



Zero Net Land Degradation

Sustainable Development Goal for Rio+20

To secure the contribution of our planet's land and soil to sustainable development, including food security and poverty eradication

Political Momentum of Rio+20

The Rio+20 Summit in Brazil in June 2012 provides a unique opportunity for the global community to secure political commitment to sustainable development. One of the key expected outcomes of the summit is the agreement of Sustainable Development Goals (SDGs).

Currently, human activity is the major cause of change on the Earth: change to land productivity, water cycles and drought patterns, to the amount of carbon in the atmosphere and to biodiversity.

Our economic development is degrading land, water and the atmosphere - the very natural capital that is the foundation of sustainability.

SDGs must focus on the natural resources, that all of us -- 7 billion people -- have in common. These goals should be forward-looking and address new and emerging issues. Today, we know many of the challenges that await mankind in the upcoming 20 years. The biggest challenges we will face relate to three types of security: food, water and energy. Therefore, SDGs should help to meet those challenges in an integrated way, which ensures efficiency, builds resilience and social inclusiveness.

The scope of the challenge

The global population is projected to reach 9 billion by 2050. Already by 2030, the demand for food is expected to grow by 50% and for energy and water by 45% and 35% respectively compared to present

"The time has come for the international community to commit itself to a land degradation neutral world by setting sustainable development goals on land use, with targets towards achieving zero net land degradation."

Africa Consensus Statement to Rio+20, Addis Ababa, 25.10.2011

levels¹. To support the required food production, we will need additional 120 million hectares of agricultural land by 2030². That's a new farm the size of South Africa. These needs will not be met unless we preserve the productive land.

Productive land is the world's most significant non-renewable resource. Yet, each year 12 million ha of productive land -- the area half the size of the UK -- are lost due to land degradation and desertification. On this land 20 million tons of grain could grow. Land is under increasing pressure from competing uses for agriculture, forestry, pasture as well as energy production, urbanization and extraction of raw materials. Globally, 1.5 billion people, most of them women and children, are directly affected by land degradation.

Land degradation is caused by various factors, including climatic variations and human activity. The principal cause of land degradation and desertification is the unsustainable exploitation of land by pastoral, farming, and agro-pastoral uses. This is often exacerbated by misguided or missing policies.

Drylands, where land is highly vulnerable to degradation due to aridity and water scarcity, call for our special attention. Home to more than one third of the global population, drylands make up 44% of all the world's cultivated systems and account for 50% of its livestock. In other words, drylands are key to supporting the habitats, crops and livestock that sustain the entire global population.



Sustainable Development Goal on Land Use

The only way to achieve food, water and energy security is to ensure sustainable land-use. To this end, Rio+20 should adopt a stand-alone goal on sustainable land and water use for all and by all (in agriculture, forestry, energy and urbanization) through commitment to a land-degradation neutral world.

We need to focus on two dimensions of land -- in the degraded and non-degraded areas. In the non-degraded areas, we need to avoid land degradation. In the already degraded lands, soil fertility and land productivity should be restored. In other words, Zero net land degradation (ZNLND) can be achieved when, over a given period of time, land degradation is either avoided or offset by land restoration.

The sustainable development goal and its underlying targets should be formulated as follows:

Land-degradation neutral world: Sustainable land use for all and by all

Target 1: Zero net land degradation by 2030

Target 2: Zero net forest degradation by 2030

Target 3: Drought preparedness policies implemented in all drought-prone countries by 2020

Sustaining healthy soil and restoring degraded land in drylands can ensure food security, alleviate rural poverty and hunger and build resilience to major environmental challenges. Globally, about 1.5 billion hectares of land are suitable for mosaic restoration by means of agroforestry and smallholder agriculture³. Practical solutions to desertification exist and are already being successfully employed by communities

around the world.

For example, farmer-managed natural regeneration and agroforestry techniques have already been adopted in many regions.

Ways to Reach Zero Net Land Degradation

The current rates of land degradation, desertification and drought call for a new bold set of actions to be endorsed at Rio+20. First and foremost, world leaders need to set an ambitious but attainable Sustainable Development Goal on Zero Net Land Degradation.

A stronger international framework, addressing land degradation rates, is needed to empower global action with the required speed and scale. The UN Convention to Combat Desertification (UNCCD) is the only legally-binding instrument, linking environment and development to sustainable land management. Without necessarily amending the UNCCD, other legal mechanisms could be explored, including a protocol on global land and soil.

Finally, the world needs a comprehensive assessment of the "Economics of Land Degradation" and a global authority, such as an International Panel or Platform on Land and Soil, which could provide an up-to-date, scientifically credible and independent assessment of land degradation.

Land Degradation and Desertification (current rates per minute)

Causes

- Population increase: 150 people
- CO₂ carbon increase: 6150 ton
- Tropical deforestation (total dryland and non-dryland): 25 ha
- Soil degradation: 10 ha
- Desertification: 23 ha
- Urban encroachment: 5.5 ha

Consequences and compounding effects

- Food insecurity
- Deaths from hunger: 16 people (including 12 children)
- Political instability/Civil strife

(Adapted from Lal R., 2011. Keynote speech at the UNCCD COP10)



1) High-level Panel on Global Sustainability, March 2012.
 2) FAO, 2003. World agriculture: towards 2015/2030. bit.ly/mSKzWC
 3) World Resources Institute, South Dakota State University, the IUCN and the Global Partnership on Forest Landscape Restoration. bit.ly/IvbDIY