



*Empowered lives.
Resilient nations.*



UNDP SUPPORT TO THE IMPLEMENTATION OF SUSTAINABLE DEVELOPMENT **GOAL 15**

PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE
OF TERRESTRIAL ECOSYSTEMS

United Nations Development Programme

SUSTAINABLE DEVELOPMENT GOALS



*This is a living document, which will be updated periodically.
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SUSTAINABLE DEVELOPMENT

A path towards global prosperity, human well-being and a healthy planet

The world has achieved remarkable gains in human development over the past two decades. Extreme poverty has significantly reduced, access to primary education and health outcomes has improved, and substantial inroads have been made in promoting gender equality and the empowerment of women. The pursuit of the eight Millennium Development Goals has contributed to this progress and enabled people across the world to improve their lives and future prospects. Yet, despite these significant gains, extreme poverty remains a key challenge, with more than 700 million people globally living on less than US\$ 1.90 PPP (purchasing power parity) per day. Inequalities are either high or widening, especially within countries. Unemployment and vulnerable employment levels are high in many countries, particularly among youth. Unsustainable consumption and production are pushing ecosystems beyond their limits—undermining their ability to provide services vital to life, development, and their own regeneration. Shocks associated with macroeconomic instability, disasters linked to natural hazards, environmental degradation, and socio-political unrest impact negatively on the lives of millions. In many cases, these shocks hold back, if not reverse, progress already achieved in meeting national and internally agreed development goals. Preserving the gains that have been made and addressing the current development challenges the world faces cannot be solved by tinkering at the margins.

There is an imperative today to foster sustainable development. A vision for what this encapsulates is laid out in the new sustainable development agenda that aims to end poverty, promote prosperity and people's well-being while protecting the environment by 2030. As the UN's Development arm, UNDP has a key role to play in supporting countries to make this vision a reality—putting societies on a sustainable development pathway, managing risk and enhancing resilience, and advancing prosperity and wellbeing.

Building on its core strengths—a large country network in more than 170 countries and territories, a principal coordination role within the UN Development System, and the proven ability in supporting efforts to reduce poverty, inequality and exclusion, and protect vital ecosystems—UNDP has outlined a vision in its Strategic Plan 2014-17 focused on making the next big breakthrough in development: to help countries achieve the simultaneous eradication of poverty and significant reduction of inequalities and exclusion. While ambitious, this vision is within reach and significant inroads can be made in eradicating poverty, reducing inequalities and exclusion, and safeguarding the environment.

In line with this vision, UNDP has worked with the United Nations Development Group (UNDG) in developing a strategy for effective and coherent implementation support of the new sustainable development agenda under the acronym 'MAPS' (Mainstreaming, Acceleration, and Policy Support). The *Mainstreaming* component of MAPS aims to generate awareness amongst all relevant actors and help governments land the agenda at national and local levels; and ultimately to mainstream the agenda into their national plans, strategies and budgets. The *Acceleration* component focuses on helping governments accelerate progress on Sustainable Development Goal (SDG) targets, by providing tools that will help identify critical constraints to faster progress and focus on those development objectives that are more relevant to the country context. The *Policy Support* component aims to provide coordinated and pooled policy support to countries working to meet their SDG targets. In this regard, UNDP offers an integrated package of policy support services that align with its programming priorities. These services, as outlined in the prospectus, cover a wide range of areas: poverty reduction, inclusive growth and productive employment, gender equality and the empowerment of women, HIV and health, access to water and sanitation, climate change adaptation, access to sustainable energy, sustainable management of terrestrial ecosystems, oceans governance, and promotion of peaceful and inclusive societies.

Well-equipped with this integrated package of policy support services, UNDP stands ready to support country partners to effectively implement the new development agenda and make long-term economic prosperity, human and environmental well-being a reality.



SUSTAINABLE MANAGEMENT OF TERRESTRIAL ECOSYSTEMS

Why does this matter?

Efforts to **eradicate poverty**, **reduce inequalities** and **advance inclusive growth** are directly linked to how we manage our planet's terrestrial ecosystems and the goods and services that they provide.

Terrestrial ecosystems– the different landscapes that comprise roughly 30 percent of the earth's surface including forests, grasslands and desert– provide us with **jobs, livelihoods, food, fuel** and **medicine**.

For communities that rely heavily on land as their main asset, especially **rural families, women and men living in poverty** and **indigenous peoples**, human well-being and sustainable livelihoods are completely dependent upon and intricately linked to the health and productivity of the land.

- ◆ More than **1.6 billion people worldwide directly depend on forests**, including over **10 million people employed in the formal forest sector** and many informal sector workers.¹
- ◆ 65 percent to 80 percent of the population relies on medicines derived from forests as their **primary health care**.²

Terrestrial ecosystems also underpin many national and global economic sectors such as **agriculture, forestry, energy, extractives, tourism, transport** and **trade**.

- ◆ Ecotourism, which relies directly on terrestrial ecosystems, generates significant **employment** and is now worth around **US\$100 billion/year globally**.³

- ◆ The earth's soil provides over **US\$16 trillion** worth of ecosystem services each year.⁴
- ◆ Three quarters of the top global commercial prescription drugs contain components derived from plants, and commercial seed sales each year with a value topping US \$15 billion.⁵

The management of terrestrial ecosystems can also ensure the well-being and resilience of communities and countries through **biodiversity conservation, climate change mitigation** and **adaptation, combating desertification** and **land degradation, chemicals** and **waste management** and **disaster risk reduction**.

- ◆ Greenhouse gas emission from agriculture, forestry and other land uses represent 20 percent to 24 percent of total annual global emissions that contribute to climate change.⁶
- ◆ Forests contain over 80 percent of the world's terrestrial biodiversity.⁷
- ◆ Sustainable land management can help reduce the risk and impact of droughts, landslides and floods.
- ◆ **Waste generation** and the release of **harmful chemicals** affect the soil, wildlife, ecosystems and the food chain, with associated impacts on human health, especially rural and urban families in poverty.



At the same time, however, **population growth, climate change, growing urban areas and agriculture and industry needs** are increasingly pressuring and degrading productive land resources.

- ◆ In the last two centuries, humans have cleared or converted 70 percent of grasslands, 50 percent of the savannah, 45 percent of temperate deciduous forests and 27 percent of tropical forests for agriculture.⁸
- ◆ During the last 40 years, nearly one third of the world's arable land has been lost to erosion and continues to be lost at a rate of more than 10 million hectares per year.⁹
- ◆ 25 percent of the world's land area is either highly degraded or undergoing high rates of degradation.
- ◆ Two thirds of land in Africa is already degraded to some degree. This affects at least 485 million people – 65 percent of the entire African population.¹⁰
- ◆ The global community is losing up to 5 percent of agricultural gross domestic product (GDP) due to land degradation, costing some US\$490 billion per year.¹¹

The loss of terrestrial ecosystems is a particular challenge for families living in poverty, who stand to suffer disproportionately from **potentially catastrophic changes** to fragile ecosystems in coming decades.

- ◆ Some 40 percent of the world's degraded lands are found in areas with the highest incidence of poverty, which remains overwhelmingly rural.¹²
- ◆ More than 1.5 billion people in the world depend on degrading land and 74 percent of them are poor.¹³
- ◆ Some 135 million people may be displaced by 2045 as a result of desertification.¹⁴

By 2030, the demand for **food, energy and water** is expected to increase by at least **50 percent, 45 percent and 30 percent**, respectively.¹⁵ These needs will not be met sustainably unless we preserve and restore the productivity of our land. If hunger and food insecurity are to be overcome, an estimated 60 percent increase in agricultural productivity, including a 100 percent increase in developing countries, will be necessary by 2050.¹⁶

- ◆ In sub-Saharan Africa, agricultural productivity could be raised by as much as 20% by allocating a bigger share of agricultural input to women.¹⁷ If women farmers were given the same access to resources (such as land, finance and technology) as men, their agricultural yields could increase by 20 to 30 percent; national agricultural output could rise by 2.5 to 4 percent; and the number of malnourished people could be reduced by 12 to 17 percent.¹⁸



Terrestrial Ecosystems - Key Facts



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In the last two centuries, humans have cleared or converted



70%

of
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50%

of the
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45%

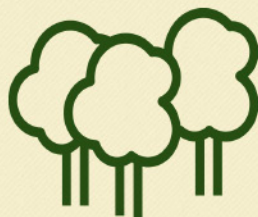
of temperate
deciduous forests



27%

of tropical forests
for agriculture

Contribution of forests to the world economy



1.6 billion

people depend on forests
for jobs, livelihoods, food
and fuel



10 million

people are employed
in the formal forest sector



65% - 80% of the population

relies on medicines derived
from forests as their primary
health care

Impact of land degradation

25%

of the world's land area is
highly degraded or undergoing
high rates of degradation

40%

of the world's degraded
land is in areas with the
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1.5 billion

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135 million people

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What do we offer?

UNDP's work on terrestrial ecosystems is designed to secure livelihoods, food, water and health, enhance resilience, conserve threatened species and their habitats and increase carbon storage and sequestration. Drawing on over 40 years of experience and expertise, UNDP assists countries to integrate land and related environmental concerns into national and sectoral development plans and strategies, secure resources and implement programmes that advance inclusive, sustainable growth and development. This work supports governments to implement **multilateral environment agreements** and is closely aligned with **Sustainable Development Goal 15 on protecting, restoring and promoting sustainable use of terrestrial ecosystems, sustainably managing forests, combating desertification, halting and reversing land degradation and halting biodiversity loss**, as well as other Goals in linked areas, including poverty, governance and inclusive growth.

Three key approaches underpin this work:

- ◆ Developing capacity at the individual, institutional and systemic levels for more effective democratic governance of terrestrial ecosystem management
- ◆ Assisting countries to identify, access, combine and sequence innovative environmental finance, including Global Environment Facility, Multilateral Fund, and Adaptation Fund, for terrestrial ecosystem management and to mobilize pro-poor markets for ecosystem goods and services
- ◆ Ensuring appropriate safeguards are in place to avoid, manage and mitigate potential harm to ecosystems from development activities. This includes application of UNDP's Social and Environmental Standards and related Accountability Mechanism.

In partnership with a wide range of actors, UNDP supports countries in achieving these objectives through a focus on the following complementary areas:

Biodiversity

- ◆ Integrate biodiversity and environmental concerns into development planning and production sectors, e.g., agriculture, forestry and extractives, to maintain ecosystem services. UNDP stimulates job creation by helping 'biodiversity-friendly' producers access new markets, promotes nature-based local tourism

initiatives and supports sustainable harvesting livelihoods and access and benefit-sharing agreements on genetic resources.

- ◆ Unlock the potential of protected areas, including indigenous and community-conserved areas. UNDP promotes secure land tenure; effective management and expansion of protected areas to increase tourism revenues and job opportunities; protection of threatened species, including from trafficking, and of eco-regions, which act as buffers against climate disasters.
- ◆ Manage and rehabilitate ecosystems for climate change mitigation and adaptation. UNDP supports: ecosystem-based adaptation to help communities increase their resilience and the resilience of ecosystems; job creation through large-scale rehabilitation projects; expanding and connecting protected areas to conserve forests and wetlands as natural buffers; maintaining and restoring ecosystems as carbon sinks; securing land tenure; and accessing new financing.

Sustainable Land Management

- ◆ Mainstream drylands issues (and linked climate change adaptation and mitigation concerns) into national policies, planning and development frameworks and contribute to the effective implementation of the UN Convention to Combat Desertification (UNCCD)
- ◆ Reduce conflicting land uses in production landscapes
- ◆ Support community-based work, including through the Global Environment Facility (GEF) Small Grants Programme and Equator Initiative, to ensure community benefits from improved management of dryland ecosystems

Sustainable Forest Management

Through the UN collaborative programme on Reducing Emissions from Deforestation and forest Degradation (UN-REDD) and complementary programming:

- ◆ Support countries to develop and implement national strategies to reduce emissions from deforestation and forest degradation as well as conserve and enhance forest carbon stocks (REDD+)



- ◆ Strengthen forest governance (i.e., the ability of public administrations to manage forest resources, strengthen accountability for decision-making)
- ◆ Ensure the inclusion of indigenous peoples and civil society in sector decision-making
- ◆ Work with the private sector and governments to promote deforestation-free commodity supply chains
- ◆ Strengthen the livelihoods of forest-dependent communities to ensure they are more sustainable and inclusive
- ◆ Strengthen management of protected areas, including indigenous and community conservation areas

Chemicals and Waste Management

- ◆ Reduce persistent organic pollutants (POPs) and mercury releases that impact terrestrial ecosystems through the sound management of chemicals and hazardous waste, in industry, health, energy and agriculture sectors.

UNDP works across these linked areas to address issues of global and national advocacy, governance, policy, regulation, human rights, gender, technology, South-South learning, and public, private and civil society partnerships at all levels. As a leading purveyor of environmental technical assistance and grant financing, UNDP works in over 170 countries and territories, including LDCs, SIDS, and post-conflict and fragile states.

UNDP is an accredited multilateral implementing agency of the Global Environment Facility (GEF), the Multilateral Fund (MLF), and the Adaptation Fund (AF) since their establishment. As a GEF implementing agency, UNDP offers countries specialized integrated technical services for eligibility assessment, programme formulation, mobilization of co-financing, implementation oversight, results management and evaluation, performance based payments and knowledge management.

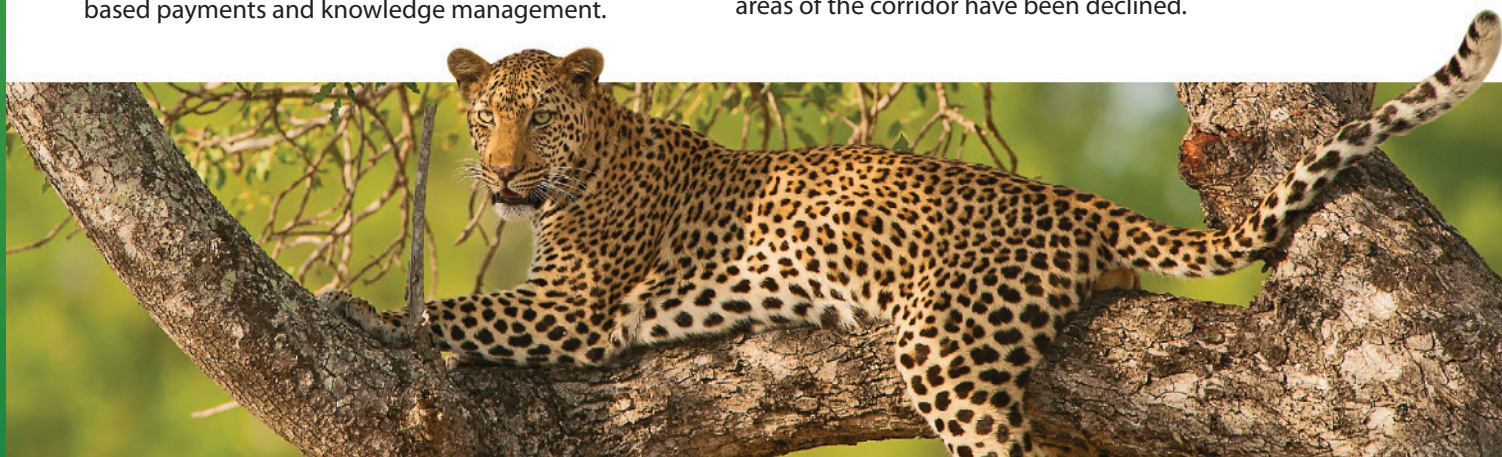
UNDP IN ACTION

Biodiversity

UNDP supported over **100 countries** to integrate terrestrial and related ecosystem management priorities into development planning and production sector activities and to adopt ecosystem-based approaches to climate change. More than **2,800 protected areas**, including indigenous and community-conserved areas totalling over **480 million hectares** have been strengthened.

In Cuba, UNDP facilitated the development of regulatory measures to preserve the important land and marine biodiversity in the Sabana Camagüey Ecosystem threatened by activities associated with the tourism, agriculture and fishery sectors. In the tourism sector, UNDP supported the government in introducing measures that require the construction of solid waste and wastewater treatment plants in all hotels in the area. All of the new hotels in ecologically sensitive areas now have liquid waste treatment systems and use native vegetation in their gardens and landscaping. Since the initiation of the programme, there has been a threefold increase in the tourism sector budget of Sabana Camagüey for actions related to conservation, showing the government's commitment towards sustainability.

In Kazakhstan, UNDP supported the government in the establishment of the large Yrgyz-Torgai-Zylanshyk wildlife corridor (2 million ha), which serves as a transitional zone between protected areas and production lands. UNDP provided technical assistance to the government and helped ensure engagement with landowners and other stakeholders. As a result, the steppe ecosystem is recovering and playing a critical role in the country's growing green economy. In line with legislation developed with UNDP support for the creation of the corridor, requests by Kazakhstan's state oil company to explore areas of the corridor have been declined.



Sustainable Land Management

UNDP supported more than **30 countries** through GEF-financed projects that target degraded land by promoting sustainable land management (SLM) – impacting over 9 million hectares at the site and landscape levels and over 43 million hectares benefiting from policy-level measures.

In Morocco, UNDP's Integrated Drylands Development Programme support for Programme Oasis Sud (POS) has led to: the elaboration of a Subnational Strategic Investment Framework and policies that integrate sustainable land management principles into district/local development plans and budgets; the strengthening of local authorities and women's groups; successful investments in agro-food processing and ecotourism, generating income and employment for local populations; and improved management of land resources to enhance sustainability and adaptation to climate change.

Through the UNDP-implemented GEF Small Grants Programme (SGP), nearly 250,000 hectares of degraded land have been improved through strengthened forest and agricultural management practices and over 100,000 community members have shifted to more sustainable land and forest management practices. With SGP support, the work of over 1,420 CSOs and 1,126 CBOs has been strengthened to address community level environmental issues, including 1,200 peer-to-peer exchanges and 800 workshops. Under the SGP community-based adaptation programme in SIDS and Mekong and Asia Pacific, over **100,000 community members** have adopted sustainable land and forest management approaches since 2013.

Climate Change

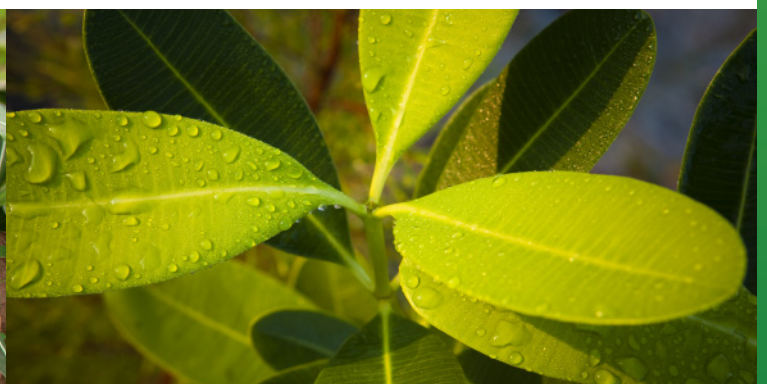
UNDP supported **42 climate change adaptation projects** in over 20 countries, directly benefiting farmers and leading to an average increase in productivity of 80 percent and average increase in income of 47 percent.

In **Cambodia**, UNDP supported the Ministry of Agriculture, Forestry and Fisheries to help rural farming communities become more resilient to the impacts of climate change via the establishment of solar pumping systems, pump wells, irrigation systems and community ponds benefitting more than 13,000 people in two provinces. As part of this work, the Ministry of Women's Affairs has developed a training manual on gender and climate change, which now represents a key pillar in the Ministry's next five-year strategic plan.

In **Zambia**, with financing from the Least Developed Countries Fund, UNDP has helped the government support farmers adapt to drought by integrating climate resilient agriculture into climate change, agriculture and forest policy and by introducing conservation farming and crop diversification.

Sustainable Forest Management

UNDP supported over **60 forested developing countries** that are partners to the UN-REDD Programme in their effort to advance the UNFCCC's REDD+ mechanism for climate mitigation in the forest sector. Of these, over **20 countries** spanning Africa, Asia Pacific and Latin America have been supported to design policies that will **reduce deforestation and forest degradation**, including by: (i) fostering multi-stakeholder dialogues and partnerships; (ii) ensuring measures that can yield substantial reductions in GHGs emissions; and (iii) supporting the rights of indigenous peoples and local communities.





In **Indonesia**, with support from the UN-REDD Programme, the government has extended a **moratorium on harvesting primary forests and peat lands** and national policymakers agreed to make better governance a central part of the next strategic forestry plan.

In **Cambodia**, 12 community forestry management plans addressing boundary demarcation and the construction of fire control pathways by the local government forestry authorities have been adopted. This has led to the sustainable use and management of indigenous and community forestry areas by more than **100,000 people**, including **over 50,000 women** and **20,000 families**.

In **Sierra Leone**, a solar electrification programme for 3,000 people in four communities also helped to strengthen community commitment to conserving community forest.

Green Commodities

UNDP's Green Commodities Programme works with governments, the private sector, and smallholder farmers to improve the economic, social and environmental performance of agricultural commodity supply chains (palm oil, beef, soy, cocoa and coffee). Support includes: creating an enabling environment for sustainable agricultural commodity production and trade; setting up national commodity platforms that enable government, the private sector and civil society to join forces to promote sustainable production and trade for a target commodity; providing systemic capacity-building at the government level to improve delivery systems to farmers and farmer organizations; building the capacity of farmers to adopt best practices within their businesses for biodiversity conservation; and working with the national financial sector to provide credit to farmers to enable a shift to sustainable agricultural practices.

In **Ghana**, the second largest producer and exporter of cocoa in the world, the UNDP Green Commodities Programme helped create an innovative public-private partnership with the government, the Ghana Cocoa Board, Cadbury (now owned by Kraft) and others to transform the cocoa supply chain and to build more

sustainable agricultural techniques. By providing technical training to smallholder farmers to improve the yields and sustainability of cocoa crops, UNDP has helped the partnership improve the income of approximately 500,000 farmers. As a critical step, the Green Commodities Facility supported the development of Ghana's first-ever environmental strategy for the cocoa sector, which has since been adopted by the Ghanaian Cocoa Board.

Extractives

UNDP supported more than **25 countries** to better manage their extractive industries, including projects on strengthened governance and legal frameworks, managing environmental impacts, reducing conflicts and supporting livelihoods and job creation related to the industry. In South Africa, UNDP helped develop the *Mining and Biodiversity Guideline*, which provides a single reference point for industry and regulators to ensure that biodiversity issues are consistently integrated into the decision-making for mining projects. The *Guideline* was launched in 2013 with approval of ministers from mineral and environment departments and the Chamber of Mines.

Chemicals and Waste

The UNDP Montreal Protocol/Chemicals Programme has: **trained 300,000 people** in protecting the environment and people's health from persistent organic pollutants (POPs); **safeguarded 220,000 people** from high-risk POPs exposure; supported the adoption of **65 POPs policies and regulations**; and safeguarded **335,000 tonnes of POPs**.

In **Georgia**, with GEF support, 230 tonnes of **pesticides and contaminated soil** (including 118 tonnes of DDT) were excavated, repackaged and sent to certified disposal facilities in Belgium and France.

In **Nigeria**, with support from the GEF, releases of UPOPs from the open burning of municipal and agricultural wastes have been reduced by **300 g-TEQ** per year. This has reduced local water and oil pollution, reduced greenhouse gas emissions and supported job creation and sustainable livelihoods.



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2. *UN TST Issues Briefs (2014)*
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13. *Desertification: The Invisible Frontline. Secretariat of the United Nations Convention to Combat Desertification (2014)*
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