





Learning Outcome:

Biodiversity, a digital journey



In parternership with:







Credits

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Wageningen Centre for Development Innovation

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A history of unsustainable human activities has led to land degradation, habitat loss and pollution, consequently driving biodiversity loss, the climate crisis and in 2020, a global pandemic. Steering humanity's path towards a more resilient future and achieving the Sustainable Development Goals, cannot be done without the full and effective participation of the younger generations.

Therefore, it is important to create spaces where young people from around the world can build on valuable knowledge from experts, identify the linkages between climate, flourishing biodiversity and healthy landscapes, as well as exchange ideas about best practices and action in their own landscapes.

The "Biodiversity: A Digital Journey" learning program was created with the aim to have a digital experience that would be as exciting, interactive, safe and enjoyable as our in-person workshops. Amazing students and young professionals joined the journey from all around the world and despite the different time zones, created a vibrant community of co-travelers that will continue to bring positive change in their own landscapes.











12+ hours travelling, 4 sessions, an insightful experience



Meet the journey guide



CONNECT. SHARE. LEARN. ACT.

The Global Landscapes Forum (GLF) is the world's largest knowledge-led platform on sustainable land use, dedicated to achieving the Sustainable Development Goals and Paris Climate Agreement. GLF is a movement striving to connect, share, learn and act, with science and traditional knowledge at its core. Through local and global outreach as well as projects. GLF does not only to spark dialogue, but also follow-through to impact in addressing some of the most complex and multi-stakeholder issues the world is now facing.

Visit: https://www.globallandscapesforum.org



A growing global network and movement of over 50,000 young people working and studying in landscapes around the world.

The Youth in Landscapes Initiative (YIL) is a growing global network and movement of over 50,000 young people working and studying in landscapes around the world. The Initiative is a partnership between the International Forestry Students' Association (IFSA), Young Professionals for Agricultural Development (YPARD) and the Global Agroecology Alliance (GAEA) who joined forces to deliver workshops, mentorship, training and networking. Whether online or in-person, YIL programs connect, support, and inspire young people to step into courageous leadership.

Visit: https://youth.globallandscapesforum.org



To explore the potential of nature to improve the quality of life.

Headquartered at the heart of the Dutch agricultural sector in the Netherlands, the Wageningen Centre for Development Innovation (WCDI) offers a unique interaction between capacity development and project implementation. WCDI aims to contribute to the Sustainable Development Goal of feeding nine billion people by 2050 in the domain of inclusive and sustainable food systems.

Visit: https://www.wur.nl/en/Research-Results/Research-Institutes/centre-for-development-innovation



Mobilizing Youth to Lead on NATURE AND CLIMATE.

Youth4Nature is a youth-led, youth-driven, independent and global organization, envisioning a world where communities thrive with nature across generations. Youth4Nature focuses its storytelling and advocacy, on mobilizing decision-makers to take ambitious action for nature and climate by 2030 that create co-benefits for social and human well-being; elevating the voices of youth by providing a platform to share their stories and have them be heard; and building a bridge for youth action between the biodiversity and climate movements, while building their capacity as stewards for nature and climate.

Viist: https://www.youth4nature.org

Meet the core team

The core team, comprising dedicated and committed participants of the digital journey has primarily been responsible for compilations and co-ordination of lessons and experiences shared during the sessions of the entire program. Members within the core team represent diverse backgrounds from about 8 different nations all-round the globe; each engaging within their local landscapes. Tasked with the role of developing outcomes from the learning experience, the core team plan includes subunits of the entire team; note takers, writers and Creative inputs teams. These have worked in synchrony to develop amazing work pieces. The driving force underneath the core team is based on mutual trust, cooperation, dedication, commitment and passion.

Note takers were concerned with the utmost responsibility to pick up key learning points, lessons, important quotes and case study insights from each of the sessions entailed within the digital journey. Writers of the sessions on the other hand, basing on the information obtained from the note takers, were charged with the role of manipulating the notes into meaningful articles and write-ups, clearly depicting the entire learning experience. The team on creative inputs additionally was responsible for supplementary value addition including visual contexts onto the outputs made from each session.

Through immense hard work, the core team is extremely delighted to present great compilations and learning points from the digital journey.



Eleanor Moore

My interests lie in furthering understanding of human-nature interactions and how we can build on this to create a sustainable future that is beneficial for both people and nature. I am currently a PhD student at Newcastle University researching the trade-offs and benefits of agroforestry forestry systems in the Kilombero Valley, Tanzania. I previously did my Master thesis, studying Farmer Managed Natural Regeneration as a restoration strategy in central Tanzania. Thereafter I did an internship with the IUCN Forest Team on their RESUPPLY project which is focussing on building a business case for landscape restoration.



I really appreciated the hard work and effort the organisers put into each week. In particular, I really enjoyed the Biodiversity and Finance session. It was interactive and I learnt a lot about different ways to finance landscape restoration, ways to be innovative in financing projects and why this can sometimes be complicated. Moreover, the digital nature of the journey meant people from all over the world could join and share their views and experiences which was really inspiring. I met a lot of amazing people who were able to share their different perspectives in a supportive environment.



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Camille Rivera

I am a marine biologist, community manager, free diver and a rescue diver from the Philippines. I have been involved in ocean conservation for more than 5 years focusing on marine science research, youth and community marine education, mangrove restoration and recently, climate change mitigation. I educated 700+ local youths and communities and led yearly marine camps about the marine ecosystems and the pressing issues they face in the region. I recently opened a start-up environmental organization - Oceanus Conservation. I believe that a balanced world consists of an informed society and nature working together for a sustainable future.



After the journey, I felt inspired to do climate action in my landscape as well as respect and value the indigenous and grassroots communities' knowledge even more. I learned alot from the speakers all around the world and from the participants who shared their stories. It was a nice feeling that we are not alone in this fight of climate crisis. We need nature to survive on this planet but we need to help restore nature for us to live in harmony with it.



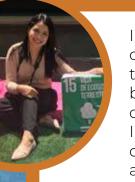
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Sindy Nova

I am from Cali (Colombia), an Environmental and Sanitary Engineer with over seven years of environmental engineer experience in local government working on the formulation, development, and monitory of projects related to climate change adaptation and mitigation strategies and quality management systems. Currently I'm part of Global Youth Biodiversity Network (GYBN) Colombia.



I want to thank you for this wonderful trip, it was a unique opportunity for me to work with incredible people from all over the world. I would have loved to meet the entire team personally, but I could feel the good vibes of all of them working remotely to communicate the lessons learned and raise and share our voices. I am also very grateful for all the feedback the GLF team provided on the writing and the patience they had as we learned more about creating content. I know that I have become a stronger writer and content creator because of you. As a result of this experience, I am more excited than ever to take local climate action. I would love to stay in touch while I finish this voluntary cause. It has been absolutely wonderful working with this team!



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Biju Adhikari

I am from the land of Mt. Everest, Nepal. Currently, i am pursuing my bachelors degree in agriculture science from Agriculture and Forestry University, Chitwan, Nepal. Being a nature lover, I love to work for nature so i am also indulged as a social media coordinator in Nepalese Youth for Climate Action (NYCA) organization that works to mitigate the issues of climate change. I am a person easy to work with because of my friendly nature. My hobby includes paintings, singing, blogging, reading, travelling and many more.



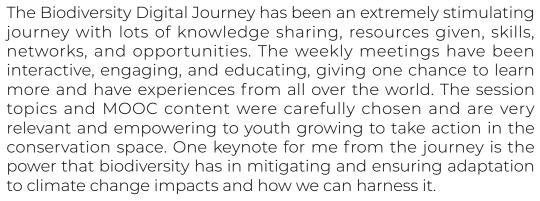
Sharing my experience about being one of the member of core team of the biodigital journey, I feel really happy as I got the opportunity of interacting with so many intellectual peoples round the globe with different backgrounds as well as I got the chance to explore so many things and enrich my knowledge more. Everyone in the team were so dedicated and hardworking, obviously nothing would have been possible without everyone's effort. My special thanks to Eirini and Anna too for making us all so comfortable to communicate, you two have been the best. I hope to get connected with all the friends I made here.



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Samantha Natumanya

I am Ugandan, an environmentalist with a background in Conservation Forestry and Products Engineering and currently an MSc candidate in Environmental and Natural Resource Management at Makerere University Uganda. Worked at WWF Uganda on community-based conservation, sustainable resource utilization, and advocacy and policy engagement work. I am very passionate about youth-driven conservation, engagement, and empowerment. I am currently consulting with Tree Talk Plus consultancy firm on a study to establish forest stocks, product technology, and Market value chains in the Albertine Rift (Greater Virunga Landscape (GVL) and Semuliki-Albert Landscape (SAL).





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Aurelia Aranti Vinton

Environmental and forestry issues become my concern since nowadays there was so much deforestation and degradation. We need an agent of change in each country to make better impacts for the environment. I recently graduated from the Department of Silviculture, Faculty of Forestry and Environment, Bogor Agricultural University (IPB University), Indonesia. In line with passion on environmental and social matters, my friend and I started to create a community movement: Treehome Indonesia (@treehome. id), and me as the founder and internal director. This community has three mains focused on "insight, news, and school".

It was really a great moment for me to be a part of "Biodiversity: A Digital Journey". I had the opportunity to e-meet Participants from all different time zones had volunteering experience as the core team on this journey, and got new insights from each kind of topic, even the MOOC opportunity! These were great experiences to meet extraordinary people around the world. I hope we could still be connected to each other and have a chance in the future to see the green movement actions in each country that participated on this journey.



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Maria Caballero

I am a climate specialist working at the Ministry of Environment of Peru where I coordinate and carry out technical monitoring of scientific information related to the climate system, climate variability and climate change, for its integration and dissemination in the processes and instruments of territorial planning in the field of Climate Adaptation. I was a research assistant at the Climate Services Centre of Germany (GERICS), and a junior scientist at the Centre for Research and Sustainability of the Earth System (CEN). Overall, I am interested in Climate Adaptation and the sustainable development of rural communities applying Climate-Smart initiatives for capacity building.

This Biodiversity Digital Journey has been not just an online course to learn about the diversity of ecosystems and related topics, but it was a collection of experiences from every corner of our planet. It was a really diverse experience in terms of culture, landscapes, and gender. I came to understand the similarities of our landscapes and their value nor just socio-economically, and environmentally but for taking climate action.

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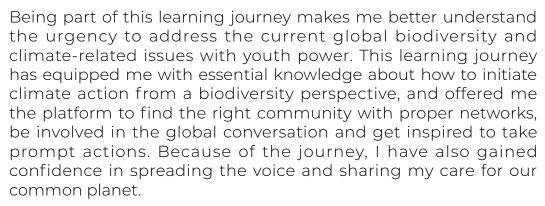
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Xiaowen Zhang

I am a communication specialist for environment and sustainability, obtaining a master's degree in Nature Management from University of Copenhagen. I am equipped with essential knowledge related to sustainable forest management, landscape restoration, sustainable development and stakeholder Involvement. Within previous working experience in international organizations, such as UNDP and Foundation for Environmental Education, I see myself as a resourceful digital content producer with great passion for writing, editing and designing, as well as a good communicator with strong focus on social media engagement and global marketing facilitation.

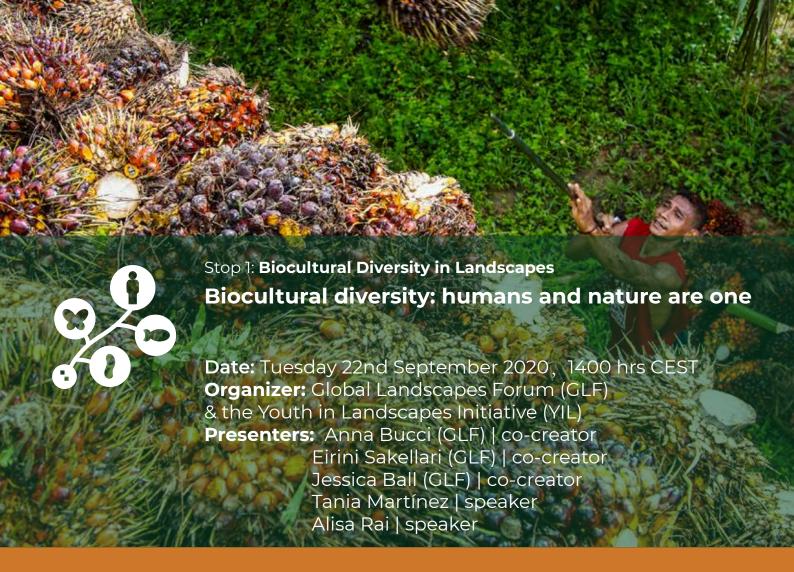


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Biocultural diversity – the interplay between biological and cultural diversity – is vital for our ways of life and the systems that support us to survive. Though many Indigenous Peoples and local communities (IPLCs) have long held the interdependence between nature, culture, and heritage as a central worldview, Western scientific and policy-making institutions are only just starting to explore this intersection. Mainstreaming this concept will require ongoing dialogue between leaders across disciplines and regions.

Participants had the chance to reflect on their personal relationship with nature, and to listen to experts sharing their own stories and experiences. Guest speakers Tania Eulalia Martinez and Alisa Rai, as well as Jessica Ball, Anna Bucci and Eirini Sakellari from the GLF team, held space for the rich participant discussions.



What is biocultural diversity? As defined by <u>Terralingua</u>, it is "the diversity of life in all its manifestations: biological, cultural, and linguistic – which are interrelated (and possibly coevolved) within a complex socio-ecological adaptive system". A wide array of knowledge and experience was shared by the facilitators and participants about their own cultures and how they relate to the natural ecosystems and heritage within their various landscapes, on both a community and a personal level.

The yarn of biocultural diversity



As a notion that aims to emphasize the interdependence between nature, culture and heritage, biocultural diversity needs to be understood beyond definitions. Therefore, the GLF facilitators briefly showcased some of the multiple threads that constitute the 'yarn' of biocultural diversity, focusing on academia, policy, community & practice as well as the personal connection with both nature and culture. Kicking off with academia, Western science has started to explore what Indigenous Peoples and Local Communities have been advocating for years: that nature and humans are not separate. Going beyond academic research, there have been discussions over the last three decades about how to turn academic theories regarding biocultural diversity into policies, implementation mechanisms and practices. On the road to the Conference of the Parties for the post-2020 Global Biodiversity Framework under the CBD, it is interesting to see the potential impact that the discourse of biocultural diversity might have in the new agreement. The dynamic, place-based interaction between landscape and heritage has been part of community practice far before this discourse reached academic and policy circles. Communities around the world have been actively caring for the landscapes around them – as much as 80% of the world's remaining forest biodiversity lies within Indigenous Peoples' territories, while IPBES has concluded that the rich diversity of nature is declining less rapidly in those territories than anywhere else in the world. The last thread we explored was the personal one - participants were invited to reflect on what nature means for them, and to share the stories about their own families and communities.

Knowledge from the ground



Tania Eulalia Martinez, an Ayuujk woman from Oaxaca, Mexico and a postdoctoral researcher on nutrition, gender and Indigenous food systems at the University of Greenwich, asked the participants to think of the last food or beverage they had, and reflect on where it came from. She drew on her own culture's relationship with maize and a traditional crop rotation system called 'milpa' which uses maize, squash and beans, and contrasted this with the monocultural practices that are widely used in intensive agriculture today. This traditional practice delivers a varied and nutritious diet throughout the year and provides food security for the community – in fact, it contributed considerably to the resilience of their food systems during the COVID-19 pandemic. Her community also saves seeds that are adapted to their specific soils, and the plants they grow have strong cultural significance. What's more, the sharing of seeds between communities increases resilience and connection within the local landscape. Gratitude to nature for the gifts it provides, and a sense of community and taking care of each other are at the core of these traditional practices.

Alisa Rai, a Senior Research Coordinator at Portland State University who hails from Nepal, shared her expertise on ecotourism in her home country to show how nature and culture are interconnected. Nepal attracts many tourists each year who are drawn to the welcoming atmosphere, sacred places and homestays, all of which are rooted in the biocultural diversity of the area. Alisa gave examples of Nepalese houses and homestays made from locally-available resources such as mud and wood; historic ponds made of concrete; and the cultivation of aromatic plants, which continue to provide aesthetic and economic value to local Indigenous groups. She also highlighted the relevance of natural resources as a resilience tool, which has enabled communities to rebuild their houses after natural calamities. Because they had access to local resources, and knew how to use them, Nepalese communities recovered more quickly than others in similar positions. Alisa made clear that nature and Indigenous and traditional knowledge should be protected through community-led conservation programs before they are lost.

Exploring biocultural diversity together



Digital sessions can often be one-sided – but this one was designed to be highly interactive! Participants were asked to list up to five words which denote the words 'survive' and 'thrive' respectively. Interestingly, words associated with 'survive' were mainly materials such as food and water, whereas those associated with 'thrive' tended to link to social aspects such as love, family and community.



Breakout rooms were a chance to get to know each other on a more personal level. Participants had an opportunity to e-network and share knowledge, experience, skills, passions, interests. Some people shared about what nature meant to them, such as through words like connection, life, interactions and happiness. Moreover, fundamental values such as love, respect and understanding for nature were reflected upon. The greater the recognition of nature, the better the approaches used to protect and conserve it for current and future generations, as well as for its intrinsic values. Many people mentioned that we need to learn from the practices and technologies employed by Indigenous Peoples and local communities. Perhaps one of the most important outcomes was the consensus among participants on respect for different global cultures, and an appreciation of their efforts towards living in harmony with nature.

The first 'stop' of the digital journey was at the 'bay of biocultural diversity', and it aimed to encourage participants to reflect upon how their own cultural values are connected with their landscapes. Different meanings and values associated with the natural world were discussed, while practical steps emerged on how biocultural diversity might impact participants' professional and personal lives as they work to create a more resilient and equitable future for people and the planet.





The learning program "Biodiversity: A Digital Journey", organized by the Youth in Landscapes Initative (YIL) initiative and the Global Landscapes Forum (GLF) carried on with how young people, conservation bodies and governments can take climate action in their own landscapes.

In September 2020, the Wageningen Centre for Development Innovation (WCDI) took the lead and explored how young people can take climate action by restoring and protecting biodiverse landscapes.

Our speakers addressed various topics:

- Anna Bucci (Italy), Erini Sakellari (Greece), Tossa Harding (Netherlands) and Ingrid Gevers (Netherlands) introduced the role of biodiversity in climate and climate action.
- Samuel Dotse (Ghana) shared his work as a climate lobbyist.
- Xiaowen Zhang (China) and Maria Villasante (Peru) spoke about how young people in their regions are working towards healthier landscapes.
- Chandipawa Molefe (Botswana), Margaret Angula (Namibia), Dante Dalabajan (Philippines), and Daniel Morchain (Venezuela) talked us through a tool called 'Vulnerability Risk Assessment' for helping build understanding of socio-ecological landscapes.

<u>Sustainable Development Goal 13</u> on Climate Action focuses on "the stepped-up efforts to reduce greenhouse gas emissions and strengthen resilience and adaptive capacity to climate induced impacts." Participants built on this UN definition, describing climate action as collaboration, adaptation, activism and mitigation, among other activities important to improving socio-ecological and economic systems.

Biodiversity conservation and ecosystem restoration are important allies for climate action. Biodiverse landscapes are not only intimately connected to the well-being of people, but healthy, resilient ecosystems can buffer climate impacts, and by doing so, bolster adaptation and mitigation capacity for communities. Mangroves, for instance, play a crucial role as a carbon sink and as protection for coastal communities from increasingly-frequent storm events.



"Biodiversity is one of our biggest allies in reducing the impacts of climate change in our landscapes"

– Tossa Harding, WCDI

In the era of the climate crisis, scientists and knowledge-holders argue that the planet has entered the 6th mass extinction. With each species lost, devastating and cascading effects fall upon other species in an ecosystem. This will lead to a lack of resilience, and the inability of impacted habitats to absorb future climate hazards. A crucial step towards addressing the environmental crisis and maintaining ecosystem resilience globally is to understand the interconnections between climate and biodiversity.

- "All life depends on other life. Life keeps life alive."
- Naturalis, The Tower of Life

Climate action is a collective action of various levels. What role can youth play?



"Climate action includes all efforts taken to combat climate change and its impact. Climate action can take many forms, and everyone can play a role in it"

- Ingrid Gevers, WCDI

The participants shares success stories from youth action around the world. They highlighted the need to work together with multiple stakeholders such as scientists, governments, the private sector, Indigenous Peoples and local communities, NGOs and youth to raise awareness of climate change and influence the public to promote initiatives for sustainable development.

"Youth participation is one of the biggest drivers for climate action"

- Maria Angelica, GLF Participant

Young professionals can also take climate action by becoming climate lobbyists. A climate lobbyist engages stakeholders, attends international meetings, raises awareness and mobilizes action on climate-related issues. Climate lobbying creates opportunities to meet with decision makers and other activists, and to increase the range of possibilities for climate action. There are many challenges a climate lobbyist will face, including discrimination, not being accommodated, and being ignored. Despite these challenges, it is essential to continuously push for representation in political spaces.

"Be creative as to where you can meet members of the community to present issues. Go to more personal environments because most [people] are not officially ready to listen to you – you need to establish personal and informal relationships as well."

- Samuel Dotse, climate lobbyist, Ghana

As Xiaowen and Maria noted, understanding the needs of multiple stakeholders is necessary to guide climate action. Comprehending the socio-ecological landscape is crucial to creating appropriate measures to reduce risks and improve well-being for local people and the environments in which they live. Chanda, from Botswana, described how communities in her country are struggling with the changing landscape, and with issues such as human-wildlife conflict. She also shared the importance of a **bottom-up approach and engaging at the local level** so that there is a common understanding of the issues affecting the communities. Margaret from Namibia argued that climate action needs to be gender responsive. Many participants also referred to the usefulness of Vulnerability Risk Assessment in understanding landscape issues. These assessments should focus on the community's perspective to help design context-specific climate and biodiversity actions that are then integrated into their local management plans.

"Vulnerability Risk Assessment is a balance of science and Indigenous knowledge systems and practices"

- Dante Dalabajan, OXFAM Philippines

Our commitments to climate action







Engage. Advocate. Eat less meat. Vote wisely!

The session also included a safe space for participants to share the barriers they are facing in taking climate and biodiversity action in their own communities. Some people mentioned the lack of seats for youth at the decision-making table, low youth representation in governmental and policy-making bodies, and biases against young climate activists, who are sometimes viewed as obstacles to economic development. Young people have been active architects for climate action in biodiverse landscapes, and continue to participate in processes that support implementation, monitoring, and reviewing results. Some important learning outcomes from this session that participants highlighted included: understanding the local context before building an action plan; creating partnerships across sectors for increased intervention impacts; and realizing the valuable role of upscaling bottom-up, community approaches. Towards the end of the session, participants made their own pledges for climate action. From voting, to eating more plant-based food; from advocating to having discussions with their loved ones; one thing is clear: these changemakers seek to build a better world for current and future generations.

Want to learn more?

The Wageningen Centre for Development and Innovation launched a new online course on exactly this topic: "Climate Action in Biodiverse Landscapes", a free and interactive massive open online course (MOOC) where learners from all around the world can learn about climate analysis, climate data and to develop plans for Climate Action.

You can sign up here:

https://www.edx.org/course/climate-action-in-biodiverse-landscapes



Stop 3: Biodiversity and Finance Integrated Potentials: Biodiversity and Finance

Date: Tuesday 6th October 2020, 1400 hrs CEST Organizer: Global Landscapes Forum (GLF) & the Youth in Landscapes Initiative (YIL) Presenter: Anna Bucci (GLF) | co-creator

Eirini Sakellari (GLF) | co-creator Ludwig Erick Liagre (GLF) | co-creator + speaker

Anna Gomes | speaker Fainta Negoro | speaker Leimon Beria | speaker

The accelerating rates of biodiversity loss affect various domains, including – but not limited to – health, business, tourism and agriculture. Nation-states have come together in international conventions to explore common pathways towards a sustainable future, while Indigenous Peoples and local communities, youth organizations and other civil society actors have continued to advocate that a sustainable future will necessarily be an equitable one. This third explorative and interactive learning experience, on Biodiversity and Finance, gives insight into the various approaches employed by multiple stakeholders and participants across the globe to value biodiversity and unleash financing options to conserve, restore and equally benefit from ecosystem services.

On the quest to address the biodiversity crisis, a narrative that has been gaining attention is that of flipping the problematic notion that biodiversity is inexhaustible and that its loss is cost-free. In other words, despite the interventions put in place by key stakeholders to recognize, evaluate and capture the value of biodiversity, this issue has not been given appropriate attention so far, by either the public or private sector. Payments



for Ecosystem Services (PES) schemes provide a lens to explore biodiversity value, but implementing such a scheme needs to be informed by diverse contexts and communities.

Key concepts shared through a series of discussions by experts included:

- a general introduction to biodiversity and finance by Anna Gomez from Brazil, a master's candidate in tropical forestry at Dresden Technical University in Germany;
- the concept of PES presented through case studies of public, private, domestic and international schemes by Ludwig Liagre, GLF Sustainable Finance Advisor;
- financing schemes for unleashing the sustainable provision of ecosystem services, presented by Beria Leimona, Senior Expert in Landscape Governance and Investment at the World Agroforestry Center (ICRAF); and
- strategic conservation finance experiences of private companies and NGOs in Indonesia, presented by Fainta Negoro, Sustainability & Partnership Lead for Multi Bintang Indonesia, Co-Founder of Jejak.in and Executive Board Member for AWS Indonesia.

The importance and relevance of biodiversity Anna Gomez



Once the value of biodiversity and its loss is recognized, PES schemes can be a viable and effective mechanism for actions that increase the provision of biodiversity and ecosystem services. The challenge, however, of building the schemes in ways that are equitable and inclusive for the communities involved, still remains.

"Nature has its own unique values, but it also has instrumental and relational value to us. The instrumental value, such as pollination, is in the form of ecosystem services and the relational value is about enhancing wellbeing"

- Anna Gomez

The concept of PES presented through case studies Ludwig Liagre



To bring everyone deeper into the concept of PES, Ludwig Liagre, Sustainable Finance Advisor for GLF, led the participants through a discussion on the range of PES definitions and approaches.

Ludwig gave several examples of how some successful schemes work to both invigorate and inspire action. One of the best-known examples of PES through a public-private scheme is in Costa Rica. There, four main ecosystem services are legally recognized and paid for; water protection, landscape beauty, biodiversity and greenhouse gas mitigation. The scheme, which focuses incentives through annual payments to the stakeholders supplying the service (namely,small and medium-size forest producers, farmers and Indigenous groups), significantly contributed to increasing the country's forest cover over the past 40 years.

The second example came from the Vittel Mineral Water company in France. In this instance, Vittel are the ecosystem service buyers, and the providers are farmers within the watershed area. After a lengthy 10-year negotiation process, most farmers in the watershed area signed long-term contracts to reduce the use of nitrates and other chemicals, while simultaneously enhancing sustainable agriculture and forestry practices. This example highlighted the importance and complexity of the negotiation process between stakeholders.

Participant Pedro Trejo commented on how the contradictions between theory and practice of PES schemes highlight their complexity and the fact that we need to focus on the locality of schemes. Suppliers and buyers of ecosystem services may have very different priorities and interests, which need to be balanced when designing a scheme.

Finally, the example of REDD+ for reducing emissions from forest degradation and deforestation was touched upon. Countries with REDD+ programs can distribute the funds to in-country suppliers such as farmers, land owners, agribusinesses and cooperatives, Indigenous groups managing the land, and other land-users. However, there is still a need to redefine various elements of REDD+ towards fair and equitable sharing of benefits.

Financing schemes for unleashing the sustainable provision of ecosystem services Beria Leimona



Beria explained that nature cannot be determined only by its potential monetary value, but that the services that nature provides to humans – such as protecting it or enhancing its use – can be supported by economic incentives. PES have three main composites: commoditization, compensation and joint investment. The commoditization of environmental services means that the ecosystem service unit here becomes a manageable commodity. Compensation is applied for forced and voluntary restrictions on land use such as ecosystem-friendly activities. Joint investment refers to the agreements established between ecosystem service providers and beneficiaries under the terms established for ecosystem services.

"Payments for Ecosystem Services are just parts of broader sustainable landscape governance – neither 'silver bullets' nor 'fools' gold'"

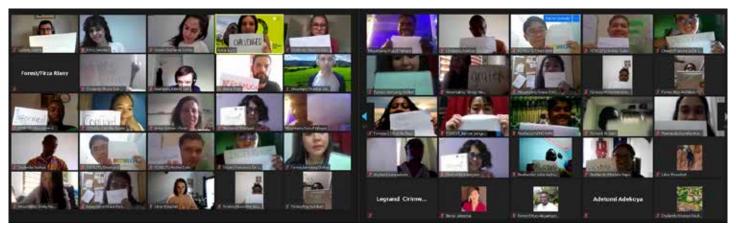
- Beria Leimona

Strategic finance in the environmental movement Fainta Negoro



Fainta shared her story about working with the private sector to develop PES schemes. Her first experience in this field was with international corporation Danone, where she focused on brokering negotiations – particularly between big multinational corporations and small groups such as farmers. In that context, ICRAF was invited in as a broker between the company and local farmers in order to build trust and awareness while putting the farmers' case forward fairly.

Moving on to Heineken, she worked with <u>Conservation International</u> to negotiate with farmers on protecting forests in and around a national park by planting native trees to ensure water provision for the company. She has also been working on her start-up <u>Jejak</u>, in collaboration with Indonesian on-demand multiple service platform and digital payment technology group Go-Jek. Jejak offers a voluntary carbon offset mechanism through which users can offset their carbon emissions, and Go-Jek doubles their input. Users can choose where they want to plant trees, and are encouraged to monitor the trees throughout their lifetimes.



Take-away messages – participants inspired to act!

To practically explore their new understanding of PES schemes, participants were invited to join break-out rooms and work on case studies. Each group had to develop a scheme for a specific ecosystem (mountains, drylands, oceans, peatlands and forests), taking into consideration the local and cultural context. It was a chance for groups to identify important ecosystem services, as well as buyers and users of those services, and to consider how biodiversity finance would work from the perspective of different stakeholders within a landscape.

In the discussions that followed, participants had the chance to share their experiences of PES in their own localities. They also raised key concerns about loop-holes in implementation strategies, discussed the <u>involvement of the private sector</u> and suggested action points based on their personal encounters with the scheme. A number of participants raised queries as to the voluntary nature of such schemes, implying that in some cases it might not add any value to Indigenous Peoples and local communities. Concerns were also raised about the commodification of ecosystem services, and participants debated the feasibility of this approach for enhancing biodiversity conservation and human wellbeing. Others pointed out that a lack of trust and transparency can affect the success of PES schemes. As landscape stakeholders commit to sustainable financing methods to support biodiversity and human well-being, a keen eye most certainly has to be kept on research for new strategies and methods to complement PES schemes on a global scale.



Following on from sessions in biocultural diversity, climate action and biodiversity and finance, the Biodiversity Digital Journey concluded with a session on nature-based solutions. The session was led by Youth4Nature, a youth-led organization that aims to educate, empower, and mobilize young people to lead on solutions to the ecological and climate crisis that are ambitious, backed by science, and grounded in justice.

Kaluki Paul Mutuku, Emily Bohobo N'Dombaxe Dola and Emma Thorton from Youth4Nature, held space for the participants to discuss the narrative and value of nature-based solutions, as well as shared experience from their work with nature-based solutions and storytelling.



What are nature-based solutions?



Within global efforts to mitigate and adapt to the climate crisis, many strategies have been discussed and employed globally, with nature-based solutions currently enjoying the attention of policy makers, scientists and the private sector. But these solutions are nothing new. Many Indigenous and local communities around the world have been using nature to benefit their livelihoods and lands for a very long time, for example by planting trees to control water supplies or aid the growth of healthy crops with their shade. What's new now is the fact that nature-based solutions have been framed as an indispensable ally in biodiversity preservation and climate action.

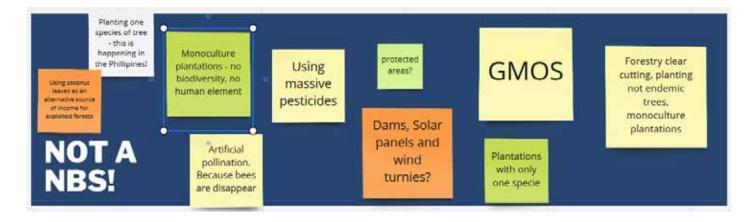


IUCN has recently released a <u>Global Standard</u> that defines nature-based solutions as having three components: addressing societal challenges (such as the climate crisis, food security and human health), protecting and enhancing biodiversity, and promoting wellbeing for all people. Nature-based solutions can support actions to protect, sustainably manage, and restore natural or modified ecosystems, while addressing societal changes effectively and adaptively.

Key challenges for nature-based solutions



Nature-based solutions can be a great tool in addressing the climate and biodiversity crisis, however there are a number of challenges associated with implementing them. These include, but are not limited to, non-transparent development of said solutions, lack of co-creation and co-ownership of the knowledge used in creating them, limited funds or unequal fund distribution, and schemes that can potentially enable greenwashing. Furthermore, many schemes fail to address the needs of the local communities, and do not consider building on the linkages between healthy biodiversity and activities that support local livelihoods, such as small-scale agriculture and fisheries.



Youth debate the current narrative on nature-based solutions



Through a highly interactive discussion, participants shared their experiences and thoughts about who should reap the benefits of nature-based solutions, who owns the rights to the landscapes in which these solutions are applied, and who can provide the relevant knowledge. Some participants already had experience in the field of naturebased solutions, while others held theoretical knowledge; a small number were learning about the concept for the first time. Most of the participants argued that special attention should be paid to what is and what is not a nature-based solution, and that young people have an especially important role in holding decision-makers and implementers accountable. The participants also suggested that the use of nature to address environmental crises should be embedded in schemes that aim to have a long-term impact, while special care should be taken to respect and support human rights, as well as to distribute benefits in an equitable manner. They also emphasized that all proposed solutions should take local context into consideration, and tackle the socio-environmental challenges that are prominent in the areas where solutions are applied, such as human health, land rights and ownership, as well as water and food security. Many people also highlighted the need to have overarching principles such as Free, Prior, and Informed Consent (FPIC) guiding nature-based solutions. Others stressed that while participatory decision-making can be challenging and time-consuming, it should always be a part of the knowledge creation, designing and implementing process of the solution scheme. Last but not least, intra- and intergenerational education and awareness-raising were considered to be key elements of such an approach.

"Local communities living in and around Mt. Elgon are taking part in cultivating valuable medicinal plants instead of wild harvesting them, planting buffer zones to protect riverbanks, restoring ancient water management systems, and conserving mountain wetlands to revitalize native grasslands"

- Caleb Wakhungu, GLF participant

Here in Ethiopia, at country level, we have been implementing different approaches to maintain and thereby sustainably utilize natural resources through following strategies Agroforestry practices, shifting grazing, area exclosure in the degraded areas and massive tree plantation programs"

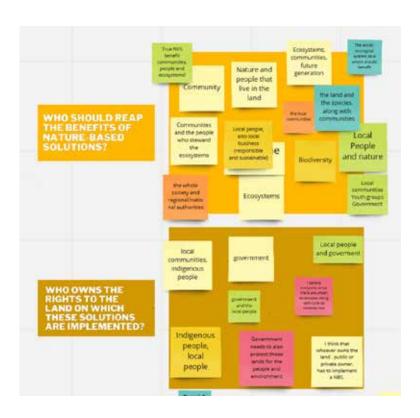
- Abera Tilahun, GLF participant

"It's interesting to look at NBS in scales, from the grassroots (referring to community actions) and those from the top (actions/commitments from governments and civil society organizations). From there, there's a need to amplify NBS initiatives from the ground and how these could be championed and supported by government institutions"

- Archie, GLF participant

"I think we should not 'demonize' businesses who want to earn profits, because in the end nature is also meant to bring benefits to people. The question is whether they are doing it responsibly and sustainably. Too much prohibition usually ends – at least in Peru – in illegal activities within landscapes"

- Claudia Castañeda (participant)



Overall, the discussion centered on the important role of grassroots and community-led initiatives in nature-based solutions. Also necessary for their design and implementation are a multi-stakeholder and multi-sectoral approach and the co-creation of relevant knowledge based on scientific and traditional evidence. Supporting resilient landscapes through nature-based solutions is only possible when local needs are met and schemes are grounded in both science and local knowledge, including biocultural values.

"I would say we need to go beyond feeling empathy, and actively include the community's knowledge next to science"

- Eirini Sakellari, Youth in Landscapes Intern

Storytelling: a tool to mainstream youth voices in nature-based solutions



During the session, Youth4Nature also encouraged participants to use creativity to support their storytelling when communicating about nature-based solutions. Stories can be powerful devices for building understanding, instigating change and mobilizing people to tackle the climate and biodiversity crises. But to be impactful, stories need to reflect on the experiences and actions of people, communicate concerns and solutions, and showcase work and expertise. Storytelling is a tool that Youth4Nature uses to empower young people to take up space where that is needed, and to amplify the voices of vulnerable communities affected by ecological crises.

"The journey has been amazingly interesting. I have learned a lot from the conversations with other participants, presentations from the speakers and the questions and answers. It is the best platform for understanding biodiversity so far" – Ajani Oluwaseun, GLF Participant













BIODIVERSITY: A DIGITAL JOURNEY

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_Ajani Oluwaseun, GLF Participant







