy and practice around nature-based solutions. We do this through research, teaching, and active engagement with policymakers and practitioners. Based in the Departments of Biology and Geography (Smith School for Enterprise and the Environment) at the University of Oxford, we work closely with experts in engineering, governance, and finance across the university, as well as with international and local NGOs in the conservation and development sectors

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Conference Recordings are available on YouTube.

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Foreword

The Nature-based Solutions Conference 2024, Growing Positive Change, was convened at a moment of immense urgency, when the interconnected crises of climate change, biodiversity loss, and social injustice demand a profound shift in how we live and respond to these escalating challenges. We gathered in Oxford, a place rich in both human and natural history, not only to discuss solutions but to rethink our role—not as separate from nature, but as part of the rich web of life.

The conference took place during the week of the solstice and began and closed with a fire ceremony led by Mindahi Bastida, a caretaker of the Otomi-Toltec traditions from present-day Mexico. This was not a symbolic gesture. Many indigenous knowledge systems and practices, cultivated over generations through close connection with the Earth, are central to understanding what nature-based solutions can and should be. We aimed to create a space that welcomed diverse worldviews alongside Western scientific inquiry, recognising that only by bringing together different knowledge systems can we hope to address today's complex social and environmental challenges. The ceremonies also provided moments of reflection on what is truly at stake—a reminder of why we dedicate ourselves to the work we do.

The setting for the conference—the Oxford University Museum of Natural History—was intentionally chosen as a space that embodies humanity's long-standing quest to understand life's astonishing diversity. The specimens displayed tell the incredible story of evolution and interdependence, reminding us that this story is our story too.

Over three days, we wove together science, traditional knowledge, music and art. Each day brought new perspectives on how nature-based solutions can help us transition from crisis to renewal. The programme was deliberately designed to balance analytical rigour with personal reflection, understanding that systemic change requires not just data and policy but a shift in values and relationships.

Day 1 expanded the focus beyond carbon, examining the broader benefits of nature-based solutions to health, food security, adaptation, and humanitarian responses. We explored evidence on how these solutions can holistically align climate, health, and nature, while addressing the challenges of integrating nature-based solutions into policy, business, and international frameworks. It was clear that nature-based solutions must prioritise ecosystem health and the leadership, rights, and knowledge of Indigenous Peoples and local communities, moving beyond offsetting and greenwashing to achieve genuine resilience. Discussions called for creating a "third space" that bridges conservation and economic growth and building mechanisms for political resilience, such as citizens' assemblies, while nurturing empathy, especially for youth and local communities.

Day 2 explored the challenges of scaling nature-based solutions amidst uncertainty and concerns around permanence, questioning whether existing governance and financial systems can drive the required transformation or if new approaches are needed. The discussions

highlighted the need to balance immediate action with further research, stressing the importance of integrating ecological, social, and economic dimensions to build resilience. Shifting finance from harmful subsidies to nature-positive investments was seen as crucial, along with strong regulatory frameworks and interdisciplinary collaboration to ensure long-term benefits for both people and the ecosystems on which they depend.

On the final day, the focus shifted toward reimagining the future through nature-based solutions, with a particular emphasis on the emotional and human dimensions of systemic change. Through powerful stories of resilience, cultural connection, and courage, participants were reminded that true transformation extends beyond policy and data—it requires a profound connection to the land and a compassionate, collective response. We explored ways to restore our relationship with nature, reshape economic systems, and embrace alternative forms of exchange rooted in Indigenous wisdom. Speakers urged a shift from an anthropocentric worldview to one that is eco-centric or kin-centric, where reciprocity, respect, and relationality are central. Nature-based solutions were envisioned as part of a broader, more holistic vision of our shared future—a future built on collective responsibility, joined up governance, and financial systems imbued with care.

The core message of the conference was simple yet profound: to confront the existential threats of biodiversity loss and climate change, we must heal our relationship with nature. We are neither pests nor conquerors—we are stewards. This calls for a fundamental shift in our values and how we interact with the natural world. Nature-based solutions are not merely projects or policies; they represent pathways to a deeper, more reciprocal bond with the Earth. When we embrace this perspective, our actions become more grounded, purposeful, and transformative. Cooling the planet is critical, but it must be done in a way that strengthens, rather than depletes, the health of the biosphere on which we all depend.

This report is more than a summary of insightful discussions and the current evidence underpinning nature-based solutions; it serves as a foundation for an action agenda for the global nature-based solutions community as we approach COP30 in Belém, Brazil, and beyond. As we move forward, we hope that these pages not only inform but inspire. May the ideas and connections born from this conference ripple outward, nurturing the collaboration and courage needed to shape a flourishing future for all life on Earth.

Nathalie Seddon

Director, Natural-based Solutions Initiative

Acknowledgements

We extend our heartfelt appreciation to everyone who participated in the conference, both in person and virtually. A special thanks goes to our generous sponsors, particularly WWF-UK and the Agile Initiative, whose support made it possible to bring together speakers from across the globe and ensure the inclusion of diverse perspectives.

Special appreciation goes to Laura Ashby, Paris Grosvenor, María Rodríguez Barrantes, and the entire team at the Oxford University Museum of Natural History for their support and patience in hosting a conference that united science, art, and culture. To our wonderful chairs, speakers, and poster presenters, thank you for sharing your expertise, facilitating discussions, and travelling to deeply engage with this event. Particular thanks to James Allen for stepping in at the last minute to chair session 9 with such skill. We also recognise our amazing translators, Julia Felmanas and Aline Morgan, for ensuring that language was no barrier to our collective conversations. Thank you to the Agile Initiative for supporting our bursary holders. We are grateful to Film Shed for expertly handling the technical aspects of the hybrid format, and to Matthew Mulholland of Oxford Media Group for capturing the event's essence in beautiful photographs and films. Our thanks extend to the School of Geography finance team for their steadfast support managing the budget, and to Vaults & Gardens for keeping us so well-nourished with delicious, local vegetarian food.

Much gratitude goes to the Ostara team, particularly Justin Adams, Rebekah Phillips and Dan Cooney for co-curating and organising the cultural and ceremonial programme. Justin, your hosting on the final day, as well as your efforts to include diverse voices, helped us hold a vision of hope for the future. Thanks to Chris Parks for leading the water pilgrimage, and special thanks to John-Paul Frazer for integrating art and ceremony into the event with such craftmanship, integrity, and love. We also extend our sincere gratitude to Mindahi Bastida for his powerful and inspiring opening and closing of the conference and to the Fireeepers—Ian Wilkinson, Kim Kaos, Tugba Kirhan, Dominic Bond, Lucy Wood, Ola Forman, Tom Shopland, Jaimie Madeley, Jacob Kestner, and Nadia Schweimler—for tending the flames and providing a space for reflection, pause, and connection. You were the heartbeat of the conference.

We are deeply grateful to the artists and musicians who brought much beauty and meaning to the event. To Naine Terena for her photographic essay "I Am a Tree", Jane Frere's for "Falls of Caledon", Sam Lee and his band, and the Greek ensemble Nostos, led by Metaxia Pavlakous (and to Niki Mardas for making Nostos' performance possible and for his wise words at the end of day two). Heartfelt thanks to Lyla June Johnston for sharing her wisdom through powerful poetry and song, and to Zoe Brown for delivering her beautiful poem "Web of Life" during the closing ceremony. We are also grateful to Cécile Girardin, Lisa Curtis and Raphaël Girardin-Potts for creating the stunning mural that captured the conference's themes.

Finally, we thank our incredible team at the Nature-based Solutions Initiative. Thank you for all your hard work, patience, and humour throughout the journey. Special thanks go to Lila Stewart-Roberts, Audrey Constance Wagner, and Ceri Putman for their months of meticulous

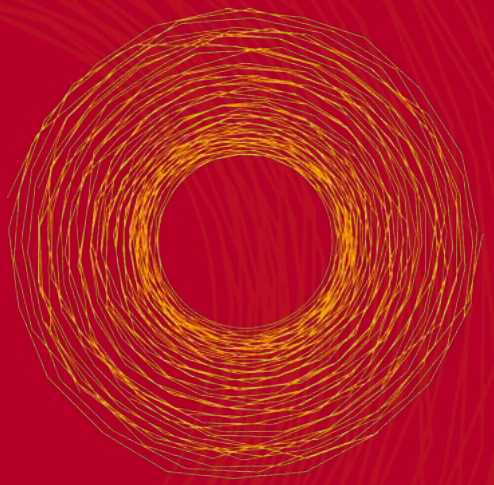
planning and commitment; to Aline Soterroni for coordinating the Brazilian delegation, stewarding sessions, and capturing many magical moments on camera; and to Melissa Felipe Cadillo for managing the film programme. Our sincere appreciation also goes to Alex Chausson, Sophus zu Ermgassen, Katrina Kendall, Emma O'Donnell, Zoe Brown, Alison Smith, John Lynch, Beth Turner, Katie Lois Hutchinson, Lubasi Limweta, Emily Warner, Will Thompson, Robyn Haggis, Jennifer Lucey, and Xiao Zhang for enthusiastically and skillfully stewarding panels, chairing online poster presentations, taking notes, posting on social media and contributing in countless ways to ensure the conference's success. Finally, a huge thank you to Dan Seddon for his warmth and creativity in the conference artwork, banners, website, and report design, which beautifully tied the themes together; and to Leon and Luca Tobias for their patience and love.

Above all, we thank the Earth for the gifts and challenges that brought us together and for inspiring the work we do.

Our Sponsors

Cultural and Ceremonial Programme

The cultural and ceremonial programme was co-curated and co-sponsored by Ostara, a newly launched social enterprise focused on restoring the human relationship with nature. The programme encouraged reconnection with nature, with ourselves, and with each other, seeking to deepen the recognition that humans are an integral part of a beautiful web of life, dismantling the notion that "nature" is something separate from us. Pictures and stories from the cultural and ceremonial programme are woven throughout this report, just as they were woven into the fabric of the conference.



ostara

Fire ceremonies

The conference began and ended with a fire ceremony led by Mindahi Bastida, staff holder of the Grand Council of the Eagle and the Condor and a guardian of the Otomí-Toltec traditions from present-day Mexico. In many cultures, fire is revered as a sacred element—a symbol of cleansing, renewal, and life. At our opening ceremony, we lit a flame that burned throughout the week, carefully tended by a dedicated team of Ostara Firekeepers. This flame honoured the land, grounding us in the present moment while helping us connect with ancestral wisdom. It offered space to reflect on the past as we reimagined the future.

Mindahi invited us to slow down and remember our deep kinship with all forms of life, leading a ritual that celebrated our connection to the elements—water, earth, air, and fire—which are regarded in Indigenous cultures as the sacred foundations of life. Gathered around the fire, we gave thanks. This wasn't about enforcing belief, but about inviting each of us to feel life moving within and around us—in the warmth of the sun, the swifts circling above, and the water drawn from the Thames during the water pilgrimage held the previous day.

The ceremony included songs, poems, and heartfelt words, but its deeper purpose was to create a moment of stillness—a chance to reflect on what is truly at stake. It reminded us why we dedicate ourselves to protecting and restoring nature. These moments of pause served as a compass for the conference, guiding our conversations on nature-based solutions. They reminded us that such solutions are not merely technical fixes, but pathways to wholeness—ways to reclaim our belonging to the natural world.

The ceremonies left us with a powerful thought: perhaps the most essential nature-based solution is restoring our relationship with nature itself.

Tlalmanalli

The ceremonial space was home to the Tlalmanalli, an altar created from local flowers, fruits, seeds and stones, under the guidance of Mindahi Bastida and Geraldine Patrick Encina. The practice of setting out offerings on the ground with a Tlalmanalli is a tradition of the Nahua people of Mesoamerica (which included the Aztecs) and means 'Balanced Earth'. According to Nahua tradition, the Tlalmanalli depicts the equal distribution of life's fundamental elements toward the four cosmic directions. The centre of the Tlalmanalli represents time-space in spiral movement, setting life's elements in motion for co-creation and eternal co-evolution. The main message from the Tlalmanalli is that life unfolds in cycles, not a linear path. Delegates and members of the public were invited to visit the flame of the conference, the Tlalmanalli, and to weave natural materials into hazel panels representing earth, air, water and fire.

Water, the giver of life

A water pilgrimage, organised and hosted by Ostara, was held before the conference to honour the waters and lands of Oxford. Water was collected with care from sacred, ancient wells and the Thames, reminding us of the significance of this element as a symbol of purification, renewal, and transformation. A vessel of this water was taken into the heart of the conference to represent our interconnectedness as part of the web of life, carrying the intentions of the gathering forward to future events, including COP16 in Cali, COP30 in Belém, and beyond.

Holistic Values of Nature-based Solutions

DAY ONE

Theme 1: Scaling Nature-based Solutions with Integrity

Keynote The Transformative Potential of Nature-based Solutions: A Values Perspective

Unai Pascual, Basque Centre for Climate Change

Unai Pascual started with a reflection on the powerful emotions stirred by the conference's opening fire ceremony and suggested that these emotions might hold more significance than any words spoken in his address. He then turned his attention to the values crisis in the Western world, arguing that incremental change is insufficient to address the scope of the global polycrisis we face today.

Pascual asked: "What could make NbS transformative?" He argued that the semantics of NbS are less important than the politics and money behind the term, stressing that for NbS to be genuinely transformative, they must be grounded in governance approaches that promote collective action and responsibility. Citing the work of Elinor Ostrom on collective action, Pascual highlighted the need for deep changes in social and institutional norms to foster better ecological and social outcomes. He pointed out that embracing collective responsibility is essential for addressing the intertwined crises of nature and values in society.

He outlined three critical elements that transformative NbS should engage with:

1. **Socio-environmental justice**
   Ensuring that the most vulnerable people from nature degradation are protected from harm. Pascual stressed that justice is interpreted differently across contexts, and it is crucial to engage with these various interpretations.
2. **Complex systems thinking**
   He reminded the audience that dynamics in nature are non-linear and operate within complex nested systems that connect among them, including through tipping points.
   To address these challenges, we must focus on the underlying drivers of change, such as power relations and institutional norms.
3. **Value pluralism**
   Pascual emphasised the importance of recognising and engaging with diverse worldviews about human-nature relations. He posed the normative question, "Which values should we care about and foster and why?" suggesting that not all values should be treated equally if we are to achieve significant goals in terms of environmental and social wellbeing.

Challenging the traditional and typically dominant framing of sustainable development, Pascual argued that the common overlapping "three-circle" model—society, nature, and economy—is simplistic and inaccurate. He referred to the Dasgupta Review, which frames the economy within the biosphere, urging the audience to consider what kinds of economic growth are necessary and where degrowth may also be required. Pascual also called for the democratisation of decision-making processes, advocating for greater transparency and to institutionalize public participation beyond simply voting every four years in liberal democratic countries. He also advocated for continued experimentation with initiatives such as citizen assemblies or similar participatory fora to be introduced into political systems to democratise decision-making and counter the growing disconnect between political discussions and the people they affect.

Turning to the politics surrounding NbS, Pascual noted that during the negotiation of the IPBES values assessment in 2022, many countries from the Global South opposed the inclusion of NbS framing. The reason, he explained, stemmed from concerns over politics and finance: the Global South requires separate funding for biodiversity and climate change mitigation, and NbS could lead to double-counting and merging of these crucial financial resources.

The opening keynote concluded by underscoring the importance of respect and empathy, arguing that certain values—such as care, stewardship, and respect for nature—must be prioritised over individualistic, market-based values. We should also focus on bridging different values and knowledge systems rather than attempting to integrate them, as some values may be incommensurable.

In the Q&A, Pascual reiterated the importance of recognising the validity of indigenous and other forms of knowledge, and not just Western scientific knowledge, cautioning that disregarding the diversity of knowledge systems would be a "big, big, big mistake."

Key takeaways

- Transformative NbS must engage with social and environmental justice, complex systems thinking, and value pluralism.
- We need deep changes in social and institutional norms to address the underlying drivers of environmental and societal crises.
- The traditional sustainable development model is flawed; instead, the economy should be framed within the biosphere.
- Collective action and responsibility are key to fostering better social and ecological outcomes.
- Democratisation of decision-making processes is essential to address the growing political and social disconnect.

Panel discussion

Chair Najma Mohamed, UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC)

Panellists Mirna Fernández, Global Youth Biodiversity Network (GYBN),
Emily McKenzie, Taskforce on Nature-related Financial Disclosures (TNFD),
Charles Karangwa, IUCN, Tristan Tyrrell, Convention on Biological Diversity (CBD),
Lyla June, Dream Warriors

The first panel assessed the current state of NbS in policy and practice. Taking in a range of voices, this panel identified the main challenges, laying the groundwork for the conference. The panel also explored a considered strategy for effective and ethical advancing of nature-based solutions, including how to elevate their role in the Rio Conventions and have economy-wide targets in climate pledges at the UNFCCC COP30 in Belém.

Najma Mohamed set the scene by emphasising the interconnectedness of humans and nature: "without flourishing nature, we cannot survive", she said. She pointed out the grave risk posed by ecosystem collapse, reminding participants that one-fifth of ecosystems are at risk, with unequal impacts across communities, especially those in conflict zones. Mohamed reiterated the significance of the working definition of NbS, as articulated in the 2022 UNEA resolution, and noted its inclusion in all three Rio Conventions. However, she highlighted that conversations around NbS remain politically charged. Mohamed urged the panel to address the impact of historical forces like colonialism and past emissions on climate and biodiversity with honesty and courage.

Mirna Fernández acknowledged the leadership role of Indigenous Peoples, stating, "they are more than knowledge holders – they are the ones putting into practice the actions to protect biodiversity and stop climate change." She shared the indigenous cosmovision of nature as "Mother Earth," that people all over the Andean region inherit and share with many different cultures, emphasising that such a worldview inherently prevents exploitation and nature commodification: "Seeing nature as your mother is a safeguard in and of itself, because you cannot sell your mother." Fernández also presented concerns from a youth perspective, particularly regarding the misuse of NbS for carbon and biodiversity offsetting, which she warned often legitimises further ecosystem destruction and leads to greenwashing and human rights violations. She argued that financial barriers prevent rightsholders from accessing funds and stressed that Indigenous Peoples and local communities' initiatives to protect and restore nature should not be measured by the same standards as private sector actions. Her three asks from youth were: first, to assess and address the negative impacts of NbS implementation; second, to explicitly exclude offsetting and greenwashing from NbS standards; and third, to place ecosystem integrity and rights, including land tenure and Indigenous and women's rights, at the core of NbS. Fernández also called for financial barriers to be removed for rightsholders and for harmful subsidies to be repurposed to support better stewardship of ecosystems.

Emily McKenzie provided an overview of the Taskforce on Nature-related Financial Disclosures (TNFD), which was founded in 2021. The TNFD is a framework for the private sector to assess, manage, and disclose their dependencies and impacts on nature and the resulting risks and opportunities for organisations. Its goal is to shift financial flows towards activities that help nature thrive, in line with the Global Biodiversity Framework (GBF). McKenzie stressed the importance of transparency and integrity in private sector engagement with NbS, noting that the TNFD was developed in dialogue with Indigenous Peoples to ensure respectful engagement. She highlighted the need for further guidance on transition

planning to achieve net zero and the goals and targets of the Global Biodiversity Framework and on defining and measuring "nature positive" outcomes. Capacity building, she noted, is crucial for both private sector actors and Indigenous communities to learn from each other and apply best practices.

Charles Karangwa shared an anecdote about a corporation interested in investing 200 million USD in NbS, but only to acquire carbon credits. He warned that without integrity, NbS risks becoming another buzzword, used merely for corporate social responsibility (CSR) or carbon and biodiversity offsets. Karangwa underscored that NbS should not be seen as a replacement for urgent actions such as phasing out fossil fuels. He highlighted the IUCN NbS Global Standard, which has been downloaded over 63,000 times, as a key tool for ensuring the integrity of NbS projects. The IUCN standard was developed based on science, practitioner experience and Indigenous Peoples and Local Communities' knowledge, and has two major objectives: first, to avoid potential misuse of the NbS concept by setting a common basis of understanding for what NbS are; and second, to provide a robust framework for people, communities, and organisations to design, implement, assess, adapt, improve and upscale strong NbS interventions. The standard, he noted, aligns with the UNEA definition and promotes ecosystem integrity and the rights of people. He called for broader uptake of the standard to combat greenwashing and ensure that NbS projects are focused on true environmental and social benefits.

Tristan Tyrrell discussed the political concerns surrounding NbS, including within the Convention on Biological Diversity (CBD). While NbS is included in the Global Biodiversity Framework (GBF), there remains resistance from some parties, who prefer the more narrowly defined ecosystem-based approaches (EbA). He emphasised that NbS is broader than EbA and includes other benefits than simply climate change, but there are ongoing efforts to remove references to NbS from the COP16 draft decision text. He pointed out that although NbS features in Target 8 and Target 11 of the GBF, we must think about how NbS influence and are influenced by other targets, like those on spatial planning, finance, the rights of Indigenous Peoples, and a human rights-based approach. Tyrrell called for clarity on definitions and recognition of the broader benefits of NbS, which extend beyond biodiversity and include co-benefits like social and gender equity. He also highlighted the importance of ensuring that global targets are translated into local action through national biodiversity strategies and action plans (NBSAPs).

Lyla June raised concerns about the commodification of Indigenous knowledge and lands through NbS, particularly when these projects intersect with financial markets. She warned that NbS can perpetuate colonial systems, especially when Indigenous lands are used for offsetting or sold without consultation. She pointed out the example of Shell, which uses NbS for carbon offsetting despite its significant ongoing emissions. "Beware of the corporate co-opting of NbS," she cautioned, adding that NbS projects must not overstep Indigenous sovereignty or commodify sacred lands. June stressed the need for consultation on a case-by-case basis to ensure that NbS respects the rights and knowledge of Indigenous Peoples. She concluded by emphasising that NbS should not give polluters a licence to continue polluting and must prioritise cutting emissions at the source.

In the Q&A, the panel explored how to avoid offsetting practices that undermine biodiversity and human rights and how to finance NbS without relying on offsets. Fernández reiterated that offsetting maintains the status quo and that financing needs to be repurposed towards local, on-the-ground action. The panellists agreed on the importance of ensuring integrity in NbS implementation, with Tyrrell calling for clarity on definitions and McKenzie advocating for more detailed guidance on measuring "nature positive" outcomes.

"[Indigenous Peoples] are more than knowledge holders – they are the ones putting into practice the actions to protect biodiversity and stop climate change"

- Mirna Fernández

Conclusion

NbS must be designed, implemented, financed and governed with integrity with ecosystem health and the rights of Indigenous Peoples and local communities at the centre. NbS must not be misused to legitimise further ecosystem destruction or greenwashing. Remove financial barriers for rightsholders to NbS Standards. For NbS to deliver true ecological and social benefits, it is essential to engage Indigenous Peoples and local communities in decision-making and ensure transparency in private sector involvement.

Actions

1. **Prevent the commodification** of Indigenous knowledge and lands.
2. **Ensure leadership by and/or strong partnership with Indigenous Peoples and local communities** in the design, implementation, monitoring and governance of NbS projects.
3. **Enforce safeguards to prevent the misuse of NbS** to legitimise further ecosystem destruction, greenwashing and human rights violations.
4. **Ensure NbS enhance the health** of the ecosystems they involve.
5. **Develop national guidance and capacity-building mechanisms** to support the integrity of NbS projects.
6. **Provide clearer definitions and metrics** for "nature positive" outcomes within the Global Biodiversity Framework.
7. **Shift financial flows from harmful subsidies** to support local, on-the-ground NbS actions, ensuring that funding reaches rightsholders.
8. Ensure private sector engagement with NbS is **transparent, respects rights, and aligned with global biodiversity and climate goals**.

Working Lunch: Building Bridges for a Healthy Planet

Chair Becky Speight, RSPB

Attendants RSPB, NbSI, UNEP-WCMC, Basque Centre for Climate Change, UN CBD, GYBN and Third World Network, IUCN, COP28 UAE presidency team, Institute for Environment and Human Security (UNU-EHS), WRI Brazil, WWF-UK, Rutgers University, Bhutan Forestry Office, Jamaica Red Cross, and SwedeBio.

Following the opening session of the NbS Conference 2024, a working lunch was held under Chatham House Rules to answer the questions: "How can we build bridges between actors across scales to ensure that policies and investments deliver genuinely good outcomes? What is needed on the ground in reality?" The discussion was structured in three phases: hope and progress, fears and concerns, and the necessary actions to overcome challenges. The group explored the positive momentum of NbS, expressed worries about existing challenges, and converged on a set of steps to move the agenda forward.

Steps towards positive outcomes

The conversation began by reflecting on recent progress that provides hope. Participants highlighted that conservation today recognises the broader picture, especially the importance of considering human rights and social inclusion alongside environmental protection. The days of conservation and development operating in silos are beginning to fade as the focus shifts towards system-level thinking. This shift is viewed as an essential step in creating long-lasting, effective solutions to global challenges. Participants also noted a growing consensus that NbS are not about carbon offsets but rather a holistic approach to addressing environmental and social issues. The increasing adoption of the IUCN NbS Global Standard was highlighted as a positive step, signalling that we are now firmly in a phase of practical implementation. A strong community of practitioners is emerging worldwide, dedicated to documenting and sharing examples of good practice. This sense of a connected, global network provides grounds for optimism.

On the policy front, there was agreement that positive policy changes are starting to take place. The agreement of the Global Biodiversity Framework (GBF) was viewed as an important hopeful milestone, reflecting a broader momentum towards change. Other examples like the recent EU restoration law demonstrate how small tweaks in national and regional policies can significantly move the needle on conservation and restoration. The overall sense was that nature, through NbS, is becoming increasingly visible in the mainstream discourse.

Addressing barriers

There are serious concerns about ensuring that pro-environmental and socially inclusive policies endure political shifts and resist repeal under changing leadership. The example of Brazil was brought up—how to protect environmental policies from being dismantled under future administrations, particularly if figures similar to Jair Bolsonaro return to power? Institutionalising these policies to withstand political turmoil was seen as a critical yet challenging task.

Concerns were also raised about emerging terms like "bioeconomy," "green economy," and "nature-positive," and how they are sometimes co-opted or misused. There is also a significant gap in the funding needed to understand complexity, both social and ecological. The desire to measure and quantify nature is necessary for securing funding, yet participants expressed worry that focusing too heavily on metrics risks oversimplifying complex systems, thereby undermining the integrated approach required for NbS.

The tension between the Global North and Global South regarding the promotion and opposition to the term NbS was another significant concern. Participants acknowledged that worries about the double-counting of much-needed finance for the Global South contribute to this divide, alongside concerns of "green colonialism."

Building bridges

There was recognition that the NbS discourse often finds itself trapped between two contrasting perspectives: conservation and protection versus the green economy's focus on investing in nature for economic growth. NbS is sometimes viewed as the battleground between these two powerful hegemonic discourses, necessitating the creation of a "third space" to bridge the gap between conservation and economic imperatives, allowing for a balanced approach that integrates environmental, social, and economic dimensions.

The need to bridge the divide between different conceptual frameworks, like Ecosystem-based Adaptation (EbA) and NbS, was highlighted as a priority. Clarifying the semantics around NbS was seen as essential to avoid confusion and ensure coherence in actions and metrics. Simplifying definitions and aligning data structures could help make progress more efficient, especially for underfunded practitioners who are repeatedly asked to achieve similar objectives without adequate resources.

Participants agreed that to make NbS politically resilient, there needs to be a demonstration of public demand for these solutions. Initiatives like citizen's assemblies, such as the People's Plan for Nature and transition towns could play a pivotal role in showing that NbS aligns with what communities genuinely want. Building local ownership and creating mechanisms for democratic renewal were suggested as ways to ensure that policies and projects are grounded in local realities, creating a stronger foundation for political buy-in.

Empathy emerged as a crucial theme—recognising the value of different perspectives and actively building bridges between them. Youth communities were noted as being particularly keen to avoid the mistakes of the past, with a strong focus on integrity before upscaling NbS initiatives.

Participants agreed that building a successful NbS movement requires literally and figuratively creating bridges between different groups—be it policymakers, local communities, or the youth.

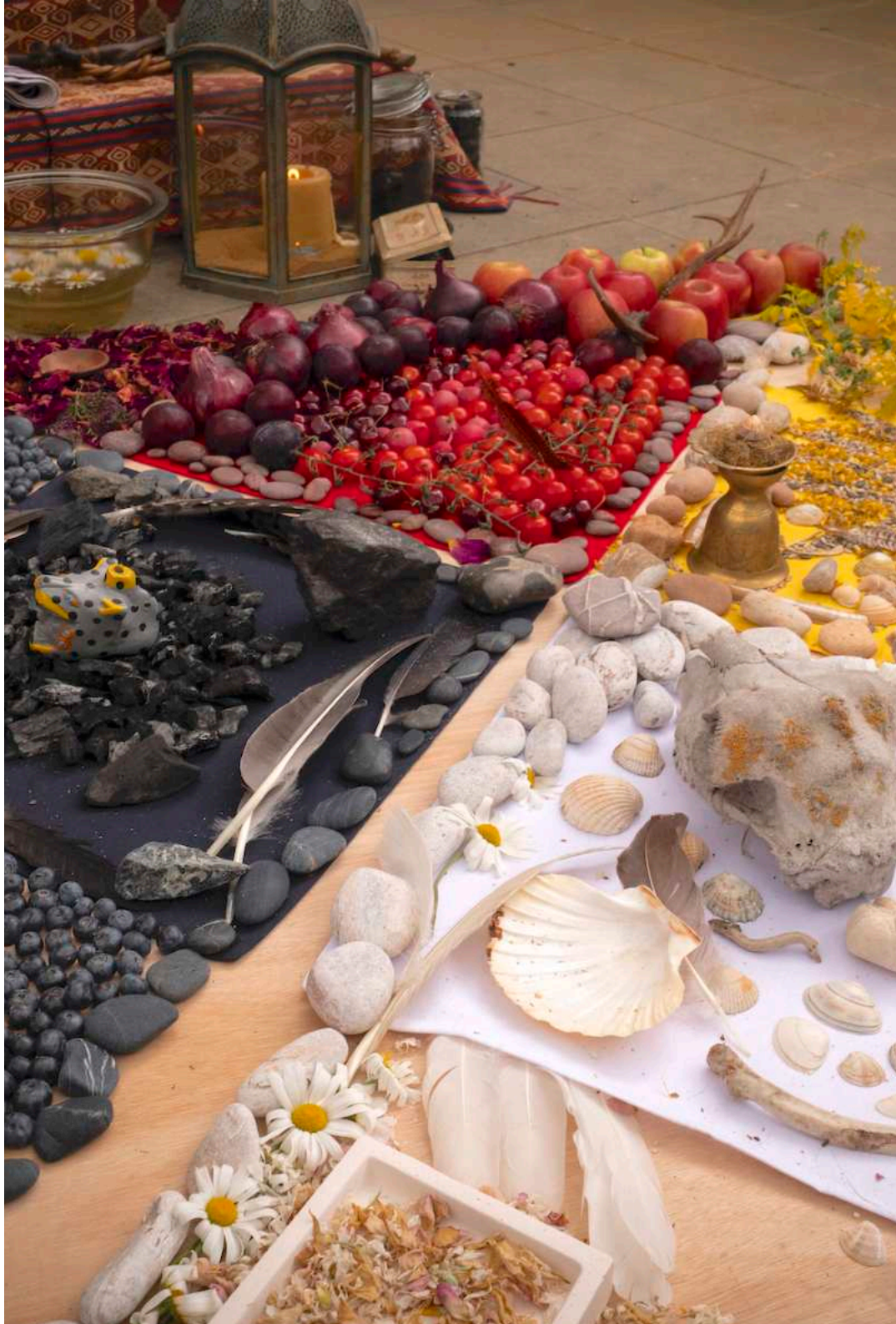
Finally, participants acknowledged the challenge of balancing NbS within broader economic policies and ensuring that these initiatives are not co-opted by business-as-usual practices. Legal and judicial systems at the national level were noted as vital in recognising Indigenous Peoples' intellectual property rights and ensuring equitable outcomes for all stakeholders.

"Beware of the corporate co-opting of NbS."

- Lyla June

Actions

1. **Create a "third space"** to bridge the gap between conservation and economic growth imperatives.
2. **Develop mechanisms for political resilience**, such as citizen's assemblies, to ensure policies endure political changes.
3. **Clarify the semantics of NbS** and align data collection to reduce confusion and inefficiencies.
4. **Focus on building empathy** and integrating diverse perspectives, with special emphasis on youth and local communities.
5. **Lean into complexity** by creating frameworks that capture holistic value without oversimplifying.
6. **Engage in democratic renewal**, showing political leaders that there is public demand for NbS.
7. **Strengthen local ownership** of NbS projects, ensuring they are meaningful and context specific.




ECOLOGICAL RESILIENCE
SOCIAL COHESION
PERMENANC
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EVIDENCE BASED RULES OF THUMB
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BY LEARNING DOING
MAKING INFORMED DECISIONS
ON-THE-GROUND MONITORING
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Theme 2: Nature-based Solutions for Health and Wellbeing

Keynote The Science Behind Why Seeing, Smelling, Hearing, and Touching Nature is Good for Our Health

Kathy Willis, University of Oxford

Willis explored the growing body of evidence that supports the positive impact of nature on human health and wellbeing. She emphasised the need for nature-based solutions to be integrated into health policies and called for more robust research to ensure that "green prescribing" is as effective and reliable as conventional medical treatments. Willis began by noting that the benefits of access to green spaces are now widely recognised in policy discussions, including those at COP15 and within UK health policy. She highlighted the significant physical and mental health benefits that come from proximity to nature, such as reduced cardiovascular conditions and improved mental health outcomes. Studies show that individuals living near green spaces experience lower rates of stress and anxiety, as well as improved physical health. Willis pointed to research indicating that access to nature is particularly beneficial in more deprived communities, where exposure to green spaces can dramatically reduce the likelihood of mental health issues. "There is significant evidence that those living closer to nature have fewer cardiovascular problems and report better mental health," she stated.

A critical point raised was the need to determine whether all green spaces offer the same benefits. She asked, "Are all green spaces equal?" and argued that understanding the type, quality, and design of these spaces is crucial for maximizing their health benefits. For example, the calming effects of nature appear to be influenced by specific sensory interactions, such as sight, smell, and sound. Willis discussed how visual interactions with nature can lead to psychological calming within 90 seconds of exposure. Interestingly, certain colours—particularly green and yellow—have been found to be the most calming. Moreover, the patterns observed in nature, also play a role in eliciting relaxation. "Humans pay attention to how much vegetation a landscape has and its fractal patterns, which can influence our mental state," she explained.

The sense of smell, Willis noted, has direct impact on human physiology. Natural smells can activate the parasympathetic nervous system, which is responsible for promoting rest and digestion. A study from Japan demonstrated a significant increase in natural killer cells—part of the immune system—among participants who spent time near Japanese cedar trees. "Natural volatile organic compounds from plants can cross lung membranes and enter the bloodstream, with the potential to have effects on metabolic pathways similar to those from taking prescription drugs," Willis said, emphasising that these effects can mimic the immune-boosting, anti-inflammatory and calming benefits of some medications. Touch also plays a significant role in the positive effects of nature on health. Willis highlighted the immunity benefits of contact with soil: "Research demonstrates that children playing in soil have an increased microbiome diversity and T cells in their blood," she noted, underscoring the importance of tactile interaction with natural environments.

Willis then addressed a key question in the emerging field of "green prescribing": How long do people need to spend in nature to experience health benefits? While current research suggests that 20 to 30 minutes of exposure to nature provides the maximum benefit, Willis pointed out the significant research gaps: "there are fewer than 10 studies on this," she said, calling for more research to understand how long-term exposure affects different populations.

Comparing nature-based therapies to conventional medical treatments, Willis cited a study where 77% of participants who engaged in nature-based therapy did not take any sick leave in the 12 months following their treatment. "Nature-based therapy could be as effective as cognitive behavioural therapy for certain mental health conditions," Willis explained, adding that the long-term benefits and lower costs of these therapies make them an attractive option for healthcare systems. Despite this promising data, Willis cautioned that there is still a lack of research comparing the efficacy of nature-based therapies to traditional medical prescriptions. She urged the scientific community to focus on filling these gaps, particularly in the areas of cost-benefit analysis and the development of frameworks for prescribing nature-based interventions.

Willis concluded by highlighting the need for more quantitative research to support the integration of nature-based solutions into health policy. She pointed out that while there is growing evidence for the benefits of nature, significant gaps remain in understanding how different types of green spaces, interactions with nature, and durations of exposure affect health outcomes. "We need evidence to prescribe nature at the same level that we prescribe conventional drugs," she stressed. She also touched on the need to consider cultural and geographic differences in how people perceive and benefit from nature. Different landscapes may have varying effects on health depending on cultural context, and the general calming effects of nature may be experienced differently across global locations. "We need to frame green prescribing as we do conventional medicine: what type of drug, what dosage, what mechanism of action, and what is the cost-benefit?" Willis emphasised, calling for a more structured approach to the use of nature in healthcare.

Key takeaways

- Access to green spaces significantly improves mental and physical health, especially in deprived communities, and the type, quality, and design of green spaces are crucial for maximising health benefits.
- Smell and sight have profound physiological effects: Natural smells can enhance immune function, while certain colours and patterns in nature can induce calm.
- 20-30 minutes of nature exposure provides the maximum health benefit, though more research is needed on duration and type of interaction.
- Nature-based therapies could be as effective as conventional treatments for some mental health conditions, with the potential for long-term benefits and lower costs.
- There are significant research gaps in understanding how to prescribe nature effectively, particularly in terms of dosage, cost-benefit analysis, and long-term outcomes.

Willis' keynote called for a deeper integration of nature-based solutions into health policy, driven by scientific research that can quantify and support the benefits of green spaces for human health.

Panel discussion

Chair Ilina Singh (Department of Psychiatry, University of Oxford)

Panellists Rob McDonald (The Nature Conservancy)
Peninah Murage (London School of Hygiene & Tropical Medicine)
Marco Aurélio Carvalho (Brazilian Ecopsychology Institute)
Kathy Willis (Department of Biology, University of Oxford)

This panel explored the interconnections between nature, human health, and wellbeing, focusing on how NbS can bridge gaps between ecological and health disciplines. Experts discussed the importance of urban green spaces, indigenous knowledge, and holistic approaches to health, advocating for policies that integrate ecology and healthcare.

Ilina Singh opened the session by questioning how we define both "nature" and "wellbeing." She emphasised that these concepts are often poorly defined, particularly in policy discussions. "We don't know what interventions are driving change," Singh pointed out, noting that while there is evidence at the individual level—particularly from mindfulness literature—there is a gap in understanding nature's impact at the societal level. Singh proposed a new model of wellbeing, "ecological collective flourishing," which calls for a holistic view of health that integrates human and nature wellbeing. "We need to work with nature; we are part of nature," she explained. This view emphasises that studying human health in isolation from ecological health misses the broader picture. Singh introduced a toolkit called ECOFLORET to frame how we can study NbS in a way that includes wellbeing for both humans and nature. "How do we wrap science around activities like this?" she asked, urging researchers to adopt a more integrated approach.

Rob McDonald focused on the role of nature in urban settings and the significant health benefits it offers. "Cities are quintessentially human but are also seen as inhumane," McDonald remarked, referencing the well-documented links between urban environments and increased rates of

pollution, stress, and mental health issues. He cited research showing that urban nature can reduce obesity and stress while increasing property values. However, McDonald pointed out that access to nature in cities is often inequitable. "Poor neighbourhoods have less tree coverage than rich ones in 92% of U.S. cities," he noted. He highlighted the need for urban planning that integrates health and ecological considerations, stating, "Nature in cities is our way to have cake and eat it too." McDonald also shared that trees in the U.S. save 1,200 lives per year, but the benefits are disproportionately enjoyed by "mainly white upper-income groups." He called for a more inclusive approach to urban greening efforts, linking them to public health initiatives.

Penny Murage provided an example of how NbS are being used in rural Tanzania to improve health outcomes. In a project that integrates trees into the landscape, Murage shared that reforesting drylands has helped farmers adapt to rising temperatures. " There is a physiological impact on heat adaptation for rural farmers," she explained, noting that the trees provide shade and create cooler microclimates. Murage demonstrated the application of the ecosystems cascades framework to examine the links between ecosystems, their services and health. She also emphasised the need for research that connects ecological attributes of the landscape with

health outcomes, particularly in the context of climate adaptation. She stressed the importance of identifying thresholds for health that can influence the health sector, which would provide evidence for nature-based interventions, and advocated for more targeted research that can bridge the divide between health and ecology.

"Poor neighbourhoods have less tree coverage than rich ones in 92% of U.S. cities…Nature in cities is our way to have cake and eat it too."

- Rob McDonald

Marco Aurélio Carvalho introduced the concept of ecopsychology, a field that bridges psychology and ecology, to highlight the profound connection between human health and nature. "Our fate is linked to trees," he stated, reflecting on the forest bathing project in Brazil that aims to foster engagement between people and natural areas. Carvalho discussed how the practice of "forest bathing" immerses participants in the natural world, encouraging them to develop a deeper connection with the environment. "Forest bathing generates love and gratitude for the forest," he explained.

Carvalho noted that guides in Brazil's natural parks are being trained to lead forest bathing sessions, helping to promote this practice on a wider scale. He described forest bathing as a deep experience that often lasts for several hours, suggesting that the current threshold for time spent in nature, often cited as 20 minutes, may vary depending on the depth of the interaction. He pointed to forest bathing as an example of a more immersive approach to nature-based health interventions.

The Q&A session explored different perspectives on nature, health, and the role of urban green spaces. Willis pointed out that the 20-minute threshold for health benefits from nature exposure might not apply universally. For instance, some women may feel unsafe in certain green spaces, triggering a "fight or flight" response instead of the calming effect normally associated with nature. Carvalho elaborated on his experience with forest bathing, explaining how the duration of nature interactions in these settings can vary significantly from other types of nature exposure. McDonald highlighted the importance of redefining "nature" in urban settings, explaining that urban parks, tree-lined streets, and even indoor plants can have psychological benefits. "We can also bring nature indoors," he remarked, noting that even a picture of nature can induce a calming effect. McDonald also urged attendees to take responsibility for nature in their own lives: "Increase nature in your life, fight for it, and advocate for it," he said, calling for individuals to push for more inclusive urban greening efforts.

Conclusion

Integrating nature into urban design, health policy, and daily life is essential for addressing the health challenges of the modern world. There needs to be much greater public engagement with nature, more equitable urban planning, and continued research to bridge the gap between ecological and health disciplines.

Actions

1. **Governments and public health organisations should develop policies that integrate nature-based interventions into public health guidelines** to complement traditional treatments, recognising the physical and mental health benefits of nature.

2. **Urban planners must ensure equitable access to quality green spaces**, particularly in low-income areas, to promote physical activity, reduce stress, and improve overall mental health.

3. **Public health campaigns should encourage frequent engagement with nature**, highlighting that even short periods (e.g., 20 minutes) in green spaces can significantly improve wellbeing. These campaigns should also emphasise the need for mutual respect and care between humans and nature as essential to achieving collective wellbeing.

4. **Healthcare providers should adopt an integrated approach**, prescribing evidence-based nature-based interventions alongside conventional treatments to enhance long-term health outcomes.

5. **Businesses can promote wellbeing by incorporating green spaces in the workplace and supporting urban greening initiatives**. These actions enhance employee health while contributing to public health goals.

6. **Schools should integrate environmental education that links nature to physical and mental health,** raising awareness from an early age of the importance of respect for and time in nature.

7. **Scientific research on nature-based health solutions should be expanded**, focusing on the health benefits of nature in both urban and rural settings. Priorities include:

    - Gathering data on physiological and psychological benefits of nature exposure.
    - Investigating optimal exposure durations for different populations.
    - Conducting cost-benefit analyses of nature-based interventions.
    - Establishing environmental health thresholds to guide policymakers.
    - Encouraging collaboration between healthcare professionals and ecological researchers, particularly in the context of climate change adaptation.

Theme 3: Nature-based Solutions for Adaptation and Humanitarian Crises

Nathalie Doswald introduced this third session by calling for greater integration between the currently siloed approaches to disaster risk reduction, climate change adaptation and mitigation, and environmental management, with nature as an important connector.

Keynote Nature-based Solutions As Stepping Stones Out Of Emergencies

Elisabeth Simelton, Center for International Forestry Research and World Agroforestry (CIFOR-ICRAF)

Elisabeth Simelton began by emphasising that NbS should simultaneously benefit both people and biodiversity, highlighting a crucial point often overlooked in trade-off discussions: "When we focus on trade-offs, we often forget about the synergies." She called for a shift away from quick-fix solutions like large-scale industrial agriculture, which tend to ignore these synergies due to funding pressures and a narrow focus on immediate results. Quoting the IUCN's definition of NbS, she reminded the audience that NbS are designed to "protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, *simultaneously* providing human wellbeing and biodiversity benefits." This definition, she argued, must be at the forefront of discussions about food security and emergency responses.

Drawing on earlier talks from Day 1, Simelton asked "Whose values are we counting, and who counts? Is it the communities, the private sector, the governments, or the people who live there, or elsewhere?" This question underscores the complexity of implementing NbS, especially when different stakeholders prioritise different outcomes, often at the expense of long-term, synergistic solutions. The separation of the three Rio Conventions—on biodiversity (CBD), climate (UNFCCC), and desertification (UNCCD)—further complicates this, as it splits funding and implementation across siloed ministries, hindering cross-sector collaboration and reporting on synergies. Simelton reiterated the importance of recognising holistic values in NbS, explaining how one landscape can serve multiple purposes when managed sustainably. By integrating four types of management actions—sustainable practices, green infrastructure, amelioration, and conservation—a single landscape can address water flow regulation and carbon sequestration and biodiversity conservation. These benefits, she stressed, cannot be compartmentalized for separate reporting under the different conventions. "Current reporting systems oversimplify the value of diverse ecosystems to one-dimensional metrics such as 'area,' failing to capture the broader benefits of synergies and avoided losses to the wider landscape," she explained.

Simelton shared three case studies that showcased how NbS can help communities avoid loss and damage while stepping out of emergencies. In Algeria, local communities grow date palms and raise animals in the desert by understanding and working with wind patterns. This case exemplifies the importance of leveraging local knowledge and traditional practices to adapt to environmental challenges. In a refugee camp in Uganda, agroforestry was established by working closely with both refugees and host communities. Listening to the needs of local people and addressing potential triggers for conflict were critical in avoiding maladaptation. Finally, in Ukraine, even in war-torn areas, integrated small-scale farming systems have continued, helping to mitigate some impacts on food security, human health, and wellbeing. This case highlights the potential for NbS to be adapted even in post-war reconstruction efforts.

These examples illustrated that NbS are not one-size-fits-all solutions, with each context requiring adaptation, informed by local knowledge, community needs, and environmental conditions. In her conclusion, Simelton outlined three major action points to help move away from emergency responses toward more sustainable, long-term solutions:

1. **Address maladaptation**
   Prevent conflict triggers and address the short-sightedness of quick-fix solutions promoted by investors and policymakers. She called for more thoughtful and forward-thinking investments in NbS, which consider long-term benefits for both people and ecosystems.

2. **Gather cross-disciplinary data**
   A richer, more diverse body of data is needed to make fact-based decisions and improve early warning systems. This data will not only help reduce disasters and emergencies but will also provide crucial insights into the avoided losses and damages attributable to NbS.

3. **Align international conventions and SDGs**
   Greater alignment between the Rio Conventions and the Sustainable Development Goals (SDGs) is essential to encourage synergies at the local level. Simelton stressed that integrated approaches at the international level can facilitate more effective NbS implementation on the ground.

When asked how NbS can be scaled, Simelton emphasised that it is not the "what" of NbS that can be scaled, but the "how." She explained, "You can scale practices like green infrastructure—such as terraces or agroforestry systems—but what you grow cannot be scaled. It depends on the local context and what farmers or communities need and want to grow." She underscored the importance of local context, situation analysis, and community input in determining which NbS strategies are appropriate in each setting. "So, the technology you might be able to scale," she concluded, "but under very careful situation and context analysis first.'

In summary, Simelton reminded us of the importance of holistic, context-specific solutions that balance human wellbeing with biodiversity conservation. She highlighted the need to overcome systemic barriers—such as siloed policy frameworks and one-dimensional reporting metrics—to unlock the full potential of NbS as a pathway out of emergencies.

Panel discussion

Chairs Nathalie Doswald, Head of Adaptation, Asesoramiento Ambiental Estratégico
Karen Sudmeier-Rieux, University of Applied Sciences, TH-Köln

Panellists Kevin Douglas, Jamaica Red Cross
Gonzalo Gutiérrez Goizueta, World Bank
Annisa Triyanti, Utrecht University
Yvonne Walz, United Nations University, Institute for Environment and Human Security (UNU-EHS)

Panel 3 examined barriers and enabling factors for scaling NbS for climate change adaptation and disaster risk reduction (DRR) at the local, national, and international levels. The panellists outlined the complexities of engaging communities, the need for diversified funding, and the importance of integrating policy frameworks across sectors to achieve meaningful impact. A central theme of the session was the necessity of empowering local communities and involving them in every step of NbS design and implementation.

Karen Sudmeier-Rieux opened the conversation by reflecting on the urgent need to "build bridges for positive change", across convention, ministry and local levels. She emphasised the potential of NbS as a bridge for collaboration through crisis prevention and recovery, stating, "It often takes a disaster or an emergency for things to change and for us to work together.

Kevin Douglas stressed the importance of local community involvement in NbS initiatives. In Jamaica, where the scale of natural hazard-induced disasters like flooding and landslides are exacerbated by the destruction of natural buffers such as mangroves and hillside forests, local communities must be at the forefront of resilience-building efforts. "We see ourselves as accompanying local communities rather than leading them," Douglas remarked, emphasising that communities need to be involved from the selection of NbS right through to implementation and monitoring. He

pointed out that too many initiatives have failed because local communities were not prioritised. "I have seen many initiatives come apart because the local communities were not engaged meaningfully," he explained, stressing that long-term success hinges on community leadership. He also highlighted land tenure issues, access to funding, and institutional barriers such as changes in government priorities and insufficient buy-in as major challenges for scaling NbS in Jamaica.

Annisa Triyanti shifted the conversation towards a broader understanding of risk. She argued that risk should not be viewed as isolated events but as part of a systemic failure. "It's a culmination of failed governance and human actions that have not allowed communities to cope, adapt, and transform," she stated. Drawing from her work with the Seasea indigenous tribe in Sulawesi, Indonesia, Triyanti illustrated how Indigenous communities are deeply connected to their environment. "The forest is the sacred place, the birthplace of the tribe," she shared, emphasising that indigenous knowledge plays a crucial role in environmental conservation. Triyanti called for the recognition of indigenous governance systems, arguing that self-governance is vital for the wellbeing of both the community and the

environment. "We need to reflect on our role as researchers," she added, highlighting the importance of transdisciplinary approaches and diverse knowledge systems in addressing complex social and ecological challenges.

"We need to acknowledge those risks and try to prevent them, but we have to avoid being paralyzed by them."

- Karen Sudmeier-Rieux

Gonzalo Gutiérrez Goizueta provided insights into the financial challenges facing NbS projects. He emphasised the need to attract private sector investment to scale NbS, pointing out that public money is scarce and highly competitive. "I really believe we need to incentivize private sector participation if we want to see more NbS implementation, at least in the current economic system we live in," he said. Gutiérrez acknowledged that while NbS projects generate multiple co-benefits, the high transaction costs and risks often deter private investors. He advocated for leveraging public funds to de-risk private investments and build sustainable financing structures for NbS. "We are starting to build up the track record, and I hope we see a 'snowball effect' in evidence building," he stated, highlighting the need for robust impact measurement and reporting to attract more substantial investments.

Yvonne Walz focused on the role of policy and planning as key enablers for scaling up NbS. She highlighted the need for alignment between different policy frameworks such as the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), and the United Nations Convention to Combat Desertification (UNCCD). "NbS is an umbrella term," she explained, noting that it encompasses various approaches like Ecosystem-based Adaptation (EbA) and Eco-DRR, each with specific goals. Walz emphasised the need to bridge these approaches to maximize co-benefits across sectors. However, she pointed out that one of the main barriers to NbS implementation is the "value crisis" in policy and planning, where decisions are made through a "one-dimensional value lens" that focuses either on economic or ecological values, without acknowledging their interconnectedness. "We need pluralistic valuation of nature," Walz said, calling for diverse perspectives to be incorporated into decision-making processes. She also underscored the relevance of this approach when setting priorities for addressing Loss and Damage.

In Q&A, speakers and audience explored the power dynamics of funding and the challenges of ensuring that adaptation funds reach the most vulnerable communities. Douglas reiterated the importance of championing local leadership, while Doswald added that donor flexibility in the early stages of projects is essential to give space and time for community engagement. Triyanti emphasised the need for longitudinal funding to build capacity within communities, arguing that "it takes a long time to build self-governance and resilience." The discussion also addressed the economic challenges of scaling NbS. Responding to a question about the role of insurers in NbS funding, Gutiérrez highlighted that insurers are familiar with reducing risk and may play a crucial role in future investments. He also reiterated the importance of holistic NbS projects: "We need to acknowledge those risks and try to prevent them, but we have to avoid being paralyzed by them." Sudmeier-Rieux suggested government investments in de-risking as a valuable use of public funds.

Conclusion

Scaling NbS for climate change adaptation and DRR necessitates a holistic approach that integrates community leadership, diversified funding, and policy coherence across sectors. Therefore, to scale NbS with integrity requires collaboration across disciplines and a strong focus on building a successful track record to attract investment and community support.

Actions

1. **Align global frameworks** such as the CBD, UNFCCC, and UNCCD to promote integrated approaches to climate resilience, biodiversity conservation, and land restoration through NbS.

2. **Ensure Indigenous Peoples and Local Communities (IPLCs) lead the design, implementation, and monitoring of NbS,** recognising their traditional knowledge as key to the success and sustainability of initiatives.

3. **Move beyond single-focus NbS projects** (e.g., carbon sequestration) to incorporate climate adaptation, biodiversity, and social resilience for long-term ecosystem and community benefits.

4. **Encourage flexible and long-term funding models that accommodate evolving NbS projects**, with risk-tolerant financial mechanisms to attract private sector investment and support innovation.

5. **Develop and share a robust evidence base for NbS projects to showcase their long-term benefits** and attract more investments, while documenting best practices for scaling globally.

6. **Promote collaboration across climate science, biodiversity, and social sciences**, bringing together IPCC, IPBES, and other platforms to integrate diverse knowledge into NbS strategies.

7. **Implement decision-making processes that recognise the full spectrum of nature's contributions**, including ecological, cultural, and economic values, ensuring transparency and inclusivity in NbS planning.

8. **Integrate socio-ecological systems thinking into national and local policy frameworks** to address interconnected crises and deliver benefits for climate, biodiversity, and community resilience, with monitoring, reporting and funding mechanisms allowing for the integration of values.

Art at the Conference

I am a Tree!

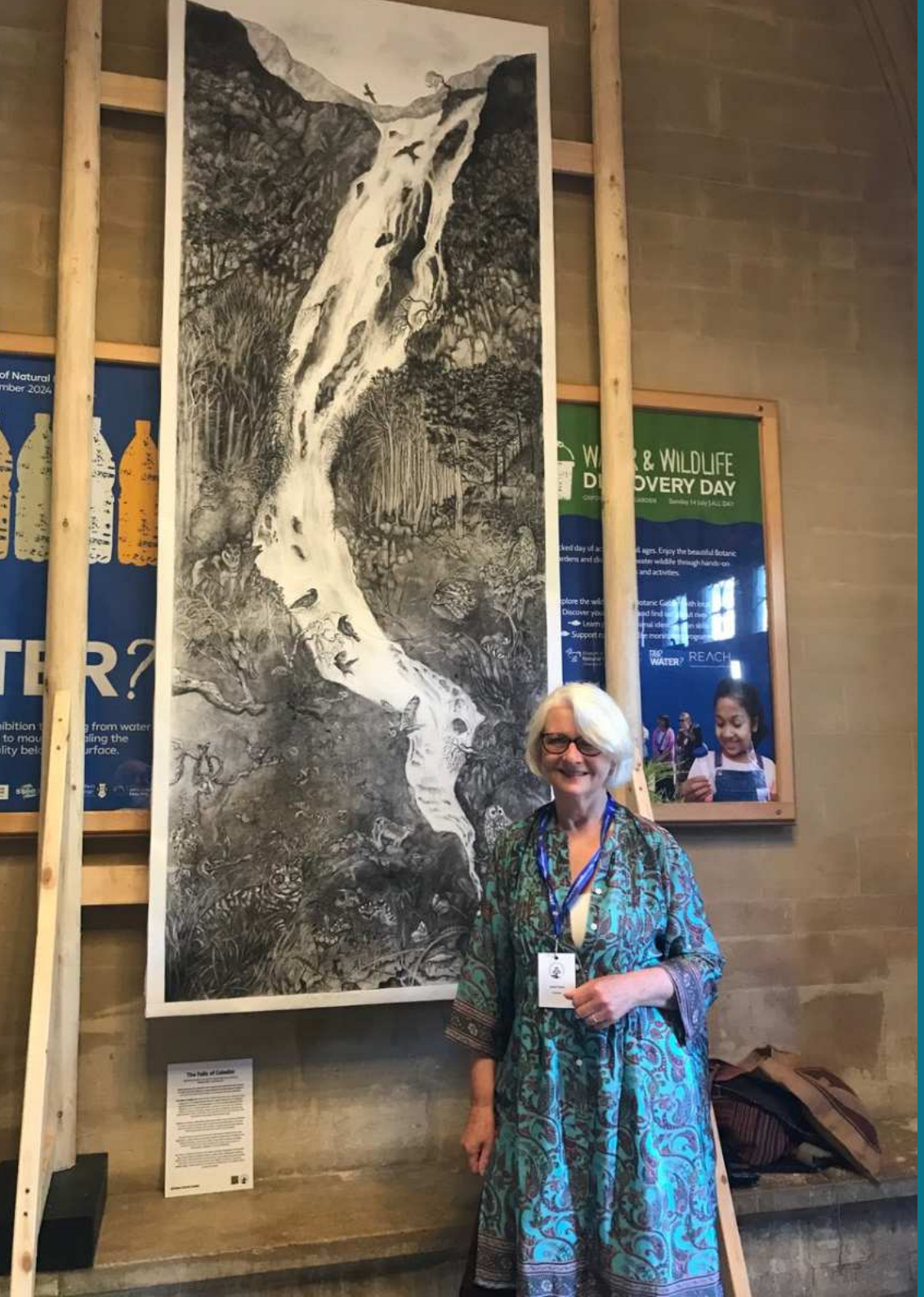
Naine Terena de Jesus, 2022, Brazil

Naine Terena's 'I Am a Tree!' proposed a dialogue between human and non-human realms by offering a record of the world of the trees. It raises the question: "*Are you a tree?*" "*What is rooted in you beyond what we can see?*"

For Brazilian Indigenous Peoples, all things have an "owner" – a guardian that is in conversation with human beings. Taking this as a source of departure, I Am a Tree! presented a photographic essay portraying trees from South Africa, Brazil and Germany, seeking to establish a poetic interaction.

The following text, by the Terena teacher Évelin Hekeré, translates 'I Am a Tree!' into words. It discusses her people's understanding of the relationship between living beings and cosmological plant beings.

"Your eyes can see as far as the horizon allows. I am the owner of the food you eat and the air you breathe. I have been here for thousands of years. I have followed your birth and your fall. I take care of your generation now. I will keep caring for future generations. You may not understand me, but the wind whispers and asks me to warn you about times to come. Even when you do not understand me, I ask Orekayuvakae, the creator, to send a Humurukuku bird to warn you about the moments of dangers or joy that are to come. I am the beginning of everything. I am never the end. I cross centuries and ages. I am belonging. I am knowledge. I am the Koixomuneti shaman that heals you and takes away what is negative from your matter and soul. It is through my hands that birth is given and grandchildren come into this world. My roots and my rustling heal your human pains. I am the beginning of all things. I am a tree."



The Falls of Caledon

Jane Frere, Medium Charcoal on Hahnemühle Natural Bamboo
janefrere.info / druimarts.com

The Falls of Caledon (the term for the ancient forest that once stretched across a large part of Scotland once called Caledonia) is an imagined waterfall somewhere in the mountains close to my studio and home in the Highlands. The cascading falls offer a refuge for a rich diversity of biota in irrigated crevasses escaping overgrazing deer. Our hillsides have become '*green deserts*', barren and bereft of the diversity of trees, flora and fauna that once thrived and cloaked the mountain sides. Using bamboo instead of cotton-based paper was a deliberate choice to use a natural medium with a lower environmental impact. Charcoal, by contrast, may not have the same sustainability credentials, but it is still a valuable and versatile material that artists have used since the time of the earliest cave drawings.

You don't need to look back as far as the stone age to understand that the once-vast Scottish forest, known to our ancestors as the great wood of Caledon, was home to bears, wolves, lynx, and more. It was a rich equilibrium of biodiversity that seems almost unimaginable in our depleted 21st-century world. The Falls of Caledon is a reflection of both extinct predators and the few present-day survivors, like the Highland wildcat. Like a palimpsest, some creatures emerge clearly while others are more spectral, their presence almost erased. The fragility of charcoal—an ephemeral medium—serves as a reminder of how easily nature itself can fade or be lost if we are not vigilant.

Confluence of Solutions: Journey to Belém (CoP30) and beyond

Artists Cécile Girardin (Nature-Based Insights & Nature-Based Solutions Initiative), Lisa Curtis (independent artist), and Raphaël Girardin-Potts (student) captured the conference's emerging themes in a mural outside the museum. This mural illustrated the work and approaches the nature-based solutions community will need as we look ahead to the United Nations Framework Convention on Climate Change (COP30) in Belém, Brazil, in 2025 and beyond. It intertwined hopes, reflections, values, and global evidence, crossing disciplines and cultures to shape an agenda for scaling nature-based solutions that support both societal and ecological wellbeing. The action agenda was depicted as a flowing river, symbolising the convergence of diverse knowledge needed to address climate and biodiversity challenges. This river imagery also represents the journey towards building an economy that sustains and nurtures the web of life, rather than contributing to its unraveling.

Posters showcasing case studies, projects and evidence

During the conference, posters showcasing the latest research in the field of NbS and across all nine conference themes were presented. In-person posters were displayed in the upper gallery of the museum where attendees could ask authors questions about their research. Three online poster sessions were also held with presenters from across the world, highlighting a diverse range of case studies, projects and scientific evidence on NbS underpinning the conference sessions.

Download all the posters here

Watch poster sessions on YouTube

LUND UNIVERSITY

Evaluating the Role of Biodiversity in the Climate-Biodiversity-Health Nexus

CAROLINA RODRIGUEZ[1], PAULINE REBOUILLAT[2], MARLIS WULLENKORD[3]

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Conclusion

This study highlights **biodiversity's critical role** in addressing climate change and its implications
Although extensive research covers
connections between biodiversity
health, there is a significant gap in
areas, a concerning finding given th
interconnected global challenges.

Direct | Indirect
Seasonal | Long-term

Biodiversity

Exposure | Experience

Background

Global issues like climate change, biodiversity
are interconnected and require comprehensive
Biodiversity-Health Nexus illustrates a comp
present both challenges and opportunities for
solutions play a crucial role in enhancing bioc
climate change adaptation and mitigation, and

Examples of Nature-based Solutions. Left: Fulltofta Nature Reser
management infrastructure in Augustenborg, Malmö, Sweden

Evidence for the links be

Biodiversity and Climate Change

Biodiversity crucially underpins ecosystem res
it is severely threatened by climate change. Ou
impacts such as **altered species distribution**
interactions, emphasizing the need for **robus**

Biodiversity and Human Health

While the global importance of biodiversity for
the direct effects on human health through **exp**
are less understood, revealing a gap in linking
and mental well-being.

Climate Change and Human Health

Exposure to climate change varies widely, fro
weather events to indirect effects through **alte**
physical and mental health across different p

Key references
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PHUSICOS

Towards nature-based solutions as a design for disaster risk reduction in rural mountai

Amy Oen (NGI, amy.oen@ngi.no), Anders Solheim(NGI), Annelies De Nijs (Agence TER

Background

Nearly 50% of rural areas worldwide are classified as mountainous regions and are exposed to risks from geological and hydrometeorological hazards. Mountains tend to amplify these risks, especially under extreme weather events. However, NbS in rural mountainous regions have not received the same attention as those in densely populated urban areas, nor have they been extensively explored in national disaster risk reduction (DRR) plans.

The PHUSICOS project has focused on investigating the use and benefits of NbS in such areas through the implementation of NbS at demonstrator cases. The project results have culminated in an NbS guidebook, designed to inspire by showcasing NbS as landscape interventions. This guidebook is visually impactful and presents NbS strategies in relation to six specific landscapes or ecosystem narratives within a river basin perspective.

Sparsely vegetated lands ecosystem

Afforestation on steep slopes selected by stakeholders as NbS to reduce snow avalanche release at Capet Forest.

- 6758 trees planted over 4-year period
- 9 tree species selected based on climate and elevation (1800-2200 m asl.)
- Trees densely planted in polygon pattern (30 per 35 m^2 and 16 per 17 m^2)
- Monitoring has documented tree loss (expected and required for growth)
- 20-30 years of monitoring tree health and maintenance of tripods expected until trees solid enough for protection

Afforestation in the Pyrenees, France. Tripods to protect saplings (D2.4, www.phusicos.eu).

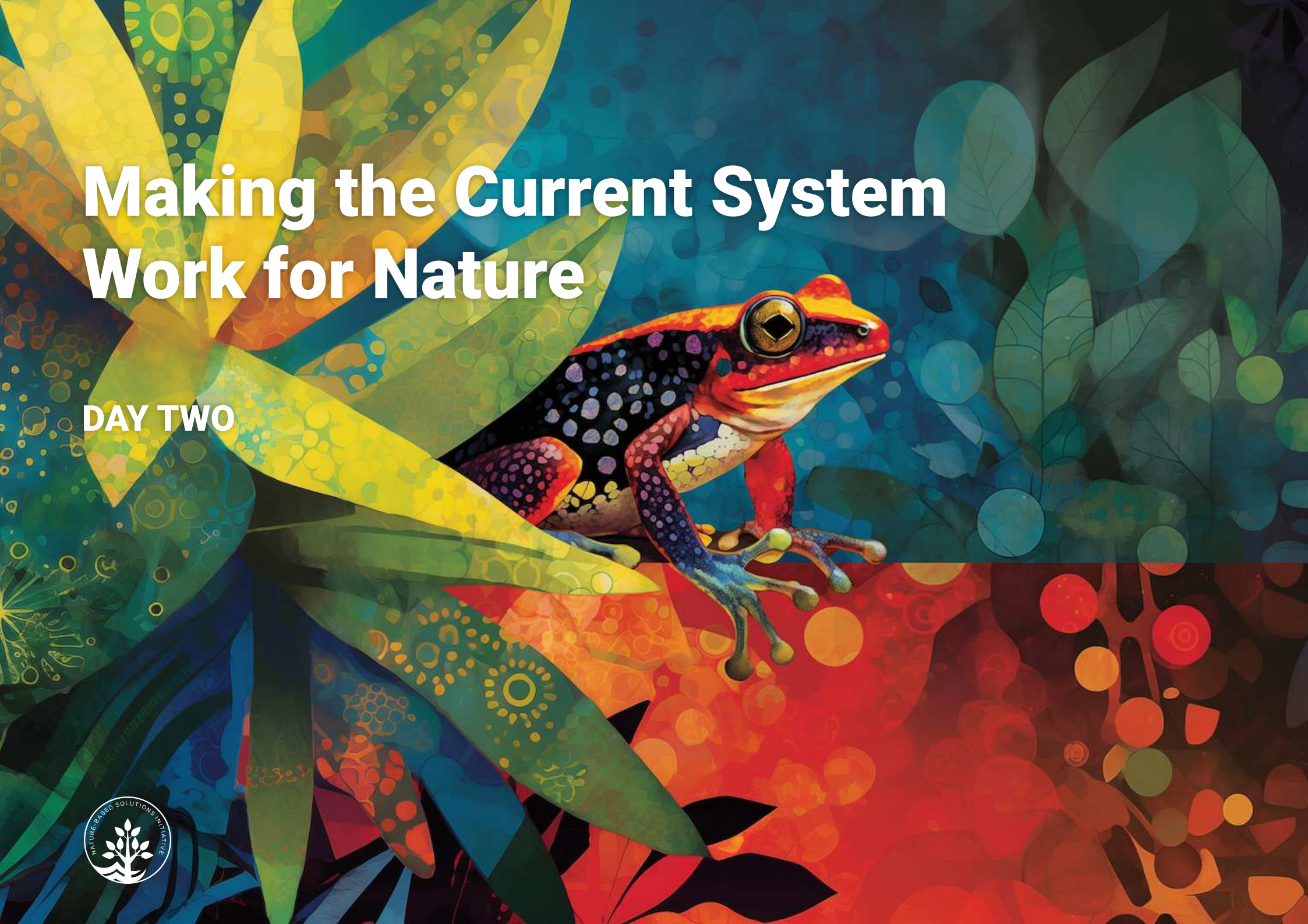
Rivers and lakes ecosystem

Sedimentation basin and buffer strips selected by local farmers as NbS to reduce erosion and flooding, alleviate drought severity, and improve water quality.

- 3 m wide buffer strips planted in two areas with either clayey or peaty soil

Making the Current System Work for Nature

DAY TWO



Theme 4: Addressing Uncertainty and Building the Evidence

Keynote Moving beyond uncertainty to deliver nature-based solutions at scale

Kathryn Brown, The Wildlife Trusts

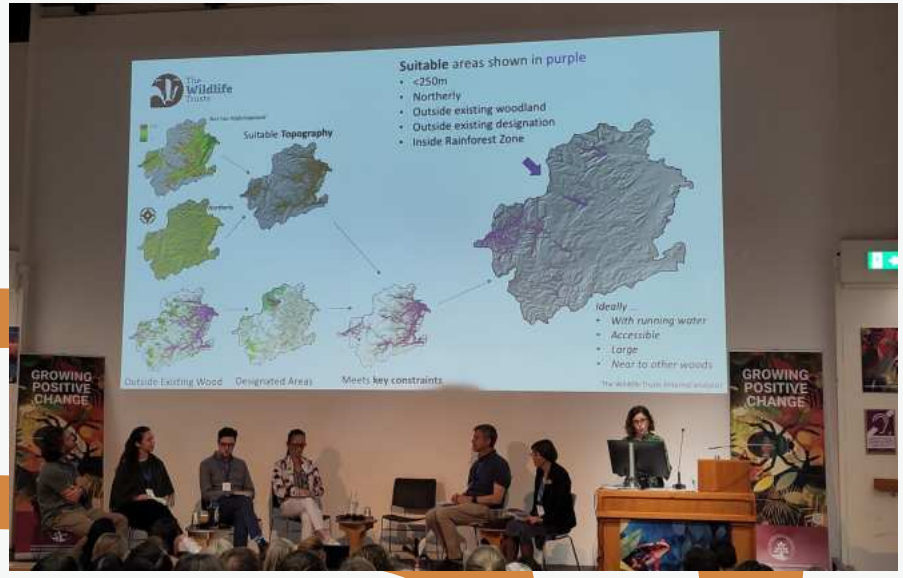
Kathryn Brown's keynote addressed the importance of pragmatic action and the role of uncertainty in delivering NbS at scale. Brown emphasised that while measurement and data collection are vital, lack of perfect information should not be used as an excuse to delay or hinder action. She argued that "getting something nearly right is better than being perfectly wrong," stressing that overly complex measurements can sometimes mask uncertainties and lead to inaction.

Brown highlighted the need for effective frameworks that account for uncertainty and provide guidance for implementing NbS. While acknowledging the value of precise data, she stressed that simplicity and clarity can sometimes have a stronger impact on policy uptake. For example, The Wildlife Trust's health and wellbeing programmes demonstrated that even simple economic analyses—such as cost savings from social prescribing—can open doors for further discussions on the benefits of NbS without needing to quantify every outcome.

Three case studies illustrated Brown's message of pragmatic action:

1. **Temperate rainforest programme**
   This initiative, re-creating rainforest in the west of the UK and funded by Aviva, is taking a straightforward approach to opportunity mapping to restore temperate rainforests in Wales. By combining simple mapping techniques with future climate projections, the project demonstrated how practical methods can be used to establish the best locations for resilient ecosystems.
2. **River Otter beaver reintroduction**
   This example showed positive ecological outcomes such as improved biodiversity and natural flood management, even though the intervention was not originally planned (it is not known how the beavers arrived). The success of the project highlighted the importance of learning from action and adapting as the outcomes unfold.
3. **The Wildlife Trusts' Health & Wellbeing Programme**
   This programme focused on improving mental health through social prescribing initiatives that connect people with nature. Brown noted that while not all benefits were fully measured, the programme demonstrated significant cost savings, reinforcing the potential of NbS to support public health and reduce costs to the NHS

Brown questioned whether everything in NbS needs to be measured, particularly when it comes to complex, intangible outcomes like community feelings or the intrinsic value of nature. She acknowledged that while measurement is critical, focusing solely on data can overlook the broader benefits of NbS and slow down progress. The key, she argued, is to balance pragmatism with ongoing learning, allowing action to guide future improvements.



Key takeaways

- Pragmatic action is essential, even when data is incomplete. Overemphasis on measurement can mask uncertainty and hinder progress.
- Frameworks can help guide the implementation of NbS but should remain simple to encourage policy uptake.
- Learning through action is crucial. The success of projects like the River Otter beaver reintroduction illustrates that not all NbS benefits can be predicted or measured upfront.
- Measurement should be practical and relevant, focusing on key outcomes that can drive policy discussions and further action, rather than attempting to quantify everything.
- Nature-based health interventions such as social prescribing programmes can bring significant benefits to public health and save costs, even without complex data collection.

Brown's keynote encouraged the NbS community to move beyond uncertainty, combining action with continuous learning to deliver nature-based solutions at scale.

Panel discussion

Chair Valerie Kapos, UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC)

Panellists John Lynch, Nature-based Solutions Initiative, University of Oxford
Mike Morecroft, Natural England
Merata Kawharu, Te Whare Wānaka o Aoraki Lincoln University
Sara Löfqvist, ETH Zurich
Gus Fordyce, Nature-based Insights

Panel 4 went deeper into how NbS should balance uncertainty with the need for actionable data and for timely action. Panellists explored both the complexity and necessity of monitoring and evaluating NbS outcomes, as well as the challenge of balancing scientific frameworks with pragmatic, community-led approaches. The session revealed diverse perspectives on how to deal with uncertainties, especially in terms of measurement, social impacts, and the integration of indigenous knowledge.

Valerie Kapos began the session by encouraging the panel to embed multiple world views, benefits and values when discussing the uncertainties around NbS. She also raised the challenge of needing to simplify NbS for decision-makers, while embracing their inherent complexity.

John Lynch argued that even though there is little direct monitoring of NbS outcomes, assumptions based on broader environmental correlations can provide sufficient guidance. For example, indicators like vegetation cover and water tables can help estimate carbon storage and greenhouse gas reductions following peatland restoration. He acknowledged, however, that this approach introduces uncertainties, particularly in climate resilience and the biodiversity of species used in restoration efforts. Lynch supported the IUCN global standard, which calls for regular monitoring and adaptive management, emphasising that NbS should be based on a robust evidence framework, even if not all factors can be measured to the same level of detail.

Mike Morecroft highlighted the importance of 'learning by doing': There is good evidence that NbS can deliver climate change adaptation and mitigation at the same time as biodiversity, but there have also been failures. There is a need for urgency in scaling up NbS implementation to respond to the pressing nature of climate change challenges, so we must learn from both successes and failures. Morecroft advocated for better research, monitoring, evaluation, and data publication, linked to NbS schemes. He pointed to the *Nature Returns* programme as an example of a landscape-scale initiative that integrates scientific research and monitoring with practical outcomes for both people and nature. It is also exploring the practicalities of green finance.

Merata Kawharu discussed how the Maori concept of *whakapapa* (the layering of time and relationships between species) informs NbS in New Zealand. Kawharu stressed the importance of a values-based approach, where intent and accountability guide action rather than solely relying on data. She mentioned that the framing of NbS is crucial to getting the right answers, as indigenous knowledge systems like whakapapa help

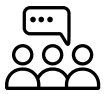
understand reciprocal relationships between humans and the land. Kawharu's approach focused on a symbiotic relationship with nature, as exemplified by projects like the Orakei Auckland urban reforestation, which seeks to recreate ecological corridors and cultural sites. Kawharu stressed that NbS must not be confined to Western scientific frameworks alone. "The direct translation of NbS concepts into Maori culture is often difficult," she said, noting that indigenous knowledge systems offer a holistic understanding of human-nature relationships that are essential for NbS success. She described walking "backwards into the future," a Maori approach to viewing time and nature, which prioritises ancestral knowledge to guide present-day ecological restoration.

Sara Löfqvist brought attention to the importance of equity in NbS, arguing that it is "imperative for the long-term success" of these projects. She warned that NbS initiatives, particularly those funded by carbon finance, could have detrimental effects on local communities if not carefully monitored. "The most vulnerable human communities overlap with places with the most NbS potential," she pointed out, stressing that these communities must not be an afterthought. Löfqvist's research showed that community-led restoration projects tend to achieve better ecological outcomes, but she cautioned that positive outcomes like job creation do not necessarily equate to equity. "Benefits may be accumulated in households already in power," she said, warning of the need for thorough social monitoring to ensure equitable distribution of benefits. Löfqvist called for improved regulations and public support to ensure that finance for nature is directed toward sustainable and socially just outcomes. "Monitoring matters to promote equitable outcomes," she said, advocating for more stringent regulations to ensure that NbS projects deliver holistic benefits.

Gus Fordyce expanded on the need for dynamic monitoring and evaluation (M&E) systems that can handle uncertainty in NbS projects. He described NbS as complex, multi-faceted systems that require long-term thinking and a willingness to work with uncertainty. "See it like a spider's web," Fordyce said, explaining that every part of an NbS project is interconnected, and practitioners must understand how different parts of the system might 'wobble' or go wrong. He advocated for systems thinking and the use of socio-ecological models to navigate uncertainty and improve the effectiveness of NbS. Fordyce also touched on the difficulty of integrating large-scale global datasets with local-level data. "Global and regional datasets are useful for decision-makers," he said, "but they could be simply wrong or inaccurate." The challenge, he explained, lies in finding ways to connect these broad datasets with the realities on the ground without losing the valuable insights they offer for larger-scale analysis.

"The direct translation of NbS concepts into Maori culture is often difficult."

- Merata Kawharu



Conclusion

It is important to balance uncertainty in NbS with action, prioritising adaptive, evidence-based management that respects and integrates indigenous knowledge and equity considerations. While uncertainty will always exist, it should not prevent progress. Instead, NbS should be viewed as evolving solutions that require continuous monitoring, learning, and community engagement to succeed in the long term. 'Learning by doing', even with limited data, is key to making progress.

Actions

1. **Improve regulations on social outcomes** to ensure that NbS finance does not negatively impact local communities and that social monitoring is integral to all projects.

2. **Embed local leadership** and in particular support Indigenous leadership of NbS projects to ensure cultural accountability and long-term success.

3. **Expand monitoring tools** that capture NbS outcomes beyond carbon mitigation, using a broad range of metrics to assess success across different landscapes and communities.

4. **Embrace adaptive learning** and encourage practitioners to continuously develop and modify their strategies based on evidence - "learning by doing" from both successes and failures.

5. **Slow down on producing large datasets and new standards** and focus on putting existing frameworks into action, adopting a more practical, results-oriented approach.

6. **Increased collaboration between natural and social scientists** to tackle the challenges of NbS implementation as both fields are essential to understanding and managing complexity.

Theme 5: Balancing Resilience Concerns around Nature-based Solutions

Keynote Brazilian Cerrado: A Biodiversity Hotspot Facing Global Challenges And Searching For Local Solutions

Mercedes Bustamante, Department of Ecology, University of Brasilia

Mercedes Bustamante's keynote centred on the critical role of the Brazilian Cerrado in meeting the goals of the Paris Agreement, and the complex challenges it faces due to agricultural expansion, deforestation, and climate change. The Cerrado, Brazil's second-largest biome, spans 23.3% of the country and serves as a mosaic of ecosystems that store significant amounts of carbon, primarily in its belowground biomass and soils. However, it is under severe threat, with deforestation in the Cerrado surpassing that of the Amazon in 2023.

Bustamante emphasised that the Cerrado is a biodiversity hotspot, a vital region for water resources, and home to 38 Indigenous societies and numerous local and traditional communities. However, land-use changes driven by meat, grain, and biomass production, along with a changing fire regime, are pushing the Cerrado towards becoming a carbon source instead of a sink. Bustamante warned that the region is becoming hotter and drier, with unsustainable agricultural practices leading to "agrosuicide," where the land is no longer suitable for farming.

A key part of her talk focused on the need for zero deforestation policies and well-planned land management strategies to protect the Cerrado's ecosystem services. She highlighted that Brazil's commitment to large-scale restoration under the Paris Agreement has seen little progress thus far, with only a small portion of the biome being restored. Bustamante stressed the need to restore 10% of the Cerrado (an area equivalent to 35% of pastures in the biome) to maintain its ecological and climate stability.

Indigenous Peoples and local communities, who play a crucial role in maintaining biodiversity, are also facing significant pressures from agricultural expansion and climate change. Water management is becoming a key area of conflict, as irrigation demands are projected to rise in a region already experiencing a drying climate. Additionally, Bustamante raised concerns about "green land grabbing," where land is appropriated under the guise of environmental protection, but often excludes the participation of local communities.

In closing, Bustamante called for a transformation of "sacrifice zones" like the Cerrado into "sacred zones," where the focus is on restoration, protection, and sustainable use of biodiversity. She advocated for a bioeconomy model in Brazil that balances agricultural needs with environmental conservation, while protecting the rights of Indigenous communities and addressing the political challenges posed by the powerful agriculture lobby.

During the Q&A, Bustamente discussed the potential for a sustainable bioeconomy in Brazil, the risks posed by eucalyptus plantations, and the challenge of engaging with investment funds that promote land conversion. She highlighted the need for collaborative efforts across sectors to promote restoration and resilience in the Cerrado.

Key takeaways

- The Cerrado is crucial for biodiversity, carbon storage, and water resources, but faces severe deforestation and degradation from agricultural expansion.
- The region is becoming hotter and drier, threatening its agricultural viability and turning it from a carbon sink into a carbon source.
- Restoring 10% of the biome, with the potential use of degraded pastures is essential to maintaining ecological balance and meeting Brazil's Paris Agreement commitments.
- Indigenous and local communities are key stewards of biodiversity but face pressures from land grabs and agricultural expansion.
- Brazil must adopt a sustainable bioeconomy model, focusing on land restoration, biodiversity conservation, and better management of natural resources.

Panel discussion

Chair Stephanie Roe, WWF-US

Panellists Pete Smith, University of Aberdeen
Alexandra Deprez, Institute for Sustainable Development and International Relations (IDDR)
Alejandra Calzada Vazquez Vela, WWF Mexico
David Croft, Reckitt, Global Head of Sustainability
Mercedes Bustamante, Department of Ecology, University of Brasilia

This panel focused on the critical issue of balancing resilience in NbS against climate impacts, socio-economic pressures, and ecosystem vulnerabilities. As NbS gain traction as vital tools for both carbon dioxide removal (CDR) and climate adaptation, this session explored how to ensure their durability while avoiding unintended consequences like commodification and short-term thinking. The panellists, from diverse backgrounds in academia, business, and conservation, emphasised the need for holistic strategies that address both ecological and social dimensions of NbS.

The chair, **Stephanie Roe**, introduced the session by noting that NbS can be effective at building resilience but that, as ecosystems are affected by climate change, the resilience and effectiveness of NbS may be at risk. On the one hand there are concerns on the durability and permanence of NbS, and on the other hand some are worried that this concern around permanence is hindering investment in and implementation of NbS. Roe asked “Are these concerns valid?”. On the question of investment, Roe highlighted a trend of increasing investment in NbS since 2021, despite a dip in the voluntary carbon market which was primarily due to credibility, additionality and integrity concerns, rather than resilience concerns.

Pete Smith began by discussing the multiple CDR options, from geological to land-based biological methods, and how investors are often drawn to

"There’s more to life than carbon”

- Pete Smith

long-term, non-reversible storage solutions such as geological storage. However, he cautioned, "We need to make sure that the CDR options we choose are future-proof." He highlighted the finite nature of ecosystem carbon sinks, noting, "Sinks saturate," and emphasised the risks of over-relying on NbS for carbon storage without considering other environmental and social factors. He raised concerns about large companies purchasing land for NbS without consulting local communities, noting, "That wouldn't be a nature-based solution." Smith argued that robust monitoring, reporting, and verification (MRV) systems are essential to ensure that NbS projects can deliver long-term benefits. He concluded by reminding the audience that while carbon is important, "There's more to life than carbon."

Alexandra Deprez framed NbS and CDR within broader environmental and social factors, urging a rethinking of how we approach net-zero strategies. She pointed out that while some CDR will be necessary to reach net-zero by mid-century, various examples show policymakers and industries are being tempted to rely on it as a future ‘get out of jail card’ instead of reducing fossil fuel emissions at the source today. "There are environmental

constraints to CDR that are not adequately being considered in current IPCC models," Deprez stated, emphasising the risks of over-relying on CDR, especially at the expense of ecosystems and food security. She raised concerns about commodifying nature through market-based approaches, such as carbon credits, which could justify ongoing fossil fuel use rather than prioritising genuine emission reductions. "We need to reframe the discussion and prioritise steep emission cuts now," she argued, while scaling NbS and building a supply of technology-based CDR with strict sustainability criteria in parallel. She called for improved scientific assessment of what is the sustainable CDR budget across various options.

Alejandra Calzada Vazquez Vela spoke about the critical role NbS play in Mexico, especially mangrove restoration. She noted the increasing vulnerability of mangroves to climate change and extreme weather events, explaining, "We are firm believers that NbS are one of the ways to go, it might be the only one." Calzada described the painstaking process of restoring mangroves, which can be expensive and slow, but she also highlighted the social resilience that comes from these projects. "We are building other forms of resilience socially around the mangroves—social cohesion, livelihoods, and awareness," she shared. An interesting initiative involved the creation of an insurance policy for mangroves, which provides funds for immediate restoration after hurricanes. This policy is an example of a proactive way to support resilience. "If we act right away after a hurricane, restoration is likely to be much more successful," she stated, demonstrating the importance of planning for uncertainty.

David Croft focused on how global businesses are increasingly recognising their dependence on nature and the importance of integrating NbS into their value chains. "We are very dependent on nature," he stated, pointing out that businesses have historically commodified natural resources without considering the ecological or social impacts. He emphasised the need for new business models that treat natural ecosystems as more than just commodities. "Decommodifying supply chains and building value back into ecological and social systems increases land value for local landowners," Croft said, stressing the importance of involving local communities in decision-making. Croft highlighted how this approach not only improves business resilience but also benefits ecosystems and communities. However, he acknowledged that businesses need support from policy frameworks to make this transition effective.

Mercedes Bustamante expressed her deep concerns about the global trend toward the commodification of nature, especially through carbon markets and pointed out that these market mechanisms often fail to recognise the broader ecological and social benefits that ecosystems provide. Bustamante advocated for a more holistic view of resilience that integrates both ecological and social resilience. "Global challenges require action with a regional and local lens," she noted, underscoring the importance of context-specific solutions in places like the Amazon and Cerrado.

During the Q&A, in response to a question about how to incentivize investment from businesses in long-term resilience, David Croft reiterated the need for integrated solutions that address multiple challenges at once, rather than focusing solely on short-term profits. "We have to tackle not just the problem in front of us," Croft said, emphasising that businesses need to recognise the long-term value of building resilience into their operations. He also noted that policy support is crucial to create incentives for companies to make these kinds of investments. Alejandra Calzada responded to a question about how to integrate resilience into NbS projects, which often focus on carbon-heavy ecosystems. She pointed out the importance of monitoring systems, particularly in vulnerable ecosystems like mangroves. "We have dedicated efforts on mangrove monitoring, setting in place systems to identify patterns of resilience," she said. These systems, she explained, allow decision-makers to adapt quickly to changes and prevent further damage after extreme events.

Pete Smith acknowledged the difficulty in measuring resilience but argued that we have enough knowledge to begin incorporating resilience factors into NbS design. "It is very difficult to measure resilience, but we can get started," he said, calling for more proactive measures to enhance ecosystem and community resilience in the face of climate change.

Mercedes Bustamante tackled the critical issue of commodifying NbS, warning that financial markets often oversimplify nature's value by reducing it to monetary terms. "I am really worried about calling nature 'assets'," she said, cautioning against approaches that might lead to exploitation or market-driven destruction of ecosystems. Bustamante emphasised that focusing solely on the economic value of NbS risks undermining their long-term sustainability, especially in vulnerable regions like Brazil. David Croft agreed that financial mechanisms alone are not enough, stressing the need for a broader valuation of ecosystem services beyond market logic. He noted, "We need metrics to understand the details in order to drive change," explaining that businesses need better tools to assess the full ecological and social impacts of their operations.

Pete Smith addressed a question about the conflict between short-term net-zero targets and the longer-term need for durable, resilient NbS. "Net-zero is a pressing need," he said, acknowledging the urgency of cutting emissions quickly to meet the Paris Agreement targets. However, Smith cautioned against sacrificing long-term sustainability for short-term gains and Mercedes Bustamante echoed this sentiment, expressing concern about the disconnect between short-term policies and long-term ecological realities. "There is a lack of alignment in long-term strategies with biodiversity," she said, emphasising the need to rethink policy frameworks to ensure that both biodiversity and climate goals are addressed together.

Conclusion

NbS require a holistic approach, addressing ecological, social, and economic dimensions. As NbS become increasingly integral to climate strategies, it is essential to move beyond carbon-focused goals and consider the broader value of ecosystems. Long-term thinking is vital, integrating resilience into policies and business models, and ensuring that NbS are designed to benefit nature and people, as part of nature.

Actions

1. **Break down silos** and adopt a more integrated approach, connecting carbon mitigation with biodiversity conservation and social resilience.
2. **Plan for resilience and uncertainty**, particularly in vulnerable ecosystems like mangroves.
3. **Reframe the discussion on CDR** by prioritising the elimination of fossil fuels and the end of deforestation, simultaneously, working towards developing a sustainable supply of CDR methods, while acknowledging their limitations, risks, and potential benefits.
4. **Avoid commodification** and embrace a broader valuation that incorporates social, ecological, and cultural dimensions.
5. **Embed ecological and social values into business models**, with policy support needed to incentivise long-term investment.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Theme 6: Governance, Markets and Finance for Nature

Cristiane Fontes opened by emphasising the urgent need for economic transformation in the world, spotlighting the new momentum in Brazil and the government's commitments within its climate-environmental agenda. She shared new research and policies aimed at driving the shift from a forest-destructive economy to a 'New Economy for the Brazilian Amazon,' rooted in locally led innovation, traditional knowledge, and working with biodiversity sustainably. Fontes shared cautious optimism for this pathway, fuelled by the innovative work of diverse actors. She underscored Brazil's zero-deforestation commitment as central to the new economic approach, which is key not only for mitigation, but also for the adaptation agenda of the Brazilian Amazon.

Keynote Bioeconomy & *Biodiversity Nexus: Insights from Brazil and G20 Bioeconomy Initiative*

Carina Pimenta, Government of Brazil, Ministry of Environment and Climate

Carina Pimenta shared key insights on Brazil's pathway towards bioeconomy, joining the event remotely from the G20 Bioeconomy Initiative meeting in Manaus. Pimenta reflected on the significance of establishing bioeconomy principles in the heart of the Amazon, noting that discussions were focused on the relationship between bioeconomy, biodiversity loss, and climate mitigation and adaptation policies.

Pimenta laid out Brazil's proposed guiding principles for bioeconomy globally, emphasising three key areas: the essential role of science, technology, and innovation in addressing both economic and environmental concerns; the sustainable use of biodiversity as the basis for bioeconomic growth; and bioeconomy as an inclusive strategy aligned with Sustainable Development Goals (SDGs). She framed these principles as crucial for building a transformational path for Brazil, ensuring that development does not come at the expense of the environment or social equity.

Given its rich biodiversity, including six biomes and three marine ecosystems, along with diverse social and economic landscapes—Brazil has what Pimenta termed "bioeconomies in plural." Brazil recently published a National Bioeconomy Strategy, jointly developed by the Ministries of Environment, Finance and Industry, alongside thirteen further government ministries. Pimenta stressed the importance of building this consensus in defining bioeconomy, stating: "for us, bioeconomy was not a choice of one industry over another, it was not a choice of a policy target or goal, it was a choice of an economic model, alongside with environmental, conservation and restoration goals."

Pimenta added that social justice is central to Brazil's bioeconomic model: "for us, justice, ethics and inclusion are integral parts of the concept, it does not make sense for Brazil to develop an economic model that will not target our social and regional inequalities." She also underscored the importance of traditional knowledge, noting: "Bioeconomy is always a conjunction of products, services and biodiversity and biological resources, but bioeconomy should also be a conjunction of traditional and scientific knowledge."

She explained that the policy aims to protect the rights, as well as economic, social and cultural advancement of populations living in and protecting biodiverse regions, for example through benefit-sharing mechanisms.

Expressing hope for the future of Brazil's bioeconomy, Pimenta noted that the diversity of bioeconomy products and providers has grown rapidly in recent years: "I think that we are going far, we are developing more than we can see or show in numbers," adding that bioeconomy in Brazil is a long-term commitment:

"It is a vision for Brazil for the next 20-30 years, the Amazon and other regions need an economic model that looks into the forest and looks into the people."

Pimenta She emphasised that civil society's involvement is critical for developing the best bioeconomy policies, as it brings essential knowledge and evidence to the table. Responding to concerns around competing demands for biomass and the need to ensure bioeconomy truly sustains biodiversity, Pimenta said that Brazil is exploring policy models to minimise conflicts between sectors such as biofuels and agriculture, without causing further deforestation.

Key takeaways

- The G20 bioeconomy principles focus on integrating science, sustainability, and inclusivity to ensure the model aligns with both environmental and social goals.
- Brazil's newly launched National Bioeconomy Strategy emphasises sustainable use of Brazil's diverse ecosystems, integrating traditional knowledge to ensure local communities are at the forefront of policy making and benefit-sharing.
- Balancing competing demands for resources, particularly biomass, is a challenge for Brazil, and policy models are being developed to address this without further deforestation.
- Brazil's bioeconomy is a long-term vision aimed at achieving social, environmental, and economic balance over the next 20-30 years.

"Bioeconomy is always a conjunction of products, services and biodiversity and biological resources, but bioeconomy should also be a conjunction of traditional and scientific knowledge."

- Carina Pimenta

Panel discussion

Chair Cristiane Fontes, World Resources Institute (WRI) Brazil

Panellists Valéria Paye, Fundo Podáali
Jo Anderson, Carbon Tanzania
Siddarth Shrikanth, Just Climate
Helen Avery, Green Finance Institute (GFI)
Will Baldwin-Cantello, WWF UK

Panel 6 explored the interdependencies of governance, markets, and finance in resourcing and implementing high-integrity NbS. The discussion addressed the challenges of financing NbS, particularly in the context of bioeconomy development, biodiversity, and climate mitigation policies.

Introducing the panel session, **Cristiane Fontes** brought attention to the Indigenous rights, sharing a film - *Forest: A Garden we Cultivate* – which illustrates the millennia-long stewardship of the Amazon forest by Indigenous Peoples, underscoring their critical role in protecting these ecosystems, as well as their intimate, profound and diverse relationship with the Amazon forest.

Valéria Paye emphasised the importance of Indigenous rights and self-management, referencing her work with Fundo Podáali. "Our right to self-determination, self-management, food systems, and all other processes… up until 1988, Indigenous Peoples in Brazil couldn't even organise ourselves, we didn't have a voice." She underscored that Fundo Podáali was created by and for Indigenous Peoples and is managed by Indigenous Peoples. The fund supports a wide range of priorities, including the demarcation of Indigenous territories, protection against illegal miners, and the promotion of the indigenous economy and women's leadership.

Paye stressed the need for partnerships that respect indigenous ways of organising and do not impose external models: "The process of those who invest telling us what to do… no, we don't agree with that. We need to build the way together."

Jo Anderson addressed the challenges of ensuring integrity in carbon projects, focusing on his experience with Carbon Tanzania, a REDD forest conservation initiative. He raised three key issues: first, improving the accuracy of carbon reporting and baselines; second, ensuring that carbon projects do not harm Indigenous and Local Communities; and third, making sure carbon offsets genuinely contribute to global emissions reductions. Anderson emphasised the importance of land rights and governance in carbon projects, stating, "Clear and unalienable land rights are a massive part of making this the best possible sector." He argued that with strong land rights, local governance and agency over finances, these projects can be "an extremely powerful mechanism for funding locally led nature stewardship."

Siddarth Shrikanth reflected on the complexities of financing nature-based solutions and unlocking institutional capital. He observed that, despite recent increases in nature financing due to public subsidies following COVID-19, private finance for NbS remains limited. Shrikanth argued that there is a role for private finance in this space, noting that nature has long been commodified for economic purposes like agriculture.

He asked, "Why not weave in other forms of value?", but stressed that "policy is incredibly important," particularly for governing land tenure and regulating markets. Shrikanth pointed out that most of the institutional capital is governed by strict rules aimed at generating economic returns, which limits its application to NbS projects. Despite this, Shrikanth remained optimistic about the potential for private investment to support land-use transitions aligned with bioeconomy and Indigenous rights.

Helen Avery raised the importance of measuring and managing nature-related risks in financial decision-making. She argued that financial institutions and companies must integrate nature-related risks into their climate risk frameworks, stating, "We haven't measured our impacts on nature, the location of supply chains, the health of those ecosystems, what our dependencies are..." Avery emphasised the need for mandatory regulations on nature-related disclosures, as voluntary compliance has been minimal. She underscored that without clear pathways for action, companies are reluctant to disclose their impacts, and without disclosures, the finance sector cannot properly address nature-related risks. Avery concluded that companies need to understand at a sectoral level what they need to contribute to nature targets, and what they need to do. "We really need nature positive pathways in order to start moving us forward. That is when I think you will start to see the money flowing."

"The process of those who invest telling us what to do… no, we don't agree with that. We need to build the way together."

- Valéria Paye

Will Baldwin-Cantello discussed the imbalance in global financial flows, with $7 trillion going to nature-negative activities compared to only $200 billion for conservation and restoration (UNEP, 2023). He argued that while private finance is not a solution for all NbS, unlocking it where possible can help public funds go further. Baldwin-Cantello noted three key barriers to private finance flowing into NbS: the lack of information on returns and impacts, the finance sector's limited capacity to understand these opportunities, and the quality and quantity of NbS projects. He highlighted the WWF's NbS Accelerator and Forest Restoration Catalyst as initiatives designed to bridge the gap between projects and private finance, by supporting projects to reach investment readiness and addressing the 'financial literacy gap' within NbS project leaders.

In the Q&A, the panel discussed the role of subsidies in supporting nature-positive activities and the need for strong regulatory frameworks to incentivise companies to move on nature. Shrikanth called for reform of public subsidies, which currently fund many nature-negative activities. Avery noted that without incentives or regulations, corporations are unlikely to shift their focus to nature. Baldwin-Cantello added that approaching financial institutions through the lens of environmental crime is a valuable entry point to driving action on nature-related risks. The discussion also touched on the importance of ensuring that carbon projects are well-

managed and inclusive of Indigenous and local Peoples, particularly in terms of benefit-sharing and transparency.

The panel concluded with reflections on the role of regulation in unlocking private finance for NbS and the need for long-term commitment from governments and institutions. Baldwin-Cantello stressed the importance of securing the right kind of funds or finance for any intervention and adjusting economic models to better complement indigenous ways of organising. Paye echoed the call for greater commitment to supporting Indigenous Peoples' initiatives, noting that Indigenous territories are globally recognised for their effective conservation, but they are still subjected to external models imposed from the outside. .

Conclusion

Leadership and governance by Indigenous Peoples and Local Communities must be central to nature-based solutions, and financial systems need to adapt to respect their livelihoods and ways of organising. Private finance will be needed to reach the scale of impact we need to response to the climate and nature crises. However, private finance alone will not solve the challenges; public subsidies and strong regulatory frameworks are essential to shifting financial flows from nature-negative to nature-positive activities. We need the right kind of finance for the intervention and only where it is wanted locally.

Actions

1. **Champion Indigenous Peoples and Local Communities** to lead and govern NbS projects, ensuring that proposals and projects are aligned to their priorities and livelihoods.
2. **Ensure that carbon projects are well-managed, locally accepted,** and prioritise the rights, governance, and benefit-sharing of Indigenous and local Peoples.
3. **Reform public subsidies** to prioritise nature-positive activities and reduce support for nature-negative practices.
4. **Enforce mandatory regulations** for nature-related risk disclosures to incentivise companies to address their impacts on ecosystems.
5. **Develop and share 'nature-positive pathways'** that define at a sectoral level what companies are expected to contribute to nature targets, and the actions they can take.
6. **Close the financial literacy gap** within NbS project leaders to make projects more investment-ready and connected to public policies.
7. **Ensure that NbS finance frameworks are built with integrity** and focus on long-term sustainability, not short-term returns.
8. **Secure the right resources** for NbS interventions, recognising that not all projects will fit within private finance frameworks.

Day 2 Wrap-Up

Niki Mardas concluded Day 2 by reflecting on the transformative power of community and ceremony in fostering deeper connections to nature. He recounted a 2006 symposium in the Amazon, where spiritual leaders gathered to reflect on their dependence on the environment. The ceremonial culmination at the meeting of the waters highlighted how shared experiences can inspire collective urgency and purpose, underscoring the role of ritual in driving change. Mardas stressed the need for political action to address biodiversity loss and climate change. While global agreements like the Glasgow Declaration and Paris Agreement demonstrate political consensus to end deforestation, action remains insufficient, and continued political effort is needed to turn commitments into tangible results.

Mardas also critiqued the private sector's slow progress, citing a study of 557 financial institutions that found only 20% had plans addressing deforestation. He warned against separating positive and negative finance, arguing that effective environmental finance must consider both to avoid funding activities that harm ecosystems.He emphasised the importance of integrating traditional ecological knowledge into modern conservation efforts, noting how such practices often promote sustainable living. Finally, Mardas used the symbolism of water as a connector to nature, drawing on personal experiences to highlight water's transformative power. He called for a collective mindset shift that honours our ties to the earth and our responsibility to protect it.

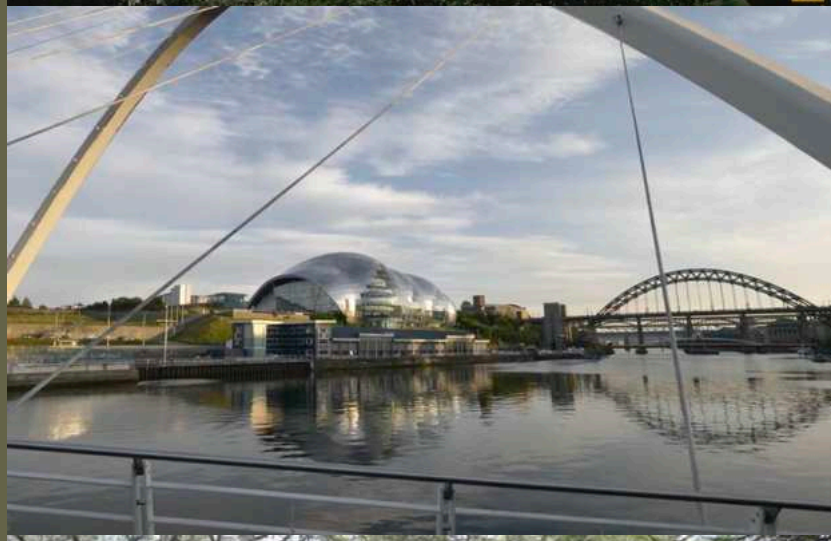
Music Performances and Films

Beneath the dramatic silhouette of an illuminated Iguanodon, **Sam Lee** enchanted delegates with a selection of songs from his recently released album *Songdreaming*, accompanied by his wonderful band. Sam Lee, a Mercury Prize-nominated folk artist, is not only celebrated for his soulful voice but also for his deep commitment to conservation, ecology, and cultural preservation. As a passionate song collector, writer, broadcaster, and activist, his performance wove together music, storytelling, and a powerful message about humanity's connection to nature.

Nostos, a voice ensemble led by Metaxia Pavlakou, presented two moving songs. The first piece, a Cretan lullaby titled **Πάρε το ύπνε το παιδί** (Take the Child, Sleep), conveyed the gentle beginnings of life, evoking the tenderness of early childhood. The second song, **Με γέλασαν τα πουλιά** (Tricked by the Birds), originated from Thrace in northern Greece and provided a wry, reflective look at the arc of life's hopes and dreams, ultimately touching on the inevitability of human experiences and fate. Together, these two songs encapsulated the cycle of life—from birth, through the various stages of growth, to the realities of life's end. The performance offered a wonderful musical journey, blending cultural heritage with themes that resonated deeply with the broader themes of the conference.

Film Programme: Nature-based Solutions in Action around the World

A selection of inspiring short films were screened throughout the week for both delegates and members of the public. Some films celebrated the beauty of nature; others were of community-led nature-based solutions projects from different parts of the world, each telling stories of positive change in human relations with nature. Explore the full programme of films in the Appendix.



Reimagining the Future with Nature-based Solutions

DAY THREE

Opening Remarks

The final day invited participants to think beyond the confines of the dominant economic system. **Justin Adams** opened the day with a call for transformation—away from the destructive forces of capitalism and the pursuit of endless growth, which have driven the degradation of nature. He stressed that this transformation requires the restoration of relationships: with ourselves, each other, and the Earth. “It’s about bringing these worlds together. It’s about marrying head, heart, and hands into the work we actually do when we leave the conference.” He reminded the delegates of the fire that had burned through the night, tended by dedicated firekeepers, holding space for our shared intention and deepening our commitment to this essential work.

Adams invited everyone to use the final day of the conference as an opportunity to begin weaving together new ways of thinking, feeling, and doing. The sessions were designed to reimagine our future by remembering relationship, redefining our economic model, and restoring our connection with nature as a society.

Theme 7: Remembering Our Profound Interconnectedness with Nature

Chair	Nicole Schwab, World Economic Forum
Co-notes followed by panel discussion	Lyla June, Dream Warriors Naine Terena de Jesus, Activist, Artist, Social Entrepreneur and Researcher Mac Macartney, Embercombe Geraldine Patrick Encina, Earth Time Keepers

The panel focused on rekindling humanity's relationship with the Earth, reminding us that we are not separate from nature but an integral part of its web of life. The session called for a shift from an anthropocentric worldview, where humans are at the centre, to an ecocentric or kincentric worldview, which recognises humans as co-creators and stewards of the planet. The speakers emphasised the importance of honouring indigenous knowledge, engaging in small, meaningful actions, and embracing reverence, reciprocity, and respect for the natural world.

Nicole Schwab, Chair of the session, set the tone by calling for "a profound shift" in how we relate to the Earth, stating that we are "just a strand in the great web of life." Schwab urged the audience to bring "our whole beings" to this work of reconnection with nature, moving beyond the dominant anthropocentric worldview of the West. She emphasised that this shift is essential for reimagining a future where humans live in harmony with nature.

Lyla June shared a beautiful poem inspired by the canyons of New Mexico. The poem began: "When I close my eyes at night, I can feel the rock being cut open by water. I hear a grandfather's song and it sounds like sand walking down the river bottom." In the talk that followed, Lyla challenged the common perception of humans as inherently destructive to nature. Instead, she introduced the concept of humans as "keystone species"—

"These human hands can be a blessing to the Earth when guided by the right values and principles."

- Lyla June

those that play a vital role in maintaining the balance and health of ecosystems. She explained that human-nature relationships are often framed in two extremes: conservation (protecting nature by leaving it untouched) and exploitation (using nature for economic gain). June proposed a third approach: "co-creation with nature, as nature.."

June emphasised that Indigenous Peoples around the world have long understood their role as stewards of the Earth. "We see ourselves not as pests but as keystone species," she said. She offered several examples of indigenous practices that demonstrate humans' beneficial role in ecosystems. For instance, she spoke of the clam gardens in the Pacific Northwest, where Indigenous Peoples created intertidal rock walls to expand the habitat for clams. These gardens, which cover 35% of the coastline on Quadra Island, British Columbia, are 3,500 years old. "The success of these clam gardens is based on a connection founded in respect, reciprocity, and reverence," June explained, adding that these human-made structures fostered a rich, non-human-centric food web.

June also highlighted the creation of Terra Preta in the Amazon, a unique composting technology developed by the Mẽbêngôkre (Kayapó) Indigenous People. This technology has produced several feet of fertile topsoil, challenging the notion that the Amazon rainforest is "pristine" wilderness. Instead, she explained, it is "the co-creation, with humans, of a productive, beautiful, biodiverse forest." June summed up her message by saying, "These human hands can be a blessing to the Earth when guided by the right values and principles." She stressed that humanity's "hardware" (our physical bodies) is driven by our "software" (our worldview), and that we need to refine this software based on common indigenous principles: respect, reciprocity, reverence, relationality, responsibility, and humility.

Naine Terena de Jesus reflected on the history and experiences of her people, the Terena, who come from the Cerrado and Pantanal biomes, both severely degraded ecosystems. She began her talk with a powerful statement: "I will try to summarise 524 years of not being seen in 12 minutes." She shared a photograph of herself with her son in their ancestral territory, illustrating how deeply intertwined her people are with the land. She explained that the base of their economy is "family agriculture" and that during the pandemic, the Terena people were able to support themselves and others by sharing food. "This is not agribusiness; it is indigenous technology, it is indigenous education," she emphasised.

Terena spoke passionately about the need to "reboot" our systems of education and knowledge, centring indigenous wisdom. She referred to this as "the education of the senses"—a holistic approach that integrates life, death, happiness, and wellbeing with the natural world. "Our actions need to start at home and culminate in public policies," Terena urged. She explained that people must understand the direct impact of environmental degradation on human health and wellbeing: "Deforestation like in the Amazon ends up in our body."

Terena stressed the importance of equity in knowledge, calling for the recognition and integration of both indigenous and scientific knowledge systems. "We have to talk to governments, private corporations, and the population," she said, emphasising that action must come from multiple levels of society. She concluded by reflecting on the sense of powerlessness that many people feel in the face of overwhelming environmental challenges, particularly Indigenous women who face persecution and violence. She encouraged the audience to dig deep within themselves to find "ritual memories" that connect them to the land and to life.

"Do we love life enough, that in spite of a tsunami of bad news and suffering, we say: I sustain, I persist, till the last breath that I take?"

- Mac Macartney

Mac Macartney shared his personal story of awakening to a deep connection with the Earth. He urged the audience to "find our way back to some sense of wholeness" and emphasised that building deep relationship with the earth need not require spiritual belief but can be grounded in "a love of life." Macartney expressed that love for life, family, community, and the natural world is the foundation of our connection to the Earth.

He posed three reflective questions for the audience to consider:

1. **What is it that you most deeply and profoundly love?** Macartney explained that this is "a journey, not a question." He emphasised that eventually this question will lead to answers that effectively describe what it is we consider to be sacred, and suggested "to that, you should be of service."
2. **What are your deepest and most profound gifts?** Macartney encouraged the audience to reflect on the unique gifts they have been given, stating, "Our work should be built around our gifts."
3. **What are your deepest and most profound responsibilities?** He reminded the audience that we all belong to each other, saying, "In the end, we have to rediscover that we are family, that we belong to each other."

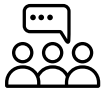
Macartney also emphasised the need for resilience in the face of daunting global challenges. "Do we love life enough," he asked, "that in spite of a tsunami of bad news and suffering, we say: I sustain, I persist, till the last breath that I take?"

Geraldine Patrick Encina spoke about the importance of recovering indigenous principles of life, which are based on natural time-space cycles. She shared her research into the Mesoamerican calendar system, explaining how peoples with ancient roots view their landscapes as sacred, governed by deities such as Tláloc (the rain god) and Chicomecóatl (the goddess of corn). Patrick Encina described how these communities manage their landscapes according to the sacred 260-day cycle, which guides their agricultural practices and ensures the sustainability of their food systems. She emphasised the attitude original peoples have for the Earth, saying, "The types of relationships Indigenous Peoples have with the Earth are those of co-responsibility, reverence, and acknowledgment." Patrick Encina urged the audience to reconnect with natural cycles, suggesting that we start each day with a small ritual acknowledging the four elements—earth, air, water, and fire—and the divine.

Panel discussion

Speakers shared practical steps for rekindling a deep connection with nature. Macartney spoke of the power of small, meaningful actions, such as planting potatoes with his son. June suggested writing "love letters to creation" and making bird or bee baths to serve species beyond our own. "Small actions build momentum and grow," she reminded the audience. When asked how to reach people who may be resistant to these ideas, Macartney advised focusing on storytelling and creating environments where people feel safe, relaxed, and open to new ideas. June added that people are "hungry for something real" and that even small truths can begin to shift perspectives.

Terena echoed the importance of reconnecting with personal and cultural memories, describing these as "the rituals and technologies of living well." She encouraged the audience to reflect on their own memories of connection with nature and to work together to create new, shared traditions that honour the Earth.



Conclusion

Reconnecting to the Earth and remembering our deep kinship with all life enables us to situate our work more powerfully. It is key to reimagining the future and maybe the most powerful nature-based solution we have. Small, meaningful steps help us to reconnect with the Earth, a recognition of humanity's role as a keystone species, and a shift in worldview toward one of respect, reciprocity, and reverence.

Actions

1. **Recognise humanity's ecological role** in co-creating with nature, as many Indigenous Peoples have done for millennia. "These human hands can be a blessing to the Earth when guided by the right values and principles." – Lyla June
2. **Shift from an anthropocentric to an ecocentric or kincentric worldview,** learning from common Indigenous principles of respect, reciprocity, reverence, relationality, responsibility, and humility.
3. **Promote Indigenous education** and ensure equity and recognition for diverse knowledge systems. "Our actions need to start at home and culminate in public policies" – Naine Terena.
4. **Rekindle connection with nature** through simple actions, such as planting food, creating rituals, or making habitats for other species. Small actions can create significant change.
5. **Spread awareness to governments, corporations, and individuals** about the interconnections between human wellbeing and environmental degradation.


Finance
RESPONSIBILITY
RELATIONS
AGREEMENTS
KNOWNERSHIP
FLOWS
Governance
Ownership
Finance
K NEW ECONOMICS
PURPOSE
NETWORKS
GOVERNANCE
OWNERSHIP
FINANCE
RESPONSIBILITY
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AGREEMENTS
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AINA
NATURE-BASED SOLUTIONS INITIATIVE

Theme 8: The Role of Nature in Redefining our Economic Model

Speakers Kamanamaikalani Beamer and Kate Raworth

This session focused on the need to bridge worldviews as we seek to reshape our global economic systems, emphasising regeneration and interconnectedness. Both speakers, Kamanamaikalani Beamer and Kate Raworth, explored how connections between ancestral practices and 'new' economic models can guide a future that is respectful of nature and built on principles of equity.

Kamanamaikalani Beamer began by emphasising the deep, intrinsic connection between people and nature in Hawaiian culture. He explained that the Hawaiian word 'Aina' means "that which feeds," reflecting the idea that land and nature are not separate from humanity but are fundamental to our existence. He also defined 'Aloha' which is a greeting but also means love, peace, compassion. "There is no separation when you love Aina," Beamer stated, underscoring the spiritual and physical bond between the land and the people.

Beamer spoke about the ancestral circular economy practiced in Hawai'i, where natural resources were used sustainably, with careful attention to not over-exploit. He explained that traditional agro-ecological systems allowed people to take only what they needed from nature, then return resources to maintain balance. "We only take some, and we return what we don't need," he said, highlighting the regenerative practices that are central to Hawaiian indigenous governance systems. These practices reflect the Hawaiian understanding that 'wai' (water) is the source of life and wealth (waiwai), showing how the circular economy is modelled on nature itself.

However, Beamer warned that the modern economy in Hawai'i has strayed far from these principles. Today, "approximately 80% of food in Hawai'i is imported," a result of gentrification and reliance on external systems. He advocated for Aloha Aina, a guiding principle of environmental stewardship and social justice, to be embedded in the governance structures of the islands. Beamer stressed the need to "love your land, reconnect yourself and your family to resources, and love and connect with water." He pointed out that ancestral Hawaiian systems of governance—marked by balance, regular redistribution of wealth, and regenerative processes—could serve as a model for building sustainable economies today.

"The world we were raised in—20th-century economics—is all about supply and demand, rational, ego-driven, and focused on limitless growth."

- Kate Raworth

Kate Raworth expanded on Beamer's insights by introducing her Doughnut Economics model, which challenges traditional economic thinking centred on limitless growth. Raworth explained that the Doughnut framework combines a social foundation (the basic needs required for a good life) with the planetary boundaries (the ecological limits we must respect to avoid environmental collapse). "The world we were raised in—20th-century economics—is all about supply and demand, rational, ego-driven, and focused on limitless growth," she remarked, emphasising the need to move away from these outdated principles.

Raworth proposed that the inner and outer limits of the doughnut provide a roadmap for sustainable economies. "How can our place be as generous as nature? How can all the people of our place thrive?" she asked, urging us to consider how local economies can be both socially and environmentally responsible. She also acknowledged the "gulf" between Western economic systems and indigenous worldviews, noting the importance of building conceptual bridges between them.

One of the key challenges, Raworth explained, is to redesign finance to prioritise ecological and social wellbeing over profit. "There's nothing immutable, inherent, innate: finance is a design. It's made up by us," she stressed, urging for a transformation of the global financial system, which currently drives unsustainable growth and environmental degradation. For Raworth, the future of finance must be "deeply redefined," not just sustained, because "the earth is dying, and yet finance wants its returns."

In the joint discussion, both Beamer and Raworth highlighted the need to rethink humanity's relationship with nature and the economic systems that govern our lives. Beamer spoke about the concept of 'knownership', asking, "Do you know the land, and does it know you?" This idea moves beyond ownership, suggesting that true sustainability comes from a deep, reciprocal relationship with nature. "We do modify the landscape," he added, "but when we do it, it is done in a way to benefit generations six or seven generations in the future."

Raworth and Beamer both emphasised the need for 'corporate psychotherapy', a process in which companies reassess their purpose, governance, ownership and finance structures to ensure they are aligned with long-term sustainability goals rather than short-term profit. "Is a company's purpose in service of something bigger than itself, or is it in service of extraction to serve itself?" Raworth asked, challenging businesses to move away from exploitative practices and towards a model of regeneration and responsibility.

The conversation also touched on the importance of alternative economic systems, including bartering and resource-sharing, which are often practiced within families and communities but are not reflected in traditional economic measures. "We need to think about how to exchange resources, so everyone is fed," Beamer urged, pointing to the potential of non-monetary forms of exchange to build more resilient and equitable economies.

Conclusion

There needs to be a fundamental shift in how we think about economics, drawing on both indigenous wisdom and contemporary frameworks like Doughnut Economics to build systems that honour the interconnectedness of all life. Beamer and Raworth urged us to rethink our relationship with the land, each other, and the financial systems that shape our future.

Actions

- **Mindset change**: Raworth encouraged participants to reflect on their own approach to economics and sustainability: *"Think of our own mindset, how can I change the way I speak, teach, and practice, to keep ourselves moving and meet each other on the bridge"*
- **Support courageous actions**: Beamer called for greater support for initiatives that protect natural resources. "Indigenous Peoples should not be the only ones protecting nature. How can we support courageous actions?"
- **Reconnect with nature**: Beamer also emphasised the importance of individual and familial connections to the land: "Love your land, reconnect yourself and your family to resources, and love and connect with water."
- **Redesign finance**: Both speakers stressed the urgency of redesigning financial systems based on indigenous wisdom and frameworks such as Doughnut Economics, to prioritise ecological health and social justice, rather than sustaining a broken system predicated on endless growth.
- **Enable alternative forms of exchange**: Encourage **non-monetary forms of exchange**, such as bartering and sharing resources, as ways to build more sustainable and equitable communities.

"We need to think about how to exchange resources, so everyone is fed."

- Kamanamaikalani Beamer

Keynote The Role of 'Human Nature' in a Transformed Global Economy

Harvey Whitehouse, University of Oxford

Conformism is a dirty word, implying slavish copying and lack of independent thought. But Whitehouse argued that it is one of humanity's greatest natural assets and could be harnessed to tackle urgent global challenges such as climate change, inequality, and environmental degradation.

Whitehouse began by describing psychological experiments he and his colleagues have carried out, showing that from a very early age, humans everywhere copy other people more faithfully when their actions are less obviously goal directed. He explained that this is crucial for understanding conformism – the human propensity to imitate behaviours that are materially pointless, but which allow us to establish group-defining norms, conventions, customs, and rituals. He went on to argue that the human capacity to create distinctive traditions in this way was scaled up over the course of world history through routinization – that is the establishment of highly repetitive group-defining practices. This allowed early farming societies to grow and spread and later it facilitated the rise of the first states. The emergence of multi-ethnic empires was accompanied by the spread of even more routinized rituals, sowing the seeds of the world religions we know today.

As Whitehouse put it: "Routinizing collective rituals has two very powerful effects. Firstly, it makes deviations from the standard script easy to detect. And this means that when people step out of line, they can be socially sanctioned. Secondly, when rituals become habitual, this makes us less reflective and more willing to accept whatever the group's leaders tell us. Both these factors take conformism to a new level."

Whitehouse went on to describe how efforts to address the climate crisis, biodiversity loss, and other environmental challenges could benefit from a deeper understanding of our natural conformism and the way it has been harnessed over the course of world history to facilitate cooperation. He argued that understanding this collective inheritance was necessary to establish and spread more sustainable lifestyles in the future. He observed that trying to persuade people to change their behaviour based solely on scientific theories and evidence was not enough to precipitate change at the pace and scale needed to prevent environmental catastrophes. We also need to harness our natural conformism. As he put it: "We need to reinvent forms of routinised ritual that are best adapted to the ways we'd like to live in the future."

"We need to reinvent forms of routinised ritual that are best adapted to the ways we'd like to live in the future."

- Harvey Whitehouse

Whitehouse argued that although our natural conformism and its potential to change behaviour at scale via routinization might readily be deployed as a nature-based solution to the climate crisis, this capacity was currently under-utilized. In part this had to do with the declining power of routinized rituals associated with secularization. But it can be seen across many different spheres of modern life. In our domestic lives, for example, we are less likely than ever before in human history to engage in highly structured rituals such as family mealtimes. Our ideas about formal education are increasingly focused on instrumental outcomes such as on exam results and league tables. Our workplaces are likewise organised increasingly around audit culture and maximizing efficiency. Working hours are

becoming more flexible and less synchronized and factory production lines more automated. At the same time as more old-fashioned forms of routinization and cohesion are going into decline, new varieties of conformism are becoming established in their place. Advertising is now increasingly shaped by algorithms that track what kind of content we like to view on the internet and accordingly directs us towards more and more of it. In effect, our consumption of products and ideas is being herded in ways that suit commercial interests rather than the interests of the wider societies in which we live.

According to Whitehouse, one way to remedy these problems is to reclaim the power of ritual and routinization in more positive ways. He argued that the best way to manage our natural conformism is not by pursuing a conservative agenda serving the kinds of patriarchal or elitist institutions we cleaved to in the past but by harnessing whatever forms of routinized ritual that are best adapted to the needs of the kinds of societies we'd like to build for the future. For example, in the domain of education, we could use classes and assemblies to embed more environmentally friendly norms and practices. In the world of work, we could also develop new traditions celebrating purposeful capitalism. By focusing more on the prosocial contributions of people's jobs, we could also make working life more motivating. Government and public sector canteens could routinize more sustainable forms of food consumption. In our homes too we could embed stronger cultural systems involving more ethical norms, aimed at reducing carbon emissions, improving biodiversity, and fostering values like inclusivity and global citizenship. Since organised religion is also central in the lives of billions of people around the world, this is a domain also where ritual has a crucially important role to play in fostering more sustainable norms and behaviours.

Theme 9: Restoring Our Relationship with Nature

Chair Alexa Firmenich, SEED Biocomplexity & Ground Effect
James Allen, Olab

Panellists Constantino Aucca & Florent Kaiser, Acción Andina
Suzan Craig, Tahi New Zealand
Jojo Mehta, Stop Ecocide International
Jane Frere, Artist, Druimarts
Alan Watson Featherstone, Founder of Trees for Life

This final session explored how community-driven initiatives, ancient knowledge, and new paradigms for legal and ecological frameworks can contribute to NbS, emphasising the importance of integrating local and indigenous knowledge systems with practical, community-led efforts to restore ecosystems. The panellists reflected on the deep connections between culture, ecology, and community participation, highlighting the necessity of moving beyond technocratic approaches to embrace a multidimensional understanding of restoration.

James Allen opened the session by focussing on bringing the conference themes to life, as one speaker put it: "We're not the academic panel, we're working in the real world." He encouraged the audience to consider both longer-term visions, like nature-based economies and wellbeing economies, and short-term actions we can make now. Inviting self-reflection, he posed the questions: "How can I restore relationship? with nature? ...with my community? ...with the land? ...with myself?"

Constantino Aucca described the transformative work of planting 10 million native trees across six countries in the high Andes, in partnership with 16 institutions. This initiative is rooted in ancient Inca knowledge and collaborative communal work, known as "*Ayni* and *Minka.*" Aucca highlighted the importance of mobilizing local communities to be part of the solution, stating, "The communities are tired of being part of the magazines and videos.

They want to be part of the solution. We are tired of people coming from the big cities to tell us what to do and how to be organised, just because they have PhDs or master's degrees."

Acción Andina's work is driven by the communities' desire for action and unity across borders. "For us, it was hard to start this massive program. We asked them to believe," Aucca shared. He underscored that conservation efforts must include and empower local communities, emphasising, "Conservation without money is just conversation and not including local communities is bad conversation ." His reflections reveal how ancient knowledge and modern collaboration are crucial for effective environmental management.

Florent Kaiser provided a broad view of the ecological challenges in the Andean region, particularly the urgent need to restore water systems as glaciers rapidly melt. "Glaciers are melting rapidly— the last Venezuelan glacier disappeared this year," Kaiser noted, emphasising the critical role of forests in capturing water in the high Andes to compensate for the loss of glacial sources. He explained that the only solution for that is restoring native forests that capture and store the water. Kaiser also criticised the dominant economic and environmental systems that prioritise profit over people and ecosystems. "Our economic systems are built to control power and amass wealth," he said, echoing concerns about the commodification of nature. Instead, Kaiser advocated for collective responsibility, suggesting that we need to "unlearn multiple things" and shift toward systems of care and stewardship, not just for ecosystems but for water and human communities.

Suzan Craig shared her journey as an eco-preneur in New Zealand, where she has been leading Tahi, an enterprise that has regenerated 800 acres of biodiversity-rich land. She described the funding challenges: "Restoration is expensive and ongoing," illustrating how Tahi turned to diverse income streams, including honey production and ecotourism. "Without carbon credits, we did ecotourism and honey," she explained, showcasing how innovative business models can support conservation. At the heart of Tahi's mission is a 100-year vision centred around biodiversity restoration. "We put biodiversity in the centre. All our decisions are made around 'what do we do to bring birds back,'" Suzan shared. She warned against perverse incentives that favour monocultures for quick financial returns, urging instead for a longer-term, biodiversity-focused approach. "There's a perverse incentive when you look at this—usually monocultures based on the return of investment instead of 'biodiversity trees,'" she explained. For Suzan, aligning business with ecological goals is key: "The power of purpose not only brings amazing people to work with you but also makes you financially viable."

Jojo Mehta brought a legal and moral dimension to the discussion, focusing on the growing movement to recognise ecocide—severe environmental destruction—as an international crime. "Criminal law has a unique power to define what is acceptable and what is not," she stated, emphasising how legally codifying ecocide could lead to a profound shift in how society values and protects the natural world. Mehta highlighted the disconnection between humans and nature embedded in the current economic system, as raised in earlier sessions and argued that naming and criminalizing the worst harms against nature could create a shift in moral responsibility. Mehta also stressed the importance of fostering global conversations around ecocide, pointing out that legal definitions have already started to catalyse change across legal, academic, and policy domains.

Jane Frere gave a deeply emotional and imaginative perspective. Drawing on her past experiences working with Palestinian communities, Frere reflected on her decision to shift focus from anthropocentric to ecocentric concerns, placing nature at the core of her work. Frere expressed frustration with the lack of urgency in global environmental action, citing Santiago Zabala, "The greatest emergency in the world is the absence of emergency!". She argued that governments and systems are failing to address the scale of ecological crises largely due to an "absence of imagination." Frere believes in the power of art to inspire change: "As artists, I believe that we help people see the world differently," she said.

One of her projects involves a citizen science proposal in Scotland, where climbers would be trained to collect native tree seeds at montane levels. Another initiative is to encourage walking groups to engage in meditative drawing exercises, fostering a deeper connectivity with nature. This involves taking groups into the forest, sitting in front of a tree, and engaging by a process of meditation and observation before the drawing begins. Frere explained that such time and commitment engenders a reverence to the tree, as well as inducing health benefits to the participant. Frere's reflections emphasise the role that art can play in connection of people to nature.

Alan Watson Featherstone reflected on his personal journey growing up in a nature-deprived environment in Scotland and shared how this shaped his lifelong commitment to restoring the Caledonian Forest.

Alan's philosophy is built on four pillars: positivity, passion, purpose, and power. He shared, "Human love nurtures, amplifies, and strengthens the life force wherever it is directed." For him, the relationship between humans and nature is deeply spiritual and restorative, and his work in the Highlands is rooted in a long-term vision of ecological and cultural restoration. "The only thing that transcends generations is culture," Alan emphasised, reflecting on the need to think far beyond the present when it comes to conservation.

Conclusion

We must embrace a multidimensional approach to restoring our future with nature-based solutions, one that integrates cultural values, community participation, innovative economic models, and robust legal frameworks. Restoring our relationship with nature is not merely a technical endeavour but a deeply interconnected cultural, social, and environmental commitment.

Actions

1. **Promote ecocide awareness:** Jojo Mehta urged attendees to talk about ecocide and to advocate for its recognition as a crime. "Talk about ecocide in your circles. How do we bring it to the table in as many contexts as possible?" she asked.

2. **Align business with ecological restoration**: Suzan Craig emphasised the need for purpose-driven business models that prioritise biodiversity. "Be bold, be ambitious, and do it," she encouraged, pushing for businesses to embrace long-term ecological goals.

3. **Engage with nature through art:** Jane Frere encouraged people to reconnect with nature by observing and appreciating its details. "Start looking in different ways in order to see. Look at the tiny details. Try to look into the eye of a butterfly," she suggested.

4. **Foster collective responsibility:** Florent Kaiser called for a shift towards collective responsibility, advocating for a return to systems of care. "We need to unlearn multiple things," he said, urging a reevaluation of how we approach ecological restoration.

5. **Focus on Indigenous leadership and knowledge:** Constantino Aucca emphasised the need for Indigenous leadership and community involvement in NbS projects, urging practitioners to include local people in decision-making processes. "The communities are tired of being part of the magazines and videos. They want to be part of the solution," he said.

6. **Cultivate and share love through your work:** Alan Watson Featherstone reflected: "Human love nurtures, amplifies, and strengthens the life force wherever it is directed."

Day 3 Wrap-Up

As the day drew to a close, Justin Adams invited the audience to pause and reflect on a single commitment to carry forward—one that would extend beyond the fire of the closing ceremony. He shared three themes that emerged from the rich, complex, and expansive discussions of Day 3: Reconnect—with each other, with ourselves, and with Mother Earth; Remember—that we are all deeply interconnected; and from that place of connection, Reimagine—a future we can co-create together by building bridges between different knowledge systems and disciplines.

In her closing remarks, Nathalie Seddon expressed deep gratitude to everyone who made the conference possible and shared three key reflections that resonated throughout the event: 'Ceremony, Courage, and Community.' Ceremony encourages us to slow down, listen to nature, and make more careful decisions as we move forward. Courage is needed to hold a vision of a flourishing future, where an economy nurtures rather than disrupts the web of life, bridging good science with traditional knowledge to enable deep systemic change. Finally, community emphasises the importance of the connection and solidarity built during the conference, which are essential for making this vision of a flourishing future a reality.

"Ceremony, Courage and Community."

Written during and performed at the conference by NbSI DPhil student and poet, Zoë Brown

Web of Life

I am entangled
with the earthworms
who shudder at the tremor
of a surface running train
when they've been born
to writhe and dance
with the pitter patter
of pouring rain.

I am entangled
with the trees
that are felled and
replaced with grain
and the mother cows
with swollen wombs
that birth suffering
for our gain.

I am entangled
with their pain.

I am entangled
with ancient mycelium
uprooted in the
tilling of soil
and the billions of years
of life on earth
grave-robbed and burnt
as oil.

I am entangled
with each thread of life on earth.
Entangled with birth and death.
This web of life
As vital to our being
As the rise and fall
Of human breath

How can we remember
our profound interconnectedness?
Use these hands
to co-create, not destroy.
Return to our role
as keystone species.
Serving this sacred
with love and joy.

How do we come back to wholeness?
Restore relationships we have severed.
Keep in mind, these times are urgent.
So, let's slow down and remember.

Zoë Brown 2024


nature-based insights
NATURE BASED SOLUTIONS INITIATIVE
BIODIVERSITY = ECOLOGICAL RESILIENCE
SOCIAL COHESION
PERMENANCE
TRANSCENDENCE
LARGE SCALE LAND INVESTMENTS
WATER FOOD ENERGY SECURITY
EVIDENCE BASED RULES OF THUMB
WE CAN WORK WITH UNCERTAINTY
MRV
BY LEARNING BY DOING
MAKING INFORMED DECISIONS
ON-THE-GROUND MONITORING
RESILIENCE · CARBON · BIODIVERSITY · EQUITY · FEELINGS
MULTIDIMENSIONAL SYSTEMS
COMPLEX LANDSCAPES
RESPECT · RESPONSIBILITY · INTERCONNECTED
ROOTED IN ETHICS
RECIPROCITY
DIVERSIFY
LIVELIHOODS
RECONNECT
UNDER THREAT SOURCE
NET SINK
IN EQUILIBRIUM
WEAVING FORMS OF KNOWLEDGE
LEARNING FROM EACHOTHER
SCIENCE
WHAKAPAPA
ANCESTRAL WISDOM
HEALTH
WELL-BEING
BENEFITS
MULTIPLE
REBOOTING THE SYSTEM
REDESIGN FINANCE
FROM OWNERSHIP TO KNOWNERSHIP
COMPASSION
(K) NEW ECONOMY
CEREMONY
RITUALS
PREPARE FOR THE UNEXPECTED
TRIA
WAI
WAI
SAFE & JUST SPACE
FOR LIFE
GROWING POSITIVE CHANGE
ECONOMY IN SERVICE OF THE WEB OF LIFE
THE ELEMENTS
EMBRACING COMPLEXITY DOESN'T BE COMPLICATED
GO WITH THE FLOW OF POSITIVE CHANGE
UNEA-5 DEFINITION
SOCIAL ECOLOGICAL STANDARD
RESILIENCE
INTEGRITY
COLLABORATION
SOCIAL JUSTICE
PROTECT
CONSERVE
RESTORE
SUST.
MANAGE
BIODIVERSITY
HUMAN WELL-BEINGS
RESILIENCE
REVERENCE
HUMILITY
AINA
ALOHA
HOPE
LOVE
BELONGING
20MIN
EPIC CONSENT
RELATIONSHIPS FIRST
INDIGENOUS SOVEREIGNTY
LOCAL COMMUNITY DECISION MAKING POWER
SINGING & DANCING
EMBRACE & CARE

Recommended Reading and Weblinks

Acción Andina

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Earth Timekeepers

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Appendix

Film Programme

Creator/Organisation	Title	Country/Region
Morten L Kringelbach & Chris Park	Confluences: The weaving waters of Oxford	England
RE:TV	RE:considering Nature-Based Solutions	Global
UN World Restoration Flagships, Acción Andina	RESTORE: The High Andes	South America
National Geographic	The Territory	Brazil
Alam Sehat Lestari (ASRI)	Radical Listening	Indonesia
World Resources Institute Brazil	Bruno Mariani: From Banker to "Tree Whisperer"	Brazil
RE:TV	Freetown the Treetown	Sierra Leone
UN World Restoration Flagships, Department of Forests and Soil Conservation (DoFSC) of Nepal, Department of National Parks and Wildlife Conservation (DNPWC) of Nepal, WWF Nepal.	RESTORE: The Land of Tigers and People	Nepal
World Resources Institute Brazil	Emerson and Viviane: Saving an Endangered Palm by Farming It	Brazil
Trees for Life	One man's dream to restore a forest	Scotland
UN World Restoration Flagships & Sri Lanka Ministry of Environment.	RESTORE: The Wave Breakers	Sri Lanka
UN World Restoration Flagships, Regreening Africa, CIFOR.	RESTORE: Africa's Drylands	Africa
World Resources Institute Brazil	Soares Family: Making Agroforestry in the Amazon a Family Affair	Brazil
Nature-Based Solutions Initiative	Working with Nature: Cities	England

World Resources Institute Brazil	Patrick Assumpção: Using Agroforestry to Restore Paraíba Valley to Glory	Brazil
UN World Restoration Flagships, The Ministry of Agriculture, Maritime Fisheries, Rural Development and Water and Forests of Morocco, The Ministry of Agriculture of Lebanon, The General Directorate of Forestry of Tunisia, The General Directorate of Forestry of Türkiye.	RESTORE: From Fires to Forests	Mediterranean
Olivia del Giorgio	At the Edge of the Forest	South America
World Resources Institute Brazil	Silvany Lima: Cultivating "Money Trees" in Brazil's Dry Forest	Brazil
Nature-based Solutions Initiative, University of Oxford	Working with Nature: Highlands	Scotland
UN World Restoration Flagships, Government of Comoros, Government of Saint Lucia, Government of Vanuatu, The Small Island Developing States Coalition for Nature.	RESTORE: Big Ocean States	SIDS
Forest People Programme, If Not Us Then Who?, Wampis Nation, Nia Tero, International Work Group for Indigenous Affairs	Tarimat Pujut: Living in Harmony with Nature in Peru	Peru
Katrina Kendall & Deuxire Production	KATIWALA	Philippines
Edivan Guajajara, Chelsea Greene, Rob Grobman, Fisher Stevens	We are Guardians	Brazil
Eddie Butterworth	Beavers as a Nature-Based Solution?	England
AIME	Sea the Weed	Australia

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To enhance understanding and implementation of nature-based solutions that support thriving human and ecological communities and nurture an economy that enhances the web of life.

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