



# Rio Conventions Pavilion Bulletin

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## Rio Conventions Pavilion Sunday, 25 November 2018

Day 9 at the Rio Conventions Pavilion focused on the theme 'Agriculture and Biodiversity: Walking hand-in-hand toward a sustainable world.' Seven panel sessions took place, highlighting diverse perspectives from the fields of agroecology, sustainable soil and land management, geodata, biodiversity conservation, climate change and sustainable intensification of agriculture.

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

The Day was co-organized by the CBD, Food and Agriculture Organization of the UN (FAO) and the Government of Mexico, in partnership with Die Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Rare, the International Union for the Conservation of Nature (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 Global Biodiversity Framework (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, National Commission for Knowledge and Use of Biodiversity (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 focus on synergies across the three Rio Conventions. Vargas highlighted some normative tools for soil



From L-R: David Cooper, CBD Secretariat; Hamdallah Zedan, Egypt; Hesiquio Benítez Díaz, Mexico; and Irene Hoffmann, FAO



Glenn Litsios, Environmental Footprints of Switzerland

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 Sustainable Development Goals (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 round of panel discussions, 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.



Nandula Raghuram, International Nitrogen Initiative

### ***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-World Health Organization (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, Kenya Agricultural and Livestock Research Organization (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.

Yoji Natori, Conservation International Japan, presented on the Global Environment Facility (GEF) 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





**William Dunbar**, International Partnership for the Satoyama Initiative

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 the 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, Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (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 multilateral environmental agreement for pollinator protection, building on efforts to expand the work of the Coalition of the Willing on pollinators to more



**Lusike Wasilwa**, KALRO

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, 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, UN Environment Programme World Conservation Monitoring Centre (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 Fernandez Luiselli, 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.



Jeffrey Griffin, FAO



Yoko Watanabe, UNDP

Yoko Watanabe, UN Development Programme (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.

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, World Agroforestry Centre (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.





Jean Lanotte, France

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 has contributed to regreening 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. Among specific initiatives, 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



Mariann Bassey, Friends of the Earth Congo

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, Forum for Law, Environment, Development and Governance (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.



Emile Frison, IPES-Food





Sheila Wertz-Kanounnikoff, FAO

**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 10 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.

Jeff 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.



Philip Dobie, ICRAF

**Closing of Agriculture Day**

In closing remarks, Griffin highlighted five key messages from the Agriculture and Biodiversity Day:

- 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, 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.



Jasmin Hundorf, GIZ-Mexico