



*Empowered lives.  
Resilient nations.*

# Achieving Land Degradation Neutrality for People and Planet

---



Copyright ©2017 UNDP. All rights reserved  
United Nations Development Programme

Designed by: Alessandra Blasi

The views expressed in this publication  
are those of the authors and do not  
necessarily reflect those of the United Nations,  
including UNDP, or the UN Member States.



©Huaimin Liu

UNDP's work on Sustainable Land Management and Restoration is supported by:  
The Global Environment Facility (GEF) and the Governments of Finland, Germany, Norway and Sweden.



## 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%** 

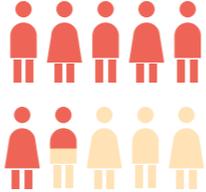
of the **world's land area** is either highly degraded or undergoing high rates of degradation.<sup>1</sup>

**12 m** 

**hectares of land** are lost each year to degradation processes.<sup>2</sup> **= 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.<sup>1</sup>

**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.<sup>3</sup>

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

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.

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

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

<sup>3</sup> 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](http://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.<sup>4</sup>



**40%**

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

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.<sup>1</sup>



**74%**

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



**135 million**

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



**+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.<sup>6</sup>

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.



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

<sup>5</sup>UNCCD (2014). Desertification: The Invisible Frontier. Bonn, Germany: UNCCD.

<sup>6</sup>FAO, 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”<sup>7</sup>.

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.<sup>8</sup>

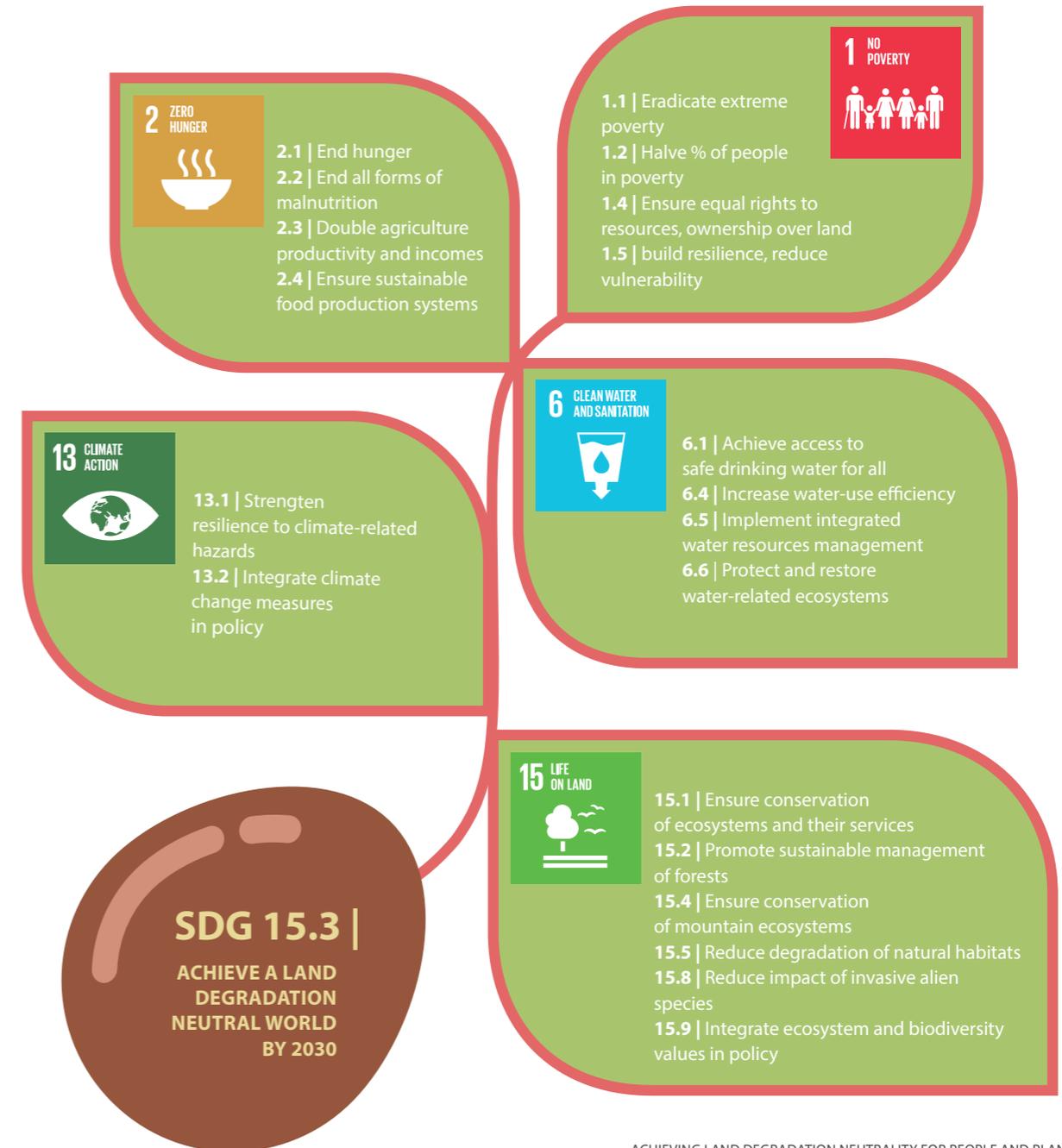
The adoption of LDN helps promote sustainable development in a number of ways, contributing to SDG 15 and other related goals, including poverty eradication (SDG 1), food security (SDG 2), water (SDG 6), and climate change (SDG 13). As such, UNDP considers LDN to be an “SDG Accelerator” which provides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



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

<sup>8</sup> 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.



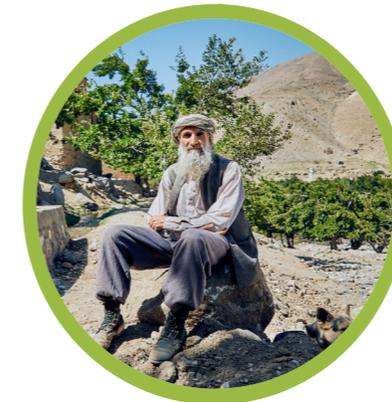
### WOMEN'S EMPOWERMENT IN DRYLANDS

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.<sup>9</sup> 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

<sup>9</sup>Nicol, 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; efficient use of irrigated water in rice production; and restoration of abandoned arable lands. In rangelands, solutions are demonstrated through expansion of forage areas, improvement of cultivated pastures through re-seeding, and increasing the mobility of livestock to counterbalance livestock grazing pressures in steppe and desert ecosystems. In **Namibia**, a



@UNDP Ecosystems & Biodiversity

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**.



@UNDP Ecosystems & Biodiversity

## B | LANDSCAPE RESTORATION FOR INCREASED FLOW OF AGROECOSYSTEM SERVICES AND BUILDING RESILIENCE TO CLIMATE CHANGE

A significant number of UNDP projects, supported through GEF and the AF are supporting restoration work in forests landscapes. Restoring degraded lands to enhance their ability to function and provide ecosystem service constitutes a key objective of the UNDP portfolio of projects on landscape restoration. Restoration in this case is therefore about bringing back the functionality of these landscapes, and offers proven and cost-effective solutions, such as: protection of natural forest and peatland carbon stocks; use of native assemblages of forest species in reforestation activities; restoration of degraded wetlands, watersheds and grazing lands; and sustainable agricultural practices.

The focus on landscapes 'entails balancing a mosaic of interdependent land uses across the landscape such as protected forest areas, ecological corridors, regenerating forests, agroforestry systems, agriculture, and riparian strips to protect waterways.<sup>10</sup> In dry, arid, and semi-arid landscapes, restoration often involves rangelands, dry forests and grasslands to improve productivity and increase water supply from watersheds. Cropland management, livestock management, grazing land management, afforestation/reforestation therefore comprise the multiple approaches that can be employed.



<sup>10</sup> IUCN and WRI (2014). A guide to the Restoration Opportunities Assessment Methodology: Assessing Forest Landscape Restoration Opportunities at the National or Sub-National Level. Working Paper (Road-test edition). Gland, Switzerland: IUCN. 125pp.

Examples include a project in **Lao DPR**, financed through the GEF-LDCF, that is supporting the reforestation of dry degraded forests to address land degradation and promote the creation of riparian reserves in plantation, agricultural and forestry areas to secure wildlife corridors and protect water resources. In Nagaland, **India**, support is being provided to farmers to reduce land degradation by adopting sustainable agro-forestry activities (jhum) and increasing the length of time between cropping cycles, which is helping to restore soil fertility, regenerate plant cover and restore hydrological systems. Pasture restoration interventions in **Uzbekistan** are supporting improved vegetative cover and productivity of rangelands. Maintaining the flow of ecosystem services in landscapes not only supports food production and agriculture but also guarantees the survival of key species that give value to such landscapes. In **Colombia**, UNDP is supporting the rehabilitation of degraded dry forests to facilitate connectivity between forests and protected areas.

A sizeable amount of UNDP portfolio on climate change adaptation, financed through the GEF-LDCF and the AF also supports interventions that address land and ecosystem restoration. In **Lao PDR**, a GEF-LDCF project helped reduce the vulnerability of farmers to extreme flooding and drought by promoting the adoption of an ecosystems-based approach to agriculture. The project introduced a national climate risk information system to compile, document and assess existing climate hazard and vulnerability information. The system can support long term land-use planning and the development of alternative land-use plans for different climate



scenarios. In **Mongolia**, a project financed by the AF is promoting ecosystem-based adaptation practices in managing land and water resources in critical water catchments. Specifically, harvesting structures were constructed to capture snow melt and rainwater to avail water for livestock for two months, during the dry season. Rehabilitation of degraded riparian areas, establishment of tree nurseries and protection of springs was done through ecological interventions. In **Eritrea**, two projects, one financed by the AF and another by GEF-LDCF, are encouraging natural regeneration through enclosures augmented with

enrichment planting in biodiversity protected areas, planting a mix of drought-resistant indigenous and fast growing exotic species through community forestry initiatives, and are encouraging afforestation of degraded landscape by constructing terraces, micro-basins, and check dams, and enhancing groundwater recharging mechanisms. In **Lesotho**, a GEF-LDCF-financed project is supporting the restoration of over 50,000 hectares of degraded land to improve the productivity of rangelands and the flow of watershed services as part of a climate change adaptation strategy for pastoral communities.



@UNDP Climate Change Adaptation

## C | INTEGRATED LANDSCAPE MANAGEMENT FOR SCALING-UP SUSTAINABLE LAND MANAGEMENT

Through financing from the GEF, UNDP support also promotes the adoption of Integrated Landscape Management (ILM) by fostering joint land use and management planning among different groups of land managers and stakeholders to ensure optimal configuration of land uses and management regimes, leading to continuous flow of ecosystem services while achieving optimal benefits to livelihoods and well-being of people in the given landscape. ILM is key in supporting countries' efforts towards achieving LDN. Taking a landscape approach, the approach supports the creation of an enabling environment and development of necessary capacities for

integrating sustainable land management and restoration into land use planning processes. This includes development of tools for integrating the value of ecosystems and biodiversity into land use planning and decision making, and development of sector-specific standards, safeguards and incentives to protect ecosystem health and promote a landscape approach to managing and utilising natural resources.

One tool that has proven useful in analyzing competing land uses is being applied in a project in **Botswana**. UNDP-supported initiatives are promoting the use of a Land Use Conflict Identification Strategy (LUCIS),



@UNDP Ecosystems & Biodiversity

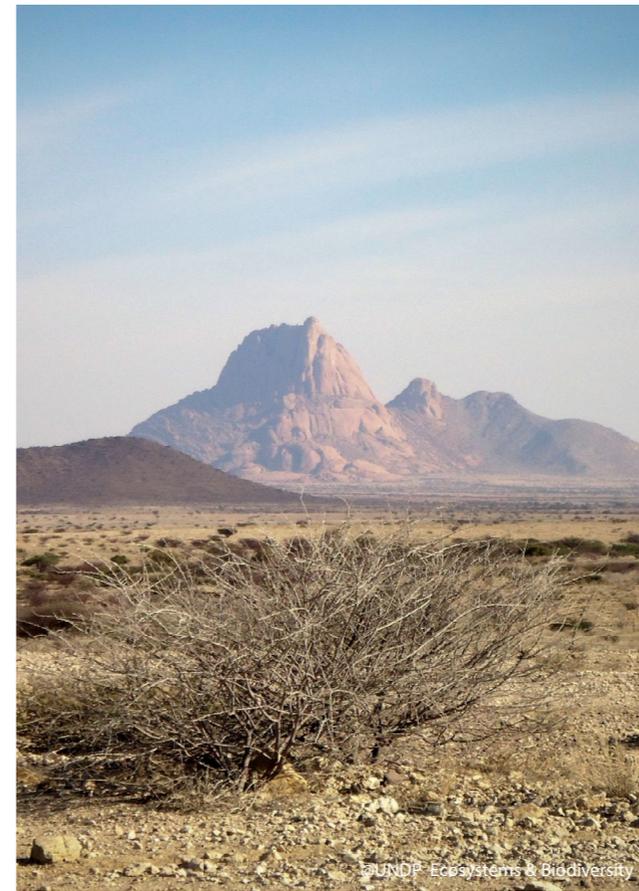


@UNDP/Neil Palmer/CIAT

a geographic information system model and a decision-making approach developed by researchers at the University of Florida that reduces conflict by incorporating scientific analysis into an inclusive stakeholder-driven discussion about land use. Using this approach, land authorities can ensure that good land for agriculture was identified and allocated away from well-known elephant pathways to reduce human-elephant conflict and improve harvests. UNDP therefore works to strengthen and amplify community voices in policy-making in these contexts, by bridging upstream policy work (national and international enabling conditions) and downstream delivery work (local resource management and project delivery).

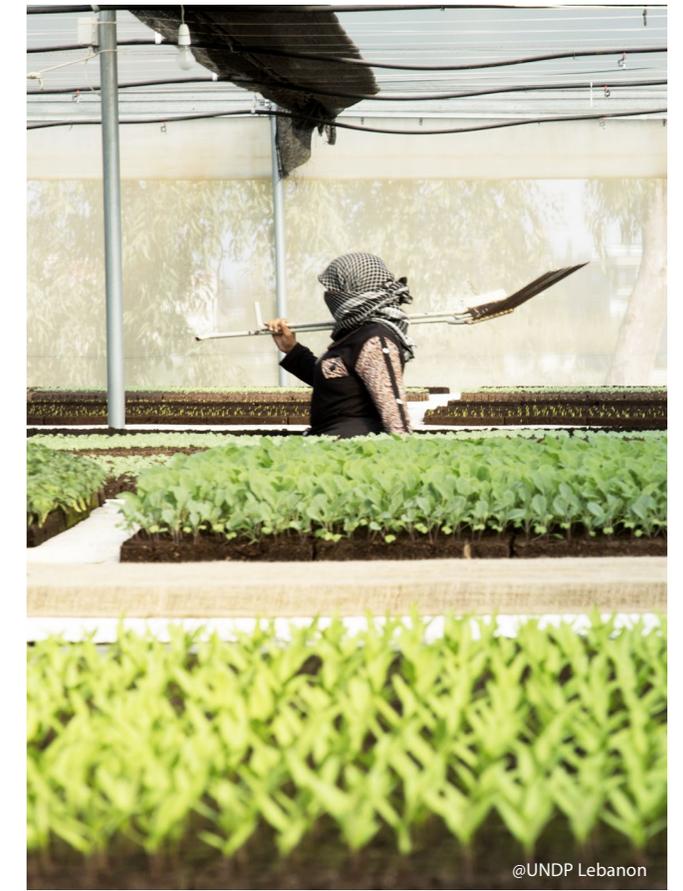
Integrated Land Use Plan and Investment Frameworks are usually developed through these processes, often as key outputs of projects implemented on the ground, and these form medium-to-long-term strategies for managing and financing the governance of these landscapes as an approach to addressing land and ecosystem degradation and improving their productivity. In **Uganda**, UNDP supported an SLM Stocktaking and Gap Analysis, as part of the development of the country's Strategic Investment Framework for Sustainable Land Management 2010 – 2020. This exercise identified the key barriers to up-scaling sustainable land management in Uganda: institutional and policy, economic and financial, social and behavioral, and technological and knowledge management. It also documented lessons learnt and best practices from the implementation of past initiatives and analyzed the opportunities for mainstreaming and upscaling good practices in the country.

UNDP is stepping-up its project support to countries on SDG Target 15.3 on LDN. For instance, in **Eritrea**, a new UNDP-supported GEF-financed initiative seeks to bring together the goals outlined under the country's national action plans for implementing the UNCCD, the UNCBD and the UNFCCC as well as the National Action Programme for Adaptation. The coordinated implementation of these plans will contribute directly to the achievement of SDG 15.3, through



@UNDP Ecosystems & Biodiversity

interventions promoting landscape restoration and mainstreaming sustainable land management, forestry and biodiversity conservation into land-use planning and agricultural production practices. Other new GEF-financed initiatives pursuing LDN objectives are planned for **Namibia** and **Lebanon**, and will contribute to a growing effort towards supporting the UNCCD's ambitions to achieve a Land Degradation-Neutral World by 2030.



@UNDP Lebanon

## D | COMMUNITY-BASED WORK ON SUSTAINABLE LAND MANAGEMENT AND RESTORATION

### THE GEF SMALL GRANTS PROGRAMME

Funded by the GEF as a flagship programme, the GEF Small Grants Programme (SGP), implemented by UNDP, was launched in 1992. The SGP supports activities of non-governmental and community-based organizations in developing countries aimed at biodiversity conservation, climate change mitigation and adaptation, protection of international waters, reduction of the impact of chemicals and prevention

of land degradation, while generating sustainable livelihoods. The SGP supported over 3,300 projects on sustainable land management and restoration, with an investment of USD135 million in grants and USD158 million in co-financing between 1995 and 2016. The examples below illustrate SGP's support in this area.



### Suweni Forest Conservation Project, Fiji

The project enabled local communities to protect 300 hectares of native forest in the Suweni watershed and promoted sustainable agricultural practices on surrounding lands. The communities implemented an applied management action plan for forest conservation and sustainable agriculture on sloping terrain. They were trained on sustainable land management practices, the Fiji Forests Harvesting Code of Practice and the establishment of cottage industries (apiculture, processing of logging off-cuts, medicinal plants and vegetable production, etc.). Sustainable land management practices were adopted by clan-owning land units, assisted by village youth and women groups. The Village Development Committee coordinated sustainable livelihood activities, to support the preservation of forest trees and the curbing of logging.



### Reducing Land Degradation through Holistic Land and Livestock Management, Zimbabwe

This project was implemented by the Africa Centre for Holistic Management to support the dissemination of Holistic Land and Livestock Management (HLLM) techniques in Zimbabwe. The project enabled farmers to restore degraded land by harnessing the power of livestock hooves to break up hard ground and to enrich the fields with their dung and urine. The communities who adopted this technique (mobile kraals) experienced significant increases in crop yield. The project also improved livestock production through rotational planned grazing and paddocking. Key to the success of the project was the development of water infrastructure to water large livestock herds. Besides watering livestock, this infrastructure ensured water access for domestic use and vegetable production.



## Community-Based Integrated Land Use Management in Three Gorges Reservoir Region, China

The project was implemented by the Chongqing Ecology Association to rehabilitate degraded lands in the Village of Gonghe (Chongqing Municipality), improve local people's livelihoods and build their resilience to the effects of climate change. Over 35 hectares of land were reforested successfully, 150 farmland shelterbelts were constructed with bamboo and willow trees, 20 hectares of low yielding farmlands were improved leading to a significant (up to 20%) increase in crop yield. Following the completion of the project, the activities were replicated in other villages affected by land degradation in the Three Gorges Reservoir region, with substantial funding provided from national sources.



@UNDP China

## Introduction of Organic Practices in Agriculture, Kazakhstan

The project aimed at reducing the use of chemical fertilizers by farmers in Northern Kazakhstan and the introduction of composts for soil fertilization and conditioning. The use of chemical fertilizers contributed to the intensification of grain monoculture, leading to soil contamination and degradation. The project was implemented on 6 farms covering a total area of 1,200 hectares in the Kostanay region. Vermi-composting technology was used to produce the organic fertilizer and about 1,000 farmers were trained on its use. Significant improvements were noted in soil water retention and crop yields were increased by 20% on average, reflecting the effective soil conditioning properties of the composts used. Moreover, the project supported farmers with the organic certification of their products, thus contributing to local efforts to develop the organic market in Kazakhstan.



@UNDP Kazakhstan

## THE EQUATOR INITIATIVE

The Equator Initiative is a UNDP-led partnership that brings together the United Nations, governments, academia and civil society organizations ranging from international NGOs to grassroots and indigenous peoples' organizations to build capacity and raise the profile of efforts that advance nature-based solutions to local sustainable development.

The Equator Prize recognizes outstanding community work by shining a spotlight on successful initiatives on both national and international stages. To date, the prestigious international prize has been awarded to 223 local and indigenous communities, many of

which are active in sustainable land management in dryland ecosystems.

Equator Community Dialogues are an opportunity for representatives of Equator Prize winners to develop capacities in specific areas related to sustainable development and sustainable land management, as applicable, through targeted workshops and trainings. Community dialogues have become a valued and recognized component of international meetings, providing both an arena for local voices and effective bridge between local, national, and international practitioners in sustainable development.



@UNDP Ecosystems & Biodiversity

Equator Knowledge is a research, documentation, and learning project focused on local best practice in sustainable development. Working with partners, the Equator Initiative identifies, documents, and analyzes the success factors of local best practice, aiming to catalyze ongoing peer-to-peer learning, knowledge exchange, and replication of best practice.

The Equator Initiative's lead publication on Sustainable Land Management, "Stories of Resilience", analyzes 15 case studies on sustainable land management in sub-Saharan Africa to illustrate seven critical elements necessary to build resilience in drylands communities. It features the 12 winners of the Equator Prize for Sustainable Land Management (SLM) in Sub-Saharan Africa, awarded in Nairobi, Kenya, on 17 June 2014, to commemorate the World Day to Combat Desertification. This award celebrated local grassroots organizations that are improving the livelihoods of rural communities in dryland ecosystems in sub-Saharan Africa through sustainable land management.



@UNDP Equator Initiative

### South Central Peoples' Development Association (Guyana, Equator Prize 2015)

A federation of Wapichan communities in Guyana, South Central Peoples Development Association, has developed an innovative land use plan and a "living digital map" of their traditional lands to promote secure land rights and socio-ecological resilience. Community mapping teams create territorial maps that are used to make land claims and devise collective land use plans for the forest, mountain, savannah and wetland ecosystems that fall within the territory of the 17 Wapichan communities. More than 100 intercommunity agreements have been reached on the sustainable use of natural resources, the protection of wildlife and the conservation of forests. Field investigations, smart phones, GPS units and a community drone are used to detect deforestation and other environmental damage caused by illegal logging and mining. The land use plan includes a collective vision and agreed priority activities in the fields of health, food security, education, cultural integrity and sustainable livelihoods.



@UNDP Equator Initiative

### Rural Green Environment Organization (Afghanistan, Equator Prize 2015)

In one of the most remote and poorest provinces in Afghanistan, the Rural Green Environment Organization is working across an area of 1,500 square kilometers and 90 villages (over 40,000 people) to promote a model of community development that is based on peace building, environmental regeneration, sustainable livelihoods and wildlife protection. Following decades of conflict, the initiative is working to restore ecosystem functioning through a community-driven approach. Starting in one community and since expanding to eight, the organization has worked through community elders to create a community-based forum to ban illegal fishing and hunting, improve food security and restore degraded lands. Activities include food for work projects, tree nurseries, and reforestation with fruit- and nut-bearing trees. The initiative has created 6,150 jobs, constructed five kilometres of irrigation canals, constructed 125 check dams and 120,000 meters of terracing, and planted over 200,000 trees, including 16 local vine varieties that prevent soil erosion and contribute to food security.



@UNDP Equator Initiative

### Swayam Shikshan Prayog (India, Equator Prize 2017)

Swayam Shikshan Prayog (SSP) empowers 72,000 women in the drought-prone state of Maharashtra to act as decision-makers, improving their health and economic well-being. Engaging at the nexus of nutrition, sustainable agriculture, and gender, the initiative has created 5,500 self-help and saving groups that support women to engage as farmers, entrepreneurs, and leaders. SSP trains women to negotiate with their families to obtain their own plot of land for cultivation, usually about 0.4 hectares each. Low-input sustainable farming techniques – including efficient water use, organic farming, mixed cropping, and increased crop cycles – enable the women to improve food security, increase climate resilience, enhance agrobiodiversity, and reduce stress on water resources. The initiative provides a space for local women to co-create their own development solutions and to connect with likeminded women and organizations to spread their knowledge and expertise in a broader network, creating a mechanism for widespread sustainable change.



@UNDP Equator Initiative

## Oromia Pastoralist Association (Ethiopia/Kenya, Equator Prize 2015)

Extreme weather and droughts have historically brought the Borena and Gabra pastoral tribes into conflict over pasture land, water and natural resources. The Oromia Pastoralist Association (OPA) was created to facilitate the cross-border mobility of pastoralist tribes between Southern Ethiopia and Northern Kenya and is helping to address land disputes, resource conflicts and the barriers these



@UNDP Equator Initiative



@UNDP Equator Initiative

vulnerable groups face to coping with climate change. The association pursues peaceful coexistence and now has a track record of three consecutive years without a single community conflict. Cross-border community dialogue and the co-creation of conflict resolution strategies (including “reciprocal resource use agreements”) are helping to reduce overgrazing and soil erosion, improve market access for pastoralist products and build resilience to climate-related stresses. The model has the potential to be transferred to neighboring regions where resource and water scarcity are growing challenges, and has already been replicated in Somalia.

## LOOKING AHEAD

Drawing on over 40 years of experience and expertise, UNDP will continue to engage in global efforts to halt and reverse land degradation. It will step up its support to countries on sustainable land management and restoration in the context of SDG 15 on Terrestrial Ecosystems, specifically Target 15.3 on “*combating desertification, restoring degraded land and soil, including land affected by desertification, drought and floods, and striving to achieve a land degradation-neutral world.*”

UNDP believes that a reversal of current trends of land degradation is indeed possible. We now have an improved understanding of the kinds of actions that can reverse a great deal of the damage done, including the implementation of an effective mix of measures to avoid, reduce and/or reverse land degradation. Opportunities to manage land in a fundamentally new way are also emerging. In particular, land management options that sequester carbon can provide enormous ecological and economic benefits in the fight against climate change.

UNDP will support the drive towards LDN, a positive aspirational goal of profound importance to ensure that countries take action on the improvement of their stock of land. The adoption of LDN helps promote sustainable development in a number of ways, contributing to SDG 15 and other related goals, including on 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.

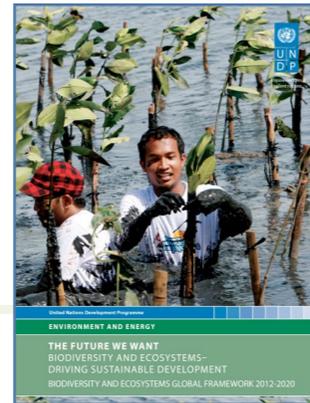
UNDP will also continue its three-pronged approach to supporting countries on sustainable land management and restoration: through capacity building, advocacy and policy advice; support to the adoption and demonstration of locally-appropriate technologies and approaches; and support access to blended finance packages to implement transformative projects to help countries meet their LDN targets by 2030.



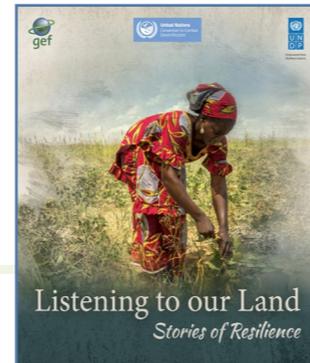
## UNDP KNOWLEDGE PRODUCTS ON SUSTAINABLE LAND MANAGEMENT AND RESTORATION

The following list of resources is not intended to be an exhaustive catalogue of available knowledge products.

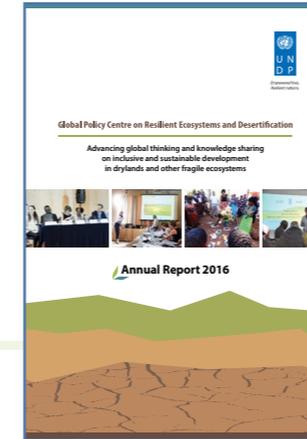
**THE FUTURE WE WANT: UNDP'S BIODIVERSITY AND ECOSYSTEMS GLOBAL FRAMEWORK 2012-2020**



**LISTENING TO OUR LAND: STORIES OF RESILIENCE (2017)**



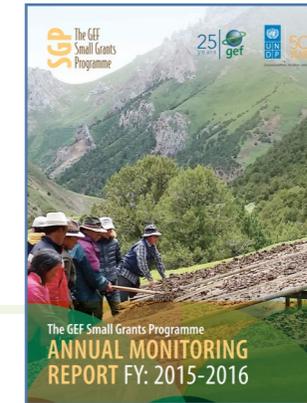
**2016 UNDP GC-RED ANNUAL REPORT (2017)**



**2016 UNDP-GEF ANNUAL PERFORMANCE REPORT (2017)**



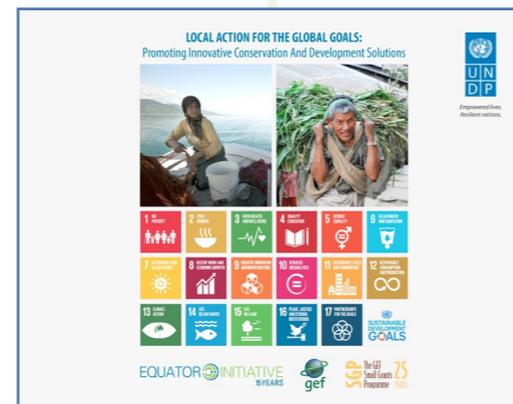
**THE GEF SMALL GRANTS PROGRAMME ANNUAL MONITORING REPORT FY: 2015-2016**



**INSPIRED BY NATURE - CELEBRATING BIODIVERSITY WITH HAIKUS (2017)**



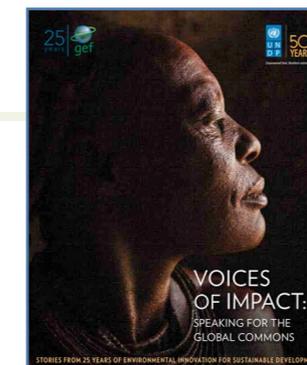
For more information, please visit UNDP website at



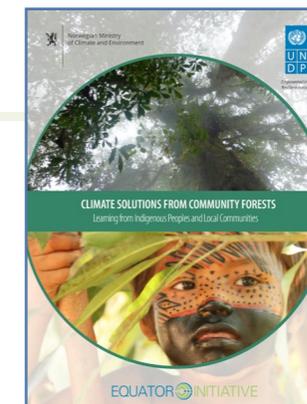
**LOCAL ACTION FOR THE GLOBAL GOALS: PROMOTING INNOVATIVE CONSERVATION AND DEVELOPMENT SOLUTIONS (2016)**



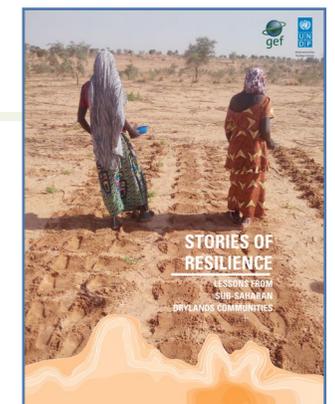
**BIODIVERSITY AND THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT (2016)**



**VOICES OF IMPACT: STORIES FROM 25 YEARS OF ENVIRONMENTAL INNOVATION FOR SUSTAINABLE DEVELOPMENT (2016)**



**CLIMATE SOLUTIONS FROM COMMUNITY FORESTS: LEARNING FROM INDIGENOUS PEOPLES AND LOCAL COMMUNITIES (2016)**



**STORIES OF RESILIENCE: LESSONS FROM SUB-SAHARAN DRYLANDS COMMUNITIES (2015)**



United Nations Development Programme  
One United Nations Plaza New York, NY, 10017 USA

For more information: [www.undp.org](http://www.undp.org)

Copyright ©2017 UNDP

*Empowered lives.  
Resilient nations.*

EQUATOR  INITIATIVE  
15 YEARS

GC-RED  
Resilient Ecosystems  
and Desertification



SGP The GEF  
Small Grants  
Programme | 25  
YEARS

