

2018 HLPF Review of SDGs implementation: SDG 15 – Protect, restore and promote us of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss¹

Introduction

SDG 15 addresses the conservation and sustainable use of forests, other terrestrial ecosystems and biodiversity, including halting desertification and land degradation and combatting illegal trade in endangered species. SDG 15 is a very ambitious SDG—it encompasses all types of land-based ecosystems and biodiversity, with 12 targets and 12 indicators that draw heavily from the 2011-2020 Strategic Plan for Biodiversity and its Aichi Targets to be reached by 2020.

The achievement of SDG 15 is central to providing environmental services essential for ensuring safe and sustainable water supplies, supporting sustainable food systems, and mitigating climate change. Actions for implementation directly affect the lives and wellbeing of many indigenous communities, pastoralists and others traditionally viewed as excluded, marginalized or at risk of being left behind.

Status and Trends²

Progress toward SDG 15 is mixed. At the global level, there is progress along indicators related to *actions* (e.g. numbers of protected areas), but indicators related to *status* (e.g. IUCN Red List numbers and state of species) are still negative. The average proportion of important sites for biodiversity covered by protected areas continues to increase—as of January 2018, the average proportion of each Key Biodiversity Area (KBA) for freshwater, terrestrial and mountain biodiversity covered by protected areas was 44 per cent, 47 per cent and 48 per cent, respectively. Changes in species extinction risk are measured by the

² Data on status and trends in this section is referenced from the Report of the Secretary-General on Progress towards the Sustainable Development Goals (E/2018/64).



¹ This background note has been developed by UN-DESA/DSDG in collaboration with FAO, UNFF, UNCCD, CBD, RAMSAR, CITES, UNDP, UNEP and others, including the International Union for Conservation of Nature (IUCN), the Wildlife Conservation Society (WCS), and with inputs from the participants of the Expert Group Meeting on SDG 15 convened from 14 to 15 May 2018, as a coordinated contribution to the 2018 HLPF review of SDG 15. Outputs from this meeting are available at: https://sustainabledevelopment.un.org/?page=view&nr=2717&type=13&menu=1634



Red List Index, which incorporates data on more than 20,000 animal and plant species, indicating an increasing risk of extinction for species as the index moves toward zero. Since 1993, the Red List Index has declined from 0.82 to 0.74 globally. The primary drivers of this biodiversity loss are habitat loss from unsustainable agriculture, deforestation, unsustainable harvest and trade, and alien invasive species.

Forests covered about 4 billion hectares—31 per cent—of the world's land area in 2015. While global rates of deforestation have decreased in the recent past from a net annual forest area loss of 7.3 million hectares in 2000 to 3.3 million hectares in 2015, they are still alarmingly high. The main driver of deforestation continues to be conversion of forests to agricultural land. In addition, forest degradation is increasing globally, mainly due to unsustainable use, often driven by poverty or poor land governance.³

About one fifth of the Earth's land surface covered by vegetation showed persistent and declining trends in productivity from 1998 to 2013. Up to 24 million km² of land was affected, including 19 per cent of cropland, 16 per cent of forestland, 19 per cent of grassland and 28 per cent of rangeland. In some cases, advanced stages of land degradation are leading to desertification in dryland areas, particularly in the grasslands and rangelands.

It is estimated that 60 per cent of terrestrial biodiversity loss is related to food production, while ecosystem services to support food production are under pressure, with 33 per cent of soils moderately to highly degraded and freshwater ecosystems adversely impacted by water extraction for agriculture and other uses, and by pollution.⁴ Globally, around 3.2 billion people are adversely affected by land degradation, and an estimated 2 billion hectares—equivalent to 17 per cent of all biologically productive land—could benefit from restoration.

Biodiversity continues to be lost at an accelerated rate, largely due to human activities. A review of progress toward achieving the Aichi Biodiversity Targets of the current Strategic Plan for Biodiversity 2011-2020, in the 2014 *Global Biodiversity Outlook*, projected that out of 53 target elements, only five were on track to be reached by 2020. The recent regional assessment reports issued by the *Intergovernmental Science-Policy Platform on*

⁴ UNEP (2016) Food Systems and Natural Resources. A Report of the Working Group on Food Systems of the International Resources Panel



³ See Annex 1 for specific targets and indicators associated with SDG 15.



Biodiversity and Ecosystem Services (IPBES) found that biodiversity is in decline in all regions of the world.⁵

The need for action is urgent, and the year 2020 represents a unique watershed moment: if an effective post-2020 global framework for biodiversity—a more ambitious, unambiguous, unified and politically relevant response to halting and starting to reverse the loss of nature by 2030—can be developed in the next two years, the CBD COP 15 in 2020 presents an opportunity to adopt this framework and to incorporate it within the 2030 Agenda.

Biodiversity supports resilient societies in various ways.⁶ Urban and rural ecosystem services contribute to climate change mitigation and adaptation, such as shade provision, rainwater interception and filtration, and pollution reduction. And more green space generally means more vegetation that can act as a carbon sink for partially offsetting urban emissions. Increasing the biodiversity of urban food systems can enhance resilience through food and nutrition security local food systems have historically proved to be critical to a community's survival in the face of food security crises.

Mountains cover about 22 percent of the Earth's surface and have a universal importance, as they provide global goods and services to a large portion of the world's population. They are a vital source of water, energy, biodiversity, agricultural products and livelihoods, but mountain ecosystems and the people who inhabit them are highly vulnerable to disturbances. Globally, in 2017, 76 per cent of mountain areas were covered by some form of green vegetation including forests, shrubs, grassland and cropland, which tends to be positively correlated to the health of the mountains and their capacity to fulfill ecosystem roles.

More than 70 per cent of forestland is owned by governments, while up to 75 per cent of agricultural land are family farms, a large majority of which are smaller than 2 hectares. Indigenous peoples inhabit nearly 22 per cent of the Earth's surface, containing around 80 per cent of the planet's biodiversity. These millions of people who manage land hold the key to achieving SDG 15 and several other SDGs. Local and indigenous communities, farmers, pastoralists, foresters, fisherfolk and small-scale producers are custodians for large parts of the affected terrestrial ecosystems. They largely depend on these

⁵ Unedited advance Summary for Policymakers of the four regional assessments of biodiversity and ecosystem services, IPBES, 2018. Available at: <u>www.ipbes.net/outcomes</u>

⁶ Source: <u>Cities and Biodiversity Outlook</u>, 2012.





ecosystems for their livelihoods, and play a crucial and increasingly recognized role in stopping and reversing negative trends by changing practices and making better use of agro-ecological knowledge. Considerable progress has been made in recognizing and securing community-based tenure rights and access to benefit sharing mechanisms in the context of biodiversity protection, combatting climate change or land restoration initiatives. However, in many cases tenure rights are unclear, effectively incentivizing exploitation rather than sustainable management and longer-term investments.

As part of the commitment by Member States to promote fair and equitable sharing of the benefits arising from the utilization of genetic resources, as of February 2018, 105 countries had ratified the Nagoya Protocol (up from 96 countries in 2017) and 50 countries had shared information on their access and benefit-sharing (ABS) frameworks. For the International Treaty on Plant Genetic Resources for Food and Agriculture, there are now 144 Contracting Parties, and 22 countries have thus far provided information about their ABS measures.

Illegal wildlife trade and the poaching that it fuels are having devastating effects on multiple species of animals and plants globally. Illicit poaching and trafficking of wildlife continues to thwart conservation efforts, with nearly 7,000 species of animals and plants reported in illegal trade involving 120 countries. This threatens the species' survival, undermines local livelihoods and food security, and has negative impacts on ecosystem function and services from water supplies to climate change mitigation. Corruption and weak governance typically facilitates illegal trafficking. The global scale of the trade enables the emergence and spread of zoonotic diseases, provides revenue for organized crime syndicates, and is increasingly recognized as a local and national security threat. The current global political climate for addressing these issues is favorable, but efforts to translate this momentum into solid action in many countries are still hampered by weak national capacity and governance, and low political will. Together, these limit the level of national action and transnational cooperation, which are needed to deliver successfully on the urgent action called for in SDG15 to end poaching and trafficking.

In response to ongoing biological invasions, national governments are increasingly committed to preventing introductions of invasive alien species and managing existing invasions. Since 2010, the percentage of countries that have enacted national legislation relevant to the prevention and management of invasive alien species has increased by 19 per cent. To date, 55 per cent of countries have enacted overarching national legislation to prevent, control and limit the spread and impact of invasive alien species. The global





trend in legislative response has been positive for the few last decades and accelerated in the 1990s but then slowed somewhat in the 2000s.

Over the last century, humanity has experienced significant gains in social and economic development, but these are unsustainable, and have come at the expense of the Earth's natural capital. Interlinked and cross-cutting drivers of loss include: a) market failures, in which the price of goods and services do not reflect the full social and environmental costs of production over time; b) policy failures, in which government and private policies, plans and investments do not adequately safeguard ecosystem services and biodiversity, in which short-term economic gain is prioritized over long-term benefits, trade-offs between ecosystem services benefits is inequitable among stakeholders, and in which there is an unbalanced distribution of land rights; and c) governance failures, in which rules and laws are unevenly or inadequately applied and weak or no environmental and social safeguards exist.

In 2016, bilateral official development assistance (ODA) in support of biodiversity was \$7 billion, a decrease of 21 per cent in real terms over 2015. The only data available on resource mobilization for biodiversity conservation and ecosystem protection is from the OECD DAC's donor database, which contains "Rio markers" tracking ODA directed to the Rio conventions, including the CBD. By that measure, the trend in biodiversity-related ODA has been on average positive since 2000, but with considerable variability and a steep drop following the 2008 financial crisis. As of 2014, ODA for biodiversity from DAC donors stood at a little under \$3.5 billion. No data are available on domestic public investment in such measures, nor on private domestic or international investment.

The monitoring framework of SDG 15 does not capture essential elements related to *quality* that are crucial for more meaningful results, pointing to the need for additional indicators in areas such as forest intactness, management effectiveness of protected areas, and meaningful integration of biodiversity into other processes. No indicator exists yet to measure the integration of ecosystem and biodiversity values into national planning; it is likely that a future indicator will be based on national self-assessments of progress towards national targets, possibly with a rating system to provide a degree of standardization.

Successes and Challenges

Integrated approaches to improve conservation of species and ecosystems, restore degraded lands, sustainably increase food production, reduce food loss and waste, and





develop more climate-friendly agriculture are emerging in many places, and are being scaled up. Encouragingly, momentum for forest and landscape restoration is building. Though forest loss continues, trees are increasing in number and variety across many landscapes, bringing diversity and value to an increasing number of the world's farms, in and around cities, and across highly varied landscapes that have seen forests and trees disappear in previous decades. The recent adoption of the UN Strategic Plan for Forests 2030 (UNSPF) and its Global Forest Goals (GFGs) by the UNGA provides an opportunity for all partners and stakeholders to join forces to accelerate forest-related progress, as it serves as a global framework for action at all levels to sustainably manage all types of forests and trees outside forests, and to halt deforestation and forest degradation.

The three Rio Conventions each recognize the importance of terrestrial ecosystems and sustainable agriculture and forestry for achieving their respective goals. In support of key Convention decisions, numerous mechanisms and partnerships have emerged, including the *Landscapes for People, Food and Nature* partnership, the *UN-REDD Programme*⁷ and the *Global Partnership on Forest and Landscape Restoration.*⁸ The latter is supporting governments, the private sector, local communities and others in their efforts to achieve the "Bonn Challenge": as of May 2018, 47 countries have pledged to have more than 160 million hectares of degraded forests and landscapes under active restoration by 2020,⁹ with a view to scale up to 350 million hectares by 2030. It is estimated that this could generate \$9 trillion of net benefits, including from new jobs, increased food production and improved ecosystem services; and sequester 1 Gigaton of greenhouse gases every year.

Watershed-based and landscape-based approaches have been proven to work in various contexts, and efforts to achieve land degradation neutrality (LDN), establish legal and inclusive value chains, promote REDD+, and conduct strategic environmental assessments are increasing. At the same time, other levers of change are being engaged—including combatting corruption, promoting transparency and developing effective law enforcement both within and across borders, especially in relation to poaching and trafficking.

⁹ The pledges have now surpassed the original target, set in 2011, of 150 million hectares under active restoration by 2020



⁷ <u>http://peoplefoodandnature.org/</u> and <u>www.un-redd.org</u>

⁸ For more information visit <u>http://www.forestlandscaperestoration.org/</u>



Global awareness of the scale and broad implications of the wildlife trafficking crisis has risen greatly in recent years, including at the highest levels of many governments. This has translated into significant additional funding streams from many donors to tackle the issue, as well as policy changes such as bans on domestic ivory trade in certain key countries. On the ground, the spreading use of enforcement tools and technologies have led to greatly increased protection in areas where they have been deployed, although this has not yet occurred at sufficient scale to be effective in protecting trafficked species across large parts of their ranges. The complex and flexible nature of the criminal networks continue to be a major challenge to law enforcement, especially in the context of corruption at multiple points in the trade chain. Knowledge of how to change behavior to reduce purchases of trafficked wildlife remains a challenge. Successes need to be replicated broadly and rapidly to ensure that trafficked species can be conserved and, where necessary, recover across their ranges, providing all of their multiple benefits to local communities and economies.

Investing in nature-based solutions can produce multiple social, environmental, and economic benefits and accelerate progress on the Aichi targets and the SDGs. A range of finance solutions and linked capacity development approaches are already available, from traditional mechanisms such as taxes, subsidies, payment for ecosystem services, and conservation trust funds, to more innovative instruments such as green bonds and green lending, biodiversity offsets, impact investment, and crowd funding. By combining domestic and international finance in ways that make more efficient and effective use of existing public resources, countries are catalyzing the private investment needed to maintain, protect and restore biodiversity and ecosystem services.

Recommendations for Action: Mechanisms and Partnerships to Accelerate Progress

Up-scaling the sustainable management of our land and water resources is a precondition for the achievement of all other SDGs. A new narrative is necessary to demonstrate that the tools and solutions for achieving SDG 15 are also essential for goals related to climate change, water, food security, gender equality, and leaving no one behind, and to secure the wholehearted engagement of all relevant actors.

Concurrently, it is important to articulate the risks and costs of inaction, and accommodate the need to mitigate impacts from business-as-usual developments in sectors such as agriculture, infrastructure, mining, urbanization, and energy. This can help





through various approaches such as valuation and risk assessments, using a range of different methodologies.

Given the centrality of biodiversity conservation and sustainable use of forests to SDG 15, the Convention on Biological Diversity and the UN Forum on Forests will play a critical role in its achievement. Likewise, the UN Convention to Combat Desertification will be instrumental in addressing land degradation, while CITES will be vital to combatting illegal wildlife trade. Fostering adequate communication, coordination and cooperation across the different agreements, instruments, and fora is important in capturing synergies and minimizing trade-offs among SDG 15 targets and other SDGs.

Capacity building to support implementation is critical. Recognizing that most Government structures are not well-suited to integrated spatial planning approaches, it is recommended that countries should establish institutions at the national level that have authority to work across sectors and integrate SDG 15 targets across other national priorities in a spatially explicit manner.

Coordinated actions and new ways of collaboration can create enabling environments for producers to accelerate change to more sustainable practices, and act as effective stewards of terrestrial ecosystems. Appropriate private sector investments and campaigns to transform consumer behavior can be very effective. Multi-stakeholder collaboration and partnerships (e.g. the Mountain Partnership) can be emulated, replicated and scaled up.

Key areas to strengthen implementation mechanisms and partnerships include:

- Securing tenure over forests, pastures and farmlands for local communities and Indigenous Peoples.
- Strengthening producers' organizations and Indigenous Peoples' groups to ensure their access to information, rights, quality input, new technologies and practices, funding and markets.
- Supporting and scaling up the adoption of sustainable production systems to manage land, trees and forests, crop, livestock and fisheries in a more sustainable and integrated way, taking agro-ecological knowledge into account.
- Fostering investments in rural areas that involve small-scale producers and supporting their transition to more sustainable practices.





- Improving collaboration and coordination across governments and with different partners to provide a consistent enabling environment for producers to also act as custodian of the ecosystems they use for production.
- Engaging local communities, drawing upon traditional knowledge and promoting the inclusion of women and indigenous populations.

Various global finance and capacity building initiatives have been designed to support the CBD, UNFCCC and CITES, with support from the GEF and other multilateral and bilateral sources such as the Biodiversity Finance Initiative (BIOFIN), the Partnership for Action on Green Economy (PAGE), the Poverty-Environment Action for Sustainable Development (PEAS), and the Green Commodities Programme, as well as thematic programmes on financing linked to forests, mountains, agriculture and land management, and illegal wildlife trade. These and other initiatives—such as the GEF Small Grants Programme, the NBSAP Forum, and BES-Net—support a range of partnership mechanisms at the global, regional, national, and community level.

Beyond understanding how reaching targets across all the SDGs will accelerate progress toward SDG 15 in more integrated ways, the challenge now is to apply this understanding to the policies and actions that will have transformative effects, to create sustainable and resilient societies.

Guiding Questions

- 1. How can we change the narrative of how we approach SDG 15 to capture a more holistic accounting of the value of nature and its ecosystems, and what role can Governments play?
- What are the evidence-based conservation solutions including recent scientific and technological advances as well as effective community management and partnerships – that deliver genuine impact and can be scaled up or replicated for success?
- 3. Which are the most critical interlinkages with other goals and targets in terms of cobenefits or trade-offs? How can they be leveraged towards progress?
- 4. Who are the furthest behind, and who is at risk of being left behind for this SDG?
- 5. How can we improve the indicator set used to track progress towards SDG 15, given that several are Tier III and others Tier II?

