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SUBSIDIARY BODY ON SCIENTIFIC,  
TECHNICAL AND TECHNOLOGICAL ADVICE

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Agenda item 4.1

### RECOMMENDATION ADOPTED BY THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE

#### XIX/6. Biodiversity and human health

The Subsidiary Body on Scientific, Technical and Technological Advice recommends that the Conference of the Parties, at its thirteenth meeting, adopt a decision along the following lines:

*Recalling* decision XII/21,

*Welcoming* the memorandum of understanding signed between the Secretariat of the Convention on Biological Diversity and the World Health Organization,

*Taking note* of the publication by the World Health Organization and the Secretariat of the Convention of *Connecting Global Priorities: Biodiversity and Human Health, a State of Knowledge Review*,

*Recognizing* that biodiversity and human health are interlinked in various ways, including the following:

(a) Biodiversity gives rise to benefits for human health, including directly as a source of foods, nutrition, traditional medicines and biomedical discovery, and indirectly as a source of clothes, heating and shelter, by underpinning ecosystem functioning and resilience and the provision of essential ecosystem services and by providing options for adapting to changing needs and circumstances;

(b) Biodiversity may be related to adverse health effects, notably through infectious agents;

(c) A number of drivers of change may affect both biodiversity and health;

(d) Health sector interventions can have both positive and negative impacts on biodiversity and that biodiversity-related interventions can have both positive and negative impacts on human health,

*Noting* that better consideration of health-biodiversity linkages could contribute to improving many aspects of human health, including nutrition, reducing the global burden of infectious as well as non-communicable diseases, and improving mental health and well-being,

*Noting also* that recognition of the health benefits of biodiversity reinforces the rationale for the conservation and sustainable use of biodiversity and thus contributes to the implementation of the Strategic Plan for Biodiversity 2011-2020 and to the achievement of the Aichi Biodiversity Targets,

*Acknowledging* that health-biodiversity linkages are related to the 2030 Agenda for Sustainable Development and to the Sustainable Development Goals,<sup>1</sup>

*Recognizing* that the health benefits of biodiversity are influenced by socioeconomic factors and may be specific to local ecosystems and cultures, that men and women often have different roles in the management of natural resources and family health, and that poor and vulnerable communities, women and children are often particularly directly dependent on biodiversity and ecosystems for food, medicines, clean water, and other health related services,

*Highlighting* the importance of traditional knowledge as well as conventional scientific knowledge in realizing the health benefits of biodiversity,

*Re-emphasizing* the value of the “One Health” approach to addressing the cross-cutting issue of biodiversity and human health, as an integrated approach consistent with the ecosystem approach (decision V/6),

1. *Takes note* of the key messages contained in the summary of *Connecting Global Priorities: Biodiversity and Human Health, a State of Knowledge Review*;<sup>2</sup>

2. *Invites* Parties and other Governments, to consider using the *State of Knowledge Review* and its key messages, as appropriate, to promote the understanding of health-biodiversity linkages with a view to maximizing health benefits, addressing trade-offs, and where possible, addressing common drivers for health risks and biodiversity loss;

3. *Invites* Parties and other Governments to make use of the information contained in the annex to the present decision, as appropriate and taking into account national circumstances, to achieve the objective stated in paragraph 2 above;

4. *Invites* Parties, other Governments and relevant organizations to carry out activities, as appropriate and taking into account national circumstances, inter alia:

(a) To facilitate dialogue between agencies responsible for biodiversity and those responsible for health and other relevant sectors, across all levels of government;

(b) To consider relevant health-biodiversity linkages in developing and updating relevant national policies, strategies, plans, and accounts including health strategies, such as national environmental health action plans, national biodiversity strategies and action plans, and sustainable development and poverty eradication strategies;

(c) To strengthen national monitoring capacities and data collection, including integrated surveillance capacities and early warning systems, that enable health systems to anticipate, prepare for and respond to public health threats resulting from ecosystem change;

(d) To consider health-biodiversity linkages in environmental impact assessments, risk assessments and strategic environmental assessments, as well as in health impact assessments, social and economic valuation and the evaluation of trade-offs;

(e) To address, monitor and evaluate any unintended and undesirable negative impacts of biodiversity interventions on health and of health interventions on biodiversity;

(f) To identify opportunities for and promote healthy lifestyles and sustainable production and consumption patterns and associated behavioural change, that would benefit biodiversity and human health through, inter alia, the promotion of public health campaigns;

(g) To develop interdisciplinary education, training, capacity-building and research programmes on health-biodiversity linkages, using integrative approaches, at various levels and different spatial and temporal scales, and communities of practice on biodiversity and health;

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<sup>1</sup> General Assembly resolution 70/1, annex.

<sup>2</sup> UNEP/CBD/SBSTTA/6/Add.1.

(h) To consider the need to strengthen the capacity of health, environment and other relevant ministries, agencies and organizations to address health-biodiversity linkages in order to support preventative approaches to health and promote the multiple dimensions of health and well-being;

(i) To integrate relevant biodiversity concerns into national public health policies, with particular emphasis on the needs of indigenous peoples and local communities;

5. *Encourages* Parties, other Governments and relevant organizations:

(a) To develop integrated metrics, indicators and tools to facilitate the analysis, evaluation, monitoring and integration of biodiversity into health strategies, plans and programmes and vice-versa;

(b) To develop and compile toolkits, including good practice guides, aimed at raising awareness and enhancing co-benefits of biodiversity and health, including in the context of the implementation of the 2030 Agenda for Sustainable Development and Sustainable Development Goals;<sup>3</sup>

6. *Also encourages* Parties, other Governments, relevant organizations and funding agencies to promote and support further research on health-biodiversity linkages and related socioeconomic considerations, including, inter alia, on the following issues:

(a) The relationships between biodiversity, ecosystem degradation and infectious disease emergence, including the effects of ecological community structure and composition, habitat disturbance and human-wildlife contact, and the implications for land use and ecosystem management;

(b) The interlinkages between dietary diversity, health and diversity of crops, livestock and other components of biodiversity in agricultural ecosystems, as well as marine and inland water ecosystems;

(c) The linkages between the composition and diversity of the human microbiome, and biodiversity in the environment, and implications for the planning, design, development and management of human settlements;

(d) The significance for health of marine biodiversity, including for food security, and the consequences of multiple stressors on marine ecosystems (including pathogens, chemicals, climate change and habitat degradation);

(e) The contribution of biodiversity and the natural environment, including protected areas, in promoting mental health, particularly in urban areas;

(f) The significance of soil biodiversity for health;

(g) Linkages between migratory species and their corridors and human health;

(h) Linkages between invasive alien species and human health;

7. *Invites* Parties, other Governments, and relevant organizations to provide information on the implementation of the present decision to the Executive Secretary;

8. *Decides to consider* biodiversity and human health interlinkages when addressing the follow-up to the Strategic Plan for Biodiversity 2011–2020 and the Aichi Biodiversity Targets;

9. *Requests* the Executive Secretary, subject to the availability of resources:

(a) To collaborate with the World Health Organization and other relevant organizations, to promote and facilitate implementation of the present decision, including through wide dissemination of the *State of Knowledge Review* in the official languages of the United Nations, the development of toolkits and good practice guides (including on One Health) and support to capacity-building, as well as of the tasks set out in paragraph 9 of decision XII/21;

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<sup>3</sup> General Assembly resolution 70/1, annex.

(b) To compile and analyse information received in the implementation of the present decision, including information provided further to paragraph 7 above;

(c) To submit a report to the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting prior to the fourteenth meeting of the Conference of the Parties.

#### *Annex*

#### **Information on health-biodiversity linkages**

(a) *Water supply and sanitation*: In water supply and sanitation policies and programmes, including the planning and design of water-related infrastructure, take into account the role of terrestrial and inland water ecosystems as “green infrastructure” in regulating the quantity, quality and supply of freshwater and flood regulation, protect these ecosystems, and address the drivers of their loss and degradation, including land-use change, pollution and invasive species;

(b) *Agricultural production*: Enhance the diversity of crops, livestock and other components of biodiversity in agricultural ecosystems to contribute to sustainable production increases and to the reduced use of pesticides and other chemical inputs, with benefits for human health and the environment, noting the relevance in this respect of the programme of work on agricultural biodiversity (decision V/5), and of the international initiative on pollinators (decision VIII/23 B);

(c) *Food and nutrition*: Promote the diversity and sustainable use of crops and livestock diversity and wild foods, including from marine and inland water sources, to contribute to human nutrition and dietary diversity, including by making available information on the nutritional value of diverse foods, with a view to improving human health, and promoting sustainable diets, including through appropriate information and public awareness activities, recognition of traditional, national and local food cultures, and the use of social and economic incentives throughout the supply chain, noting the relevance in this respect of the cross-cutting initiatives on biodiversity for food and nutrition (decision VIII/23 A);

(d) *Human settlements*: In urban planning, design, development and management, take into account the important role of biodiversity in providing physiological benefits, in particular the role of vegetation in improving air quality and counteracting the heat-island effect, and in fostering interchange between environmental microbes and the human microbiome;

(e) *Ecosystem management and infectious diseases*: Promote an integrated (“One Health”) approach to the management of ecosystems, associated human settlements and livestock, minimizing unnecessary disturbance to natural systems and so avoid or mitigate the potential emergence of new pathogens and manage the risk of transmission of pathogens between humans, livestock and wildlife in order to reduce the risk and incidence of infectious diseases, including zoonotic and vector-borne diseases;

(f) *Mental health and well-being*: Promote opportunities for interactions between people, especially children, and nature, to provide benefits for mental health, to support cultural well-being and encourage physical activity in green and biodiverse spaces, particularly in urban areas;

(g) *Traditional medicines*: Protect traditional medical knowledge, innovations and practices of indigenous peoples and local communities, promote the sustainable use, management and trade of plants and animals used in traditional medicine, and promote safe and culturally sensitive practices, and the integration and sharing of knowledge and experiences, based on prior and informed consent, and the fair and equitable sharing of benefits between traditional medical practitioners and the broader medical community;

(h) *Biomedical discovery*: Conserve biodiversity in terrestrial, inland water, coastal and marine areas; protect traditional knowledge, especially in areas of high importance for biodiversity and ecosystem services; and promote access to genetic resources and the fair and equitable sharing of benefits arising from their utilization consistent with Article 8(j) and with the Nagoya Protocol on Access to

Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity;

(i) *Impacts of pharmaceutical products:* Avoid the overuse, and unnecessary routine use, of antibiotic and antimicrobial agents, both in human medicine and veterinary practice, to reduce harm to beneficial and symbiotic microbial diversity and to reduce the risk of antibiotic resistance; better manage the use and disposal of endocrine-disrupting chemicals to prevent harm to people, biodiversity and ecosystem services; and reduce the inappropriate use of non-steroidal anti-inflammatory drugs that threaten wildlife populations;

(j) *Species and habitat conservation:* In implementing policies to protect species and habitats, including protected areas, and other methods aimed at conservation and sustainable use, consider, in compliance with national legislation, improving access to, and customary sustainable use of, wild foods and other essential resources by indigenous peoples and local communities, especially poor and resource-dependent communities;

(k) *Ecosystem restoration:* Consider human health when carrying out ecosystem restoration activities and, where necessary, take measures to promote positive health outcomes and remove or mitigate negative health outcomes;

(l) *Climate change and disaster risk reduction:* In the analysis and implementation of ecosystem-based adaptation, mitigation and disaster risk reduction measures, prioritize measures that jointly contribute to human health and to the conservation of biodiversity and of vulnerable ecosystems, and that support the health, well-being, safety and security of vulnerable human populations, and build resilience.

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