



Ministry of Agriculture

State of Eritrea

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## National Land Degradation Neutrality Targets

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THE GLOBAL  
MECHANISM  
United Nations Convention  
to Combat Desertification



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**The State of Eritrea  
Ministry of Agriculture**



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*Office of the Minister*

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**Subject: Submission of Eritrea's national Land Degradation Neutrality Targets**

I want to express my sincere appreciation for the support and close collaboration of the Global Mechanism during the one year long engagement to set the LDN target setting project in Eritrea.

As you may be aware Eritrea conducted soils and water conservation, afforestation, and water harvesting, not because it is an option for Eritrea but a necessity. That is why to reverse land degradation, the government launched community-based soil and water conservation, tree planting programmes and strengthening village based land use planning right after independence. This was followed by the Students Summer Greening Campaign Program, which was launched during 1994. To strengthen the afforestation and soil and water conservation activities, the government declared a greening campaign in a systematic and vigorous way in 2006 and was launched by H.E the President of Eritrea. At present the country marks May 15 as a National Greening Day.

All stakeholders, which include Ministers, high Government officials and community representatives together evaluate the previous year's performance and agree on a plan for the year to come. Best performing regions, individuals, communities, schools, green clubs, and religious as well as other government and non-government institutions are rewarded for their annual best performance during the National Greening Day.

This shows that the Government of Eritrea is committed towards environmental conservation efforts which promote sustainable development in the country. The Government is also committed to promoting interventions on sustainable development in line with various global and regional frameworks. Hence LDN TSP comes at an opportune time for Eritrea to support the realization of the above national, regional and international commitments.

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The Government adopted Land Degradation Neutrality Target Setting Programme (LDN TSP) voluntarily because it forms part of its continued efforts for sustainable land management. Therefore, the Government of Eritrea will build upon and consolidate the past co-operation with development partners with the overall objective to create an enabling environment for increased financing and investments into SLM/LDN.

Eritrea has set LDN targets at **national scale** as well as Zoba level with ambition to reach LDN for the entire country taking into account all LDN indicators.

Zoba level (Sub-national) LDN targets have also been set for achieving a neutral (no net loss) or improved (net gain) state allowing Eritrea to focus on areas that have been identified as major degradation “hot spots” and/or are considered to be a high-value priority in achieving LDN. Zoba level administrations will also be able to give priority for land cover, land use, land productivity and soil organic carbon in their region but also engage in priority hotspots areas within their provincial boundaries.

We believe that the GM and other partners will continue to collaborate with our on-going efforts in sustainable land management and in achieving Land Degradation Neutrality.

Regards,

  
AREFAINE BERHE  
MINISTER OF AGRICULTURE



## **1. Introduction**

The Eritrean Government is promoting the proper utilization and protection of land resources as central contribution to agricultural development and to achieve multiple environmental and societal benefits, including food security, income equality, poverty alleviation, and resource availability.

The Government of Eritrea is also substantially investing its domestic resources in agriculture and activities related to sustainable land management (SLM). Notably, the Government is using social mobilization as an innovative approach to address one of its most compelling developmental challenges through SLM practices. This is engendering positive behavioral changes. The social mobilization strategy is proving to be an excellent way to increase and galvanize public support for the implementation of the United Nations Convention to Combat Desertification (UNCCD).

There is general agreement that the achievement of land degradation neutrality (LDN) targets should be coupled with the implementation of specific key policy and technical measures through which desired gains will balance any expected losses. At the same time, LDN measures, addressing policy or technical issues that would be implemented in the form of programmes or projects, should be tailored to a specific area at a given geographical and temporal scale.

## **2. Achieving LDN as a national priority**

The Eritrean Government is committed to LDN as it underlines the importance of land-based natural resources for the sustainable socio-economic development of Eritrea. For example:

- Agriculture has a tremendous potential to alleviate poverty and generate employment especially among Eritrea's poorest people. The switch to sustainable agriculture, agroforestry and other sustainable land uses reinforces this potential as many of these low-impact farming practices tend to have higher labour requirements and create more direct jobs per unit of output than industrial agriculture.
- Land-related activities are also relevant in the broader context of rural development. Examples of poverty reducing and job generating sectors are those related to sustainable forest management, sustainable tourism and clean energy production as well as ecosystem restoration.
- Lessons learned in soil and water conservation in Eritrea has shown that sustainable, resource-conserving, and low-external input techniques can successfully be employed to bring degraded land back into production, improve yields and enhance resilience.
- Smart and coordinated land and water management provides a cost-effective, long-term solution to water scarcity, drought and pollution. Many ecological farming practices are available that create soils rich in organic matter with better capacity to conserve water in the root zone and increase water use efficiency.
- Integrated land management approaches offer various options for sustainable fuel wood and charcoal sourcing so as to protect energy security especially for the rural poor.
- There are many opportunities for the land use sector to actively reduce emissions and sequester carbon in the short to medium term, using sustainable land management practices such as conservation tillage, combined organic/inorganic fertilizer application or agroforestry and other sustainable practices, which could potentially be supported by innovative financing.
- There are also financial opportunities that can promote action to achieve LDN, which can be accessed through partnerships with international partners, national and international non-governmental stakeholders as well as the private sector.

### **3. National LDN baseline**

The three UNCCD progress indicators namely land cover; land productivity and the carbon stocks above and below ground were used to assess the current status of land degradation. Comparison of the land cover map of the two epochs (2000 and 2010) shows that no net changes were detected at national level in Eritrea. However it is believed that changes have happened at local level based on the fact that the Government of Eritrea and local communities have been implementing various land conservation and environmental recovery activities.

An analysis of the three LDN indicators based on the global data sets made available by the UNCCD Secretariat, has shown that the forest areas account for 129.33 sq km during 2000 and 2010, with no net loss during the period. However, 9 sq km area of the 'remaining forest' has shown declining net land productivity. In addition, 8% of the Eritrean land mass has declining trend of land productivity, and 16% show early signs of land productivity decline, while 12% of the land covers are stable but stressed. The total amount of the land cover, whose land productivity is declining, forms 36% and are primarily located in the Western lowlands between Gash and Setit Rivers, and the Southern part of Eritrea, where more intense farming can be observed. In addition, the Eastern escarpment and areas along the coastal zones are experiencing declining and early signs of declining of land productivity. The main reason for the decline of land productivity is intense erosion along the escarpment due to deforestation and limited farming activities mainly in the Northeastern part of the Eritrean escarpment.

Trends in land productivity, in combination with land cover change in 2000 and 2010, show that 2.46% of areas (2,996 sq km), which are formed of 'shrubs, grasslands, and sparsely vegetated' areas indicate declining land productivity, while 3.16% show early sign of decreasing land productivity representing ~ 3,853 sq km.

In the absence of a national database on soil organic carbon (SOC), the national LDN working group recommended to use the SOC 0-30 cm stock product derived from SoilGrids250m for LDN baseline related to SOC stock. Based on this data a total SOC of 47.1 tons/ha has been estimated for the 'forest' area cover, and 28.3 tons/ha has been estimated for the 'shrubs, grasslands, and sparsely vegetated area cover', while 42.0 tons/ha has been estimated for the 'cropland'. The average national soil carbon stock is estimated to be 30.2 tons/ha.

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The LDN baseline study has been technically validated by relevant stakeholders during a national workshop held in 19-20 May 2017 using data available at national level as reference data.

### **4. Eritrea DN targets and associated measures**

LDN Targets have been set for Eritrea and has been endorsed by the Minister of Agriculture on 27 July 2017.

The Government of Eritrea is committed to achieve the following LDN targets at the national and sub-national level:

#### **LDN at the national scale**

- LDN is achieved by 2030 as compared to 2015 and an additional 10 % of the national territory has improved (net gain)

- Improved Adhanet stoves dissemination is achieved by 2021 as compared to 2015 as key contribution to LDN.

#### **LDN at the sub-national scale**

- LDN is achieved in Maekel province by 2030 as compared to 2015 (no net loss)
- LDN is achieved in Debub province by 2030 as compared to 2015 (no net loss) and an additional 27% of the province has improved (net gain)
- LDN is achieved in Gash Barka province by 2030 as compared to 2015 (no net loss) and an additional 12% of the province has improved (net gain)
- LDN is achieved in Anseba province by 2030 as compared to 2015 (no net loss)
- LDN is achieved in Northern Red Sea (NRS) province by 2030 as compared to 2015 (no net loss) and an additional 10% of the province has improved (net gain)
- LDN is achieved in Southern Red Sea (SRS) province by 2030 as compared to 2015 (no net loss) and an additional 5% of the province has improved (net gain).

#### **Specific targets to avoid, minimize and reverse land degradation**

- Improve productivity of 10,954 sq km of cropland by 2030.
- Improve SOC stocks of 17,803 sq km in cropland and grasslands by 2030 as compared to 2015.
- Rehabilitate 17,853 sq kms of degraded and abandoned land for crop production by 2030
- Halt the conversion of forests and wetlands to other land cover classes by 2025.
- Restore 79 sq km of indigenous forest land.
- Increase forest cover by 10% by 2030 as compared to 2015.
- Reduce the rate of top soil loss (soil erosion) by 20% by 2030 as compared to 2015 estimate.
- Increase soil organic carbon by 10 t/ha in cropland achieved through SLM practices.

### **5. Leveraging LDN targets through the national sustainable development agenda**

Policy measures adopted by the Government of Eritrea to achieve LDN include the ratification of the three most important environmental conventions, namely: the United Nations Convention to Combat Desertification (UNCCD), the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Convention on Biological Diversity (UNCBD), thereby confirming its strong commitment to environmental issues. It has also elaborated national strategies towards meeting its obligations under those conventions such as the National Strategy for Sustainable Development, the National Biodiversity Strategy, the National Adaptation Programme of Action (NAPA), the National Action Programme (NAP), the National Agricultural Development Strategy and Policy document. The Poverty Reduction and Food Security strategic documents also address strategic and policy issues on how to develop and manage agriculture without impacting adversely on the environment. All these contain land-related targets that are relevant to LDN.

The Ministry responsible for Land, Water Resources and Environment, and the Ministry of Agriculture, under which the UNCCD Focal Points reside, as well as the Ministry of Local Government provide political support and influence other Ministries to support LDN initiatives. However, at national policy and planning level, the Ministry of Finance, and Ministry of National Development are responsible for ensuring that the Sustainable Development Goals (SDGs) and LDN are

mainstreamed in the national development planning framework and sectoral policies and programmes.

The various national and sectoral policies and the various donor cooperation frameworks also provide common grounds for enhancing leveraging of resources for maximum impact.

## **6. Joint bold action to achieve LDN in Eritrea**

It is widely recognized that land degradation is a serious and enormous problem that governments alone cannot tackle. Consequently strong technical and financial support from both, the government and international partners, is required to achieve LDN. Currently, a number of 'Investment Programmes and Initiatives' directly related to SLM/LDN are implemented in Eritrea with the support of different international development partners such as UNDP, FAO, EU, IFAD, GEF, UNCCD Secretariat/GM and ADB, among others. Innovative financing such as climate change adaptation and mitigation financing (multilateral and bilateral), Drylands Fund, incentives for adoption and investment in SLM practices for income generation, and the private sector, including mining, agribusiness, eco-tourism, private and community wood lots, carbon trading) provide opportunities to mobilize resource for action contributing to LDN. Public private partnerships and investment by Diaspora are also important source of finance.

In order to use available resources more efficiently it is recommended that a coordination mechanism is put in place to ensure better flow of information and coordination among projects and funding for SLM/LDN, involving stakeholders such as ministries, technical institutions, civil society organizations and partners. It is also helpful to promote mechanisms that enable those who benefit from environmental services to pay for them and provide economic incentives to encourage farmers and other land users to upscale SLM/LDN practices and invest in environmentally friendly technologies. Incentive and market based mechanisms can be used to facilitate such incentives and compensations to encourage SLM/LDN and the restoration of degraded land.