



*Empowered lives.
Resilient nations.*

Achieving Land Degradation Neutrality for People and Planet



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United Nations Development Programme

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UNDP'S SUPPORT TO DEVELOPING COUNTRIES

UNDP's support to countries on sustainable land management and restoration is designed to enhance livelihoods, secure food and water, build resilience 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 Environmental Agreements and achieve their Sustainable Development Goals (SDGs).

Three key approaches underpin this work:

- Developing capacity at the individual, institutional and systemic levels for sustainable land management and restoration;
- Undertaking applied policy research and analysis and providing evidence on policies and good practices in sustainable land management and restoration that optimize livelihoods, jobs and food security; and
- Assisting countries to identify, access, combine and sequence innovative environmental finance, including from the Global Environment Facility (GEF) Trust Fund and GEF-managed funds, including the Special Climate Change Fund (SCCF), the Least Developed Country

Fund (LDCF); the Adaptation Fund (AF); and the Green Climate Fund (GCF), for sustainable land management and restoration.

Following the endorsement of SDG Target 15.3 on Land Degradation Neutrality (LDN) as the guiding principle for the implementation of the UN Convention to Combat Desertification (UNCCD), UNDP stepped-up its support to countries on sustainable land management and restoration. LDN is a positive aspirational goal that entails: adopting sustainable land management policies and practices to minimize current, and avoid future, land degradation; and restoring degraded and abandoned lands.



LAND DEGRADATION AND SUSTAINABLE DEVELOPMENT

Land degradation occurs across the globe, including in moist areas where it is accompanied by forest degradation and deforestation. In arid and semi-arid areas, known as drylands, land degradation is referred to as desertification. UNDP recognizes that land degradation is a barrier to sustainable development

that destabilizes communities, particularly in dryland agro-ecosystems. Population growth, climate change, urban expansion, and unsustainable farming, mining, and grazing practices are increasing pressure on land and can lead to degradation of productive land resources.

SCALE OF THE PROBLEM

25% 

of the **world's land area** is either highly degraded or undergoing high rates of degradation.¹

12 m 

hectares of land are lost each year to degradation processes.² **= 23 hectares per minute**



Two-thirds of **land in Africa** is already degraded to some degree affecting at least **485 million people**

65% 

of the entire population of the continent.¹

50%

of **agricultural land in Latin America** will be subject to land degradation



The global community is losing up to **5%** of potential agricultural gross domestic product (GDP) due to land degradation, costing some **USD 490 billion per year** in lost income.³

Avoiding land degradation through sustainable land management and restoration can generate up to **USD 1.4 trillion per year** of economic benefits.³

About one billion people in developing countries live in extreme poverty. Two-thirds of them live in rural areas and depend on land for food, water, fuel, shelter, and reduced vulnerability to climate change. Relying

on nature for their livelihoods and subsistence, the poor stand to suffer disproportionately from land degradation in the coming decades.

¹ UNCCD (2014). The Land in Numbers: Livelihoods at a Tipping Point. Bonn, Germany: UNCCD.

² Global Mechanism of UNCCD (2016). Achieving Land Degradation Neutrality at the Country Level. Bonn, Germany: Global Mechanism of UNCCD.

³ Economics of Land Degradation Initiative (2015). Report for Policy and Decision Makers: Reaping economic and environmental benefits from sustainable land management. Available from www.eld-initiative.org.



2.6 billion

people depend directly on agriculture, but **52% of the land used for agriculture** is moderately or severely affected by land degradation.⁴



40%

of the world's degraded lands are found in areas with the **highest incidence of poverty**, which remains overwhelmingly rural.⁴

In 1961, there was 0.45 hectares of **land available to feed one person**. By 2011, the land had been reduced to 0.20 hectares.¹



74%

of the people dependent on degrading land are **poor women and men** who rely on small-scale agriculture and harvesting products from nature.⁴



135 million

people, including 60 million from sub-Saharan Africa, may be **displaced by 2045** because of water shortages and land degradation.⁵



+50% **+45%** **+30%**



By 2030, **the demand for food, energy, and water is expected to increase** by at least 50%, 45% and 30% respectively. These needs will not be met sustainably unless we conserve and restore the productivity of our land. According to the State of Food Insecurity Report, about 800 million people lacked sufficient nutritious food between 2012 and 2014.⁶

If hunger and food insecurity are to be overcome, an estimated **60% increase in agricultural productivity**, including a 100% in developing countries, will be necessary by 2050.



⁴United Nations (n.d.). World Day to Combat Desertification and Drought 17 June. Retrieved from <http://www.un.org/en/events/desertificationday/background.shtml>

⁵UNCCD (2014). Desertification: The Invisible Frontier. Bonn, Germany: UNCCD.

⁶FAO, IFAD and WFP (2015). The State of Food Insecurity in the World 2015 - Meeting the 2015 International Hunger Targets: Taking Stock of Uneven Progress. Rome, Italy: FAO.

In this context, a concerted global effort is needed to halt and reverse land degradation. This has been acknowledged in the 2030 Agenda for Sustainable Development with the adoption of SDG 15, which urges countries to “Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably managing forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss”.

More specifically, SDG Target 15.3 – the target championed by the UNCCD – was also adopted. This target states, “By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.” LDN is defined as “a state whereby the amount and quality of land resources necessary to support ecosystem functions and services and enhance food security remain stable or increase within specified temporal and spatial scales and ecosystems”⁷.

The innovative aspect of LDN, that differentiates it from previous efforts to tackle land degradation, is the adoption of neutrality as the goal. This is achieved through the adoption of measures to avoid or reduce land degradation, combined with measures to reverse past degradation. The objective is to balance anticipated losses in land resources with measures that produce alternative gains through approaches such as sustainable land management and land restoration.⁸

The adoption of LDN helps promote sustainable development in a number of ways, contributing to SDG 15 and other related goals, including poverty eradication (SDG 1), food security (SDG 2), water (SDG 6), and climate change (SDG 13). As such, UNDP considers LDN to be an “SDG Accelerator” which provides options to simultaneously meet these goals in a cost effective and ecologically sound manner.



⁷ Global Mechanism of UNCCD (2016). Land Degradation Neutrality: The Target Setting Programme. Bonn, Germany: Global Mechanism of UNCCD.

⁸ Orr, B.J., A.L. Cowie, V.M. Castillo Sanchez, P. Chasek, N.D. Crossman, A. Erlewein, G. Louwagie, M. Maron, G.I. Metternicht, S. Minelli, A.E. Tengberg, S. Walter, and S. Welton (2017). Scientific Conceptual Framework for Land Degradation Neutrality. A Report of the Science-Policy Interface. Bonn, Germany: UNCCD.

LDN AS AN SDG ACCELERATOR OF THE SUSTAINABLE DEVELOPMENT GOALS



UNDP'S RESPONSE TO LAND DEGRADATION

UNDP is committed to supporting growth that is inclusive, resilient and sustainable, incorporating productive capacities that create employment and livelihoods for the poor. This involves developing solutions at national and sub-national levels for sustainable management of natural resources, biodiversity and ecosystem services. UNDP's Biodiversity and Ecosystems Global Framework 2012-2020 articulates this approach, including the integration of sustainable land management and restoration into development planning and production sectors to maintain goods and services that sustain human wellbeing.

UNDP delivers support for sustainable land management and restoration through its global network of country offices by providing policy,



capacity building and investment assistance to governments to implement the solutions at hand.

UNDP's policy development and guidance on land degradation is led by the Global Policy Centre on Resilient Ecosystems and Desertification (GC-RED). This work is undertaken in partnership with a number of international institutions including the UNCCD, the Stockholm Resilience Centre, the Natural Resource Institute (NRI) and the International Centre for Agricultural Research in Dry Areas (ICARDA). It aims at providing evidence on policies and good practices in sustainable land management and restoration that optimize livelihoods, jobs and food security.

The main policy initiatives currently supported by GC-RED include:

GLOBAL LAND OUTLOOK (GLO)

An ambitious policy initiative led by the UNCCD to determine the future course of land policies and land management across the globe. The first edition of the GLO will be launched during UNCCD/COP13 in Ordos, China, in September 2017. It will highlight the central importance of land quality to human well-being, assess current trends in land conversion, degradation and loss, identify the driving factors and analyze the impacts, provide scenarios for future challenges and opportunities, and present a new and transformative vision for land management policy, planning and practice at global and national scales.



WOMEN'S EMPOWERMENT IN DRYLANDS

A series of policy advocacy studies prepared by UNDP, in partnership with UNCCD and NRI, to propose strategic actions in the policy, institutional and capacity spheres to reduce gender inequalities in the drylands with respect to land rights, governance and resilience. This work is currently informing the policy dialogue within the framework of the UNCCD on the importance of integrating gender equality considerations in the drive towards LDN.



BIODIVERSITY AND ECOSYSTEMS NETWORK (BES-NET)

A capacity building network managed by UNDP to promote dialogue among science, policy and practice for more effective management of biodiversity and ecosystems, contributing to sustainable development. The BES-NET web portal includes a thematic module on "Land Degradation and Restoration" which aims at providing online learning and networking opportunities on issues in the interface between science, policy and practice related to land degradation and restoration.



ECONOMICS OF LAND DEGRADATION (ELD)

A global assessment on the economic benefits of land and land-based ecosystems. The ELD Initiative highlights the value of sustainable land management and provides a global approach for analyzing the economics of land degradation. It aims to make the economics of land degradation an integral part of policy strategies and decision-making. UNDP is supporting the introduction of the ELD approach in selected countries to generate practical feedback and guidance regarding its application on the ground.

In 2016, UNDP stepped-up its capacity building support on LDN. This support is led by GC-RED in partnership with the Global Mechanism of the UNCCD. The objective is to introduce the LDN conceptual framework and ensure that a critical number of countries develop voluntary LDN targets in time for the UNCCD/COP13 in September 2017. To date, this support included: a) The organization of three regional capacity building workshops for UNCCD Country Parties in Africa, Asia-Pacific and Eastern Europe, Caucasus and Central Asia; and b) Piloting the LDN target setting process in China, Kenya, Kyrgyzstan, Lebanon and Mauritius.

As an Implementing Agency for the GEF, the financial mechanism for the UNCCD, UNDP is currently programming a large project portfolio to combat land degradation in a variety of landscapes and ecosystems across the world. This portfolio includes 85 active projects in 53 countries that focus on sustainable land management and restoration. These projects are funded through GEF-managed funds - including the GEF Trust Fund, the SCCF, and the LDCF - as well as through the AF, with a total resource envelope of USD357 million and co-financing of USD1.38 billion. More recently, UNDP extended its support to help countries develop projects under the GCF, particularly on climate change adaptation, that contribute to combating land degradation and promoting restoration. Selected projects from this portfolio are highlighted below.

Building Capacity for Land Degradation Neutrality

In partnership with the UNCCD, UNDP/GC-RED supported the organization of three regional capacity building workshops in May-July 2016 to:

- 1) Introduce the LDN conceptual framework;
- 2) Launch the LDN target setting process in participating countries; and
- 3) Facilitate the elaboration of country work plans to develop voluntary LDN targets. In total, 58 countries benefited from these workshops:
 - 33 in Africa;
 - 9 in Eastern Europe, Caucasus and Central Asia; and
 - 16 in Asia and the Pacific.



@UNDP Climate Change Adaptation

UNDP-SUPPORTED GEF-FINANCED WORK ON SUSTAINABLE LAND MANAGEMENT AND RESTORATION

A | SUSTAINABLE LAND MANAGEMENT IN AGRO-ECOLOGICAL LANDSCAPES FOR FOOD PRODUCTION

Declining soil quality has over time led to poor crop performance and high risk of crop failure. Lack of investments in sustainable land management, due in part to low levels of rural development and unclear land governance and insecure tenure, have discouraged farmers from investing in soil fertility improvements. Soil nutrient removal and other forms of soil degradation have therefore reduced agricultural productivity.⁹ GEF-financed interventions under this area of work are aimed at improving the flow of agro-ecosystem services to enhance productivity in agricultural production

landscapes. These interventions focus mainly on managing soil moisture and improving soil fertility by adopting technologies to increase soil organic matter (e.g. conservation agriculture, reduced tillage, continuous soil cover, composting); and increasing fertility by integrating legumes into farming systems (grain-legume crop rotation, cover crops, relay crops, integration of leguminous trees on farm). Supported technologies vary from capturing rainwater (e.g. ridge tillage, planting pits and catchment ponds) and retaining soil moisture (e.g. mulching, permanent soil cover) to increasing productivity through irrigation.



@UNDP Climate Change Adaptation

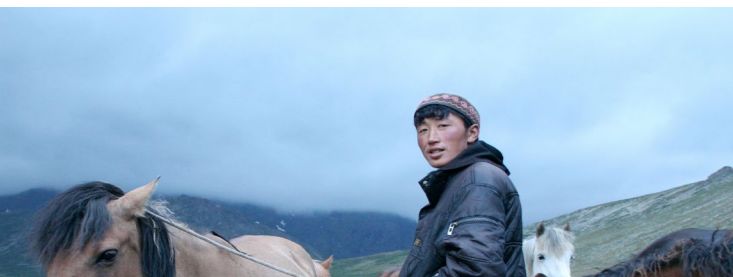
⁹Nicol, A., Langan, S., Victor, M., and Gonsalves, J. (Eds.) 2015. Water-smart agriculture in East Africa. Colombo, Sri Lanka: International Water Management Institute (IWMI). CGIAR Research Program on Water, Land and Ecosystems; Kampala, Uganda: Global Water Initiative East Africa.

In response to soil erosion, soil infertility and associated loss of crop productivity, flash floods, sedimentation of watercourses, and deforestation, a project in **Pakistan** is supporting soil and water conservation measures such as construction of rain water harvesting ponds, construction of gated structures, inlet structures farms, earthen bunds, construction of farmland water spillways, spurs and retaining walls, establishment of fruit and plant nurseries. Protection of agrobiodiversity within agricultural production landscapes is also an important priority. Projects in **Azerbaijan** and **Ethiopia** are supporting the conservation and sustainable use of globally threatened crop varieties important for biodiversity, food security and sustainable land management through in situ and ex situ conservation of agro-biodiversity; capacity



@UNDP Pakistan

building to improve agricultural productivity and reduce land degradation using native crops; and supporting the design and establishment of incentives and markets to improve the uptake and commercial viability of native crops. Another project in **Kazakhstan** introduced crop rotation systems and green fallow, resulting in enhanced soil quality and productivity of arable lands;



GEF grant is being invested in tackling livestock-induced degradation in rangelands and on promoting economic benefits from the removal of invasive tree species in degraded rangelands, on-farm research is being undertaken to test the feasibility of utilising these invader species to produce livestock fodder.



@UNDP Ethiopia

Recent approaches are emphasising the role of healthy ecosystems on agricultural productivity and food security. UNDP is supporting the uptake of strategies and practices that seek to restore degraded ecosystems and avoid unsustainable ones such as clearing of forests for cultivation, excessive extraction of water, and excessive use of pesticides and other chemicals harmful to biodiversity and terrestrial ecosystems. Through GEF financing, UNDP has developed a portfolio of projects to reduce deforestation from the production of key agricultural commodities. This includes support to two GEF-financed global programmes, namely, *Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa*, specifically supporting **Nigeria, Uganda and Ethiopia**, and *Taking Deforestation out of Commodity Supply Chains*, in **Indonesia, Paraguay and Liberia**.



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