Ministry of Mahaweli Development and Environment
The Democratic Socialist Republic of Sri Lanka

Land Degradation Neutrality Targets for Sri Lanka

Colombo, Sri Lanka
December 2017

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Ministry of Mahaweli Development and Environment

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ඔබේ අංකය / உமது இல / Your No:

දිනය / திகதி / Date: 2018.01.04

Ms Monique Barbut
Executive Secretary
UNCCD
P.O.Box 260129
53153 Bonn
Germany

Dear Ms Barbut,

Re: Land Degradation Neutrality Targets for Sri Lanka

In order to reverse land degradation to assure ecosystem services and food security of the nation, the Ministry of Mahaweli Development and Environment (MMD&E), the National Focal Point (NFP) of the United Nations Convention to Combat Desertification (UNCCD) in Sri Lanka, requested the support of the UNCCD on 25th April 2016 to help develop Land Degradation Neutrality (LDN) targets. I thank you very much for providing that support through the Land degradation Neutrality Target Setting Programme (LDN-TSP) with the help of the Global Mechanism.

Sri Lanka was able to formulate LDN targets and measures through a very comprehensive, inclusive process involving various stakeholders. To fulfil our commitment towards achieving the LDN targets by 2030, I hereby officially submit the preliminary targets on behalf of the Government of Sri Lanka. These targets and measures would be refined by getting more information, both through the international and local organizations as we move forward with the implementation process.

I am happy to note that the MMD&E has taken note of the land degradation as a major issue to be addressed within next few years. We have already established a National Steering Committee and a Technical Coordinating Committee to implement the activities of the National Action Programme (NAP) for Combating Land Degradation in Sri Lanka with the objective of meetings the LDN targets. This would also help us to accomplish many of the Sustainable Development Goals (SDG), more specifically the target 15.3. I am sure that we could count on your continuous support to achieve the LDN by 2030.

Thank you.

Yours Sincerely,

Anura Dissanayake
Secretary
Ministry of Mahaweli Development and Environment

The Context

Sri Lanka is endowed with natural resources which sustained its people over millenniums. The deterioration of this natural capital has been exponentially increased over last few decades due to deforestation, soil erosion, siltation, loss of natural wetlands, loss of biodiversity etc. About 79 km^2 (0.5%) of forest land was converted to other land use types from 2000 to 2010. In addition, the productivity of 34% of the land area of the island is either declining or under stress. Among the most important impact of land degradation are the increased poverty, reduced land productivity and loss of biodiversity. Therefore, it is important to reverse this trend of land degradation to sustain the resource base to ensure ecosystem services and food security of the nation.

The Global Concern

In September 2015, the United Nations (UN) General Assembly adopted 17 Sustainable Development Goals (SDG) with 169 targets to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda to be implemented during next 15 years. Target 15.3 within the Goal no. 15 expects nations to "combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world" by 2030. In response to the decision taken at the 12^{th} session of the Conference of Parties (COP) of the United Nations Conventions for Combating Desertification(UNCCD), the Global Mechanism (GM) of the UNCCD in collaboration with many partners established a Land Degradation Neutrality Target setting Programme (LDN-TSP), which aims to support countries to define targets and associated measures.

The National Commitment

The Government of Sri Lanka (GOSL) as a signatory to the UNCCD reaffirmed its commitment to Sustainable Development Goals (SDG) 15 and Target 15.3 and participated in the LDN-TSP to be able to identify national targets. The Land Resources Division of the MMD&E, the National Focal Point of the UNCCD in Sri Lanka, was entrusted with the responsibility. A National Working Group (NWG) was established to represent various stakeholders in land management to provide guidance throughout the LDN target setting process.

Assessing Land Degradation Neutrality

LDN trends and drivers

Land degradation in Sri Lanka is primarily due to conversion of forests to other land use types and inappropriate use of lands. Nearly 70% of the land extent of Sri Lanka was covered with forest at the beginning of the 20th Century and gradually reduced to 29% as at present. A commissioned study conducted under the REDD+ project has shown that the loss of forest cover during recent years is caused due to four main drivers, such as a) encroachment, b) private agriculture ventures, c) infrastructure development and, d) illicit felling. The encroachments appear to take place mainly for agriculture and settlements, especially in the dry zone of Sri Lanka. Whereas, the private agriculture ventures, especially for the expansion of small holder plantation crops and vegetable are being done in the wet zone of the country.

In the context of the LDN target setting process, land degradation has been identified under 5 major land use categories, such as croplands, grazing lands, forest, mixed land use (agro-forestry, agro-pastoralism, silvo-pastoralism) and non-vegetated artificial land use (mining, human settlements, communication, energy and water infrastructure).These different land uses are subjected to different forms of land degradation which include soil erosion by water, soil erosion by wind, chemical soil deterioration, water degradation and biological degradation. Out of this, soil erosion by water is considered as the most important cause of soil degradation in Sri Lanka.

LDN baseline

The UNCCD has identified three biophysical indicators as key to assess land degradation, namely i) land cover, b) soil organic carbon (SOC), and c) net primary productivity to assess the land degradation. The default data provided by the UNCCD through Global Mechanism (GM) in the context of LDN was verified with locally available data to validate the global data by the NWG. The findings indicated that the deviations between the two data sets were within reasonable limits. Therefore, it was decided to use the land cover data provided by the UNCCD for setting the LDN baseline and the targets. In particular the SOC map provided by the GM to set the baseline and targets agrees closely with the locally available information.

There were some concerns on the Land Productivity Dynamics (LPD) data provided by the UNCCD based on NDVI. There were consensus that NDVI methodology alone does not adequately represent the LPD and, more parameters needs to be taken in to account before using it as a reliable indicator to reflect the Net Primary Productivity (NPP). Nevertheless, the information provided by the GM on LPD could be used as an interim measure for setting the baseline and targets until a more reliable methodology is developed to represent the NPP.

The following LDN baseline values for three LDN indicators, given in Box 1, were decided based the data provided by the UNCCD after verifying them with available local information.

The global data provided useful indications about the land degradation states of the country. It was reported that 79 km^2 of forest cover has been converted to other land uses from 2000 to 2010. The information also indicated that productivity of 34% of the land extent is declining, showing early sign of declining or at the "stressed" stage. This implies the importance of addressing land degradation problems without further delay. Another important finding, in contrary to the previous belief, is the high proportion of land that is degraded in the dry zone compared to the wet zone of the country. In the past, it was assumed that land degradation is a serious problem only in the wet zone and very little attention has been given to the lands in the dry zone. In the light of this new information, it is worth investigation the land degradation issues in the dry zone.

Box 1: Summary of the LDN baseline

- From 2000 to 2010, 7900 ha of Forest cover was converted to grassland, shrubs sparsely grown vegetation and croplands.
- The net primary productivity of 10% of forest lands is in the process of declining or showing early signs of declining.
- From 2000 to 2010, the total area under grassland, shrubs and sparsely grown vegetation has increased by 4000 ha.
- The net primary productivity of 13% of grassland, shrubs and sparsely grown vegetation is in the process of declining or is showing early signs of declining.
- From 2000 to 2010, the total area under crop cover has increased by 3900 ha.
- The net primary productivity of 31% of croplands is in the process of declining or is showing early signs of declining.
- The extent of croplands under stress is about 19%.
- The total land extent with declining, early sign of declining or under stress of the net productivity is 34%.
- The conversion of forest to croplands from 2000 to 2010 has resulted in a loss of Soil Organic Carbon (SOC) of 55566 tons or 0.01% of the national SOC stock.

LDN targets and measures

The targets and measures developed on the basis of LDN baseline data and other available information are given in Box 2 and 3. In addition, the NWG agreed to identify other important regulatory measures and go beyond the existing framework by taking in to account the current trends which have an influence in achieving the LDN targets. For example, there was a consensus to consider the entire country as a conservation area since soil erosion is not only limited to the Gazetted "Conservation area" in the central hills. The NWG also emphasised the need to take policy intervention in alienating land for other uses, such a housing development, and land fragmentation.

Achieving LDN

Synergy of 3 Rio Conventions with local programmes

As a signatory to three Rio Conventions, Sri Lanka has already prepared the National Biodiversity Strategic Action Plan 2016-2022 (CBD), the National Adaptation Plan for Climate Change Impacts in Sri Lanka 2016-2025 (UNFCCC) and the National Action Programme for Combating Land Degradation in Sri Lanka 2015-2024 (UNCCD). It is to be noted that the LDN targets and measures are in line with many activities identified in the above national plans. Some of these activities are being implemented under the "*Haritha Lanka*" and "*Blue-Green*" national programmes of the Government of Sri Lanka (GOSL). As a focal point to the three Rio Conventions, the responsibility of implementing the above three national action plans lies with the MMD&E. The *Haritha Lanka* and *Blue-Green* programmes are also spearheaded by the same ministry. Therefore, a coherent programme with synergy is already guaranteed within the existing institutional mechanism.

Box 2: LDN Targets

- Halt the conversion of forests and wetlands to other land cover classes.
- Restore and improve degraded forest (80% in the dry zone and 20% in the wet zone).
- Increase forest cover from 29% to 32%.
- Reduce rate of soil degradation to improve land productivity and Soil Organic Carbon (SOC) stocks.
- Reduce soil erosion of lands cultivated with annual and plantation crops.

The MMD&E is the lead institution to coordinate and monitor activities to achieve the LDN. The Ministry is committed to work with other line agencies, private sector, civil society and international organizations such as UN, FAO, GEF, UNCCD etc. in its efforts to achieve the LDN by 2030.

Implementation of NAP

Sri Lanka has prepared a National Action Programme (NAP) for combating land degradation in Sri Lanka 2015-2024 and Integrated Financing Strategy (IFS) for sustainable land management in 2014 with the support of international organizations such as Secretariat of the UNCCD, Global Environmental Facility (GEF), United Nations Environmental Programme (UNEP), Global Mechanism (GM) and International Fund for Agricultural Development (IFAD). The NAP is a comprehensive document which elaborated the land degradation status in the country in detail and identified 25 programmes to be implemented during a 10 year period from 2014 to 2024. The IFS for Sustainable Land Management produced in 2014 with the same funding organizations has identified financiering opportunities to implement the programmes identified in the NAP. Since land degradation issues are relevant to many sectoral institutions, the implementation plan envisages a strong collaboration among them. The already established National Steering Committee (NSC) and the Technical Coordinating Committee (TCC) is expected to guide the implementation programme set out in the NAP with a focus towards achieving LDN.

Box 3: LDN Measures

- Restore degraded forests.
- Establish new forest plantations.
- Provide protection status, through regulatory measures, to forests which are not yet identified as protection forests.
- Introduce legislations to avoid land fragmentation.
- Strengthen institutional and regulatory mechanisms along with required interventions to restore and manage wetlands and grasslands.
- Adopt soil and water conservation measures, in annual and plantation croplands.
- Update and operationalize the Soil Conservation Act, the main regulatory instrument related to soil erosion control in the country, to eliminate deficiencies and make it more effective to address the current land degradation issues.
- Update and operationalize legislations to control sand mining and to reduce land degradation due to gem mining.
- Change the policy of regularizing the encroachment of state lands.
- Halt the cultivation of annual crops in steep lands and facilitate the conversion of such lands to perennial crops.
- Encourage the adoption of sustainable land management practices through incentives.
- Formulate a National Land use Plan so that new lands required for development and other purposes could be identified in a systematic manner and alternative lands could be improved in order to ensure that the natural capital remains the same.
- Improve institutional coordination to formulate and implement the National Physical Plan and the Land Use Plan.
- Leverage LDN in to national programmes on climate change adaptation, biodiversity conservation and poverty alleviation.