



# Rio Conventions Pavilion Bulletin

A publication of the International Institute for Sustainable Development

Friday, 30 December 2018 Vol. 200 No. 50

## Summary of the Rio Conventions Pavilion 17-27 November 2018 | Sharm El-Sheikh, Egypt

The Rio Conventions Pavilion (RCP or the Pavilion) convened in parallel with the UN Biodiversity Conference in Sharm El-Sheikh, Egypt, from 17-27 November 2018. The RCP is a platform designed to raise awareness and disseminate information, including on best practices and scientific findings, linking biodiversity, climate change and sustainable land management. The Pavilion highlights the benefits realized from joint implementation of the three Rio Conventions: the Convention on Biological Diversity (CBD); the UN Framework Convention on Climate Change (UNFCCC); and the UN Convention to Combat Desertification (UNCCD).

The Pavilion's programme focused on the following themes: sustainable infrastructure; Africa's ecological futures; scenarios for transformative change; rethinking biodiversity governance; protected areas (PAs); building capacity beyond 2020; the role of the private sector in biodiversity conservation; agriculture and biodiversity; mainstreaming of biodiversity for ecosystem and human health co-benefits; nature-based solutions for climate change; and forest landscape and ecosystem restoration.

### A Brief History of the Rio Conventions Pavilion

**CBD:** The CBD was adopted on 22 May 1992, and entered into force on 29 December 1993. There are currently 196 parties to the Convention, which aims to promote the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the use of genetic resources. The Conference of the Parties (COP) is the governing body of the Convention.

The CBD includes the Cartagena Protocol on Biosafety, which was adopted on 29 January 2000 and entered into force on 11 September 2003, with 171 parties. The Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol, adopted on 15 October 2010, entered into force on 5 March 2018. The Nagoya Protocol on Access and Benefit-Sharing was adopted on 29 October 2010, and entered into force on 12 October 2014, and currently has 114 parties. The Nagoya Protocol aims to establish greater legal certainty for users and providers of genetic resources and helps ensure benefit-sharing, in particular covering traditional knowledge.

**UNFCCC:** The international political response to climate change began with the adoption of the UNFCCC on 9 May

1992, and was opened for signature at the Rio Earth Summit in June 1992. The UNFCCC sets out a framework for action aimed at stabilizing atmospheric concentrations of greenhouse gases (GHGs) to avoid "dangerous anthropogenic interference" with the climate system. The UNFCCC entered into force on 21 March 1994, and now has 197 parties.

The UN Climate Change Conference convened in Paris, France, in November and December 2015 and culminated in the adoption of the Paris Agreement on climate change. The Agreement sets the goals of: keeping global average temperature rise well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels; and enhancing global adaptive capacity, strengthening resilience and reducing vulnerability to climate change.

The Agreement creates two five-year cycles. One cycle is for parties to submit nationally determined contributions (NDCs), each successive contribution representing a progression from the previous contribution, reflecting common but differentiated responsibilities and respective capabilities, in the light of different national circumstances. By 2020, parties whose NDCs

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contain a timeframe up to 2025 are requested to communicate a new NDC and parties with an NDC timeframe up to 2030 are requested to communicate or update these contributions. The second cycle is a global stocktake of collective efforts, beginning in 2023, following a facilitative dialogue in 2018.

All parties are to report on their efforts using a common transparency framework, with support provided for developing countries to fulfill their reporting obligations. The Agreement establishes, *inter alia*, a mechanism to contribute to the mitigation of GHG emissions and support sustainable development and a technology framework to provide overarching guidance to the Technology Mechanism.

The Paris Agreement entered into force on 4 November 2016, 30 days after the dual entry into force requirement of ratification by at least 55 countries representing at least 55% of global GHG emissions was met. As of 28 November 2018, 184 countries have ratified the agreement.

**UNCCD:** The UNCCD was adopted on 17 June 1994, and entered into force on 26 December 1996. Currently, there are 197 parties to the UNCCD. The UNCCD is the core of the international community's efforts to combat desertification and land degradation in drylands. It recognizes the physical, biological, and socioeconomic aspects of desertification, the importance of redirecting technology transfer to be demand-driven, and the importance of involving local communities in combating desertification and land degradation in drylands. The UNCCD facilitates developing national, subregional and regional action programmes with national governments, in cooperation with UN agencies, donors, local communities and non-governmental organizations (NGOs).

**First Rio Conventions Pavilion:** The first RCP convened alongside CBD COP10, held from 19-29 October 2010, in Nagoya, Japan. The Pavilion was organized around daily themes, including: linkages between biodiversity, climate change and sustainable land management; the role of PAs in climate change; indigenous peoples and local communities; forest biodiversity; water, ecosystems and climate change; land day; economics of ecosystems and biodiversity; ecosystem-based adaptation (EbA); and, promoting synergies for sustainable development and poverty reduction.

**Second Rio Conventions Pavilion:** The second RCP convened in parallel with UNFCCC COP16 from 29 November - 10 December 2010, in Cancun, Mexico. The Pavilion focused on the themes: linking biodiversity, climate change and sustainable land management; the role of PAs in climate change adaptation and mitigation strategies; Indigenous Peoples and local communities (IPLCs); forest biodiversity; water, ecosystems and climate change; marine, coastal and island biodiversity; EbA approaches; promoting synergies for sustainable development and poverty reduction; and, linking biodiversity, climate change and SLM through finance.

**Third Rio Conventions Pavilion:** This meeting took place in parallel to UNCCD COP10, held from 10-20 October 2011, in Changwon, the Republic of Korea. The main themes included: cities and SLM; sustainable forest management; ecosystem-

based approaches to climate change; sustainable land and water management; food security and combating hunger; gender; engaging IPLCs; poverty reduction; and, synergies for the implementation of the Rio Conventions.

**Fourth Rio Conventions Pavilion:** This meeting took place in parallel with UNFCCC COP17, held from 29 November - 8 December 2011, in Durban, South Africa. Main themes included: IPLCs; gender; EbA; business, economics and synergies; and, reducing emissions from deforestation and forest degradation in developing countries, the role of conservation, sustainable management of forests and enhancement of forest carbon stock (REDD+).

**Fifth Rio Conventions Pavilion:** This meeting convened in parallel with the UN Conference on Sustainable Development (UNCSD or Rio+20), which convened from 13-22 June 2012, in Rio de Janeiro, Brazil. The main themes included: the roads from Rio - 20 years of the *Earth Negotiations Bulletin*; Africa; IPLCs; EbAs; oceans; land; business; financing sustainable development; gender mainstreaming; cities; and, a celebration of the 20th anniversary of the Rio Conventions.

**Sixth Rio Conventions Pavilion:** This meeting took place in parallel with CBD COP11, from 9-18 October 2012, in Hyderabad, India. The main themes included: tree diversity day; livelihoods day; 20/20 talks; sixth land day; ecosystem restoration; and, integrated implementation of the Rio Conventions.

**Seventh Rio Conventions Pavilion:** This meeting convened in parallel with UNCCD COP11, from 17-26 September 2013, in Windhoek, Namibia. The main themes included: resource mobilization; SLM; landscape approaches; and, land degradation neutrality (LDN).

**Eighth Rio Conventions Pavilion:** This meeting took place in parallel with CBD COP12 in Pyeongchang, the Republic of Korea, from 6-17 October 2014. The main themes included: the role of EbAs; economics of biodiversity and ecosystem services in climate change management; indigenous peoples benefits and livelihoods; and, gender perspectives.

**Ninth Rio Conventions Pavilion:** This meeting convened in parallel with UNCCD COP12, which was held in Ankara, Turkey, from 12-22 October, 2015. Topics discussed included: land's role in mitigation; ecosystem restoration; SLM; and, the Sustainable Development Goals (SDGs).

**Tenth Rio Conventions Pavilion:** The meeting took place in parallel with the Twenty-First meeting of COP21 to the UNFCCC, in Paris, France, from 1-10 December 2015. The Pavilion's programme focused on: biodiversity and ecosystems; IPLCs; land day; ocean day; implementing the Paris agreement; and, gender in the context of the Rio Conventions.

**11th Rio Conventions Pavilion:** The meeting convened in parallel with CBD COP 13, in Cancun, Mexico from 5-14 December 2016. Themes included: biodiversity and climate change; tourism and fisheries management; sustainable food systems for biodiversity, nutrition and health; public health and ecosystem management; protected areas (PAs); forest landscapes and ecosystem restoration; and equality and social inclusion.

## Report of the Meeting

The report below provides an overview of the 11 RCP thematic days: Sustainable Infrastructure; Africa's Ecological Future; Scenarios for Transformational Change; Nature Future Scenarios; Rethinking Biodiversity Governance for Transformative Change; Protected Areas; Building Capacity Beyond 2020; Health and Biodiversity; Agriculture and Biodiversity; Nature-based Solutions for Climate Change; EbA Knowledge; and Forest Landscape and Ecosystem Restoration.

### **Sustainable Infrastructure Day – 17 November**

Sustainable Infrastructure Day took place on the afternoon of Saturday, 17 November. The session explored the role of sustainable infrastructure in linking major themes and targets of the three Rio Conventions and other multilateral environmental agreements (MEAs).

The RCP was opened by Cristiana Paşca Palmer, Executive Secretary of the CBD. She noted that smart infrastructure choices can contribute to human development in line with environmental targets, whereas poor choices can lock-in unsustainable patterns for decades.

Carlos Manuel Rodríguez, Minister of Environment and Energy, Costa Rica, discussed how his country worked on improving the critical corridors used by jaguars. He explained that the infrastructure sector worked with private sector to design an effective corridor.

Shirley Trundle, Department for Environment, Food and Rural Affairs, UK, spoke about the UK's program titled 'A Green Future: Our 25 Year Plan to Improve the Environment.' She pointed out that the UK Government is committed to leave the environment in a better state than we have found it, and part of this is engaging local people and communities to explain the kind of place they want to live in. Trundle said targets and plans would be set accordingly.

Margaret Kinnaird, World Wide Fund for Nature (WWF), warned that linear infrastructure poses a real threat to both tigers and pandas. She said that while the population of tigers is increasing in certain areas, there is no time for complacency. Kinnaird provided the example of China's National Highway 108 (G108) where WWF worked with the Government of China to restore a corridor used by pandas. She explained how working with government and having community participation allowed for the highway to both be restored to an efficient state, and is no longer a physical barrier for pandas.

Kirsten Probst, Die Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), discussed lessons learned in strengthening climate resilience via ecosystem restoration and management. She said GIZ aims to influence key national and international actors in infrastructure planning and development to better account for climate change risks earlier in the existing strategic planning process.

Bruce Dunn, Asian Development Bank, outlined infrastructure demand in the region between 2016 and 2030. He said this demand equates to USD26 trillion with potential impacts on biodiversity and ecosystems. To move upstream and to bring biodiversity into the mainstream, Dunn recommended: better screening and baseline studies; better project design; and more capacity and finance.

Fernando Camacho, National Commission of Natural Protected Areas (CONANP), talked about the costs of natural disasters and the necessity to insure coral reef health for coastal resilience in Mexico. He noted that hurricanes are the main driver for loss of live coral cover in the Caribbean. To address this, Camacho underscored the need for science, capacity, financial instruments and pilot projects.



**Fernando Camacho**, National Commission of Natural Protected Areas (CONANP), Mexico

Rob Ament, The Center for Large Landscape Conservation, said that in discussing infrastructure, the focus should not just be on roads but new rail tracks;

he said addressing roads without addressing rail tracks will not improve the situation.

Ashley Brooks, WWF, described the vast landscape tigers require noting that though the numbers of tigers are increasing along the Terai Arc Landscape, the total territory they occupy is decreasing.

Lazaros Georgiadis, Infra-Eco Network Europe, encouraged the development of an international strategy for sustainable infrastructure participation engaging different stakeholders.

Oshani Perera, International Institute for Sustainable Development, presented the Sustainable Asset Valuation (SAVi) tool, which quantifies the extent to which environmental, social and economic risks and externalities affect the financial performance of infrastructure assets.

Marco Lambertini, WWF, summarized the presentations and discussions from the day by noting that the theme of sustainable infrastructure can be addressed under three issues. He explained the first issue is a cultural one, and that the environment needs to be part of thinking within classrooms, boardrooms and infrastructure ministries. Lambertini said highlighting the risks and impacts of natural capital could do this. He said the second issue was that environmental consideration is taking place too late in the planning process, and that this should no longer be the case given the wealth of data and information available today. Finally, he said that we need to be honest about what we build, noting in conclusion "if you cannot build it well, do not build it. Transformation can be the solution."

### **'Africa's Ecological Future: For People and Planet' – 18 November**

The day included the launch of the Africa Ecological Futures (AEF), an initiative of the African Development Bank (AfDB) and its partners. The discussions explored current ideas and concepts on the conservation of nature, biodiversity and Africa's important natural assets in order to mainstream AEF thinking into various sector policies like conservation, food, forest and infrastructure.

The day was organized by the WWF Regional Office for Africa and partners involved in the AEF project, focused on the future of sustainability in Africa.

**Opening Session:** Chair Yemi Katerere, WWF Africa, welcomed participants and introduced the theme of the day, ‘Africa’s Ecological Future: For People and Planet.’

Fred Kumah, WWF Africa, described the past, current and future state of Africa and its impact on the continent’s natural resources and biodiversity. He discussed the contribution of the AEF initiative, noting it was co-designed by WWF and the AfDB with the aim of enabling convergence and collaboration between ecological and physical infrastructure.

Sara Bertin, AfDB, highlighted how the AEF initiative can contribute to achieve Africa’s potential and face its complexities, as well as look at alternative opportunities that combine physical and ecological infrastructure planning.

Katerere emphasized the role of investment in infrastructure, the need to move towards transformation, do things differently by supporting strong governmental institutions, and increasing democratic participation to ensure that investments meet people’s needs.

Luthando Dziba, Co-Chair, Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Regional Assessment for Africa, noted that Africa’s natural assets and rich biodiversity are often underestimated, in part because there are few studies assessing the value of nature’s contributions to human well-being. He highlighted the AEF report’s recommendation for polycentric government approaches that engage multiple stakeholders to undertake periodic national assessments of natural capital.

Answering questions from the audience, panelists shared further lessons from specific African countries, and emphasized that the AEF, IPBES Thematic Assessments and other scenario studies highlight the importance of re-thinking current investment frameworks to factor in their environmental impacts. Responding to a question on how to interpret the recent Intergovernmental Panel on Climate Change (IPCC) call for a 1.5°C limit from an African perspective, participants highlighted data challenges, such as adopting a collective index for biodiversity conservation.

**Safeguarding the Ecology:** This session was moderated by Laurent Some, WWF Africa.

Julia Barkse, WWF Germany, presented on the Democratic Republic of Congo (DRC) conservation area, Programme d’appui au Réseau des aires protégées (PARAP). She highlighted PARAP’s contribution to the sustainable development of ecosystem services in the country with the assistance of WWF Germany, which undertook data collection from 25 different sites.



Sara Bertin, AfDB

Ulrike Tröger, WWF Germany, discussed conservation efforts in the DRC’s Salonga Park, Africa’s largest tropical rainforest reserve. She highlighted the importance of local participation in ensuring that protected areas are drivers of sustainable development and the role of partnerships in conservation efforts.

Matthias Krause, German Federal Ministry for Economic Cooperation and Development (BMZ), gave examples of the ecosystem services mangroves provide and highlighted how important it is to consider their value in infrastructure and coastal development.

In the ensuing discussion, two representatives of the National Parks Authority in DRC explained how the country’s forest conservation efforts contribute to conservation even under conflict. They also underlined the need to adopt collaborative approaches to include biodiversity conservation and local people’s needs at the center of development.

**Reconciling Forest & Food – the Potential of Landscape Restoration and Food Security:** This session was facilitated by Adriana Vidal, International Union for Conservation of Nature (IUCN).

Heiko Warnken, BMZ, highlighted his country’s EUR 10 billion fund for forest landscape restoration (FLR) projects, noting it seeks to support integrated approaches to the sustainable management of forests, land and water resources. Among specific FLR projects underway in Africa, he highlighted funding for national land degradation neutrality (LDN) target setting as part of SDG 15, the African Forest Landscape Restoration (AFR100) Initiative, and ‘One World No Hunger,’ which supports the rehabilitation of agricultural land and strengthening land governance in 20 African countries.

Charles Karangwa, AFR100, reported that 27 countries so far have committed to restore over 111 million hectares by 2030, surpassing the initial target. He highlighted the strong commitment made by African ministers at the recently concluded African Biodiversity Summit to restore landscapes that link ‘people, food and biodiversity.’

Marie-Laetitia Busokeye, Rwanda Environment Management Authority, stated that the country has made a commitment to restore two million hectares – approximately 75% of the total land area in the densely populated country. She said this was due to the realization that addressing the competing needs such as soil and land management, food production, climate regulation and energy access requires restoring tree cover and other vital ecosystem services across all land use systems, including in urban areas.

Issa Katwesige, Ministry of Water and Environment, Uganda, highlighted his country’s commitment to restore 2.4 million hectares of degraded land, through diverse approaches, including: natural regeneration of protected forests; privately-managed natural forests; restoring vital tree species, including the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)-listed *Prunus Africana* through agro-forestry schemes; and tree planting in urban areas.

Anja Gassner, World Agroforestry Centre (ICRAF) presented on the ‘Trees on Farm for Biodiversity’ project, which works



**Roseline Remans**, Bioversity International

with communities, governments and civil society organizations in five countries. She listed some achievements so far, including Rwanda meeting 85% of its agroforestry goals with expected economic benefits surpassing USD 700 million, and Uganda's success in balancing agroforestry while also maintaining its natural protected forests. She lamented that while there are a lot of FLR initiatives, few look at the long-term sustainability of the trees to

turn restoration into a viable economic sector.

Roseline Remans, Bioversity International, highlighted efforts to make agricultural land restoration "part of the solution," noting that a focus on biological diversity within agricultural systems helps to secure essential ecosystem services such as more nutritious diets, energy and soil restoration, and livelihoods.

In discussions that followed, panelists explained some challenges and opportunities for FLR in Africa. They highlighted the implications of not having coherent policies and regulation by neighboring countries, noting the need for regional and intersectoral approaches to mainstream FLR. Speakers encouraged involving farmers in agro-forestry activities, and tapping into the expertise that already exists within African countries. They further noted that involving local stakeholders will help create green jobs and add value to the growing investments African governments are making in agro-forestry.

**Cities and Infrastructure Development in Africa – Challenges and Risks:** This session was facilitated by Kate Newman, WWF, US.

Rose Mwebaza, AfDB, spoke about infrastructure needs for Africa and the Bank's approach to this. She emphasized that due to population growth in the continent, there is pressure to invest in infrastructure but her institution is looking for more data on future needs of cities so that investments in infrastructure can

take into consideration what the city will look like 50 years from now and plan accordingly.

Bianca Notarbartolo, UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), underscored the importance of the nexus between infrastructure and biodiversity to achieve the 2030 Agenda on Sustainable Development. She noted that a transformative future requires an integrated approach for infrastructure development, engagement with other sectors and a change in the narrative.

Saliem Fakir, WWF South Africa, discussed the challenges of addressing rural and urban landscapes in a fragmented way. He underlined how crisis, such as the drought in Cape Town, contributed to re-thinking infrastructure needs in an integrated way, enabling the linking of physical, ecological, and technological infrastructures to build a more resilient future.

Opening discussion on what needs to be done differently for the infrastructure needs in Africa, Chair Newman noted that 75% of infrastructure needed by 2050 has not yet been built. Notarbartolo encouraged upstream planning for future infrastructure needs, and called for a move away from traditional approaches that consider only current needs, with the inevitable need to mitigate negative consequences that arise.

Panelists also highlighted other factors that need to be taken into account when planning infrastructure models, such as the impacts of climate change on buildings.

**The Future of Biodiversity We Want for Africa – A Joint Programme to the Shape Africa's Ecological Future:** Focusing on youth perspectives, this session was chaired by Monique Ntumngia, Green Girls Organization and 2017 WWF Africa Youth Champion.

Maoga Unelker, Founder of Konservation Kenya, said biodiversity in Africa is the foundation of the economy but it is not in the best state. She further noted that youth alone cannot achieve the changes that are needed.

Alexandra Rasoamanana, Malagasy Youth Biodiversity Network, stated that her network is pushing forward to have the voice of young Africa heard and encouraged the use of scientific



From L-R: **Monique Ntumngia**, Green Girls Organisation and 2017 WWF Africa Youth Champion; **Iddi Hamisa Nyachenga**, Green Power Tanzania; **Maoga Unelker**, Konservation; **Alexandra Rasoamanana**, Malagasy Youth Biodiversity Network; and **Mohamed Raouf**, Nature Conservation Egypt

data to be considered in understanding the biodiversity needs of Africa. She added that biodiversity loss is at a critical point for Africa and there is a clear clash between development and conservation objectives.

Echoing the sentiments of other panelists, Iddi Hamisa Nyachenga, Green Power Tanzania, noted that youth-focused interventions present a potential benefit for environmental conservation but they currently lack government support.

Rasoamanana added that her hope is for the decisions and plans of actions that are adopted at COP 14 to be communicated by youth in their respective countries with the message that these decisions need to be understood and implemented by local actors as much as governments.

**Launch of the Pathfinder Award:** In the evening, participants gathered to celebrate the winners of the inaugural 2018 Pathfinder Awards for innovation and excellence in protected area financing and resourcing. A collaboration of IUCN, the UN Development Programme (UNDP), and Wild Ark, more than 200 nominations were received and judged by an international panel of distinguished experts.

### ***Scenarios for Transformative Change – 19 November***

The third day of the Pavilion highlighted the use of quantitative and qualitative scenarios across different scales and sectors as tools for transformational change for biodiversity outcomes. Sessions in the morning reflected on findings from future modeling exercises that look at the implications of climate change scenarios for biodiversity, as well as scenarios for “bending the curve” of biodiversity trends.

In the afternoon, participants debated the relevance of these analyses for operationalizing the 2050 vision, with a closing panel focusing on the CBD Post-2020 Global Biodiversity Framework (Post-2020 Framework).

The event was co-organized by the PBL Netherlands Environmental Assessment Agency (PBL), the International Institute for Applied Systems Analysis (IIASA), the Dutch Research Institute for Transitions (DRIFT), the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia, the National Institute of Water and Atmospheric Research (NIWA), New Zealand, and Université Paris-Sud.

**Opening Session:** Carolyn Lundquist, NIWA, welcomed participants, noting the discussions would explore how scenario analysis can support the achievement of the objectives of the three Rio Conventions and help realize transformative change for biodiversity.

Lejo van der Heiden, Ministry of Agriculture, Nature and Food Quality, the Netherlands, highlighted some challenges related to agricultural transition and how scenarios and modeling can contribute towards a system of circular agriculture. He said future scenarios on environmental issues are a powerful tool to deliver a compelling narrative to make broad groups of stakeholders, the public and political leaders realize that action is needed.

Anne Larigauderie, IPBES Executive Secretary, explained the work of the science-policy platform since 2014, including efforts to support the inclusion of biodiversity in IPCC projections and

its involvement with other research groups and institutions, such as the CBD.

Derk Loorbach, Erasmus University Rotterdam, emphasized that transformative change for biodiversity is “inevitable,” stating that the only question is whether it would happen in a disruptive or manageable way. He stressed the importance of incorporating diverse perspectives into dialogue, for example through bringing together behavioral social scientists and natural scientists.

David Cooper, CBD Secretariat, emphasized the need for greater engagement with the public and decision makers and drew attention to learning from transitions that happened in the past.

### **Shared-Socio Economic Pathways and Biodiversity:**

Introducing the session, Lundquist, explained that panelists would present the outcomes of the analyses of Shared Socio-economic Pathways (SSPs) for biodiversity and ecosystem services, noting the results were used in the Global Land Outlook of the UNCCD as well as the IPBES regional and land degradation and restoration assessments. She further noted that the session would reflect on the implications for biodiversity in the IPCC’s 1.5°C report.



David Cooper, CBD

Paul Leadley, Université Paris-Sud, discussed the contribution of SSPs in understanding the future of the earth. He emphasized that nature-based solutions can play a major role in climate mitigation and adaptation but their impact is much greater when combined with transformative changes in food and energy consumption and production.

Rob Alkemade, PBL, outlined the SSPs designed for the IPCC, their implications for biodiversity and ecosystem services and applications for the IPBES Global Assessment. He explained that the GLOBIO model addresses six drivers of biodiversity loss (land use, climate, fragmentation, pollution, exploitation, infrastructure) and presented the Mean Species Abundance (MSA) scale of originally occurring species.

Piero Visconti, IIASA, presented the habitat trends for birds and mammals under contrasting global change scenarios. He explained the Species Habitat Indices, highlighted the costs of inaction in terms of loss of habitat and species if business as usual scenarios continue and gave examples for halting biodiversity loss.

In the ensuing discussion, panelists noted that it is incumbent on the community gathered at COP 14 to fundamentally rethink scenarios at multiple scales. It was also pointed out that the IPCC 1.5°C report, which addressed biodiversity loss, is demonstrative of the growing trend towards looking at the interlinkages among climate change, desertification and biodiversity loss.

**Bending the Curve of 21st Century Biodiversity Trends:**

Carolyn Lundquist said the discussions would explore how scenario analysis can support the achievement of the objectives of the Rio Conventions, as well as the development of the new CBD strategic plan and how can it contribute to realizing transformative change for biodiversity.

Rob Alkemade, PBL, noted that to achieve the global target to halt biodiversity loss by 2050, the following drivers will need to be considered: large-scale and technologically optimal solutions at global level with a high level of international coordination; decentralized solutions for local energy production; agriculture that is interwoven with natural corridors; and national policies that regulate equitable access to food. He also pointed to the need to change consumption patterns by limiting meat intake, reducing waste in the agricultural production chain, and pursuing a less energy-intensive lifestyle.

David Leclère, IIASA, highlighted the need for ambitious but well-coordinated actions and the importance of combining current knowledge from the land-use and biodiversity modelling communities. He illustrated scenarios for exploring the space for actions and said increased conservation efforts are key, as well as tackling the drivers of habitat degradation is equally important.

Piero Visconti, IIASA, outlined some pathways to achieve SDGs for terrestrial biodiversity and food security. He shared information on how to make enough space for nature and ensure food security, and reflected on how much should be protected based on frameworks such as the CBD Aichi Targets, and the “Half-Earth” and “Whole-Earth” proposals.

**Scenario Insights for Operationalizing the 2050 Vision:**

Introducing the roundtable discussion, Marcel Kok, PBL, said the objective was to move from scenarios and models towards concrete targets for operationalizing the transformative change agenda. He stressed that the “solution space” is shrinking and asked panelists to offer ideas on what is needed to bend the curve.

Guido Broekhoven, WWF, said that scenario building supports the transformative change agenda by providing an empowering narrative. He contrasted this to the “communication challenge” facing the Aichi Targets, underscoring the need to identify actors who can drive the process forward by translating the scenarios into policy and action, especially at the national level.

Jonathan Ekstrom, The Biodiversity Consultancy, reflected on how apex targets, such as the 2°C climate change limit, helped the private sector to establish science-based targets, observing that a similar goal for biodiversity would be embraced by business as it would send a positive message that they can contribute to saving nature. He noted, however, that for science-based targets to work, there is need for a clear objective and metric, noting that scenario analyses could help companies to develop their individual targets using methods analogous to those used for climate.

Carolina Soto-Navarro, UNEP-WCMC, discussed a new initiative exploring a composite index for biodiversity, aligned to the 2030 Agenda and other global goals.

Piero Visconti, IIASA, discussed some next steps in the biodiversity transition, noting that after scenario setting, there is need for agenda setting, and stress tests to explore different policy options. He invited participants to propose variables that might be incorporated in such tests.

David Leclère, IIASA, called for greater ambition, and highlighted diversified diets and ecosystem services as examples of broader targets that can help align biodiversity with other goals.

During the discussion, panelists debated the pros and cons of an apex target for biodiversity. Some felt that the climate target is largely “political,” while others noted its mobilization power. Others expressed alternative views, such as calling for a focus on decentralized, or aspirational and society-driven targets. While one speaker posed the question: “how do we operationalize the goal of living in harmony with nature?” another participant remarked that CBD is “the odd one out” in not having a unifying target and cautioned against letting the perfect become the enemy of the good.

Underscoring that the issue with the Aichi Targets was the lack of implementation, several speakers noted the importance of ensuring that the next CBD strategic plan links target-setting to indicators that are outcome based and measurable.

**Interdisciplinary Scientific Support for Sustainability Transitions to Bend the Curve of Biodiversity Loss:** Derk Loorbach, Erasmus University Rotterdam, introduced the session, noting it would focus on mobilizing knowledge from different scientific and practice-based perspectives to explore approaches to support developing transformative networks at the local level.

Mark Rounsevell, University of Edinburgh, stated that 25% of the terrestrial area in the EU is in protected areas – representing more than the Aichi Targets – yet there is massive biodiversity decline. He added this is indicative that the desired outcomes are not being achieved and something needs to change.

Fiona Kinniburgh, Institute for Sustainable Development and International Relations (IDDRI), noted that there are coordination challenges between different ministries, such as ministries of environment and agriculture, and other key actors. She added that some still feel that they must make a choice between keeping jobs or safeguarding the environment.



**Carolina Soto-Navarro**, UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC)



Bernadette Fischler, WWF

In the ensuing discussion, speakers reflected on the role of diets and consumer food preferences, as well the need of governance of food waste in sustainability transitions. Participants also shared experiences on how some governments are adopting initiatives that engage with entrepreneurs, scientists and local communities. One participant highlighted that looking to ancestral diets can contribute to diet adaptation.

**CBD Post-2020 and Connections to the UNCCD, UNFCCC and SDG Agenda:** Carolyn Lundquist introduced this closing panel, asking panelists to reflect on how the day's discussions can contribute to the further development of the transformative change agenda for biodiversity and the Post-2020 Framework. She also invited proposals on how scenario analysis can strengthen the link between science-policy platforms of the three Rio Conventions to support more coherent policy agendas, as well as the realization of the SDGs.

Thomas Brooks, IUCN, emphasized that biodiversity needs the equivalent of the Paris Agreement and the scenarios and modelling discussed had helped inform how these types of targets can be set. He also pointed out that many countries will make the goal of biodiversity stabilization by 2050 a challenge, but at the same time there are many other actors such as cities, private sector, indigenous groups and sub-national authorities who are prepared to be supportive in reaching these targets.

Bernadette Fischler, WWF, recalled the often-asked question of whether there is enough room on the planet to meet the needs of climate adaptation, biodiversity conservation and food security, adding that this is possible if we substantially change the way we produce and consume food. She called for an integrated approach to addressing plans for climate, biodiversity and development, since "life does not happen in silos."

Mark Rounsevell, University of Edinburgh described the key role of diets and consumer food preferences, as well as the need of governance of food waste for sustainability transitions. He underlined the importance of "bending the curve," citing the index on the Human Appropriation of Land for Food (HALF) around the world as an example of this.

Sylvia Karlsson-Vinkhuyzen, Wageningen University and Research (WUR), shared experiences with multi-level

governance, drawing attention to the institutional design of the Paris Agreement and explaining that it follows a regular process of reflection. She concluded that for assessment of scenarios and models to be reflective it should be participatory and consider motivational drivers for greater involvement.

### ***Nature Futures Scenarios – 20 November***

Building on the previous day's discussions, on scenarios for transformational change, the fourth day at the RCP explored the use of IPBES Nature Futures scenarios to inform policies and targets for the Post-2020 Framework, the other Rio Conventions and the SDGs. The discussions included three rounds of participatory visioning exercises exploring perspectives from diverse stakeholders, with a focus on three broad ecosystem types: oceans, and rural and urban areas.

The event was co-organized by IPBES, PBL, the German Centre for Integrative Biodiversity Research (iDiv), NIWA, CSIRO, and WUR.

#### **What are "Nature Futures" and why do we need them?:**

Carolyn Lundquist, NIWA, introduced the IPBES scenario-building process, charting its evolution from conventional modeling to its current iteration, which she noted aims to integrate global models with exploration of diverse future societal-ecosystem interactions to inform policy and management.

Using the example of New Zealand, Lundquist explained how the country incorporates people, housing infrastructure in future scenarios and highlighted some bottom-up future visions currently under discussion, such as a proposal to make New Zealand predator-free by 2030. She further elaborated on how the use of 2050 scenarios in the far north region have helped identify key dependencies that need to be maintained across future scenarios.

Lundquist explained that the outputs of a series of national and regional visioning exercises were used to develop the IPBES Nature Futures Framework, which identified three underlying perspectives on how people relate to nature. She added that the framework will guide the development of a new generation of scenarios focused on positive visions of the future and incorporation of multiple spatial and temporal scales.

In the ensuing discussion, participants reflected on how to deal with conflict between stakeholders, acknowledging the fact that sometimes if all stakeholders do not agree this can be positive. Other issues raised included how to integrate different visions of the future and differing relationships between people and nature, and how models and scenarios can be operationalized in countries in the global south.

**Visioning Exercises:** Eefje den Belder, PBL, and Sylvia Karlsson-Vinkhuyzen, WUR, introduced the participatory visioning exercises. Karlsson-Vinkhuyzen emphasized that scenarios are useful tools for policy support, but global scenarios contain gaps that can be filled through participatory processes. She explained that three rounds of break-out sessions would convene to simulate such participatory processes, with participants exploring different scenarios for the future of oceans, rural and urban areas, respectively.



Rapporteurs presenting the outcomes of the Nature for Nature group

Karlsson-Vinkhuyzen further explained that, during each round, participants would be divided into three groups, corresponding to the three circles in the IPBES Nature Futures scenario framework, to envision futures around: “Nature for Nature,” where nature is regarded as having value in and of itself without human intervention, and the preservation of nature’s functions is of primary importance; “Nature for People,” in which nature is primarily valued for the interest of people, and which could lead to an optimization of multiple uses of nature; and “Nature as Culture,” in which humans are perceived as an integral part of nature and its functions.

Elaborating on the visioning process, Sana Okayasu, PBL, asked each group to anchor their discussions against three horizons: Horizon 1, looking at direct and indirect drivers of the current status quo; Horizon 2, focusing on policy interventions and targets and how to measure progress; and Horizon 3 examining the desirable state under each ecosystem type. She explained that, following the exercises, each group would provide a brief report of their discussions.

**Experiencing the Nature Futures Process in a Marine Context: Nature for People:** The group described its vision for oceans that are free of plastics, have healthy coral reefs and contain healthy stocks of biodiversity. They expressed their dream for people to view oceans as a clean source of energy and drinking water, as well as a source of jobs. They added that current challenges include the absence of laws or regulations for plastics pollution and overfishing. They recommended the development of more desalination technologies and enforcement on overfishing. The group concluded that development and growth need to be decoupled and there needs to be increased consideration for our ecological footprint.

**Nature for Nature:** The group described their ideal scenario as one that promotes healthy oceans, healthy coastlines and healthy ecosystems. They stated that there is currently massive corruption, which makes it difficult to effectively manage ecosystems hindering existing policies on ocean protection. The group identified overfishing as a fundamental challenge and recommended a planning structure to set effective targets to encourage less consumption and waste. They also cautioned against the current tendency to “offset” one problem in sustainable ocean management by creating a problem in another area.

**Nature as Culture:** The group stated a substantial problem with the current state of oceans is the perceived property rights with oceans. They lamented the cultural exploitation of oceans where humans use them as their amusement park. Instead, the group encouraged humans viewing oceans from a spiritual or mythical perspective.

Karlsson-Vinkhuyzen concluded the first break-out session by noting that the exercises had demonstrated that you can start with different value frameworks but they do not have to be in conflict. She emphasized the importance of finding synergies between the frameworks to arrive at a comprehensive scenario.

**Experiencing the Nature Futures Process in a Rural Context: Nature as Culture:** The group highlighted, *inter alia*, that rural areas need a lifestyle change, education for children is essential, and that there is need for better management of natural ecosystems. They mentioned the role of technology in overcoming these challenges, and closing the gap between urban and rural areas. Highlighting some policy interventions, they called for an increase in food diversity, eco-friendly farming and increased engagement of youth leaders.

**Nature for People:** The group drew attention to the diversity of nationalities and perspectives represented in the discussions, noting that it had contributed to an interesting debate. They highlighted the potential contribution of adopting blockchain thinking and the adaptation of current agricultural practices in overcoming some of the negative drivers and trends identified in the discussions.

**Nature for Nature:** The group reported that they were initially not sure if their ideal scenario should include humans or not. They said they had concluded, however, that there was value in imagining an ideal scenario with a well-functioning ecosystem and clean air and water. Among measures that could contribute towards the transition, they highlighted a decrease in monoculture agriculture and pollution.

In concluding remarks, Karlsson-Vinkhuyzen emphasized that different starting points can lead to similar directions and suggestions for transformation.

#### **Experiencing the Nature Futures Process in an Urban**

**Context: Nature for Nature:** The group underlined that the future that they want for urban areas includes sustainable cities, organic local food production and increased overall connectivity with nature. They noted that lack of awareness is one of the main drivers of the current unsustainability and highlighted some policy measures such as adopting more laws and using tax reforms to protect the environment, as well as spatial planning laws that make provisions for nature and connect more cities with rural areas.

**Nature for People:** The group reported on what this means for urban areas by first presenting ideas on how a desirable urban area can be achieved for people. They encouraged more blue/green infrastructure, ecotourism activities such as bird-watching and wetlands preservation. The group further noted that urban farming should be promoted but will need strong incentives for citizen uptake. They also discussed the importance of a circular economy for urban areas but noted important fragmentations that will need to be addressed such as: conflicting priorities and approaches by different ministries on environmental planning in urban areas, and the need for more education and awareness-raising for certain groups, particularly children.

**Nature for Culture:** The group highlighted their wish for more equity in access to biodiverse spaces in cities, green buildings with more solar panels on all roofs and community co-op gardens. They said the main challenge is to overcome the idea that cities do not connect to nature and underlined the need for new social norms, mindsets and standard-setting initiatives that connect both.

Karlsson-Vinkhuyzen concluded the workshop sessions by stating that these working streams help with thinking about the pros and cons of different pathways and setting targets for decision making. She expressed her hope that the day's interactions would become a tool to develop relevant scenarios.

**Concluding Session:** Machteld Schoonenberg, PBL, moderated the final session of the afternoon. Lundquist provided a brief recap of the workshop discussions that took place throughout the day. Workshop facilitators also described the

opportunities and challenges, which emerged from the roundtable dialogue. They noted that between the three scenarios there were many synergies, namely the recommendation to consume sustainably, deepen the role of technology within nature while also encouraging more harmonization and co-evolution of humans with nature. Participants stated that scenario setting is helpful for policymakers as it allows them to consider different options and further, this type of continued exercise will help develop goals to be reached by COP 15 in 2020.

#### **Rethinking Biodiversity Governance for Transformative Change – 21 November 2018**

RCP discussions explored the growing diversity of actors, modes and narratives in the governance of nature and biodiversity and their contribution to the design of MEAs and other initiatives and interventions in the framework of the Post-2020 Framework.

The event was co-organized by IDDRI, Fridtjof Nansen Institute, Norway, PBL, Strathclyde University, SwedBio - Stockholm Resilience Centre (SwedBio/SRC), UNEP-WCMC and Agence française pour la biodiversité (AFB).

**Global Changes and Biodiversity Governance:** Facilitator Marcel Kok, PBL, introduced the Rethinking Biodiversity Governance Network, explaining that the aim is to integrate social science within biodiversity science. He noted the current opportunity to critically reflect on biodiversity governance, learn from past experiences and explore new approaches for the Post-2020 Framework. Kok described some of the guiding principles of the network, including the need for reflexivity and contributing to a polycentric governance landscape, but observed that the network needs to become more geographically representative.

Jonathan Pickering, Centre for Deliberative Democracy and Global Governance, Canberra University, discussed how to cultivate reflexive transformation across institutions, change agents, processes and discourses, and emphasized the importance of identifying actors who can contribute to bending the curve.



Marcel Kok, PBL

A roundtable discussion then took place, moderated by Aleksandar Rankovic, IDDRI.

Lin Li, WWF International, encouraged the various stakeholders to find a common language as it would facilitate collective decision making on the governance of nature, which impacts all of humanity.

Trevor Sandwith, IUCN, noted the need to unpack the motivations and successes of the diverse organizations working on biodiversity issues. He added that “science is telling us that we must put nature and social well-being as co-dependent outcomes in the same equation, yet there is still no action on this.”

Sylvia Karlsson-Vinkhuyzen, WUR, said that biodiversity has not been mainstreamed within parliamentary decision-making in the same way as climate. She emphasized that as long as civil

society remains disconnected from nature, policy makers will not get the necessary push to take action on biodiversity.

Responding to questions from the audience, panelists discussed some legal modalities for the Post-2020 Biodiversity Framework, and highlighted the importance of empowering youth and understanding their perspectives on possible solutions for more effective decision making.

#### **The Conventions Landscape in a Post-2020 Context:**

Moderated by Niamh Brannigan, UNEP, this session discussed the current international biodiversity governance landscape and explored ways to strengthen global governance linked to the Post-2020 Framework.

Jerry Harrison, UNEP-WCMC, noted the abundance of biodiversity-related conventions and organizations with overlapping interests. He noted that the Aichi Targets offer an avenue to link diverse agendas, but this requires a good



**Jerry Harrison, UNEP-WCMC**

understanding of the institutional landscape to identify opportunities for interconnectivity and mutual support.

In the ensuing panel discussion, Sonia Peña Moreno, IUCN, explained that the SDGs and the Post-2020 Biodiversity Framework provide an opportunity to verify what is working and where each

convention can contribute. Andreas Obrecht, UNEP, emphasized that more needs to be done to map the global landscape, in particular with regard to legal and policy making processes. Christian Prip, Fridtjof Nansen Institute, highlighted the need to bring more attention to biodiversity.

Suggesting that it might be time to take a step back to examine various drivers that may facilitate, or impede, post-2020 ambitions, panelists agreed that more gravitas is needed at the highest political forums, such as the World Trade Organization. One speaker encouraged the three Rio Conventions to take a cue from the success with climate change messaging, by working together to adopt one headline statement that speaks to nature.

**Human Rights and Biodiversity: How to Design the Post-2020 Governance System:** Tristan Tyrrell, SwedBio/SRC, facilitated this session, noting it would explore how biodiversity-related MEAs can pay greater attention to human rights in the Post-2020 Framework.

Mika Schröder, University of Strathclyde, drew attention to the 2018 UN Framework Principles developed by the Special Rapporteur on Human Rights and the Environment. She highlighted how UN Framework Principle 15, which requires States to comply with their obligations to IPLCs, can help determine the parameters of fairness and equity of benefit-sharing under the CBD. She further noted that international biodiversity law can provide specific guidance for the adoption of best practices for impact assessment and for the full realization of

human rights, through the Akwé: Kon Guidelines and the CBD Convention article 8(j) and article 10.

Claudia Ituarte-Lima, SwedBio/SRC, highlighted some legal tools for transformative change and for advancing the achievement of SDG 16, with a focus on access to justice for peace and a healthy planet. She highlighted the important role of environmental defenders and how they contribute to the biodiversity and human rights nexus.

Philippe Puydarrieux, IUCN, noted that land and resource tenure is one entry point for linking the rights of IPLCs and other vulnerable populations with conservation objectives. Puydarrieux suggested that the IUCN could act in this space as a facilitator for dialogue. He also promoted three components for strengthening links between human rights and biodiversity: empowering environmental human rights defenders; supporting learning and capacity building; and mainstreaming rights-based approaches.

Andrew Rylance, Government of Seychelles, discussed two

examples of co-management of PAs. He highlighted a community-driven initiative that led to the formal protection of a culturally and ecologically significant site in Grand Police – the first cooperatively managed PA in the country – and a voluntary fishing ban introduced by local communities in a quiet bay area aimed at replenishing stocks for times when it was too dangerous to fish in open seas.

In the ensuing discussion, panelists highlighted the importance of bringing together diverse communities of practice to fully understand the connections across biodiversity and human rights issues and translate global agreements to become meaningful on the ground. Wrapping up the session, Tyrrell noted the discussions had highlighted that decisions and guidelines made at MEA level “do matter outside this bubble.”

**How to Create an Enabling Environment to Engage Businesses in the Post-2020 Framework:** Facilitated by Cyrille Barnérias, AFB, this session consisted of a roundtable to share feedback from businesses initiatives under the CBD’s Strategic Plan for Biodiversity 2011-2020 with a view to improving business involvement in the Post-2020 Biodiversity Framework.

Yann Laurans, IDDRI, outlined the governance of business collaboration post-2020. He explained that the era when states were the major actors has passed, with a rise in business involvement over the years linked to increased deregulation and certification schemes. He underlined the importance of: strengthening traceability mechanisms; helping markets to become more sustainable; increasing consumer awareness in emerging economies; focusing the dialogue on biodiversity



**Claudia Ituarte-Lima, SwedBio - Stockholm Resilience Centre (SwedBio/SRC)**



From L-R: **Florence Daguitan**, Tebtetba; **Mika Schröder**, University of Strathclyde; **Kristina Raab**, UFZ; and **Jinfeng Zhou**, CBCGDF

pressures; and enhancing cooperation projects between consuming and producing countries.

François Gauthiez, AFB, discussed his agency's efforts to enhance the involvement of the private sector in the National Strategy for Biodiversity. Outlining some strategies towards this end, he noted the use of a clear assessment grid and sharing best practices between diverse stakeholders.

Jaco du Toit, WWF UK, stressed that businesses do not get enough support from government for their work in biodiversity conservation and conversely governments presume businesses have no interest in biodiversity.

Jonathan Ekstrom, The Biodiversity Consultancy, remarked that transformational change requires stepping out of the "them and us" paradigm, towards building a social infrastructure for collaboration. Characterizing "no net loss" approaches as part of the industry solution, he welcomed IUCN's proposal for an apex CBD target on stabilizing trends in species and ecosystems by 2030, stating it will help businesses to set actionable science-based targets.

In the ensuing discussion, one speaker suggested that business engagement in the CBD is on the rise, but practical mechanisms are needed for the sector to participate more effectively.

One participant called for more efforts to involve influential leaders from government, business, finance and civil society. Others highlighted challenges around citizen mobilization and monitoring on the ground, with one participant cautioning that "we don't need deep transformation of everything" and calling for more efforts to refine messages to the public and business.

Other issues discussed included the need to: feed these messages to trade negotiations and other economic forums; ensure more interlinkages between biology and engineering sciences within education systems; and provide business with intermediary targets and indicators that can be more easily translated to shorter-term business cycles.

**The Future of Biodiversity Governance for Civil Society:** Moderated by Tristan Tyrrell, this session provided a space for representatives of diverse civil society groups to debate how

enhanced biodiversity governance can strengthen their standing and influence in a post-2020 context.

Mika Schröder, University of Strathclyde presented an analysis of participation within CBD COP decisions. She emphasized the importance of communicating the need for local stakeholder participation, empowering stakeholders, and holding states accountable to ensure participation.

Kristina Raab, Helmholtz Centre for Environmental Research, discussed the EKLIPSE programme, noting it offers a flexible mechanism for evidence-informed decision-making affecting biodiversity and ecosystem services. She explained that EKLIPSE aims to, *inter alia*, identify current and future emerging issues, create a responsive and active network, and improve citizens' engagement.

Florence Daguitan, Tebtetba Foundation, highlighted some elements in the indigenous governance of biodiversity, including: respect for nature and spiritual values; democratic decision making; and a focus on the common good. She described sustainable use and conservation mechanisms adopted to "do nothing" or ensure minimal economic activities in sacred sites and to adopt active protection, such as erosion control mechanisms.

Jinfeng Zhou, China Biodiversity Conservation and Green Development Foundation, mentioned the importance of citizen awareness and gave examples of partners that work together in collaborative governance. He reported that recent changes to China's environmental laws have empowered non-governmental organizations to monitor biodiversity conservation through the use of Environmental Public Interest Litigations.

In ensuing discussions, panelists and participants exchanged views on the importance of dialogue, citizen engagement and the role of media advertisement.

**Local Governance – The Key Role of Cities and Other Sub-National Initiatives in Transformative Change for Biodiversity:** Facilitator Cyrille Barnerias, AFB, invited experts from Mexico, South Africa and France to present case studies and

lessons learned about the involvement of local governments for biodiversity.

Laura Tozer, Durham University provided an introductory presentation on urban nature explaining that supporting nature in urban settings requires the incorporation of local knowledge, ownership, authority and a shared agenda dispersed across public and private actors.

Hesiquio Benítez Díaz, Mexican National Commission for Biodiversity Knowledge and Use (CONABIO), talked about Mexico's National Biodiversity Strategies Action Plan and highlighted in his presentation that biodiversity is an option for progress. He maintained that it promotes the direct engagement of communities and creates job opportunities while protecting nature.

Ingrid Coetzee, ICLEI – Local Governments for Sustainability, discussed the role of sub-national governments in protecting



**Ingrid Coetzee**, ICLEI - Local Governments for Sustainability (ICLEI)

biodiversity, with a focus on local initiatives to conserve wetlands in South Africa. Coetzee conveyed the importance of a paradigm shift from business-as-usual, to enhancing nature-based solutions to meet local needs.

During discussions, panelists emphasized that the responsibilities as well as capacities of local authorities with regard to the environment are increasing. They further noted that the positive momentum

emerging in cities would increasingly influence the Rio Conventions.

**Post-2020 – Policy Panel:** The concluding panel was moderated by Aleksandar Rankovic, IDDRI, and Marcel Kok, PBL.

Kok asked the final panelists to identify and discuss their hopes for the Post-2020 Biodiversity Framework, with a focus on possible bottlenecks in future negotiations and what they expect from non-state actors in the coming two years.

Basile van Havre, Canada, drew attention to the importance of recognizing the power of targets and the need to adopt a new and more precise agreements.

Edda Fernández Luiselli, Mexico, highlighted that 25 years is enough to acquire experience and the time has come to adopt new language to communicate more with business, consumers, producers and civil society.

Humberto Delgado Rosa, European Commission, observed that many politicians do not refer to biodiversity as they do to climate change and that more political awareness and communication is critical.

Neville Ash, UNEP-WCMC, emphasized that addressing the drivers of biodiversity loss, adopting a holistical approach and internalizing a synergies approach is essential to bend the curve. He challenged participants to reach out beyond the biodiversity

community, for example through adopting more inclusive hashtags in social media campaigns.

Elisabeth Chouraki, Expertise France, stressed the importance of strong monitoring and enforcement mechanism and paying more explicit attention to women, youth, indigenous peoples and civil society.

### **Protected Areas – 22 November**

The RCP addressed Protected Areas (PAs) on Thursday, 22 November. The discussions focused on reviewing support for implementation of PAs in the Post-2020 Framework and the long-term strategy for capacity-building that will be adopted at 15th Conference of the Parties (COP 15) to the CBD.

The event also marked the launch of the 'Partnership for Achieving Aichi Biodiversity Target 11 with Attendant Multiple Benefits,' a strengthened commitment to mobilize the global community around this target.

The Day was co-organized by a network of partners including the CBD Secretariat, the IUCN World Commission on Protected Areas (WCPA), the IUCN Global Protected Areas Programme (GPAP) and the UNDP, with support from the European Union.

**Opening Session:** In his opening remarks, Sarat Babu Gidda, CBD Secretariat, discussed opportunities for the launch of the partnership for achieving the Aichi Biodiversity Target 11 (Target 11).

Alexander Shestakov, CBD Secretariat, asserted that it is important to have a realistic understanding of what can be achieved in the remaining two years while also acknowledging the multiple benefits of PAs.

Stefan Leiner, EU noted that protected areas represent the core of the work of the CBD. He stated that businesses, NGO and other groups should commit to supporting the work of the CBD, working together and learning from each other, and added that this model is what is needed to make a difference.

Matthias Krause, German Federal Ministry for Economic Cooperation and Development (BMZ), outlined the German government's support for PAs, including through funding, strengthened bilateral relations and capacity building.

Yosuke Kuramoto, Japan, recalled the adoption of the Aichi Targets at COP 10 in Nagoya. He underlined the importance of



**Sarat Babu Gidda**, CBD Secretariat, and **Tomas Anker Christensen**, Chief Advisor to the UN Secretary General's Special Envoy for the Ocean



**Matthias Krause**, Federal Ministry for Economic Cooperation and Development (BMZ), Germany

accelerating achievement of the Aichi Targets in the remaining two years.

Tomas Anker Christensen, representing the UN Secretary General's Special Envoy for the Ocean, Peter Thomson, noted the similarity between SDG 14:5 and the Aichi Target 11, both of which require the conservation of at least 10% of coastal and marine areas by 2020. He highlighted the voluntary commitments and related monitoring process adopted at the 2017 UN Oceans Conference, including the creation of a virtual community for collaboration and knowledge sharing.

Kathy MacKinnon, IUCN-WCPA, noted the expansion of Marine Protected Areas (MPAs) around the world. She highlighted the significance of COP 14 for the approval of criteria for Other Effective Area-based Conservation Measures (OECMs), welcoming the growing recognition of multiple forms of governance, including in PAs managed by the private sector and Indigenous Peoples.

**Experiences from Sub-Regional Implementation Support Networks in Asia and the Pacific:** Theresa Mundita Lim, Association of South East Asian Nations (ASEAN) Centre for Biodiversity (ACB), moderated the first technical session.

Highlighting experiences from East and Southeast Asia, Clarissa Arida, ACB, reported a slight increase in the coverage of terrestrial and MPAs in Southeast Asia. She highlighted opportunities to enhance long-term protection through Countries' Priority Actions, collaboration with the Global Environment Facility (GEF), and other Target 11 partnerships.

Amanda Wheatley, Secretariat of the Pacific Regional Environment Programme (SPREP), discussed some challenges in the Pacific, and highlighted the support provided by the CBD in 2016 to develop a roadmap for addressing the identified data gaps and opportunities to address these through systematic data collection.

Ruchi Pant, UNDP, stated that currently there is no formal network for Southern Asian countries to address Target 11, but highlighted a mapping exercise undertaken by UNDP on proposed partnerships for a sub-regional implementation support

network. Pant further offered updates on India's work on PAs, reporting that the country is developing a data-sharing protocol focusing on governance regimes.

**Experiences from Sub-Regional Implementation Support Networks in the Middle East, Africa and Latin America:** Imèn Meliane, IUCN-WCPA, reported that there are over 1500 PAs across the 16 countries of the Middle East and North Africa region, although MPAs account for only 1% of the overall protected territory. Among recent achievements, she highlighted: progress towards harmonizing country data; incorporating OECMs in regional reporting; and successful efforts to reach audiences beyond the biodiversity community, such as a recent social media campaign promoting a video series on PAs and new connections with migration studies networks and investigative journalists.

Kathy Gregoire and Monica Alvarez, Pronatura Mexico/Redparques, presented on achievements by the Latin American Technical Cooperation Network on National Parks, other Protected Areas and Wildlife (Redparques), which spans 19 countries and one territory in the region. They highlighted good performance in terms of the geographical scope of both terrestrial and marine PAs, but noted that much more needs to be done to enhance governance mechanisms, as well as designation of Key Biodiversity Areas (KBAs).

Xola Mkefe, Kerry Sink and Alan Boyd, South Africa, discussed recent developments in their country. Mkefe highlighted the recent designation of 20 MPAs – raising the total coverage from 0.5% to 5% of the country's surface – as a major achievement. Sink reported on data gathering initiatives, including the development of biodiversity maps and a compilation of threatened ecosystems.

Boyd outlined how the country is managing its expanding MPA network, most of which is offshore, noting this requires different management approaches and capacities and close cooperation at national and international levels. He reported that the ecotourism sector, both within and outside MPAs, is closely monitored and includes peer observation among operators.

**PAs and Synergies With Other Conventions:** Stuart Chape, SPREP, moderated this technical session.

Maria Rivera, Ramsar Convention on Wetlands, highlighted interlinkages between the Convention and Target 11, as well as related SDG targets and indicators, including through the biodiversity liaison group and partnerships with the CBD, World Heritage Convention and other multilateral environmental agreements.

Meriem Bouamrane, UN Educational, Scientific and Cultural Organization (UNESCO), stated that over 10 million km<sup>2</sup> of land is protected through UNESCO's designated sites. She introduced the World Network of Biosphere Reserves programme, where people live within nature in protected areas, underscoring the underlying message that biodiversity should be part of our everyday lives.

Fernando Camacho Rico, CONANP, Mexico, discussed the role of PAs in providing nature-based solutions for climate change in the region. He highlighted declarations by 18 Latin

American countries recognizing the role of PAs in, *inter alia*, building green infrastructure, stabilizing the concentration of greenhouse gases, and reducing the vulnerability of local communities. He further noted the role of Redparques in garnering political momentum for the global recognition of the Amazon.

In the ensuing discussion, participants highlighted the importance of strengthening linkages between the Ramsar Convention's Programme on communication, capacity building, education, participation and awareness (CEPA). Responding to a question on what percentage of Ramsar sites are also PAs, Rivera noted that while not all sites have legal protection, many countries view a listing under the Ramsar process as an important first step towards formal protection.

**Governance and Other Effective Area-based Conservation Measures:** Kathy MacKinnon, IUCN-WCPA, facilitated this technical session.

Harry Jonas, IUCN-WCPA, said this COP and Rio Pavilion provides an opportunity to recognize the globally important contributions of OECMs, but pointed to some implementation challenges, which he said requires deepening the connectivity across systems of protected and conserved areas and integrating them into the wider landscape and seascape.



Harry Jonas, IUCN

Ana Beatriz Barona, Colombia, noted that self-governance through norms and local agreements for land-use planning as well as

participatory activities to generate ownership and commitment is a key way to ensure compliance.

Olaf Jensen and Sabine Jessen, Canada, presented Canada's progress towards Target 11, highlighting recent achievements in governing MPAs and a historic CAD 1.3 billion allocation for nature and conservation in the 2018 Federal Budget. They highlighted a targeted CAD 500 million Nature Fund to secure private land, support provincial and territorial species protection efforts, and help build indigenous capacity to conserve land and species.

Kim Friedman, Food and Agriculture Organization of the UN (FAO), encouraged implementation with sectorial guidance and speaking to key stakeholders in their own language so that they can understand what is needed and put that into action. Friedman also stressed the need to ensure the interoperability and openness of OECM monitoring data to facilitate its inclusion in national reporting.

Silke Spohn, GIZ, reviewed some national experiences in integrating diverse models of governance in PA systems and strategies, highlighting, *inter alia*, expanded coverage of PA

systems; empowered land and resource users; and improved livelihood security and well-being of local communities.

Terence Hay-Edie, UNDP, emphasized the importance of well-governed PA systems in both the landscape and seascape. He shared information and lessons learned from the Global Support Initiative for Indigenous Peoples and Community-Conserved Territories and Areas (ICCA-GSI) Project and highlighted that ICCAs can serve as natural climate solutions for carbon sequestration.

Sharing experiences from the Philippines, Teddy Baguilat, ICCA Consortium, stated that some characteristics of an effective ICCA include a community with close and deep connection with the territory through identity and culture, and a community that makes and enforces decisions and rules on their territory through their own governance systems.

Ghanimat Azhdari, ICCA Consortium, Congo, said the quality of conservation is one of the characteristics of ICCA in Iran and that communities must adopt long-term perspectives to build systems of governance for future generations.

Dominique Bikaba, ICCA Consortium, shared that the rights of communities in PA governance and management were recognized in the Community Forestry Law adopted in 2014. He emphasized that Target 11 is not just about spatial coverage but will need to be linked to other CBD COP decisions on governance, participation, and equity and benefit-sharing.

**Multiple Benefits: Protected Areas as Natural Solutions:** This technical session was moderated by Neville Ash, UNEP-WCMC.

Jamison Ervin, UNDP, cautioned that we are witnessing "an unraveling of our planet" that will be further exacerbated by exponential growth in infrastructural development and food production for a growing world population. She called for the Post-2020 Framework to ensure a robust response through: expanding PA coverage and system design to provide a global climate safety net; including much stronger elements of climate connectivity; safeguarding indigenous land rights, especially forests; radically expanding finance and investment for PAs as a viable climate and development solution; setting ambitious apex targets related to nature-climate tipping points; and up-scaling ambition for complementary restoration goals to restore nature's carbon stocks.

Nigel Dudley, IUCN-WCPA, highlighted diverse natural accounting initiatives, noting that communicating the economic value of PAs is particularly important at a time when governments are becoming more populist and "anti-conservation." He underlined the importance of recognizing that non-economic values also matter and not all PAs "can pay their own way."

Karen Keenleyside, IUCN-WCPA, discussed the 'Healthy Parks, Healthy People,' initiative, noting it was initially conceived by the state of Victoria in Australia with the goal of reversing the disconnect between people and nature. She charted the evolution of the concept internationally and highlighted its potential to unite diverse sectors and communities of practice to

strengthen advocacy, capacity building, and evidence generation and monitoring.

Yosuke Kuramoto, Japan, noted the role of PAs and other ecosystem-based approaches in disaster risk reduction, and highlighted Japan's use of natural solutions such as protection forests to reduce tsunami energy and to capture drifting objects. The RELIEF project was illustrated to underline how it contributes to generate knowledge, develop capacities and inform policies.

Answering questions from the audience, panelists further reflected on: the role of communication; the principle of indivisibility of the SDGs; the need to encourage engagement with more stakeholders, and opportunity to recognize deforestation as a climate risk.

**Strengthening Protected Areas for the Future:** This session was chaired by Trevor Sandwith, IUCN.

Naomi Kingston, UNEP-WCMC, presented key findings from the 2018 Protected Planet Report, noting that while the report is published every two years, the underlying data is updated every month and can be accessed on the UNEP-WCMC website.

James Watson, University of Queensland, emphasized the importance of considering the significant human footprint in PAs, adding that this is not limited to the developing world. He cautioned that the impact of such human activity will reduce conservation benefits therefore it is important to begin reporting on the measures of human pressures in PAs.

Caiphus Khumalo, South Africa, presented the progress of the Management and Effectiveness Tracking Tool (METT) for the achievement of Target 11 in South Africa. He said METT evolved over time to suit different kinds of PAs and was strengthened for accurate assessments.

Natasha Ali, IUCN, presented the Green List of Protected and Conserved Areas developed by IUCN, its process and its relevance for the Aichi Target 11 and the Post-2020 Framework.

Marie Fischborn, IUCN, explained the objectives of the PANORAMA Solutions partnership and how it connects "solution providers" and potential replicators for mutual learning from proven success.

Marie-May Muzungaile, Seychelles, highlighted some pathways for achieving sustainable financing by advocating for policy and legislative innovations; integrating PAs into national development and finance strategies; and improving efficiency of revenue collection and retention.

Midori Paxton, UNDP, shared Seychelles' innovative approaches to conservation and explained how it is pushing forward the blue economy agenda, ensuring value of PAs and their contribution to community livelihoods.

Mark Zimsky, GEF, talked about how to operationalize CBD decisions on protected areas. He said there is potential for applying a comprehensive land-use approach that links production, conservation, and restoration at scale.

### **Building Capacity Beyond 2020 – 23 November**

During the morning session, under the theme 'Building Capacity Beyond 2020,'



**Mark Zimsky, GEF**

participants reflected on capacity building experiences over the past decade, with a view to identifying and informing future action to support the implementation of the Post-2020 Framework and the Post-2020 Long-Term Strategic Framework for Capacity Building.

In the afternoon, a workshop took place exploring the biodiversity mitigation hierarchy as a tool for engaging industry and finance in effective biodiversity management.

The day's events were organized by a broad consortium of partners. The morning segment was organized by UNEP in collaboration with the CBD, GEF, IUCN, UNDP, Caribbean Community (CARICOM), SPREP, UNEP-WCMC and the African Elephant Fund.

The Mitigation Hierarchy and Emerging Technologies Workshop was co-organized by the Cross-Sector Biodiversity Initiative (CSBI) and the Equator Principles Association.

**From Global to National:** Moderator Niamh Brannigan, UNEP, welcomed participants, noting the discussions would explore the definition of capacity building and panelists would share experiences with capacity building tools, project designs, lessons learned, and key takeaways that can support the achievement of the three Rio Conventions.

Jyoti Mathur-Filipp, CBD Secretariat, reiterated that a strategic approach to capacity building is central to implementation of the CBD, as well as enhancing adaptive management under the Post-2020 Framework.

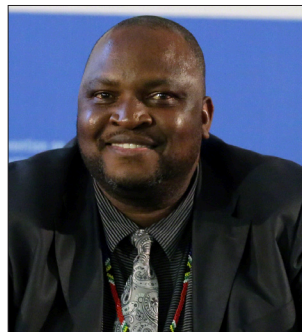
Jamie Cavalier, GEF, said the institution increasingly emphasizes multifocal area projects, as well as integration through learning platforms, to enhance synergies in implementing the Rio Conventions.

Lilian Chimphopo, CBD Focal Point, Malawi, discussed how capacity building for local communities impacts their knowledge, ways of thinking and infrastructure.

Patrick Chesney, CARICOM Secretariat, emphasized that capacity building "is not a science" and should build skills, integrate local communities and help diffuse understanding about biodiversity.

Warwick Harris, CBD Focal Point, Marshall Islands, shared information on the state of environment reporting and highlighted the challenges of data collection in the country.

Sonia Peña Morena, IUCN, noted capacity-building approaches need to be adapted to different contexts and cross-



**Caiphus E. Khumalo, South Africa**

**Erié Tamale**, CBD Secretariat

cutting needs, as well as to addressing long-term and systemic challenges.

Responding to questions from participants on how to ensure adequate expertise and training is provided to decision makers, Cavalier highlighted the role of GEF's environmental conservation caucuses, which bring together experts on themes requested by parliamentarians and facilitates South-South exchanges among

peers from Latin America, Africa and Asia.

Other panelists underscored the importance of providing ongoing training to lower-level staff to encourage employee retention and growth of institutional expertise. It was also emphasized that citizen science should be promoted encouraging outreach to people with the "living knowledge" of our environment.

**Into the future – The Post-2020 Framework:** Introducing the panel, Brannigan posed the question: How can the USD 50 billion in annual funding for capacity building programmes be used more effectively?

Erié Tamale, CBD Secretariat, discussed some ideas for moving capacity building beyond "business-as-usual." He highlighted strategic priorities at the global level, including: providing visionary leadership; strengthening core institutional capacities linked to specific thematic issues and biodiversity targets; and developing a Theory of Change containing long-term outcomes, benchmarks and indicators to support the shift towards more ambitious and integrated programming.

Philippe Mayaux, European Commission Directorate-General for International Cooperation and Development (DG DEVCO), noted the need for more integration at both sector and scale levels. He remarked that traditional workshop approaches "are clearly not working" and called for a greater focus on sharing real-life examples of integrated landscape approaches that show multiple benefits.

Lucy Mulenkei, Indigenous Information Network, noted that while a lot has been done, current capacity building programmes are not sufficiently inclusive. She said that local communities benefit most from practical experiences, involving learning and exchanges with other communities experiencing similar challenges.

Hilary Allison, UNEP-WCMC, emphasized the need for global programmes to: balance broad and outreach-oriented approaches with deeper engagement, such as peer exchanges; build on what has been done so far; invest in mainstreaming; and pay equal attention to technical capacities and "soft skills" such as storytelling and building multi-stakeholder platforms.

Eric Wikramanayake, Environmental Foundation, Sri Lanka, noted the need to increase capacity to tell compelling stories to engage the general public on biodiversity and climate issues. He

called for harnessing existing capacities at the national level, such as within universities.

Easter Chu Shing-Galuvao, SPREP, highlighted the importance of sub-regional institutions as capacity building and knowledge exchange platforms, using examples from the Pacific. She highlighted environmental impact assessments as an important tool for mainstreaming capacity building, as well as the importance of elevating capacity needs at issues on the regional political agenda.

Responding to Brannigan's challenge to "identify one capacity building action you would not spend money on," most panelists proposed drastically cutting back on workshops, with one speaker saying that this should be extended to COP sessions as well. Others highlighted the need to reduce duplication of capacity-building projects and shift the focus to implementation and monitoring of progress.

In their final messages, panelists concluded that a post-2020 capacity building framework should: be more practical, contextualized and inclusive; place more focus on data; recognize multiple forms of knowledge; target the "worker bees" within institutions; strengthen monitoring of progress; and enhance synergies across diverse initiatives.

**Frazer Lanier**, Citigroup

### **The Mitigation Hierarchy and Emerging Technologies:**

This workshop session took place in the afternoon and focused on reviewing industry practices, trends in host country laws and regulations, and supporting tools and technologies across the four stages of the mitigation hierarchy: avoidance, minimization, restoration and offsetting.

Introducing the session, Frazer Lanier, Citigroup, explained that speakers would highlight best practices covering the four stages of the hierarchy – a guidance tool for development projects to minimize negative impacts on biodiversity – developed by the CSBI.

**Biodiversity Impact Avoidance:** Elaborating on the mitigation hierarchy concept, Jonathan Ekstrom, The Biodiversity Consultancy, explained that biodiversity is the "living natural capital asset class," which has paid us consistent returns every year in human history. Outlining the four stages of the mitigation hierarchy, he noted that avoidance often involves a decision to change the expected or normal course of action and identified biodiversity screening as a cost-effective method for implementing avoidance.

Rose Mwebaza, AfDB, discussed imperatives for agricultural transformation in Africa noting that the growing population rise in the continent requires increased infrastructural investments of up to USD 20 billion per annum. She discussed how the Bank is testing new partnership approaches, such as a joint project

on futures thinking with the WWF and UNEP aimed at creating scenarios and interactive maps to influence investment and policy decisions.

Yajna Nath Dahal, CBD Focal Point, Nepal, presented a case study related to the ‘Shifting of East-West Railway Alignment to Avoid Chitwan National Park Nepal’ project and explained how it integrates climate reliance and natural capital.

**Biodiversity Impact Minimization and Restoration:** The second panel discussed successful examples of mitigation at the corporate level and highlighted some key performance indicators companies use to demonstrate minimization and restoration.

Bala Pisupati, Forum for Law, Environment, Development and Governance (FLEDGE), highlighted that people have different perceptions of biodiversity offsetting, hence it is also important to look at micro-level activities and small-scale project investments for mitigation.

Andrew Plumtre, BirdLife International, shared lessons and unforeseen challenges faced in some mitigation techniques used by companies to minimize impacts for bird areas in Central and East Africa.

Kat Bruce, Nature Metrics, stated that biodiversity is fundamentally a big data challenge therefore big data tools are needed to know what needs to be measured and to do so in a more effective timeframe.

In the discussion, panelists noted by 2030, USD 90 trillion will be needed for global infrastructure but the challenge is how to weave human infrastructure into natural infrastructure so that the biosphere can continue to support us.

**Biodiversity Impact Offsetting:** This panel was facilitated by Veronica Lo, Equator Principles Association, and explored the case for voluntary offsets and payments for ecosystem services to make conservation of ecosystems profitable and self-perpetuating.

Introducing the discussions, Ekstrom described offsets as “a last resort to address residual impacts on biodiversity and/or ecosystem services.” He proposed a practical approach to making decisions on offsets that entails asking questions related to whether the proposed offset or biodiversity outcome is ecologically and technically feasible, and socially and politically acceptable.

Ekstrom highlighted some examples of landscape level offsets, including an International Finance Corporation (IFC) funded project linked to the Oyu Tolgoi gold and copper mine in Inner Mongolia, and five legal protected areas introduced by Rio Tinto as part of a mining concession in Madagascar. Among some good practices, he noted the importance of: linking offsetting objectives with National Biodiversity Strategies and Action Plans; estimating the technical and financial costs of an offset before completing the avoidance plan; and ensuring that the mitigation action is part of an iterative feedback loop of adaptive management.

Frazer discussed the experience of the Equator Principles Association – a network of 94 global financial institutions involved in project financing – in incorporating the IFC performance standards on biodiversity protection within project financing and monitoring. Noting that avoidance should always be the first principle, he explained the network’s role

in developing guidance on how to mainstream conservation principles across the entire project cycle.

In the ensuing discussion, participants emphasized the importance of involving all stakeholders in offset design, noting such schemes can be viewed as part of a corporate or even NGO “land grab.” Highlighting an example from Australia, one participant pointed to the difficulty of implementing such schemes due to inadequate oversight and a lack of clear guidelines on limits to offsetting.

In response to a question on how funders monitor adherence, Frazer noted the importance of building in mitigation measures into loan agreements and ensuring links to independent

monitoring on the ground as part of due diligence by financial institutions.

**New Technologies and the Future of the Mitigation Hierarchy:** Frazer Lanier moderated this closing panel. He explained that speakers would share emerging industry trends in biodiversity data sharing and emerging technologies in the biodiversity data collection and monitoring space that have the potential to improve our ability to effectively implement the mitigation hierarchy.



Veronica Lo, Equator Principles Association

Jamison Ervin, UNDP, drew attention to the importance of stepping back and analyzing why the mitigation hierarchy matters. Analyzing the forest sector, she presented a framework for understanding drivers of change, including market pressures, risks, societal values, and transparency technologies.

Tim Hirsch, Global Biodiversity Information Facility (GBIF), highlighted the potential opportunity for biodiversity data information sharing from the private sector and how the CBD encourages this in Decision XIII/31. He gave guidance on how to search for data on topics such as environmental impact assessment on the GBIF website.

Kat Bruce, Nature Metrics, talked about environmental DNA and explained that when animals are in contact with water, they shed cells that contain DNA traces. She explained that this DNA is detectable for approximately 48 hours and one sample can help identify hundreds of species. Bruce maintained that while e-DNA has its limitations like every survey method, this method is nonetheless well validated and brings significant cost reductions due to the ease of sampling.

Andrew Plumtre, BirdLife International, presented the criteria and thresholds for KBAs and informed the audience that companies who sign up for the KBA consultative forum can access critical data for informed decision-making.

In discussions, panelists discussed how to address the disconnect between industry and government and the need to combine expertise and develop conflict resolution skills for conservation.

**Learning from Local Solutions for Achieving Global Biodiversity Targets – The PANORAMA Initiative:** In the evening, partners of PANORAMA – Solutions for a Healthy Planet, a multi-thematic and multi-partner initiative for learning, held an event to discuss the contribution of the partnership to

global policy targets, particularly around key COP14 agenda items. The event included the launch of a new PANORAMA theme on business engagement in nature conservation, and was co-organized by IUCN, GIZ, Rare, GRID-Arendal, UNEP and IFOAM-Organics International.

### **Health and Biodiversity – 24 November**

Health Day convened under the theme of ‘Harnessing Biodiversity for a Healthy and Resilient Future.’ The discussions aimed to take an in-depth look at emerging initiatives, partnerships, tools and opportunities for engagement to support the mainstreaming of biodiversity for health with a focus on integrated approaches to health in an effort to maximize ecosystem and human health co-benefits.

A highlight of Health Day was the launch of a new partnership between the CBD and a network of research institutions, aimed at catalyzing innovative research on the health benefits of exposure to microbial biodiversity in urban areas.

Health Day was co-organized by the CBD and the World Health Organization (WHO) and diverse partners working at the interface of health and biodiversity.

**Opening session:** Cristina Romanelli, CBD Secretariat, welcomed participants to Health Day, drawing attention to the importance of thinking about the interlinkages between biodiversity and health.

In a video message, WHO Director-General Tedros Adhanom Ghebreyesus underscored the need to work across sectors, citing the joint publication ‘Connecting Global Priorities: Biodiversity and Human Health,’ which was jointly produced by the UNEP, WHO and the CBD.

### **Creating Healthy and Resilient Societies – Local**

**Perspectives:** This panel, facilitated by Suneetha M. Subramanian, Biodiversity and Community Health Initiative,

discussed how to nurture healthy ecosystems and bio-cultural diversity, with a focus on the contribution of indigenous knowledge systems and community practices.

Raja Sharma Rymbai, Indigenous Terra Madre Network, shared information on some tools used in slow food projects, such as the Indigenous Chefs Alliance to support conservation of traditional knowledge linked to health.

Michael Garbo, Society for the Conservation of Nature, Liberia, noted local community engagement is key to connect biodiversity and health. He said the health component is included in the national biodiversity action plan.

Hewadhura Gedera Nimalasiri Hewanila, Nirmanee Development Foundation, Sri Lanka, highlighted the important role of traditional healers, and stressed that to enable indigenous and local communities to have healthier and more resilient lives it is important to “let them do what they believe then you will see biodiversity be conserved.”

In the ensuing discussion, audience members and panelists discussed how to strengthen awareness on the synergies between health and biodiversity. One audience member stressed the importance of understanding the holistic solutions around dietary restrictions. She cautioned against basing dietary decisions on myths and encouraged looking at empirical data to make more informed choices. Another speaker commented that science that does not consider traditional knowledge is not sound, and traditional knowledge that disregards science is weak. He emphasized that more integration of both communities is needed to find common methods for food inspection and other related issues.

**Harnessing Local and National Commitments to Achieve Planetary Health:** Facilitated by Cristina Romanelli, this session showcased innovative cross-sectoral work to bridge the science-



From L-R: **Simon Rüegg**, The Network for Evaluation of One Health (NEOH); **Marieta Sakalian**, UN Environment Programme (UNEP); and **Elpidio Peria**, ASEAN Centre for Biodiversity



Cristina Romanelli, CBD Secretariat

policy gap and promote communities of practice for biodiversity and health in support of the Strategic Plan for Biodiversity as well as the SDGs.

Elpidio V. Peria, ASEAN Centre for Biodiversity, presented results from a regional workshop addressing interlinkages between human health and biodiversity in the region. He highlighted commitments to develop a regional communication and advocacy plan and prioritize “low-hanging fruits” for enhancing integration in existing programmes and projects.

Peria also presented remarks on behalf of Kosi Latu, Director-General, SPREP. Latu’s statement noted that the Asia Pacific region has growing health challenges and is highly dependent on biodiversity for traditional medicines. He added that the increase in droughts and floods in the region are directly impacting the health ecosystem.

Simon Rüegg, Network for Evaluation of One Health (NEOH), described the network’s evaluation approach, noting it aims to integrate knowledge in a transdisciplinary way by exploring both negative and positive unexpected outcomes that can be attributed to integrated systems. He further noted that One Health complements CBD guidance with concrete indicators for social resilience, ecosystem health and economic benefits. Rüegg underscored the strong link between physical and mental health, noting that this makes the holistic approach promoted by One Health of noteworthy benefit for policymakers.

Marieta Sakalian, UNEP, emphasized the importance of understanding the magnitude of risks that people are exposed to in their homes, work places and communities. She highlighted five priority problem areas including: household and ambient air pollution; unsafe water, inadequate sanitation or insufficient hygiene; hazardous chemicals and toxic waste; nutritionally poor diet composition and quality; and degraded ecosystems. She said several UN Environment Assembly Resolutions have been adopted to address these issues and drew attention to the Global Coalition on Health, Environment and Climate Change which helps address the massive burden of disease from environmental and climate risks.

In the ensuing discussions, participants highlighted, *inter alia*, how to generate more funding for integrated approaches and

options for enhancing collaboration among stakeholders working across health, environment, climate change and ecosystems health areas.

**Official Launch: 2020 Challenge - Healthy Urban Microbiome Initiative:** This session explored how to integrate the latest research on microbiomes in urban environments with initiatives to restore sustainable biodiverse urban green spaces for health improvement.

In his opening remarks, David Cooper, CBD Secretariat, expressed concern that the planet faces not only the loss of iconic wildlife species but also the microbial diversity that is critical for maintaining both human and ecosystem health. He welcomed the recently adopted COP 14 decision on this topic and looked forward to the launch of a joint work programme between the CBD and Healthy Urban Microbiome Initiative (HUMI) to advance this work.

Chris Skelly, HUMI, presented two videos introducing the initiative and invited several HUMI associates to discuss their work.

David Philips, National Health Service, UK, discussed the growing public health burden caused by non-communicable diseases and the general consensus that a large part of the solution lies in restoring links to the natural environment. He highlighted data from the Organisation for Economic Co-operation and Development (OECD) that reveals a huge disparity between national spending on health care and environment and suggested that current economic austerity in many countries could create an opportunity for mainstreaming the HUMI “proposition” which calls for restoring environmental microbiomes to promote transfer to urban populations, resulting in improved health.

Martin Breed, University of Adelaide, and Jacob Mills and Craig Liddicoat, HUMI, highlighted some findings from studies to establish the value of restoring microbiomes in an urban setting, which found, *inter alia*, that a 20-minute walk in a green space can increase human microbiome exposure by as much as 40%. They explained that microbes help to strengthen the immune system by increasing human microbiota, immune signaling, and building immune memory.

The ensuing discussion explored, among other issues: the impact of pets on microbiomes; how to gain more traction with health stakeholders; how to scale up good local examples of integrated healthcare systems; the need to focus on microbial diversity and mix rather than specific microorganisms; combatting antimicrobial resistance; and links to veterinary science.

Explaining that four cities – Adelaide, Haikou, Bournemouth and Delhi – have joined the HUMI partnership, Skeely introduced the HUMI 2020 challenge to bring on board 20 cities across 20 countries by COP 15 in 2020. He said the project offers tools for mainstreaming biodiversity and health by generating empirical evidence on the benefits of microbial science.

**Healthy Food Systems for a Sustainable Future:** This session explored the co-benefits that can be realized by transforming global food systems through innovative



From L-R: **Martin Breed**, University of Adelaide; **David Cooper**, CBD Secretariat; **David Phillips**, National Health Service, UK; Craig Liddicoat, HUMI; and **Jacob Mills**, HUMI

partnerships, sustainable practices and healthy diets, in the context of the SDGs.

Moderator Danny Hunter, Bioversity International, quoted Hippocrates' call to "Let food be thy medicine and medicine be thy food," to draw attention to the need for investments that enhance the mainstreaming of agricultural biodiversity into food systems.

Teresa Borelli, Bioversity International, explained how biodiversity can improve nutrition outcomes, based on the experiences from the Biodiversity for Food and Nutrition (BFN) Programme, a multi-country, multi-partner initiative led by Brazil, Kenya, Sri Lanka and Turkey and funded by the GEF. She also highlighted the benefits of indigenous biodiversity species, noting their availability, affordability, acceptability and nutritional value.

Victor Wasike, Kenya Agriculture and Livestock Research Organization (KALRO), discussed Kenya's experience in addressing malnutrition, especially for children under the age of five. He explained some of the challenges faced related to the need to provide realistic data to convince policy makers.

During a panel discussion, Gamini Samarasinghe, Plant Genetic Resources Centre, Sri Lanka, noted that although his country has a wide variety of species, there is a need to develop an effective approach to increase production and consumption of under-utilized species, and discussed how BFN is contributing to bridging this gap.

Hasan Gezginç, Ministry of Agriculture and Forestry, Turkey, stated that improving food security is one of the best ways to reduce poverty. He discussed the use of gastronomic events to increase awareness and appreciation for local food, where celebrity chefs are invited to introduce new recipes and local restaurants are encouraged to use healthier and locally produced food.

Prem Mathur, Bioversity International, said that despite the great strides that India has made for food security in the last 40 years, there is room for improvement in promoting healthier diets. Discussing the impact of the Green Revolution on the diversity of food systems, Mathur noted that the cost of wheat

and rice is one-tenth that of other crops, hence there is little incentive to buy other local products.

Gam Shimray, Asia Indigenous Peoples Pact, highlighted the need to look at tenure security for indigenous communities. He informed the audience that indigenous communities are losing food diversity because they are losing their land rights and this is a direct threat to food security. Shimray urged the CBD processes to adopt a collaborative, partnership-driven, multi-disciplinary approach to address the issues, which his community is facing.

The session concluded with interventions from the audience highlighting, *inter alia*, options for replicating the BFN programme in other regions, and the contribution of urban biodiversity projects in the preservation of local food and enhancing nutrition security.

**Linking Public Health and Ecosystem Approaches for the Prevention of Infectious Diseases:** This session explored opportunities, best practices and tools to strengthen cross-sectoral partnerships to address challenges associated with land-use change, ecosystem degradation, and disease emergence, through integrative approaches such as One Health.

Noting that infectious diseases still affect two billion people a year, session facilitator Cristina Romanelli invited the panel to offer practical suggestions for implementing the COP 14 decision on biodiversity-health linkages at the local and country level.

Catherine Machalaba, EcoHealth Alliance, discussed how One Health approaches contribute to: a shift from reactive responses to prevention; better understanding of shared drivers for biodiversity loss and hotspots of emerging disease; and evidence-based decision making. Among available tools, she highlighted PREDICT-2, a project supported by the United States Agency for International Development (USAID) that undertakes risk-based surveillance in 32 hotspot countries, and the World Bank's One Health Operational Framework.

On behalf of François Diaz, World Organization for Animal Health (OIE), Machalaba also provided a brief overview of how the World Animal Health Information System (WAHIS) and related programmes enable diverse stakeholders to monitor and respond to critical risks emanating from animal diseases.

Chadia Wannous, Toward A Safer World Network for Pandemic Preparedness, noted the interlinkages among climate, disaster and biodiversity risks in changing landscapes. She highlighted the importance of considering the drivers of disease emergence related to land use and urbanization, describing some opportunities and current efforts to enhance urban resilience to climate change and disaster risks, such as the New Urban Agenda and the Global Platform for Sustainable Cities.

Laetitia Navarro, Group on Earth Observations Biodiversity Observation Network (GEO BON), discussed the organization's mission to improve acquisition, coordination and delivery of biodiversity observation and related services to decision makers and the scientific community. She explained that monitoring biodiversity and having models using essential biodiversity variables could help predict and resist the risks of emerging infectious diseases.

**The Post-2020 Biodiversity Framework for Healthy and Resilient Societies:** This closing session discussed insights from the day's discussions on how countries and partners can meaningfully contribute to the dialogue on the Post-2020 Framework and the Global Goals.

Cheryl Charles, IUCN, provided an overview of the Nature for All publication and added that the summary publication was released during COP 14. She extolled the value of people having regular experiences in the natural world for better mental wellbeing. Charles explained that children suffering from attention deficit disorder, obesity and other issues can see their afflictions reversed by increasing their interaction with nature.



**Cheryl Charles**, International Union for Conservation of Nature (IUCN)

Masatoshi Funabashi, Sony Computer Science Laboratories, Inc., noted how Japan's demographic pressures needs to be taken into account when looking at ecosystem services. He advised that human drivers should be actively engaged in natural recovery of biodiversity thereby creating more job and stimulus to the local economy.

Bala Pisupati, FLEDGE, underlined that health and biodiversity should not be treated in two separate agendas. He noted COP 15 will present the opportunity to mainstream biodiversity and health.

Hilary Allison, UNEP-WCMC, presented the current situation of the Biodiversity Indicators Partnership (BIP) and drew attention to the need to adopt an index to help mainstream biodiversity and health for the Post-2020 Framework.

Jamison Ervin, UNDP, discussed some pressing food security and water scarcity challenges, noting that: 10% of the world is hungry and 13% of the world is undernourished; 2.7 billion people experience at least one month without water; and

3,200 cities have significantly impaired water security from deforestation. She concluded on a positive note, discussing the critical role of nature-based solutions and stating that "food and water is the underpinning of health and together we can fix it."

Verónica Ruíz García, IUCN, highlighted the need to include monitoring of biodiversity and health into national action plan.

### **Agriculture and Biodiversity – 25 November**

Agriculture Day included a series of panel discussions highlighted diverse perspectives from the fields of agroecology, sustainable soil and land management, geodata, biodiversity conservation, climate change and sustainable intensification of agriculture.

The day closed with a special event to launch the publication, "Mainstreaming Biodiversity in Production Landscapes."

The event was co-organized by the CBD Secretariat, FAO and the Government of Mexico, in partnership with GIZ, Rare, IUCN and Conservation International.

**Opening Session:** Monica Kobayashi, CBD Secretariat, opened the session. She remarked that this year's Agriculture Day builds on the success of the previous COP and thanked the FAO and Mexican government for their support.

Hamdallah Zedan, former CBD Executive Secretary, Egypt, discussed the history of the three Rio Conventions and explained that agricultural biodiversity is a very broad term that covers not just food systems but ecosystems as well. He also drew attention to some negative effects of agriculture on biodiversity through, for example, infrastructure expansion for farming needs.

David Cooper, CBD Secretariat, noted the strong interactions between agriculture and biodiversity, as well as with the three Rio Conventions, and their role in the Post-2020 Framework. He cited a 2017 German study, which aptly demonstrated how working directly with farmers to draw on existing knowledge presents ready solutions to climate change, land desertification and biodiversity, and helps to harness local and national commitments to achieve planetary health.

In a keynote address, Hesiquio Benítez Díaz, CONABIO, Mexico, emphasized that conservation of local crop varieties *in situ* is key to the sustainable use of biodiversity and highlighted a number of national, regional and international biodiversity mainstreaming initiatives that have emerged since COP 13 in Cancun. He expressed hope that COP 15 will highlight progress on this agenda, for example through implementation of National Biodiversity Strategies and Action Plans (NBSAPs) as well as effective synergies with the health, climate change and development sectors.

**Soil in the Nexus:** The first technical session of the day, facilitated by Ronald Vargas, FAO, discussed the role of soils in biodiversity mainstreaming, with a



**Hesiquio Benítez Díaz**, Mexico

focus on synergies across the three Rio Conventions. Vargas highlighted some normative tools for soil management being developed by FAO, stressing the fact that soil is alive and hosts a quarter of our planet's biodiversity. He also stated that presently 33% of land is moderately to highly degraded and plastics have become ubiquitous in soils.

In a keynote address, Kelly Ramirez, Netherlands Institute of Ecology, discussed the role of soil biodiversity in the nexus. Citing a study that found more than 150,000 soil organisms in Central Park of New York alone, she emphasized the importance of communicating the value of soils and the multiple ecosystem services that they provide. Ramirez highlighted the work of global research networks such as the Global Soil Biodiversity Initiative (GSBI) and the Group on Earth Observations Biodiversity Observation Network (GEO BON) in identifying opportunities to influence the global science-policy agenda.

Introducing the panel discussion, Vargas asked panelists to reflect on how soil can play an important role, not only for achieving both the Aichi Biodiversity Targets and the SDGs and to discuss how soil biodiversity is considered in agriculture policy frameworks.

Glenn Litsios, Federal Office for the Environment, Switzerland, explained that it is essential to focus on the ecosystem services provided by soil, through their habitat, regulatory and production functions.

Edda Fernández Luiselli, Mexico, noted that it is also essential to connect the three conventions with the Sustainable Food Systems – One Planet Network. She highlighted some challenges that Mexico faces in integrating soil conservation and its sustainable use in agriculture policies and noted the need to not only connect information and data on soil, but also understand how this can be applied to soil biodiversity.

Nandula Raghuram, International Nitrogen Initiative, shared data and information on nutrient pollution, agriculture and biodiversity. He noted the challenges to producing more food and energy with less pollution by explaining the reactive nitrogen flows, eutrophication, and environmental implications of altered

nutrient cycles. He presented nine key actions for better nutrient management.

During a closing discussion round, panelists noted that there is no single solution that can be applied to all soil issues and emphasized the need for localized solutions and the recovery of traditional knowledge.

**Biodiversity for Food and Nutrition: Challenges and Opportunities:** The session was facilitated by Danny Hunter, Bioversity International.

In the opening keynote, Irene Hoffman, FAO, discussed the different aspects of food security that the Commission on Genetic Resources for Food and Agriculture considers. She asserted that the Commission looks at how much food is produced, and how it is used by different sectors to understand current agricultural practices.

Cristina Romanelli, CBD Secretariat, drew attention to growing number of diseases, stating it signals the largely dysfunctional food system that is currently in place. She noted the opportunity of including agrobiodiversity for nutrition on the agenda through the CBD-WHO Joint Work Programme on Biodiversity and Health.

Raja Sharma Rymbai, Indigenous Terra Madre Network, presented the relationship between indigenous food systems and health. He noted their connection to land and the work undertaken by the Slow Food Network to include biodiversity in nutrition, as well as to restore ecological balance.

Alvaro Toledo, FAO, shared information on how nutritional aspects are being included in the work of the International Treaty on Plant Genetic Resources for Food and Agriculture. He noted that questions related to nutrition can be mainstreamed in the work of the CBD programme on agricultural biodiversity and in the Post-2020 Framework.

Lusike Wasilwa, KALRO, drew attention to the importance of increasing the consumption of under-utilized species, such as wild fruits like cape gooseberry to ensure biodiversity is not lost. She further pointed out that for local populations to understand the value and benefit of consuming local fresh produce, it is necessary to communicate this in terms that will resonate with them.



From L-R: **Yoji Natori**, Conservation International Japan; **Lusike Wasilwa**, Kenya Agricultural and Livestock Research Organization (KALRO); **William Dunbar**, International Partnership for the Satoyama Initiative; **Raja Sharma Rymbai**, Indigenous Terra Madre Network; **Cristina Romanelli**, CBD Secretariat; and **Álvaro Toledo**, FAO



From L-R: **Hien Ngo**, Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES); **Irene Hoffmann**, FAO; **Ruth Spencer**, Global Environment Facility (GEF) Small Grants Programme; **Stefanie Christmann**, International Center for Agricultural Research in the Dry Areas (ICARDA); and **Carlos Tonelli**, Brazilian Institute of Environment and Renewable Resources (IBAMA)

Yoji Natori, Conservation International Japan, presented on the GEF's Satoyama project, which focused on socio-ecological production landscapes and food. He provided the example of the Karen People in Northern Thailand who produce honey as a way of generating revenue and conserving forests and soils. Natori described how the Karen People worked with a youth group who used social media to communicate about this.

William Dunbar, International Partnership for the Satoyama Initiative, explained the three-fold approach of the initiative, which aims to: consolidate wisdom on securing diverse ecosystem services and values; integrate traditional ecological knowledge and modern science; and explore new forms of co-management systems.

Other issues highlighted by panelists included the importance of promoting healthy fast food alternatives as well as encouraging the consumption of underutilized local crops that are high in nutritional value, to ensure we do not lose diversity in crops and produce.

**The Power of Pollinators to Transform Agricultural Systems:** In this session, facilitated by Irene Hoffman, FAO, panelists highlighted the latest research evidence, policy and the private sector initiatives, as well as practical case studies on the role of pollinators as a transformative biodiversity agent.

Hien Ngo, IPBES, discussed the impact of the landmark global assessment report on pollinators, pollination and food production. She outlined the second phase of the International Pollinator Initiative and the work of the "Coalition of the Willing" in maintaining the momentum generated by the study and ensuring the mainstreaming of pollinators into relevant policies and strategies.

Christiane Paulus, German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, highlighted a 2017 study that revealed a 75% decline in total flying insect biomass in protected areas of the country over the

past three decades. Describing how these concerns were quickly translated into policy priorities and a national programme for insect protection, she concluded that "people understand insects" which offers a perfect entry point to talk about biodiversity and ecosystems.

Stefanie Christmann, International Center for Agricultural Research in the Dry Areas (ICARDA), spoke on enabling conditions for creating a MEA for pollinator protection, building on efforts to expand the work of the Coalition of the Willing on pollinators to more countries and regions. She also highlighted efforts to scale up current field-based studies exploring cost-effective approaches to protect wild pollinators, as well as include pollinators in agricultural systems.

Ruth Spencer, UNDP-GEF Small Grants Programme, highlighted experiences from the Valley Ventures Sanctuary in Antigua and Barbuda, a community-based project that is reintroducing bees and hummingbirds to achieve multiple benefits, including tropical flower and fruit production, and the restoration of the wetland ecosystem to restore bird diversity and promote biodiversity knowledge and tourism.

Carlos Tonelli, Brazilian Institute of Environment and Renewable Resources (IBAMA), discussed some research-policy initiatives in the country, highlighting the establishment of procedures and technical guidance for undertaking risk assessments of pesticides to pollinators.

Daniela Guarás, UNEP-WCMC, outlined findings from a study assessing the impact of declining pollinators on global supply chains. She reported that the study revealed many companies have not fully grasped the importance of the issue and that several respondents had requested support in risk assessments with a view to developing mitigation strategies.

**Feeding the Planet and Protecting Biodiversity: Can We Choose Both Outcomes?:** Moderator Jeffrey Griffin, FAO, opened this panel discussion by asking panelists to consider some

perspectives for crafting a common agriculture and environment agenda and to share successful approaches for mainstreaming biodiversity into agriculture.

Lusike Wasilwa, KALRO, said a common agenda requires change in priority setting and propagation of different landscaping approaches, as well as consideration of indigenous and under-utilized fruits.

Edda Fernández Luiselli, Mexico, shared several examples on how Mexico links agriculture and environment through, *inter alia*, tourism adaptation, adoption of taxes, certification schemes and participation in a coalition of countries to preserve genetic diversity.

Yoko Watanabe, UNDP, discussed the contribution of the GEF Small Grants Programme to community-based agrobiodiversity projects and emphasized that landscape and partnership approaches are important for mainstreaming biodiversity in agriculture programmes.

Marieta Sakalian, UNEP, highlighted partnerships with national ministries and international organizations to identify best practices for mainstreaming biodiversity and agriculture. She underlined the future need of proper policy and institutional framework to mainstream agriculture biodiversity.

Mark Zimsky, GEF, discussed programming opportunities to address the agriculture and biodiversity interface. He stated that for GEF projects to be successful they must be targeted and there should be general acceptance that individual project results will likely have impact on the small scale.

In the ensuing discussion, an audience member asked why the panel did not address the water stresses, which agricultural activities produce. In response, one panelist maintained that the invention of climate smart/resilient technologies have allowed crop production to use water more efficiently and moreover, there is general consensus on the need to promote a focus on crops that require less water. Panelists also reiterated the interconnectedness of soil health, water and land, adding that stronger laws are needed to protect agro-ecological approaches.

**Agro-Ecological Approaches and Biodiversity-Friendly Practices to Increase Productivity:** Moderator Emile Frison, International Panel of Experts on Sustainable Food Systems (IPES-Food), introduced the FAO's Scaling up Agroecology Initiative. He explained that the areas of work are organized as follows: knowledge and innovation; policy processes; and building connections. He invited panelists to discuss what is holding the implementation of agroecology, what can be done to increase the treatment of agroecology in the CBD, and what civil society can do to move this towards the right direction.

Georgina Catacora-Vargas, Government of Bolivia, shared information on the regulatory framework developed for agroecology, since 2006, for the conservation of biological and genetic resources. She noted the importance of education and the inclusion of the tourism sector for the adaptation of the agroecology law.



Lusike Wasilwa, KALRO

Mariann Bassey, Friends of the Earth, Congo, mentioned that when we talk about biodiversity, we talk about food, and emphasized the need to connect agriculture to local culture.

Jean Lanotte, France, presented how agroecology has been integrated into public policy since 2012 and shared information on the European Common Agriculture Policy and on the High Environmental Value Certification to promote agroecology.

Nori Ignacio, Southeast Asia Regional Initiatives for Community Empowerment, noted the importance of national seed policies and regulations for the implementation of agroecology and the key role of research and regional partnerships to exchange experiences and best practices.

Joji Carino, Forest Peoples Programme (FPP), remarked that Indigenous Peoples are worried about the word “mainstreaming”. She said political systems need to move away from large agricultural systems and invest more in agroecology.

Frison ended the panel discussion by noting that more co-creating and sharing is needed between traditional knowledge and modern science. He explained that the new technologies needed to support agroecology will need to meet the ten elements of this approach outlined earlier in the discussion. He also stated that a different paradigm is needed for a whole-of-biodiversity approach that will sufficiently address all of the SDGs.

**Making the Transition to Sustainable Agriculture: Articulation of Regulation and Incentives at Landscape Level:** Opening the panel session, Moderator Sheila Wertz-Kanounnikoff, FAO, said the discussions would focus on the interface between economic incentive structures and regulation to scale up biodiversity mainstreaming in agriculture.

Philip Dobie, ICRAF, discussed the Trees on Farms for Biodiversity project, stating it aims to contribute to: farmer-relevant guidance on tree planting; practical tools for measuring on-farm biodiversity; and recommendations on incentives and financing mechanisms. He observed that “farmers like trees” but often lack market incentives as well as tenure security to invest in trees for both conservation as well as income generation. He highlighted how “intelligent relaxation” in the Sahel and India



From L-R: **Lusike Wasilwa**, KALRO; **Emile Frison**, IPES-Food; **Prem Mathur**, Bioversity International; **Bala Pisupati**, Forum for Law, Environment, Development and Governance (FLEDGE); **Jeffrey Griffin**, GEF; and **Gamini Samarasinghe**, Plant Genetic Resources Center, Sri Lanka

has contributed to greening of large areas, offering an example of the way forward.

Jasmin Hundorf, GIZ Mexico, discussed the evolution of institutional mechanisms for biodiversity mainstreaming in agriculture since COP 13 in 2016. She highlighted: the strategy for mainstreaming conservation and sustainable use of biodiversity within the agriculture sector (EIBA 2016-2022); the establishment of the Center for Biodiversity Mainstreaming (CIB SAGARPA) that provides a space for inter-institutional cooperation; and the 'Mainstreaming Biodiversity into Mexican Agriculture' project, which promotes broad partnerships with relevant national and international partners.

Ann-Kathrin Neureuther, Rare, presented some examples of incentives for sustainable land use promoted by her organization. She explained that 60% of the world's food energy intake is based on maize, wheat and rice, and it is important to promote other sustainable alternatives. Giving the example of a recent challenge that generated hundreds of solutions, Neureuther said that Rare's focus is on how to promote and scale up these solutions through a multi-dimensional approach that looks at, *inter alia*, emotional appeals, social and economic incentives, as well as providing technical training.

Yves Zinngrebe, University of Göttingen, discussed the effectiveness of the European Union agricultural policy in conserving biodiversity, expressing the view that few of the Ecological Focus Areas (EFAs) are beneficial for biodiversity. He outlined some gaps as: the lack of a clear vision for sustainable agricultural landscapes; incoherent incentive systems; missing social capital and platforms for adaptive learning; and non-transparent decision processes favoring organized lobby groups.

Prem Mathur, Bioversity International, India, explained that India receives large investments in agriculture and that it has established national bureaus for management of plant genetics, animal genetics, fish genetics, microbes and insect resources. He noted the significant impact of GEF projects for developing more *in situ* and *ex situ* conservation.

Bala Pisupati, FLEDGE, emphasized the importance of the Cancun Declaration on mainstreaming the conservation and sustainable use of biodiversity for well-being, adopted in 2016, as a formal platform for discussion on agricultural biodiversity.

During a final discussion round focusing on elements that they would like to have included in the Post-2020 Framework, panelists highlighted: the importance of gender-disaggregated data to understand what incentives work for men and women farmers; and the importance of addressing behavior to achieve transformative change. Describing reform of the agrifood system as the critical challenge of this century, one panelist challenged the biodiversity community to reach out to other sectors, such as agriculture, to help clarify what is meant by perverse incentives and unsustainable production. Another panelist described Aichi Target 7 as one of the trickiest to report on and emphasized the need to develop better indicators to monitor the mainstreaming agenda.

#### **Special event: Launch of UN Environment Publication 'Mainstreaming Biodiversity in Production Landscapes':**

Marieta Sakalian, UNEP, introduced a panel comprising partners involved in this GEF-funded project, noting the publication summarizes experience from more than 17 years of work in over 36 countries.

Lusike Wasilwa, KALRO, described some of the project's outcomes, such as the introduction of *in situ* gene banks, inclusion of indigenous vegetables in school feeding programmes and promoting biodiversity mainstreaming policies at sub-national level.

Emile Frison, IPES-Food, highlighted the fruitful partnership on ten of the projects described in the publication. He noted that projects do make a difference and called for continuity between GEF phases to achieve long-term transformation.

Jeffrey Griffin, FAO, stressed that partnerships are needed more than ever to address the "huge challenges" that we are facing. He also stated that it is important to develop a new generation of partnerships for biodiversity mainstreaming.

**Closing of Agriculture Day:** In closing remarks, Griffin highlighted five key messages from the Agriculture and Biodiversity Day. These included:

- The need for integrated systems approaches – from farm to landscape – means that we cannot achieve sustainable agriculture without bringing to bear all three of the Rio Conventions;
- We cannot achieve sustainable agriculture without a broad coalition of actors;
- The three CBD cross-cutting initiatives - Soils, Pollinators and Nutrition - within the Programme of Work on Agriculture Biodiversity are still very relevant, but agroecology approaches, and private sector and value chain development, are all critical for implementation;
- The many examples of partnerships among a wide range of actors demonstrate the importance achieving sustainable agriculture that not only sustainably utilizes biodiversity but also restores it;
- Agriculture is clearly a crucial sector for the Post-2020 Framework to achieve the sustainable use and the conservation of biological diversity.

### ***Nature-based Solutions for Climate Change – 26 November***

Nature-based Solutions for Climate Change Day was organized in two segments. In the morning, participants took part in panel and break-out sessions to highlight a range of experiences with EbA policy making, as well as lessons learned from implementing EbA projects and related nature-based approaches.

In the afternoon, EbA Knowledge Day convened, under the overall theme of ‘Biodiversity conservation and infrastructure development.’ The segment included a market place showcasing practical examples of nature-based solutions and how to better align them to engineering-based solutions for disaster and climate resilience.

The Day was co-organized by SwedBio, Friends of Ecosystem-based Adaptation (FEBA), GIZ, IUCN and The Partnership for Environment and Disaster Risk Reduction (PEDRR).

**Nature-Based Solutions for Climate Change – Integrating Climate Change and Biodiversity in National Level Policy:** Moderator Tristan Tyrrell, SwedBio, opened the morning segment with a recap of a recently concluded series of regional dialogues on the integration of EbA approaches in national



Tristan Tyrrell, SwedBio

climate policies and programmes, and the Post-2020 Framework. He said the consultations had highlighted that: most policies are currently focused on FLR and other mitigation strategies, as opposed to more integrated approaches such as EbA and ecosystem-based Disaster Risk Reduction (Eco-DRR); there is need to significantly scale up implementation; and the regional platforms can help facilitate information exchange and joint learning.

Tyrrell invited the panel to discuss their country experiences.

Ashley Dias, Ministry of Environment, Energy and Climate Change, Seychelles, described the impact of extreme climate events over the past two decades and highlighted the country’s vision of minimizing such impacts in future through concerted and proactive action at all levels of society. Drawing on several ongoing project examples, she explained how the country utilizes EbA approaches to, *inter alia*, enhance freshwater security and flood control, and restore ecosystem functions of wetlands to boost resilience.

Kotchikpa Okoumassou, Togo, discussed the contribution of a community-level EbA project to national climate and biodiversity action plans and the SDGs. Noting that the aim is to demonstrate the principle of living in harmony with nature, he said that the project seeks to link forest conservation with restoration of diverse tree species on agricultural land to enhance local livelihoods, especially for women. Okoumassou also highlighted a joint initiative with university researchers aimed at linking local and scientific knowledge.

Isaya Naini Ole Saibulu, Pastoralists Indigenous NGOs Forum, Tanzania, presented some perspectives on how to empower pastoralist communities to contribute meaningfully to national policy frameworks. Lamenting that Indigenous Peoples have been largely excluded from climate processes, he stressed that the environmental conservation values as well as customary institutions developed by pastoralist communities over centuries – such as dry season grazing timetables to allow for natural regeneration – offer viable models for EbA and resilience.

Oscar Guevara, WWF Colombia, presented the nature-based solutions for climate mitigation and adaptation that Colombia is undertaking to meet the targets for the Paris Agreement. He explained that Colombia is achieving its climate-related goals through the NDCs and have furthermore recognized that the most effective way to reduce emissions is to reduce deforestation. Guevara added that Colombia had committed to increasing protected areas to 2.5 million hectares of land but have since



Kotchikpa Okoumassou, Togo

tripled their initial target by increasing protected areas to 7.5 million hectares of land.

In the ensuing discussion, Guevara encouraged people to be persistent in their advocacy to policymakers and continually stress the importance of meeting global environmental targets. Okoumassou added that there is need for the general public to be familiar with national development plans and hold policymakers accountable to meet national goals.

**Implementation of EbA for Climate Change Adaptation and Eco-DRR Across Sectors:** Opening the session, Lisa Janishevski, CBD Secretariat, welcomed the inclusion of the Voluntary Guidelines for the design and effective implementation of EbA and Eco-DRR in the Annex of COP 14 Decision 21. She explained the two concepts, and outlined some of the main objectives, principles and safeguards contained in the Guidelines, among which: the provision of policy guidance for decision makers; a flexible framework for planning and implementing EbA and Eco-DRR; and the integration of these approaches into sectoral policies and plans.

**Panelist Presentations Highlighted Opportunities for EbA and Eco-DRR Within Different Sectors:** Verónica Ruiz, IUCN, explained the opportunities to integrate environment into the humanitarian sector and emphasized that cross-sectoral approaches are crucial in scaling up EbA. She added that the inclusion of EbA and Eco-DRR, including their associated capacity building and training programmes, in humanitarian assistance, can lead to longer-term resilience. She further noted that data sharing across sectors underpins a strengthened humanitarian-environmental approach.

Oscar Guevara, WWF Colombia, noted that the implementation of EbA and Eco-DRR in the forestry sector requires understanding the context of the sector, identification of opportunities for ecosystem-based approaches and mobilization of action. He said it is necessary to: ramp up ambition towards forests as a key component of the 'New Deal for Nature and People'; adopt good governance including land use planning to address trade-offs between food, biodiversity, climate; and include forest-targets in the Post-2020 Framework.

Arno Sckeyde, GIZ, presented opportunities for spatial planning in land- and seascapes. He discussed: how land and marine spatial planning is affected by climate and disaster risks; and why ecosystem-based approaches should be strengthened. He also gave examples of EbA measures and highlighted required actions for better governance and engagement of civil society, state and private sector.

**Break-Out Groups:** Participants then held group discussions on sector-based advocacy strategies to enhance EbA approaches in the forestry, spatial planning and humanitarian sectors. The three groups were asked to develop specific messages that could attract the attention of decision makers and practitioners and convince them to consider, integrate and make use of EbA and Eco-DRR.

The forestry group noted that forest and climate are not being fully integrated into policymaking and proposed one way to

more effectively disseminate this linkage would be to work more closely with the media. They also put emphasis on scaling up local knowledge.

The spatial planning group said that considering the cross-cutting nature of biodiversity and climate change, more effort is needed to work across ministries. The group asserted that this can be done effectively if targeted messages are developed communicating both the short- and long-term benefits of EbA.

The humanitarian group drew attention to local community engagement, and thinking beyond the traditional approach of EbA as a response mechanism. They suggested that working more closely with development agencies can help minimize the vulnerabilities of communities and enable a greater focus on prevention.

### ***EbA Knowledge Day – 26 November***

**Opening Session:** Mathias Bertram, GIZ, opened the afternoon segment, which focused on biodiversity conservation and infrastructure development and aligning nature-based and



**Mathias Bertram, GIZ**

engineering-based solutions for disaster and climate resilience. Bertram shared selected key messages from the Rio Pavilion Sustainable Infrastructure Day on 17 November 2018, and explained the different “system layers” of grey and green infrastructure.

Veronica Lo, CBD Secretariat, drew attention to opportunities for

aligning EbA and Eco-DRR into infrastructure developments, including: the Voluntary Guidelines on EbA and Eco-DRR as a flexible framework for planning and implementing ecosystem-based approaches to infrastructure developments; synergies with Rio Conventions objectives, capitalizing on momentum from other emerging policies; and capacity building support to governments and other project proponents by sharing data, knowledge, tools, approaches, and other mechanisms. Lo also underscored the need for more strategic, proactive and systems-level approaches to infrastructure planning that ensure nature-based solutions are carefully considered and integrated across different sectors, in close connection to the SDGs.

**Panel discussion:** Sandra Müller-Volk, BMU, shared information on the increase of Germany's International Climate Initiative (IKI) EbA projects in the period between 2008-2017. She gave examples of three projects that are integrating: natural infrastructure into public investment programmes in Peru; climate services for climate resilient bridge construction in Costa Rica; and EbA into river basin planning in Thailand.

Oscar Guevara, WWF Colombia, highlighted some challenges and opportunities to address interactions and avoid or minimize trade-offs between biodiversity and infrastructure. He noted the importance of the 'New Deal for Nature,' discussed the differences between "green" and "greening" infrastructure and said that sustainable infrastructure are assets that provide, among others the stewardship of natural ecosystems, trigger green innovation, and increase employment. He cited Colombia's 'Green Road Infrastructure Guidelines,' the 'Flood Green Guide' and the 'Green Recovery and Reconstruction: Training Toolkit for Humanitarian Aid' as examples.



**Mahlodi Tau**, South African National Biodiversity Institute

Mahlodi Tau, South African National Biodiversity Institute (SANBI), emphasized that investing in built and ecological infrastructure contributes to a more water-secure South Africa. He presented South Africa's 2030 Development Agenda, 2012 National Infrastructure Plan and the Water and Sanitation Master Plan. He said ecological infrastructure consists of naturally functioning ecosystems that generate and deliver valuable services to people and highlighted that opportunities exist to integrate EbA approaches into water resource management.

Tom Wilms, Witteveen+Bos/EcoShape, the Netherlands, explained the different phases involved in the transition from "building in nature to building with nature." Examples he provided were, *inter alia*: working in close collaboration with stakeholders and local communities; developing hydraulic infrastructure in harmony with the behaviors of the natural system; and bringing together knowledge institutes, engineers, government contractors, and NGOs. Among his key messages, Wilms highlighted that a thorough system understanding and early stakeholder involvement are essential for higher environmental benefits, cost reductions and faster institutional processes.

Thora Amend, Conservation & Development, Germany, presented on holistic green-grey infrastructure planning. She advised that a good policy entry point and effective governance structure requires mainstreaming of nature-based solutions into local, municipal, national processes. Amend also said sector strategies are essential to increase the resilience of people and ecosystems in view of changing climate conditions and risk exposure.

In the ensuing discussion, one audience member extolled the value of engaging local populations to share their challenges

and also provide their input into large planned projects by government. Wilms reiterated that engineering solutions, which look beyond the benefits of infrastructure needs and which consider environmental advantages offer a better approach.

The moderator asked panelists for their key messages for the upcoming UN Climate Change Conference in Katowice, Poland, to which one speaker suggested reminding negotiators that without investing in biodiversity, climate goals cannot be achieved.

Quoting Nelson Mandela, Tau emphasized that "sometimes it falls upon a generation to be great and you can be this generation. The UNFCCC must know that if a generation is going to bring a change, it is us and we need to acknowledge this."

**Market Place:** In this interactive session, GIZ, The Nature Conservancy, OroVerde, Witteveen+Bos / EcoShape and Conservation & Development held a poster session. Organization representatives gave elevator pitches for nature-based and engineering-based solutions for disaster and climate resilience.

In takeaways following the session, some participants noted that the ideas discussed were a good starting point and illustrate the value of knowledge transfer and knowledge providers. They also highlighted how useful it was to learn during the poster session case studies of how things have worked in some countries and the conditions under which some solutions thrived.

**Interactive Expert Dialogue with Participants:** In a final interactive session, participants met in smaller groups to discuss a series of provocative statements about how to integrate nature-based solutions into infrastructure planning.

Regarding the role of government, participants noted that multi-stakeholder approaches work best, and that sometimes NGOs and communities play a greater role in driving nature-based solutions. However, the discussions noted that government remains a key player in larger infrastructural and grey projects such as railways and ports, as well as creating an enabling environment for EbA through legal and policy frameworks.

Reacting to the statement, "nature-based solutions take too much time to show impact compared to grey infrastructure," participants pointed to many examples to the contrary. They highlighted that: green infrastructure offers more benefits as they as they provide multiple benefits and often address both short- and long-term perspectives; are more financially sustainable as they often require less investment than grey infrastructure both in the start-up phase and for maintenance over time; and involve people as part of the solution.

In concluding remarks, Bertram said that EbA Knowledge Day had provided a rich source of technical information and stakeholder perspectives as well as inspiring exchanges. Noting that the day also incorporated discussions from the Sustainable Infrastructure event held on the first day of the Pavilion, he urged participants to pass the torch on to colleagues travelling to UNFCCC COP 24 in order to build bridges between the Rio Conventions.

Lo thanked all participants for their contributions, and expressed appreciation to the governments of Germany and

Sweden, the European Commission and all partners involved in developing the Voluntary Guidelines on EbA and Eco-DRR.

### **Forest Landscape and Ecosystem Restoration – 27 November**

On the final day of the Pavilion diverse panel sessions and interactive discussions convened to explore how to strengthen partnerships to advance global forest, climate, biodiversity and sustainable development goals through restoration approaches. Participants also provided their perspectives for building on the growing momentum around the restoration agenda, for which a UN Decade has been proposed.

The Day was convened by the Forest Ecosystem Restoration Initiative (FERI) in collaboration with members of the Collaborative Partnership on Forests (CPF), GPFLR, and the Society for Ecological Restoration (SER), with support from the Korea Forest Service.

**Opening Session:** Blaise Bodin, CBD Secretariat/FERI, introduced the objectives of the day and invited Ham Tae-Sik, Korea Forest Service, to make opening remarks. Ham highlighted Korea's expertise and support to forest restoration, and recalled the launch of FERI at CBD COP 12 in Pyeonchang, Korea, which sought to transfer South Korea's knowledge in forest restoration to parties in an effort to achieve the Aichi Biodiversity Targets. He also praised the CBD Secretariat's capacity building workshops on this topic as it helps parties develop the needed policies to address deforestation.

Alexander Shestakov, CBD Secretariat, highlighted how forest landscape and ecosystem restoration unifies the work of the three Rio Conventions. He pointed out that Aichi Biodiversity Target 15 addresses this theme but it is important to question to what extent parties are able to achieve the 15% target of restoring degraded ecosystems. Shestakov also drew attention to various global initiatives – including the New York Declaration on Forests and the Bonn Challenge – which are dedicated to this theme, and expressed his hope that the issue of restoration will have a prominent place in the Post-2020 Framework.

Jorge Ernesto Quezada Díaz, National CBD Focal Point, El Salvador, promoted the benefits of his country's proposed UN Decade of Ecosystem Restoration (2021-2030) and informed participants that there is strong support for the initiative from Latin America and Africa. He added that cooperation is necessary to develop an effective strategy and restoration effort. Díaz demonstrated how this topic links to SDGs 2, 6, 12, 13, 14 and 15 and noted that a synergistic approach is therefore very important for restoration.



**Stefan van der Esch**, PBL Netherlands Environmental Assessment Agency

### **Taking Stock of Global Opportunities for Forest**

**Landscape and Ecosystem Restoration:** This opening panel showcased a number of global-scale assessments of ecosystem degradation and restoration opportunities, and discussed how they can help prepare the ground for interventions that support a range of Aichi Biodiversity Targets. The panel discussion was moderated by Jim Hallett, SER.

Stefan van der Esch, PBL Netherlands Environmental Assessment Agency, outlined some results from the Global Land Outlook, an initiative by the UNCCD that aims to map and quantify historical as well as future trends in global land degradation. He shared information on the second Shared Socio-Economic Pathways (SSP2) related to the 'productivity decline scenario' and explained how land use changes over the coming decades will influence the achievement of global sustainability ambitions.

Bernardo Strassburg, International Institute for Sustainability (IIS), analyzed some opportunities for the achievement of Aichi Biodiversity Target 15, drawing on Brazil's 'Native Vegetation Protection Law' and a tool developed by IIS to identify priority areas for restoration. Strassburg mentioned the algorithm created can help pinpoint exact solutions to the optimization problem and emphasized that restoration is a very powerful tool for global challenges that should be included in the Post-2020 Framework.

Adriana Vidal, IUCN, spoke about how to accelerate biodiversity commitment through FLR. She said that IUCN seeks to balance ecological integrity with human wellbeing, as well as local and national priorities. She outlined IUCN's 'Restoration Opportunities Assessment Methodology' (ROAM) framework, noting its recognition by the CBD as an effective tool to support ecosystem restoration. She also pointed out that many benefits from restoration can be generated in the short term to benefit livelihoods and ecosystems, but projections of return on investment in monetary values are usually measured over a 20-30 year period to accrue the totality of benefits of ecosystem restoration versus business as usual.

During the discussion, panelists and audience members further reflected on how to include the increasing population issues into scenario analysis and how the modeling tools presented could be adapted for use at the country level.

### **Implementing the Short-Term Action Plan for Ecosystem**

**Restoration:** This session reviewed progress with implementing the Short-Term Action Plan on Ecosystem Restoration (STAPER), adopted at CBD COP 13 with the aim of helping parties, as well as any relevant organizations and initiatives, to accelerate and upscale activities on ecosystem restoration.

Blaise Bodin, CBD Secretariat/FERI, presented an overarching framework used by FERI to achieve the objectives of the action plan. He highlighted the four pillars of the approach: capacity building workshops and analysis of national commitments on restoration; direct support to restoration projects; outreach and collaborative initiatives with diverse partners; and the production and dissemination of knowledge products.

Jim Hallett, SER, provided further detail on support available to enhance STAPER implementation. He highlighted the contents of a companion document to STAPER, and related web platform, noting it provides additional and easily accessible resources and

case studies, organized under the four activity streams, sourced from FERI partners.

Camilo Ponzani, CBD Secretariat, provided an overview of Biobridge, a technical “matchmaking” platform launched at COP 12, with three key features: an interactive web platform providing access to curated resources and a help desk; regional roundtables to facilitate articulate common challenges and contribute to partnership building; and seed grants to kickstart implementation. He also mentioned new initiatives to be implemented in the second phase, including a video game to engage more young people, and expansion of the innovation and solutions fair, of which the first edition took place on the sidelines of COP 14.

Two panelists then presented examples of ongoing FERI projects.

Liliane Parany, Madagascar National Park, presented the restoration initiative of degraded humid forests in the World Heritage site ‘Rainforests of the Atsinanana.’ She explained the project comprises six national parks and said the activities to be carried out include: conducting a study to identify priority areas of natural habitat to be restored; training of local communities; natural regeneration; and active restoration interventions.

Mark Nicholson, Brackenrurst Botanic Garden, Kenya, discussed initiatives combining biodiversity conservation with ecological restoration. He highlighted serious land degradation, invasive species and the loss of indigenous knowledge, as worrying trends, and underlined the importance of education to counteract this loss. Nicholson observed that “restoring is not restored,” to emphasize the importance of investing time, money, skills, protection and commitment to address these challenges.

**Cooperation for Efficient Action on Forest Landscape and Ecosystem Restoration:** This session explored the role that inter-institutional forums such as the CPF and the GPFLR have played in building the political momentum behind the FLR concept, as well as fostering ambitious commitments under the Bonn Challenge.

The session opened with a “keynote interview” between Catalina Santamaria, GPFLR and Jorge Ernesto Quezada Diaz, El Salvador. Highlighting some conclusions from the recently-launched GPFLR report, Santamaria mentioned the need to coordinate actions at various levels within countries, and noted the importance of combining public and private funding sources to demonstrate that FLR projects are bankable.

Marie-Laetitia Busokeye, Ministry of Environment, Rwanda, presented outcomes from the African Regional Ministerial Meeting on the Bonn Challenge, and outlined the contribution of

the African Forest Landscape Restoration Initiative (AFR100), a continent-wide restoration initiative that seeks to contribute to the achievement of the Bonn challenge. She explained that African governments have the opportunity to integrate values of restoration across policies and planning and should create incentives for investment in FLR.

**Reflections on Collaborative Initiatives on Restoration from CPF and GPFLR Members:** On behalf of the CPF members involved, five speakers highlighted progress under the CPF Joint Initiative on FLR.

Sheila Wertz-Kanounnikoff, FAO, outlined some CPF delivery mechanisms, including focal agencies, dialogue and joint initiatives. She highlighted how the Partnership supports the work of the UN Forum on Forests (UNFF), enhances forest cooperation and coordination among CPF members, and promotes synergies among the Rio Conventions.

Marieta Sakalian, UNEP, offered an overview of The Restoration Initiative (TRI), which seeks to foster innovation and integration in support of the Bonn Challenge. Describing it as the largest GEF-financed programme focused on restoration, she noted there are currently 11 national projects implemented by three international agencies, IUCN, FAO and UNEP, and that it is executed by national ministries, agencies and NGOs.

Adriana Vidal, IUCN, provided additional information on the CPF joint initiative on FLR and noted its objective to enhance synergies at the global level, as well as assist countries and other stakeholders to strengthen and scale up implementation at the national and sub-national levels. Vidal also drew attention to the project components and gave examples of ongoing activities.

Blaise Bodin, CBD Secretariat/FERI, explained how past challenges as well as current gaps in FLR are being addressed. He stated that available information on the costs and benefits of FLR have been insufficient, preventing investors from benchmarking or evaluating proposals. Bodin highlighted efforts to develop a global reference database on past and current FLR projects to address these weaknesses.

Madeline Craig, UNDP, highlighted their broad forest portfolio, which includes activities under the GEF Small Grants Programme, REDD+ support, the New York Declaration on Forests, as well as regional projects in the Amazon and other areas. She also highlighted UNDP’s role in connecting the FLR and sustainable development agendas.

The session concluded with a presentation on WWF’s work and cooperation on FLR. Hermine Kleymann, WWF, explained their goal for a world enriched by extensive, resilient forest landscapes benefiting biodiversity, people and climate. She pointed out that the targets outlined in the IPCC Special Report on Global Warming of 1.5°C will not be reached without halting deforestation by 2030.

**Panel Discussion on How to Reflect FLR Commitments and Action in the Post-2020 Framework:** During this general discussion, moderated by Jorge Ernesto Quezada Díaz, El Salvador, representatives from FAO, IUCN, WWF, UNEP and UNDP presented some perspectives and insights for accelerating



Catalina Santamaria, Global Partnership on Forest and Landscape Restoration

progress on the Aichi Biodiversity Targets and SDGs, and contributing to the Post-2020 Framework. Among other issues, the discussions highlighted the importance of:

- Building on and scaling up established best practices, especially through regional cooperation and other knowledge exchange platforms;
- Linking the diverse expertise and scales of operation of the diverse initiatives, while also reaching out to more networks and processes;
- Translating the many global commitments into concrete national targets and actions on the ground as an entry point for support and partnership building;
- Using the momentum generated by the Bonn Challenge and other FLR initiatives to link to, and raise the ambition of climate- and SDG-related processes at national level;
- Demonstrating effective implementation models and “bankable projects”;
- Offering alternative land-use models that balance conservation with increasing the functionality of productive landscapes;
- Targeting drivers of landscape restoration by building an enabling environment for cross-sectoral approaches and the linking private and public sector financing;
- Setting more specific targets for FLR and ecosystem restoration and linking them to existing global commitments such as the UNFF and the land degradation neutrality target under SDG 15; and
- Ensuring a balance between quantitative and qualitative reporting to “go beyond hectares to understand what is actually happening under the canopy.”

#### **Aligning Action on Biodiversity With the Gef-7 Impact Programmes on Sustainable Forest Management and Food, Land Use and Restoration:**

Volatiana Rahanitriniana, Ministry of Environment, Madagascar, discussed the integration of FLR into a robust policy strategic framework in her country. She explained that the multi-faceted approach to build a shared, easy to coordinate project has proven more effective.

Jeffrey Griffin, FAO, spoke on behalf of GEF to present the impact programmes related to FLR. He noted that given GEF’s limited budget size, it has changed its trajectory to focus more on integrated systems-based approaches, for example, by investing in food systems. Griffin also highlighted that the GEF requires a suite of related strategies and interventions with diversified country portfolio investments.

Theresa Castilion-Elder, Amazon Cooperation Treaty Organization (ACTO), discussed some capacity building activities for member countries in ecologically responsible forest management and biodiversity conservation in the Amazon. She highlighted a Memorandum of Understanding signed between the Secretariats of the International Tropical Timber Organization (ITTO) and the CBD to enhance biodiversity conservation in tropical forests.

Aoubacar Oulare, CBD Focal Point, Guinea, shared experiences from a GEF-7 funded project on mainstreaming biodiversity in food, land use and restoration in Fouta Djallon.

Anja Gassner, ICRAF, explained how to extend the restoration agenda to trees on farms for biodiversity and highlighted the need to adopt tools for measuring on-farm biodiversity since spatial arrangements of trees on farms is very different to trees in forests.

In a final interactive discussion on financing opportunities for FLR and sustainable forest management beyond the GEF, moderated by Günter Mitlacher, WWF, speakers further

reflected on: the changes necessary to get funding beyond the GEF; the costs of implementing sustainable forest management in the Amazon region; the sustainability of trees on farms investments; the contribution of ecosystem-based approaches; and the role of the private sector in GEF projects.

#### **Closing of the Rio Pavilion**

In the closing session, moderated by David Ainsworth and Blaise Bodin, CBD Secretariat/FERI, and other organizers of the 11 Rio Pavilion “Days” at COP 14 presented highlights from the thematic sessions. Closing the session, Ainsworth thanked the GEF and the European Commission for their financial support to the Pavilion over the years and urged participants to continue the conversation at UNFCCC COP 24 and beyond.

#### **Upcoming Meetings**

**Global Landscapes Forum 2018:** The Global Landscapes Forum (GLF) is designed to produce and disseminate knowledge and accelerate action to build more resilient, climate-friendly, diverse, equitable and productive landscapes. **dates:** 1-2 December 2018 **location:** Bonn, Germany **contact:** Kamal C. Prawiranegara, Global Coordinator, Global Landscapes Forum **email:** K.Prawiranegara@cgiar.org **www:** <https://events.globallandscapesforum.org/bonn-2018/>

**Katowice Climate Change Conference (UNFCCC COP 24):** COP 24 is expected to finalize the rules for implementation of the Paris Agreement on climate change under the Paris Agreement Work Programme. A High-Level Ministerial Dialogue on Climate Finance is expected to be held in conjunction with COP 24. **dates:** 2-14 December 2018 **location:** Katowice, Poland **contact:** UNFCCC Secretariat **phone:** +49-228-815-1000 **fax:** +49-228-815-1999 **email:** [secretariat@unfccc.int](mailto:secretariat@unfccc.int) **www:** <https://unfccc.int/katowice>

**55th Meeting of the GEF Council:** The Council is the GEF’s main governing body that meets twice annually to develop, adopt, and evaluate the operational policies and programmes for GEF-financed activities. **dates:** 17-20 December 2018 **location:** Washington D.C., US **contact:** GEF Secretariat **www:** <http://www.thegef.org/council-meetings/gef-55th-council-meeting>

**Towards a Global Pact for the Environment Ad-hoc Open Ended Working Group Meeting:** The session will discuss substantive matters relating to the Pact, which aims to provide an overarching framework for international environmental law. **dates:** 14 - 18 January 2019 **email:** [angela.kariuki@un.org](mailto:angela.kariuki@un.org) **location:** Nairobi, Kenya **www:** <https://www.unenvironment.org/events/conference/towards-global-pact-environment>

**IPBES-7:** The seventh session of the International Panel on Biodiversity and Ecosystem Services (IPBES-7) is expected to address the report of the Executive Secretary on the implementation of the first work programme for the period 2014-2018; the global assessment of biodiversity and ecosystem services; review of the Platform at the conclusion of its first work programme; the Platform’s next work programme; and institutional arrangements. **dates:** 29 April - 4 May 2019 **location:** Paris, France **contact:** IPBES Secretariat **www:** <https://www.ipbes.net/event/ipbes-7>

**Fourth Session of the UN Environment Assembly (UNEA):** The theme of the session is “Innovative solutions for environmental challenges and sustainable consumption and production.” It will be preceded by a meeting of the Open-Ended Committee of Permanent Representatives (OECPR) from 4-8 March 2019. **dates:** 11-15 March 2019 **location:** Nairobi, Kenya

**contact:** UNEP email: [beatpollution@unenvironment.org](mailto:beatpollution@unenvironment.org) **www:** <http://web.unep.org/environmentassembly/>

**OceanVisions2019 Climate Summit:** The Summit themed on ‘Successes in Resilience, Adaptation, Mitigation, and Sustainability,’ will showcase ocean-based science and engineering successes in the areas of resilience, adaptation, mitigation and sustainability, and promote scalable solutions across human, climate and ecological dimensions. **dates:** 1-4 April 2019 **location:** Atlanta, GA, US **www:** <http://www.oceanvisions.org/oceanvisions19>

**14th Session of the UN Forum on Forests (UNFF 14):** UNFF 14 will discuss, among other topics: implementation of the UN Strategic Plan for Forests 2017-2030; monitoring, assessment and reporting; enhancing global forest policy coherence and a common international understanding of sustainable forest management; progress on the activities and operation of the Global Forest Financing Facilitation Network and availability of resources; and enhanced cooperation, coordination, and engagement on forest-related issues. **dates:** 6-10 May 2019 **location:** UN Headquarters, New York **phone:** +1-212-963-3401 **fax:** +1-917- 367-3186 **email:** [unff@un.org](mailto:unff@un.org) **www:** <http://www.un.org/esa/forests/>

**CITES COP18:** The 18th meeting of the CITES Conference of the Parties will be held directly following 71st meeting of the CITES Standing Committee (SC71) on 21 May 2019. **dates:** 22 May – 3 June 2019 **location:** Colombo, Sri Lanka **contact:**

CITES Secretariat **phone:** +41-22-917- 81-39/40 **fax:** +41-22-797-34-17 **email:** [info@cites.org](mailto:info@cites.org) **www:** <https://cites.org/>

**World Circular Economy Forum 2019:** The event will have a strong emphasis on scaling up the circular economy transition and building the next era of the circular economy. **dates:** 3-5 June 2019 **location:** Helsinki, Finland **contact:** Sitra **phone:** +358-294-618-991 **fax:** +358-9-645-072 **email:** [wcef2019@sitra.fi](mailto:wcef2019@sitra.fi) **www:** <http://www.wcef2019.com>

**High-level Political Forum on Sustainable Development (HLPF) 2019:** HLPF 2019 will address the theme, ‘Empowering people and ensuring inclusiveness and equality.’ It will conduct an in-depth review of SDG 4 (quality education), SDG 8 (decent work and economic growth), SDG 10 (reduced inequalities), SDG 13 (climate action), and SDG 16 (peace, justice and strong institutions), in addition to SDG 17 (partnerships for the Goals). **dates:** 9-18 July 2019 **location:** UN Headquarters, New York **contact:** UN Division for Sustainable Development Goals **fax:** +1-212-963-4260 **www:** <https://sustainabledevelopment.un.org/hlpf/2019>

**IUFRO World Congress 2019:** The 25th International Union of Forest Research Organizations (IUFRO) World Congress will convene on the theme ‘Forest Research and Cooperation for Sustainable Development.’ **dates:** 29 September - 5 October 2019 **location:** Curitiba, Brazil **contact:** IUFRO **email:** [info@iufro2019.com](mailto:info@iufro2019.com) **www:** <http://www.iufro2019.com/>

For additional meetings, see <http://sdg.iisd.org/>

## Glossary

AfDB	African Development Bank	ICRAF	World Agroforestry Centre
BMZ	Federal Ministry for Economic Cooperation and Development	IUCN	International Union for Conservation of Nature
CBD	Convention on Biological Diversity	IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
CONABIO	National Commission for the Knowledge and Use of Biodiversity	IPLCs	Indigenous peoples and local communities
CONAFOR	National Forestry Commission	IPPC	Intergovernmental Panel on Climate Change
CONANP	National Commission of Natural Protected Areas	KALRO	Kenya Agriculture and Livestock Research Organization
COP	Conference of the Parties	KBAs	Key Biodiversity Areas
CPF	Cooperative Partnership on Forests	MPAs	Marine Protected Areas
DRR	Disaster risk reduction	NDCs	Nationally Determined Contributions
EbA	Ecosystem-based adaptation	PAs	Protected Areas
EU	European Union	RCP	Rio Conventions Pavilion
FAO	Food and Agricultural Organization of the United Nations	REDD+	Reducing Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries
FLEDGE	Forum for Law, Environment, Development and Governance	SER	Society for Ecosystem Restoration
FLR	Forests and landscape restoration	SPREP	Secretariat of the Pacific Regional Environment Programme
GEO BON	Group on Earth Observations Biodiversity Observations Network	UNCCD	UN Convention to Combat Desertification
GIZ	Die Deutsche Gesellschaft für Internationale Zusammenarbeit	UNDP	UN Development Programme
GPFLR	Global Partnership on Forest and Landscape Restoration	UNEP	UN Environment Programme
ICCAs	Indigenous peoples’ and community conserved territories and areas	WCMC	World Conservation Monitoring Centre
		WWF	World Wide Fund for Nature