The Federal Republic of Somalia

Directorate of Environment, Office of the Prime Minister

# National Voluntary Land Degradation Neutrality Targets

2020

LDN Land Degradation Neutrality Target Setting Programme

THE GLOBAL MECHANISM United Nations Convention to Combat Desertification

GC-RED Resilient Ecosystems and Desertification

UNDP

ankara initiative

THE CHANGWON INITIATIVE

This document has been prepared with the support of the Land Degradation Neutrality Target Setting Programme (LDN TSP), a partnership initiative implemented by the Secretariat and the Global Mechanism of the UNCCD, with support of the following partners: France, Germany, Luxembourg, Republic of Korea, Spain, Trinidad and Tobago, Turkey, Venezuela, the European Space Agency, Food and Agriculture Organization of the United Nations, Global Environment Facility, ISRIC – World Soil Information, International Union for Conservation of Nature, Joint Research Centre of the European Commission, Soil Leadership Academy, United Nations Development Programme, United Nations Environment Programme, World Resources Institute.

## 1.0 INTRODUCTION

The Federal Government of Somalia recognizes land degradation as a major impediment to national economic development as it adversely affects livestock and agriculture, which contributes heavily to its Gross Domestic Product (GDP). Land degradation, particularly caused by drought, has severely reduced livestock and agricultural production, which is the main driver of Somalia's economy. The Federal Republic of Somalia is a signatory to and a member of the Land Degradation Neutrality (LDN) global initiative of the United Nations Convention to Combat Desertification (UNCCD). The framework for effective governance will enhance achievement as well as the protection of the rights of vulnerable communities in Somalia.

The increasing rates of land degradation are negatively affecting livelihoods and sustainable development across the world. Target 15.3 of the Sustainable Development Goals (SDGs) sets a global ambition for a land degradation-neutral world by 2030 (UNCCD, 2018). One of the objectives of Land Degradation Neutrality (LDN) is to inspire countries to assess the current land resource use and planning. In the LDN framework, the minimum target is equal to baseline since the aim is to establish a state of "no-net-loss" of the land–based natural capital. Tracking of the progress towards LDN can be communicated in terms of vegetative cover, productivity, ecosystem service, biodiversity, and socio-economic benefits.

The Somalia Land Degradation Neutrality baseline and targets have been integrated with the Somalia National Action Programme (NAP) for the UNCCD and other national polices and plans like; the National Adaptation Programme of Action (NAPA) on Climate Change and Indented Nationally Determined Contribution (INDC). The three LDN indicators: land cover, soil organic carbon stock, and land productivity offer good coverage of conditions of land-based natural capital and ecosystem service. LDN is a flexible target that can be implemented locally, regionally, and nationally. It recognizes and comes from the government ownership on establishing a national LDN agenda to manage the trade-offs and to capitalize on the synergies between biological and economic productivity.

## 2.0 WHY IS IT IMPORTANT TO ESTABLISH LDN TARGETS?

### 2.1 Country's Interest to LDN Target Setting

- The NAP has identified most of the factors contributing to desertification and the practical measures to address desertification and the adverse effects of droughts. The National Biodiversity Strategy and Action Plan, on the other hand, have identified sustainable land management as a priority. LDN implementation provides an opportunity to prioritize land-based sustainable management practices, foster policy coherence, address climate change, and tap into new financing options for UNCCD implementation.
- The combined effects of droughts and floods have resulted in soil degradation, which has affected the food security of pastoralists as well as the production and productivity of livestock. Land degradation adversely affects the economy of the country given that agriculture and pastoralism are the backbones of the economy. LDN implementation will not only address land degradation but also stimulate national action towards mitigating and adapting to climate change.

### 2.2 Country Commitments to LDN

- LDN preparation, LDN Planning, and LDN Governance are crucial to the achievement of land degradation neutrality and the attainment of no net loss of land-based natural capital. The LDN targets three key components: ecological (Integrated Land and Water Management), economic (Zoning and Urban Land Use), and administrative of the Somali connection to the land (Access and Rights to Communal Land).

  LDN needs and priorities of sustainable land management include the following interventions:

  - Inventories of land resources
  - Strengthening the capacity of institutional, technical, and financial institutions in the country to monitor and report on the status of the Somali soil resources.
  - Diversifying sources of energy and the adoption of renewable energy
  - Instituting a land degradation monitoring system.
  - Preparation of databases on the abiotic natural resources
  - Creating an agricultural/soil research institution
  - Preparation of databases on the abiotic natural resources
  - Mainstreaming gender issues in the LDN program

### 2.3 Identified Leverage Opportunities

Somalia can leverage on a number of opportunities in order to achieve LDN to; creating social & economic benefits, tapping financing opportunities and foster policy coherence on; National development programmes, priorities and objectives with all levels of the government, International and National Development Organizations and other stakeholders.

# 2.0 LAND DEGRADATION BASELINE AND TRENDS IN SOMALIA

## 2.4 Estimate of the Proportion of Degraded Land over the Total Land Area for Somalia

Between 2000 and 2015, the total degraded land is 147704 $km^2$ representing 26.7% of the total land area of Somalia due to a combination of factors including soil erosion, biological degradation, and gully erosion among others.

**Table 1: Extent of Prevalent Land Degradation Types in Somalia**

| Land Degradation Type | Area coverage ($Km^2$) | Area coverage (%) |
|---|---|---|
| Soil erosion by water | 217054.73 | 34.11 |
| Biological degradation | 241043.73 | 37.89 |
| Water degradation | 68865.73 | 10.82 |
| Soil erosion by wind | 15766.48 | 2.48 |
| Chemical soil deterioration | 5429.99 | 0.85 |
| Urban | 175.10 | 0.03 |
| Temporal water bodies | 186.33 | 0.03 |
| None | 87717.91 | 13.79 |
| **Total** | **636240** | **100** |

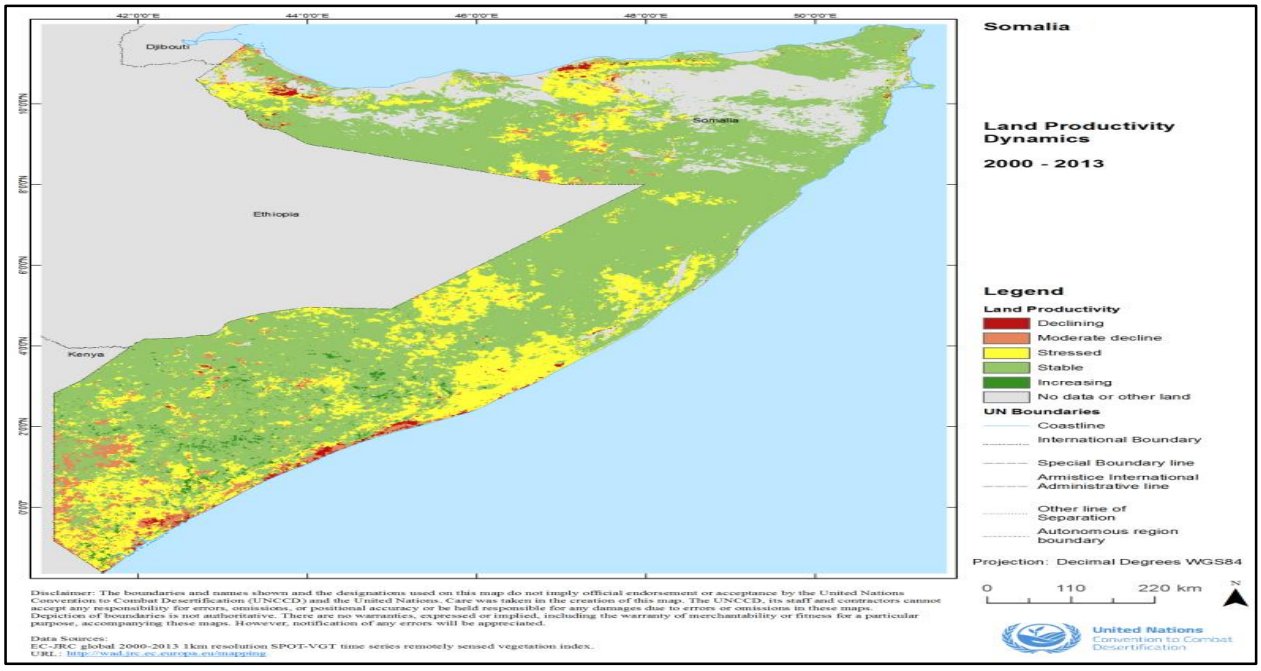
**Table 2: Extent of Land Degradation in Somali**

| Land Degradation status | Area coverage ($Km^2$) | Area coverage (%) |
|---|---|---|
| **None** | 85086.39 | 13.43 |
| **Light** | 212761.78 | 33.58 |
| **Moderate** | 195070.83 | 30.79 |
| **Strong** | 140328.06 | 22.15 |
| **Total** | 633608.50 | 99.95 |

**Table 3. Land Use/Cover Change, th. ha (2000-2015)**

| Land Category | Indicator, th. Ha | | | | Difference, 2000-2005 | | Difference, 2000-2015 | |
|---|---|---|---|---|---|---|---|---|
| | 2000 | 2005 | 2010 | 2015 | th. Ha | Proportion, % | th. Ha | Proportion, % |
| Tree-covered areas | 370464 | 384662 | 34620 | 33342 | 14198 | 3.832491146 | -337122 | -90.99 |
| Grassland | 5246967 | 5266654 | 473999 | 472227 | 19687 | 0.375207239 | -4774740 | -91.00 |
| Cropland | 687752 | 695461 | 62591 | 61898 | 7709 | 1.120898231 | -625854 | -90.99 |
| Wetland | 6974 | 6974 | 628 | 628 | 0 | 0 | -6346 | -90.99 |
| Artificial surfaces | 4688 | 4787 | 431 | 422 | 99 | 2.111774744 | -4266 | -90.99 |
| Other land | 577588 | 623157 | 56084 | 51983 | 45569 | 7.889533716 | -525605 | -90.99 |
| Water body | 6793 | 6797 | 612 | 611 | 4 | 0.058884145 | -6182 | -91.00 |

**Figure 1: Land Productivity Dynamics (EC-JRC, 2013)**




Soil Carbon Stocks/Soil Organic Carbon (SOC): The grassland has experienced a catastrophic decline in soil carbon stock, which has led to the transition from a positive carbon balance 15t/ha in 2000 to 8.5t/ha in 2015.

## 3.0 LDN TARGETS

**Table 4: The Somalia LDN Targets**

| Level | Targets |
|---|---|
| **LDN at the National Scale** | ▪ LDN is achieved by 2030 as compared to baseline 2015 (no net loss), an additional 10% territory has improved by 2030 (net gain). |
| | ▪ National forest cover increased from 10.14% (2015) to 10.20% (2022) and maintained at 30% by 2030 through agroforestry and SLM in existing forests. |
| | ▪ Level of land productivity and SOC at the national level maintained and improved by 2030 compared to 2015 baseline. |
| | ▪ Traditional Biomass energy consumption reduced from 65.77% in 2015 to 32% in 2024. |
| | ▪ Increase land protected against soil erosion to 1,034,509 ha by 2024. |
| | ▪ Areas of stressed or declining land productivity reduced by 50% by 2030. |
| **LDN at the Sub-National Scale** | ▪ LDN is achieved in the land degradation hotspots; additional 10% of the degraded Hotspot areas has improved (Net Gain) by 2030 as compared 2015. Particularly land degradation hotspots include;<br>o Areas with early signs of declining land productivity are patches scattered in Gedo, Lower Jubba, Bakool, Middle Shabeele, Hiiraan, Togdheer, Sool, Sanaag, Waqooyi Galbeed, Awdal and Bari<br>o Stable but stressed areas are patches scattered in Lower Jubba, Middle Jubba, Gedo, Bay, Bakool, Lower Shabelle, Middle Shabeele, Hiraan, Galgaduud, Mudug, Nugaal, Sool, Bari, Sanaag, Togdheer, Waqooyi Galbeed and Awdal regions.<br>o Declining areas are patches scattered in Mudug, Sanaag, Awdal, Bari regions. |
| **Specific targets to Avoid, Minimize** | ▪ Reduce conversion of forests and wetlands into **other** land cover classes by 2030 (no net loss). |

| Level | Targets |
|---|---|
| **and Reverse Land Degradation** | ▪ Rehabilitation of degraded forests from 6363 ha in 2015 to 17, 988 ha by 2024 |
| | ▪ Improve land productivity on 33342 ha of Tree-covered areas, 472,227 ha of grassland, 7709 ha of cropland currently showing stressed productivity through sustainable land management practices |
| | ▪ Minimize conversion of grassland and croplands into artificial surfaces by 2030 (no net loss) |
| | ▪ Stop the occurrence of soil erosion by rainwater, particularly in the northern ranges owing to steep topography by creating dams for water harvesting to be utilized for agricultural purposes by 2030 |
| | ▪ Rehabilitate and increase the productivity of (472,227 ha) grassland by 2030 |
| | ▪ Restore and increase the productivity of (448,527 km2) of agricultural land using modern agricultural techniques and SLM practice in all areas by 2030 |
| | ▪ Improve carbon stocks of cultivated (61898 ha) areas by 2030 |
| | ▪ Stop the conversion of cropland to other land cover classes by 2030 |

**Table 5: Target Setting Summary**

| Change | Area ($km^2$) | Corrective Measures | LDN Target | |
|---|---|---|---|---|
| | | | Area ($km^2$) | Time Yr. |
| Conversion of grassland to other land uses with declining productivity | 47747 | • Improved land-use planning, allow affected rangelands to recover from overgrazing<br>• Encourage & develop settled pastoralism, controlling size of herds/livestock species,<br>• Rehabilitation of livestock watering & feeding infrastructure on the rangelands, diversification into poultry production and beekeeping<br>• Mainstreaming community-based conservation and management of village-based land | -10,345.09 | 2030 |

| | | | | |
|---|---|---|---|---|
| | | • Reclaim the Protected Area Network; strengthening shared, clan or other traditional means of resource management<br>• sensitization and awareness creation<br>• strengthening the capacity of relevant national and sub national institutions | | |
| Conversion of tree covered land (forests) to grasslands with declining productivity | 3371 | • Sustainable Management of Forest and Woodland Resources; establish Forest conservation teams, restrict charcoal burning and export<br>• Afforestation and sustainable forest management, efficiency in energy use ad promotion of renewable energy,<br>• Control charcoal burning; reduce losses during the charcoal production cycle, alternative fuels and energy saving practices, utilizing sustainable energy sources<br>• Addressing deforestation and charcoal burning<br>• Intensification of reforestation pilot programs in different soils and climatic environments<br>• strengthening the capacity of relevant national and sub national institutions<br>• sensitization and awareness creation | -448,527 | 2030 |
| Conversion of Cropland to grassland with declining productivity of early signs of decline | 618 | • Teach and equip communities/farmers with sustainable land management practices/technologies<br>• Crop Production control; Rehabilitation of pre-war flood control and irrigation infrastructure, Improved access to and adoption of productivity-enhancing and resilient technologies<br>• Scaling up evergreen agriculture (EGA); integrating with trees-on-farm agroforestry systems<br>• Rehabilitating degraded wetlands,<br>• Agroforestry and soil conservation agriculture<br>• Integrated soil health management & extension services<br>• sensitization and awareness creation<br>• strengthening the capacity of national institutions | -618.98 | 2030 |

**Endorsed by**

Name: Ahmed Yusuf Ahmed)

Title: Director General)

Institution: Directorate of Environment and Climate change, Office of the Prime Minister of Somalia

**Signature_____**