



Rio Conventions Pavilion Saturday, 24 November 2018

Health Day took place on the eighth day of the Rio Conventions Pavilion, under the overall 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 the ‘Global Biodiversity for Health’ 2020 challenge, aimed at restoring green urban spaces in 20 cities across 20 countries by COP 15 in 2020, and a new partnership between the CBD and research institutions aimed at catalyzing innovative research on the health benefits of exposure to microbial biodiversity in urban areas.

The 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 UN Environment Programme (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



Cristina Romanelli, CBD Secretariat



Simon Rüegg, NEOH



Marieta Sakalian, UNEP

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-policy gap and promote communities of practice for biodiversity and health in support of the Strategic Plan for Biodiversity as well as the Sustainable Development Goals (SDGs).

Elpidio V. Peria, Association of Southeast Asian Nations (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 Lau, Director-General, Secretariat of the Pacific Regional Environment Programme (SPREP). Lau’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 the latest research as well as strategic opportunities for integrating microbiome science and public health approaches 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



Jacob Mills, HUMI



Craig Liddicoat, HUMI

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 presentations elicited a lot of interest among participants, with the ensuing discussion exploring, 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 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

Global Environmental Facility (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, 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.



Chadia Wannous, Toward A Safer World Network for Pandemic Preparedness (TASW)



Masatoshi Funabashi, Sony Computer Science Laboratories

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 Global Biodiversity 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.

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, Forum for Law, Environment, Development and Governance (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 Global Biodiversity 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."

Veronica Ruiz Garcia, IUCN, highlighted the need to include monitoring of biodiversity and health into national action plan.