REVIEW OF SDG 15: LIFE ON LAND

Key Messages

The delivery of the 2030 Agenda depends on the continued ability of nature to provide us with essential goods and services that sustain life. Biodiversity and ecosystem goods and services underpin human health and well-being, and should be equitably shared by all. This is becoming all the more critical in current times - nearly one in three outbreaks of new and emerging diseases are linked to land-use change, including deforestation. Nature is our first line of defense against the spread and emergence of new infectious diseases and plays a critical role in supporting livelihoods. Healthy and sustainable ecosystems are also critical to allow populations to adapt to our changing climate. However, nature is in decline and our societies and economies are operating outside the carrying capacity of our planet. Urgent action is required to halt and reverse the loss of biodiversity by 2030 for the sake of current and future generations.

At HLPF 2022, WWF calls upon member states and institutions to recognise and act on the following elements as fundamental for the full and effective implementation of SDG 15 and related targets:

Policy coherence and mainstreaming biodiversity across sectors

- Secure a transformative, comprehensive and measurable post-2020 global biodiversity framework under the UN Convention on Biological Diversity (CBD), including protecting 30% of the ocean by 2030, and sustainably managing ocean ecosystems, and agree to update the biodiversity-related SDG targets with a 2020 timeline (related targets 17.1-17.3, 17.7, 17.9).

- Promote nature-based solutions to climate change mitigation, adaptation and disaster risk reduction. Halting the destruction of forests and other carbon-rich habitats while restoring ecosystems offers enormous opportunities to remove carbon dioxide from the atmosphere, improve livelihoods and help communities avoid losses from climate impacts (related targets 1.5, 2.1, 2.3, 2.4, 5.a, 11.6, 13.1, 13.2).

- Integrate the role and value of biodiversity and healthy ecosystems into all policy areas as well as productive sectors to address the negative footprint of production and consumption. This requires mainstreaming biodiversity into social, economic and finance policy; and into sectors including agriculture, fisheries, forestry, tourism, energy and mining, infrastructure, manufacturing and processing, and public health (related targets 2.4, 3.3, 3.9, 7.2, 8.4, 9.1, 11.6, 12.2, 16.5, 16.6, 17.14, 17.18, 17.19).

- Promote nature-positive agri-food systems and sustainable agroforestry systems through agro-ecological approaches, to ensure zero hunger, resilient soils and societies, even as the global population increases and the climate changes (related targets 2.1, 2.3, 2.4, 2.5, 6.3, 6.4).

- Put in place the right incentives and remove disincentives, to properly value nature. The billions invested in nature conservation and restoration are dwarfed by environmentally harmful subsidies: governments spend at least US$1.8 trillion per year on subsidies that drive the destruction of nature. Instead of propping up destructive activities, these subsidies should be redirected to support nature-positive food systems, ecosystem restoration and nature-based solutions (related targets 2.b.1, 12.c, 14.6).
Protecting and restoring ecosystems

- **Ensure that freshwater is elevated to the same status as 'land and ocean'**. Freshwater species populations have declined by 84% on average since 1970 and one third are now threatened with extinction. Healthy freshwater ecosystems are key to climate adaptation to floods and rising sea levels, as well as climate mitigation (related targets 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 13.1).

- **Protect high conservation value forests and peatlands** - in particular intact landscapes; the equitable and effective management of protected areas; and the protection of the biodiversity values of landscapes, is critical as they are irreplaceable for the survival of species and combating climate change (related targets 1.5, 13.1, 13.).

- **Turn the tide on deforestation and habitat conversion**. SDG 15.2, which entailed halting deforestation by 2020, has failed. To succeed requires strong political will, and the right action-oriented and country-tailored incentives and solutions that are people-centered. With agriculture being one of the biggest drivers of deforestation and habitat conversion, solutions must include laws to regulate the import of deforestation and conversion-free commodities and that have been produced free of human rights violations (related targets 2.3, 2.4, 2.b, 8.7, 8.8, 11.6, 12.1, 12.2, 12.6, 12.8, 12.a, 17.11, 17.12).

- **Support implementation of Land Degradation Neutrality** at national level and ensure that NDCs and NBSAPs align with the land restoration commitments included in the LDN targets (related targets 1.4, 1.5, 2.1, 2.3, 2.4, 2.5, 13.1, 13.2, 17.14).

Inclusivity and equity

- **Respect the right to a healthy environment** (passed at the Human Rights Council in October 2021). A healthy, clean and sustainable environment is key to the enjoyment of human rights. Moreover, a human rights based approach is key to sustaining conditions of good governance of land, waters and all natural resources (related targets 1.4, 2.4, 6.1, 8.4, 11.1, 12.2).

- **Respect and recognize the value of biodiversity conservation practices and traditional knowledge of Indigenous People and local communities (IPLCs).** Recognize and secure the rights of IPLCs to land and resources, customary sustainable use and traditional knowledge and the right to free, prior and informed consent. Ensure they equitably benefit from the sustainable use of biodiversity, and support IPLCs engagement and leadership in restoration and strategies for addressing wildlife crime (related targets 1.4, 5.a, 16.5, 16.6, 16.7, 16.b).

Background

**Policy Coherence**

*Related targets: 3.3, 7.2, 16.5, 16.6, 17.14, 17.18, 17.19*

For SDG 15 the need for coherence is particularly urgent as many of the targets expired in 2020 and will need to be aligned with the new CBD global biodiversity framework once it is agreed. **Member States need to agree on a process for updating the biodiversity-related SDG targets with a 2020 timeline, ensuring alignment with the post-2020 global biodiversity framework once adopted by Parties to the CBD.**

Of the 169 SDGs targets, 89 are biodiversity-related, demonstrating that the delivery of the SDGs is dependent on restoring nature to a strong and resilient state, including to support human health, energy production and sustainable cities. Horizontal and vertical policy coherence at every level of governance
is critical to achieving the SDGs, including through the alignment of targets, indicators, reporting mechanisms, and financing mechanisms among different international agreements, including the CBD post-2020 global biodiversity framework. Understanding the co-benefits and trade-offs between the SDGs is key to coherent policy making. For example, the deployment of renewable energies (SDG 7) may lead to biodiversity trade-offs (SDG 15); addressing wildlife crime and achieving numerous other targets relies on implementation of SDG 16, thus requiring a coherent policy response across different sectors.

Mainstreaming biodiversity across sectors

Nature-positive Food Systems

Related targets: 2.1, 2.3, 2.4, 2.5, 6.3, 6.4, 12.1, 12.2, 12.8

Biodiversity is essential for food security and nutrition, yet contemporary agricultural practices have resulted in extensive land conversion - with concomitant biodiversity loss (T.C.H. Sunderland 2011). The way our food systems work has a direct impact on biodiversity, climate and livelihoods. Today, agriculture accounts for 70% of all freshwater withdrawn and drives 80% of deforestation worldwide (FAO, 2017), causing natural habitat conversion into croplands. It also contributes around 25-30% of global greenhouse gas emissions (IPCC, 2019), mainly from changing land use, livestock production, and soil and nutrient management, leading to climate change. Unsustainable land use such as intensive agriculture also results in soil degradation and reduced nutritional value of food through lower concentrations of vitamins and micronutrients.

A transformation to equitable, inclusive and nature-positive production systems is required to meet the global need for climate resilient food systems for the benefit of nature and people. Approaches in line with agroecological principles provide nature-based solutions that are a fundamental part of this transformation to protect, sustainably manage and restore our ecosystems. Around the world, research, evidence and experience demonstrate that agroecological approaches provide a promising pathway to protect ecosystems, manage agriculture in ways that maintain biodiversity and restore the ecosystem functions of degraded systems, while providing healthy food and securing the livelihoods of the people that produce it.

Lack of diversity amongst the plant and animal species currently under cultivation creates vulnerabilities to pests and disease, and limits our ability to adapt to climate change. Today, only 9 plant species account for 70% of total crop production, and rice, wheat and maize alone provide more than 50% of the world’s plant-derived calories¹. Feeding the human population by improving the performance and yields of a limited number of staple crops and animal breeds, combined with intensive chemical inputs, is causing severe land degradation.² ³, eroding our soils and reducing nutritional value of food through lower concentrations of vitamins and micronutrients. Land degradation has already reduced the productivity of nearly one-quarter of the global land surface, affected the well-being of about 3.2 billion people, and cost about 10% of annual global gross domestic product in lost ecosystem

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services.\textsuperscript{4} In order to achieve zero hunger, sustainable agriculture and healthy diets must be a solution.

Health

\textit{Related targets: 1.5, 2.1, 3.2, 3.3, 13.1}

Health, which includes mental and social well-being and not merely the absence of disease or infirmity, is often considered a human right. Biodiversity is essential in the fulfillment of this right. In addition to ensuring freshwater supplies, biodiversity supports food security, provides resources for medical research and medicine, and plays a role in the regulation and control of infectious disease. It is essential for climate change adaptation as well as disaster risk reduction. In addition, it has socio-cultural importance to various populations, which is in turn linked to their sense of place and overall mental wellbeing.

Nature is the ultimate drug as important medical and pharmacological discoveries are made through greater understanding of biodiversity, the loss of which may limit the discovery of potential treatments for many diseases. The WHO has estimated that traditional medicines derived from a great variety of plants are used by 60% of the world’s population and in some countries are extensively incorporated into the public health system. Forests alone are critical for nutrition and food security – in some extreme poverty communities, 50% of a woman’s total daily energy intake is sourced from wild foods (WWF, \textit{Vitality of Forests}, 2022). Healthy forests are critical to delivering on the SDGs. A 2019 \textit{Lancet} study showed that children living with the most forest cover who fell within the two lowest wealth quintiles were significantly less likely to have or develop anemia, stunting, and diarrheal disease when compared with children with less forest cover. Human ecological disruption and unsustainable consumption drive pandemic risk: land-use change, agricultural expansion and intensification, wildlife trade and consumption, and other drivers, disrupt natural interactions among wildlife and their microbes, increasing contact among wildlife, livestock, people, and their pathogens and has led to almost all pandemics (IPBES 2020).

Protecting and restoring ecosystems

Water

\textit{Related targets: 6.1, 6.3, 6.4, 6.6, 9.4}

Fresh waters cover less than 1% of the earth’s surface, yet rivers, lakes and freshwater wetlands are home to 10% of all species, including more than half of all fish species. But freshwater species populations have declined by 84\% on average since 1970 and one third are now threatened with extinction. The freshwater biodiversity crisis is the clearest evidence of damage we are doing to rivers, lakes and wetlands. Protecting and restoring healthy freshwater ecosystems (including connectivity) is central to reversing decline and securing benefits of healthy systems for people. The impacts of climate change will be strongly felt through water. Healthy freshwater ecosystems are key to climate adaptation, from healthy connected floodplains (floods) to free flowing rivers carrying sediment

(essential to keeping deltas above rising seas and to enabling most mangroves to survive and thrive), and healthy wetlands (droughts). Peatlands are vital for climate mitigation.

Maintaining and restoring natural ecosystems in watersheds can be an important public health investment for prevention of diarrheal disease in children (Herrera et al 2017). In addition to diarrhoea, contaminated water can cause cholera, dysentery, typhoid, and polio and cause social and economic damage to societies. **Over 80% of wastewater is released into the environment without treatment**, affecting drinking water for 300 million people in addition to causing pollution that has adverse effects on human health and reduces freshwater availability (UNEP 2017). **One way to reduce pollution and ensure clean water for all is to maintain healthy ecosystems like wetlands**, which complement engineered approaches to wastewater treatment in a cost-effective manner (UN Water 2017). Without these ecosystems, and the complex biological processes they support, the quantity and quality of global water resources would be severely compromised as would be human health (UNESCO 2013). Water does not come from a tap and protecting and restoring healthy freshwater ecosystems is critical to ensuring safe water for all especially as some 2 billion people still get drinking water from unmanaged sources.

**Land and Soil**

*Related targets: 1.4, 1.5, 2.1, 2.3, 2.4, 2.5, 13.1, 13.2, 17.14*

Each year, however, the world is losing approximately 36 billion metric tons\(^5\) of nutrient-rich topsoil and 17 billion metric tons of cropland soil due to erosion, chemical inputs and climate change. Such land degradation negatively affects about 3.2 billion people – especially in developing communities – and costs USD 300 billion in lost agricultural production each year.

The concept of “**Land degradation Neutrality**” (LDN) has received increased attention at the international policy level. “Neutrality” is not only about halting the loss of healthy and fertile land, but also about **actively reversing degradation by restoring land in order to counterbalance losses that cannot be avoided**. To date, 128 countries have committed to setting LDN targets, and more than 100 countries have already set their targets. Achieving LDN depends on transformative efforts to avoid, reduce and reverse land degradation through gender-equitable measures. Many of the LDN targets and the Drought Initiative goals include the advancement of gender equality and improvement of women’s access to land. Gender mainstreaming is also linked to the achievement of other Sustainable Development Goals such as food security, improved health and nutrition, reduction of poverty and ecosystem restoration.

**Inclusivity and Equity**

*Related targets: 1.4, 2.3, 10.1, 10.2, 10.3, 16.3, 16.6, 16.7*

A central pledge contained in the 2030 Agenda is to ensure that no one will be left behind, endeavouring to reach the furthest behind first. It means ending extreme poverty and reducing inequalities among both individuals and groups and prioritising actions for the poorest and most marginalised people. **Nearly 1.6 billion people rely on forests for livelihoods.** In the context of SDG15, it is critical to recognize and secure the rights of IPLCs to land and resources, customary sustainable use and traditional knowledge and the right to Free, Prior and Informed Consent. The traditional knowledge held by the communities, their customary laws and practices are the ingredients without which we

cannot achieve effective, equitable and sustainable use of resources and protection of ecosystems and biodiversity. The full and effective participation of Indigenous People and local communities, women and girls and youth in biodiversity conservation and restoration strategies is a necessary condition for the achievement of SDG 15.