

A Stronger UNCCD for a Land-Degradation Neutral World



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Established in 1994, the United Nations Convention to Combat Desertification (UNCCD) is the sole legally binding international agreement linking the environment, poverty and development to sustainable land management in the drylands. In the 10-year strategic plan and framework to enhance the implementation of the Convention (2008-2018) adopted in 2007, Parties to the Convention further specified that the aim for the future is “to forge a global partnership to reverse and prevent desertification/land degradation and to mitigate the effects of drought in affected areas in order to support poverty reduction and environmental sustainability.” The UNCCD is particularly committed to a bottom-up approach, ensuring the participation of local communities in combating desertification and land degradation. The secretariat of the Convention also facilitates cooperation between developed and developing countries, particularly regarding knowledge and technology transfers for sustainable land management practices.

The information contained in this note has been adapted from the “Issues Brief on Desertification, Land Degradation and Drought” of the United Nations Department of Economic and Social Affairs’ Technical Support Team (TST), published online for the third meeting of the Open Working Group on Sustainable Development Goals held in New York on 22–24 May 2013. The TST is co-chaired by the Department of Economic and Social Affairs and the United Nations Development Programme. The preparation of this “Issues Brief on Desertification, Land Degradation and Drought” was led by the UNCCD with contributions from the Food and Agriculture Organization of the United Nations, the United Nations Population Fund, the World Meteorological Organization, the Economic and Social Commission for Asia and the Pacific, the World Bank, the United Nations Entity for Gender Equality and the Empowerment of Women, the United Nations Environment Programme, the United Nations Development Programme, the Convention on Biological Diversity, the United Nations Office for Outer Space Affairs and the International Telecommunication Union. It can be accessed at: <http://sustainabledevelopment.un.org/content/documents/1803tstissuesdldd.pdf>

Photos: Page 5: Marek Luty <http://www.sxc.hu/browse.phtml?f=download&id=1207981>, 12: Armanda Richards <http://www.flickr.com/photos/arichards-gallery/9427379581>. Page 13: UNCCD Photocontest 2009/Nour El Refai.

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Issue Brief,
Secretariat of the United Nations Convention to Combat Desertification
September 2013

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Foreword



This issue brief entitled “A Stronger UNCCD for a land-Degradation Neutral World” comes in the wake of global recognition of the important contribution of land and soil in attaining sustainable development, including food security and poverty eradication. It has been emphasized on numerous occasions, including Rio+20 last year, that the time is ripe for the international community to commit itself to a land-degradation neutral world.

At the 10th Conference of the Parties to the United Nations Convention to Combat Desertification (UNCCD COP 10) held in Changwon, Republic of Korea in 2011, there was a paradigm shift within the UNCCD process as the Parties saw the need for setting baselines and targets and the mobilization of all stakeholders for the enhanced implementation of the Convention. The Republic of Korea, holding the Presidency of the COP 10, has been an active player in addressing the issues pertaining to desertification, land degradation and drought (DLDD). The need for achieving a land-degradation neutral world was emphasized in the Changwon Initiative.

Through the Changwon Initiative, the Korean Government has been supporting dialogues towards setting targets on DLDD. The informal Consultative Meeting on a Land-Degradation Neutral World, hosted by the Government of the Republic of Korea and facilitated by the UNCCD secretariat, was held on 26-27 June 2013 in Seoul, Republic of Korea. During this two day event, government representatives, scientists and civil society organizations discussed and explored ways to implement the outcome of Rio+20 on DLDD issues. Experts at this meeting agreed that UNCCD should explore a target-setting approach to measure the impact of policies and practices on the ground.

While action on setting a clear pathway is already being promoted at the local and national levels, there is a strong assertion that the development of global goals and targets is something that would add value and strengthen existing policies. It is expected that a target-setting approach could lead us to finding lasting solutions to DLDD issues.

Healthy and productive land is the fundamental basis for our long-term food, water and energy security, and a necessary pre-condition for socio-economic development. We have successfully created a vision of a land-degradation neutral world and now we need to translate this into action. This requires concrete targets that set the level of ambition and awareness needed to encourage suitable policies and practices. In this context, a target-setting approach within the UNCCD would provide the necessary policy and scientific guidance. This issue brief will contribute to further inspire actions among various stakeholders.

The Korea Forest Service is truly honored to be part of the journey towards a land-degradation neutral world and to continuously support the work of the UNCCD relating to a target-setting approach.

The challenges are many, but achieving our vision is within our reach.

A handwritten signature in black ink, appearing to read 'SHIN WonSop'. The signature is fluid and cursive, written on a white background.

SHIN WonSop, Ph.D.
Minister, Korea Forest Service
Republic of Korea

Preface



There has never been a better time to set and monitor effective and ambitious targets to address desertification, land degradation and drought (DLDD).

Land is vital natural capital. It is a crucial asset in addressing challenges at the nexus of poverty, food, water and (bio) energy, particularly for the rural poor and, among them, women. In affected areas, land degradation correlates closely with extreme poverty, increased water scarcity, food insecurity and child mortality.

But despite the political commitment made in the context of the UNCCD, DLDD processes are accelerating and impeding sustainable development in all countries, especially developing countries. Global assessments find that the total land area experiencing significant losses in productivity due to degradation has increased from 15% in 1991 to 25% in 2011. The number of country Parties who declare themselves affected under the UNCCD has also increased from 110 in the early days of the Convention to 168 today. The world's drylands bear a heavy legacy of desertification and continue to be most vulnerable to DLDD processes. However, land degradation is also accelerating in non-dryland ecosystems. An estimated 78% of the total land degraded between 1981 and 2003 is located in terrestrial ecosystems other than drylands. Furthermore, as global warming unfolds, aridity is increasing in many regions of the world and consequently drylands are expanding while drought is escalating in frequency and intensity.

Recent studies suggest that land degradation also results in a loss of up to five percent of agricultural GDP. This is a global average that can be twice as high in many developing countries. Such productivity and yield gaps undermine national development strategies and put future economic growth and social stability at risk. Yet, only 10% of the National Action Programmes, which are designed under the auspices of the Convention to address DLDD issues, have been mainstreamed into national policies for socio-economic development. This is a lost opportunity in view of the numerous examples of good practice and inspirational success stories that are occurring at the grassroots level. These good practices and success stories have huge potential to be scaled up and to deliver multiple environmental and socio-economic benefits for current and future generations. To deliver these benefits, inherent in sustainable land management, inclusive partnerships and landscape-based multi-sectoral approaches are key.

The UNCCD has been at the forefront, among environmental conventions, in the development and application of impact assessment and monitoring mechanisms. These mechanisms are well-suited to help deliver the vision of a land-degradation neutral world set out in “The future we want”.

To my mind, we have no choice but to respect planetary boundaries and translate the Rio +20 commitments on land into an integrated framework with clear pathways for action. Degrading lands are underperforming assets which should be rehabilitated as a means to accelerate the eradication of extreme poverty and to build the resilience of the rural poor to climatic shocks. In that regard, land should be firmly at the heart of the post-2015 development agenda. This issue brief presents an overview of DLDD issues as well as possible ways forward.

The time is ripe to set and monitor effective and ambitious targets to address DLDD.



Luc Gnacadja
Executive Secretary
United Nations Convention to Combat Desertification

Key Messages

- Land and the fertility of its soil are critical natural capital essential for sustainably ensuring food, renewable energy and water security while eradicating rural poverty, conserving terrestrial biodiversity and building the resilience of our agricultural systems to climatic shocks.
- Desertification, land degradation and drought are challenges of a global dimension which pose serious obstacles to sustainable development in all countries, especially for the rural poor in the developing countries.
- Adopting and scaling up sustainable land management practices, both in terms of area and effectiveness, and improving land use planning and governance structures at the national and local levels are often the most effective ways to overcome these challenges.
- Building the vision of a land degradation neutral world, which is part of “The future we want” outcome document adopted at the United Nations Conference on Sustainable Development (Rio+20), could provide a framework for integrated and lasting solutions to DLDD issues. The strategic objectives of the 10-year strategic plan and framework to enhance the implementation of the Convention (2008–2018) (The Strategy) constitute a suitable blueprint for action.
- Establishing and monitoring the necessary level of ambition through an impact target-setting approach will keep this vision and its goal in focus, inspire action on the ground and help mobilize resources at a variety of scales. The progress made under the UNCCD in developing an impact monitoring and reporting framework could be capitalized for such purpose.

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Introduction

Land degradation is accelerating and drought is escalating worldwide. At the Rio+20 Conference, world leaders clearly acknowledged that desertification, land degradation and drought (DLDD) are challenges of a global dimension affecting the sustainable development of all countries, in particular developing countries. In view of this, they committed to strive to achieve a land-degradation neutral world in the context of sustainable development and to monitor land degradation globally (paragraphs 205–207 of “The future we want”). The options for translating this vision or aspirational goal into action are now being discussed in a number of fora, especially in the context of the United Nations Open Working Group on Sustainable Development Goals.

Global assessments indicate that the percentage of total land area that is highly degraded has increased from 15% in 1991 to 25% by 2011. While the world’s drylands continue to be the most vulnerable, land degradation is a global phenomenon; some findings indicate that 78% of the total land being degraded between 1981 and 2003 is located in terrestrial ecosystems other than drylands (Bai *et al.*, 2008). DLDD processes have accelerated rapidly in the last century, with an estimated 24 billion tons of fertile soil lost to erosion in the world’s croplands (FAO 2011). If the current scenario of land degradation continues over the next 25 years, it may reduce global food production, from what it otherwise would be, by as much as 12% resulting in world food prices as much as 30% higher for some commodities (IFPRI 2012). This at a time when population growth, rising incomes and changing consumption patterns are expected to increase the demand for food, energy and water, by at least 50%, 45% and 30%, respectively by 2030 (IFPRI 2012). These expected levels of global demand cannot be met sustainably unless we protect and restore the fertility of our soil thus securing the productivity of our land.

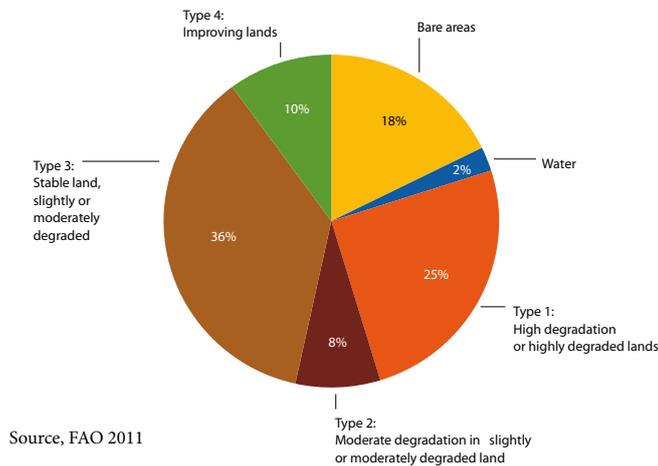
This issue brief addresses the scope of the DLDD challenge and the benefits of a land-degradation neutral world. It also proposes a target-setting approach with clear pathways of action

Land, Soil and the Challenge of DLDD

Productive land and soil are critical natural capital assets essential for agricultural productivity, conserving biodiversity and the provision of ecosystem services, such as carbon sequestration, water purification and storage, biofuels, climate protection and regulation, and natural heritage. For those communities that rely heavily on land as their main source of livelihood, particularly the rural poor, human health and wellbeing are completely dependent upon and intricately linked to the health and productivity of the land. Thus, the vital functions of land and soil underpin the nexus of food, renewable energy and water security.

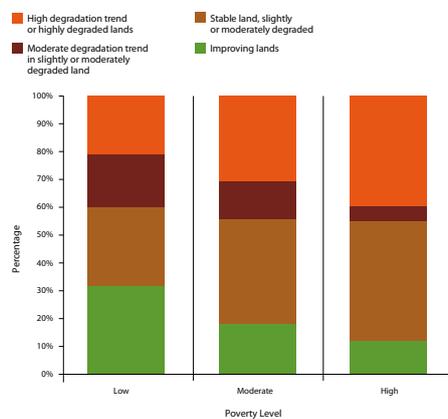
Land degradation refers to any reduction or loss in the biological or economic productive capacity of the land (UNCCD 1994) caused by human activities, exacerbated by natural processes, and often magnified by the impacts of climate change and biodiversity loss. Desertification is defined as the process of land degradation in the arid, semi-arid and dry sub-humid areas (“drylands”) reflecting a persistent reduction or loss of biological and economic productivity (Adeel 2005). Both land degradation and desertification are persistent reductions; the difference is that desertification is attributed to drylands only and is considered an extreme case of degradation (Safriel 2009). Drought is characterized by a deficiency of precipitation that results in a water shortage (WMO 2005), and like land degradation, occurs throughout the world including in the humid regions.

Figure 1: Status and trends in global land degradation



Some studies indicate that the percentage of total land area already degraded or being degraded increased from 15% in 1991 to 25% in 2011. By 2008, more than 20% of all cultivated areas, 30% of natural forests, and 25% of grasslands were undergoing some degree of degradation (Bai *et al.*, 2008). Estimates indicate that up to 25% of all land is currently highly degraded, 36% is slightly or moderately degraded but in stable condition, while only 10% is improving (FAO 2011). Some studies indicate that land degradation directly affects 1.5 billion people around the world with a disproportionate impact on the poor, women and children, and has already reduced the productivity of the world's terrestrial surface by about 25% from 1981 to 2003 (Nachtergaele *et al.*, 2010). These assessments demonstrate how, within a relatively recent period, biological productivity has declined significantly in addition to the amount of land already degraded. Although land degradation is a generalized risk, some 40% of the world's degraded lands occur in areas with the highest incidence of poverty (Adeel 2005; FAO 2011).

Figure 2: Relationship between poverty and land degradation



Upon this handful of soil our survival depends. Husband it and it will grow our food, our fuel, and our shelter and surround us with beauty. Abuse it and the soil will collapse and die, taking humanity with it.

(Vedic Scripture – circa 1500 BC)



Land degradation directly affects some 1.5 billion people, including 42% of the world's very poor and 32% of the moderately poor.

(GLADIS – Global Land Degradation Information System)

The feedback loops between land degradation and global environmental change, specifically the impacts of climate change and biodiversity loss, further exacerbate the challenges posed by DLDD. A recent analysis suggests that increased global warming could lead to extreme weather events occurring more frequently and with greater severity in a globally synchronized way (World Bank 2012). Coupled with the DLDD processes currently underway, this could significantly reduce resilience to drought and cause worldwide disruptions to food production systems.

Land degradation also affects the value of land which is often determined by its capacity to provide goods, such as food, fuel and fiber. Global average estimates of the economic loss of on-site productivity due to land degradation range between 3-5% of agricultural gross domestic product or approximately USD 490 billion per year (Berry *et al.*, 2003). However, the direct economic costs of land degradation at the national and local levels vary widely and it is likely that some countries and communities may be experiencing significantly higher losses. Those costs are very often multiples of the investments required to undertake people-centered and ecologically sound restoration.

Risks of water supply and food shortage crises have been ranked respectively as the second and third most significant global risks in terms of their potential economic impacts (WEF 2012). Both risks are related in many circumstances to land degradation processes, however land degradation is yet to be perceived as a major risk for the sustainability of business as well as for the global economy.

Figure 3: The far reaching impacts and downward spiral of DLD



As a global society, we are literally “losing ground”. The current extent of degraded and degrading land affects large numbers of people and results in significant social and economic costs. To successfully reverse land degradation trends, the underlying causes or drivers need to be urgently addressed in an integrated manner, and instruments and mechanisms put in place to foster the adoption and scaling up of Sustainable Land Management (SLM) practices, both in terms of area and effectiveness. Hence, the time is ripe to agree on a Sustainable Development Goal (SDG) for a land-degradation neutral world that would provide a coherent framework for action to safeguard healthy and productive land and soil.

Benefits of a Land-Degradation Neutral World

The vision of a land-degradation neutral world is strikingly clear and easy to communicate. By way of reducing degradation processes and scaling up restoration activities at community and/or landscape levels, the objective is to maintain and improve the quantity and quality of productive land to enhance the flow of ecosystem services for current and future generations. Land productivity is not only important for the provisioning services (food, fiber, etc) but also for the delivery of regulating and cultural services that operate at larger temporal and spatial scales. As land degradation reduces soil and water efficiencies, it either decreases food production or increases the costs of production through external inputs (e.g. fertilizers, imported water, pesticides). This in turn raises prices and increases food insecurity and poverty.

The imperative for a land-degradation neutral world is driven by the expected increases in the demand for food, energy and water, which cannot be met sustainably unless we protect and restore the productivity of our land and use our water and energy resources more efficiently. For example, in order to achieve long-term food security, an estimated 60% increase in agricultural productivity - up to 100% in developing countries - will be necessary by 2050 (FAO 2011).

Clearing or converting remaining natural ecosystems for agriculture, grazing or fuelwood would have serious negative impacts on biodiversity and the often overlooked regulating, supporting and cultural services which would likely exceed critical thresholds of sustainability, including that of agriculture itself. In the last two centuries, humans have converted 70% of the world's grasslands, 50% of the savannah, 45% of the temperate deciduous forest, and 27% of the tropical forest biome for farming and grazing (FAO 2011). Between 1985 and 2005, the world's croplands and pastures expanded by 154 million hectares (Ramankutty *et al.*, 2012). This expansion has dramatically increased food production, but at the expense and severe loss of most other life-supporting ecosystem services of Earth. Thus, for example, agriculture is now estimated to be the proximate driver for approximately 80% of deforestation worldwide (Kissinger *et al.*, 2012) and hence a severe loss of the forests critical climate and water regulation services. Given the current trends in land degradation and under a business-as-usual scenario, deforestation is likely to continue unabated if production is to match the projected increases in demand for food, energy and water in the next two decades.

The transition to a land-degradation neutral world would stop this vicious cycle by coming to terms with nature through a paradigm shift from 'degrade-abandon-migrate' to 'protect-sustain-restore'. The aim is to maintain and enhance the current area of productive land for the benefit of current and future generations. This will require stable and predictable investments from all sectors and stakeholders. The return on these investments will be significant in terms of gains in efficiency, socio-ecological resilience, poverty alleviation



We recognize the economic and social significance of good land management, including soil, particularly its contribution to economic growth, biodiversity, sustainable agriculture and food security, eradicating poverty, the empowerment of women, addressing climate change and improving water availability.

(Paragraph 205 of "The future we want")



A new understanding of the scope of the Convention has emerged over the past 10 years which combines the priority given to drylands and Africa with recognition that the tools and policies promoted by the Convention are relevant to sustainable land management globally.

(Follow-up to the Joint Inspection Unit report and strategy development to foster the implementation of the Convention. Situational analysis, ICCD/COP(8)/INF.5)

and inclusive growth. The concrete benefits of a land-degradation neutral world include cost savings for governments and communities, increased productivity and incomes for smallholder farmers, and the more sustainable provision of ecosystem services that contribute to economic growth which sustainably support human wellbeing.

Figure 4: The Benefits of a LDNW: Integrated landscape approach



A SDG for a land-degradation neutral world in the context of sustainable development builds upon existing global environmental goals -- such as Agenda 21, which calls for a more sustainable and integrated management of land and water resources, the Johannesburg Plan of Implementation, which calls for action to reverse the current trend in natural resource degradation -- and would:

- specifically address the three dimensions of sustainable development and their interlinkages;
- be action-oriented: i.e., specific, focused, and on the ground;
- address the global priority issue of land degradation affecting all countries: i.e., universal;
- contribute significantly to achieving sustainable development and poverty alleviation; and
- serve as a driver for implementing and mainstreaming sustainable development in a United Nations system-wide response.

Achieving a Land-Degradation Neutral World

A SDG for a land-degradation neutral world would require the appropriate enabling environment to ensure coherent and coordinated progress towards its achievement. This would include a target-setting approach within an institutional framework that would provide the necessary policy and scientific guidance including practical assessment and monitoring tools.

► The Need for a Target-Setting Approach

A land-degradation neutral world is a vision that points to a desired outcome while highlighting its associated benefits to people and ecosystems. However, building such a vision will also require concrete targets that set the level of ambition needed to encourage suitable policies and practices (UNCCD 2011). A recent United Nations Environment Programme (UNEP) analysis of existing goals found that more progress has been made on goals that are linked with specific, measurable targets (UNEP 2012).

Furthermore, targets require indicators and mechanisms to establish baselines and monitor progress in order to demonstrate to governments, businesses, communities and individuals the consequences and impacts of their actions. In paragraph 207 of “The future we want” world leaders:

reaffirmed their resolve, in accordance with the UNCCD, to take coordinated action nationally, regionally and internationally, to monitor, globally, land degradation and restore degraded lands in arid, semi-arid and dry sub-humid areas.

Specific, measurable, attainable, relevant and time-bound targets are within our reach considering the paramount importance of achieving a land-degradation neutral world in the context of sustainable development and the advanced understanding of well-defined pathways of action to sustainably manage and use land and all its constituent components.

Neutrality implies maintaining or improving upon the current status and extent of land degradation, in other words, a zero net loss in the amount of healthy and productive land. Zero Net Land Degradation (ZNLD) by 2030, that is achieving a stable state in the extent and quality of productive land the world over, has been proposed as a feasible target that could provide the strategic framework to support the operationalization of a SDG for a land-degradation neutral world. The implementation and monitoring mechanisms for a ZNLD target would necessarily be action-oriented mainly at local community or landscape level ensuring complementarity and coherence in addressing land degradation with an enabling environment at all scales and levels of governance.

By adopting a target-setting approach to halting and reversing land degradation trends, governments are making commitments that explicitly recognize:

- the value of land and its constituent components,
- the unacceptable costs of inaction or continued land degradation, i.e. business as usual, in terms of social and economic development as well as environmental sustainability, and
- their accountability for the conservation, sustainable use and restoration of land, soil and water resources.

A ZNLD target is not a mandate nor a rationale for market-based offset or compensation schemes but rather a long-term commitment to foster and incentivize pathways of action in a coordinated and integrated manner, to the fullest extent possible so as to protect and enhance those ecosystem services that will contribute most to poverty alleviation and the sustainability of human development. A target will also require a mechanism for prioritizing degraded or degrading land for the appropriate intervention thus making it necessary to determine the degree of degradation relative to the land's potential. This will in turn guide investments and changes in land use that are required for restoring its productivity or reducing the current rate of degradation.

► Pathways of Action within a Target-Setting Approach

At the Rio+20 Conference, it was implicitly recognized that translating a land-degradation neutral world into national action plans that yield tangible results on the ground will first require a paradigm shift in land stewardship highlighting clear and effective pathways of action. The three mutually reinforcing pathways of action for achieving such a vision are underlined throughout the Rio+20 outcome document “The future we want”, and specifically mentioned in paragraphs 205-209. These include to:

- (1) avoid or minimize land degradation by eliminating or reducing the drivers of land degradation to the greatest extent possible;
- (2) adopt and scale up SLM practices, both in area and effectiveness, from the local to the landscape level, in order to maintain or improve the quality, quantity and flow of ecosystem services, as well as the status of biodiversity that underpins them, for human wellbeing; and
- (3) restore and rehabilitate degraded land so as to assist the recovery of biodiversity and ecosystem services, and thus increase the health and productivity of land and water resources already degraded.

When coordinated in an integrated ecosystem or landscape approach, these three pathways of action will protect and enhance biodiversity and hence those ecosystem goods and services that contribute most to sustainable development. This will directly benefit the health and wellbeing of poor and vulnerable communities that are heavily dependent on the land as their primary natural capital asset.

Where conservation or the creation and expansion of protected areas is appropriate and feasible, this should be encouraged so as to enhance connectivity, increase buffer zones and improve the provision of important ecosystem services, such as water provision, pollination and genetic flows, to the surrounding production landscapes. The increased use of strategic and environmental impact assessments leading to the adoption of new technologies and innovative land and water use policies, planning and practices will also serve to further mitigate the extent and degree of land degradation. Paragraph 205 of “The future we want” states:

We recognize the economic and social significance of good land management, including soil, particularly its contribution to economic growth, biodiversity, sustainable agriculture and food security, eradicating poverty, women’s empowerment, addressing climate change and improving water availability.

Adopting and scaling up SLM practices is analogous to investing in underperforming assets (i.e. degraded lands) with the prospect of significant long-term returns in terms of livelihoods and environmental sustainability. SLM practices are indispensable in our efforts to halt and reverse the current alarming trends in land degradation. SLM, with its focus on improving soil structure, land cover and water efficiencies, also contributes to progress in achieving three critical global sustainability goals, namely food security, renewable energy and water availability.

Land use planning that incorporates SLM practices enhances soil water retention capacity and improves water availability, replenishing and elevating groundwater tables. Many renewable energy sources, such as timber, hydroelectricity and biofuels, depend on productive land and well-functioning hydrological regimes. In a landscape approach, SLM practices generate direct and indirect benefits that increase community and ecosystem resilience while fostering sustainable economic growth at a variety of scales.

Given the impacts of climate variability and change, the likely shift in the patterns of droughts and increases in the frequency, severity and duration of droughts, land-use planning in most countries must also incorporate drought mitigation and prevention measures. The final declaration from the 2013 High-Level Meeting on National Drought Policy emphasized that drought has major implications in terms of the loss of human lives, economic growth, food insecurity, the degradation of natural resources, poverty and social unrest. It recommended that drought management plans be linked to local and national development policies, including those that foster SLM practices, for ensuring long-term resilience to drought.

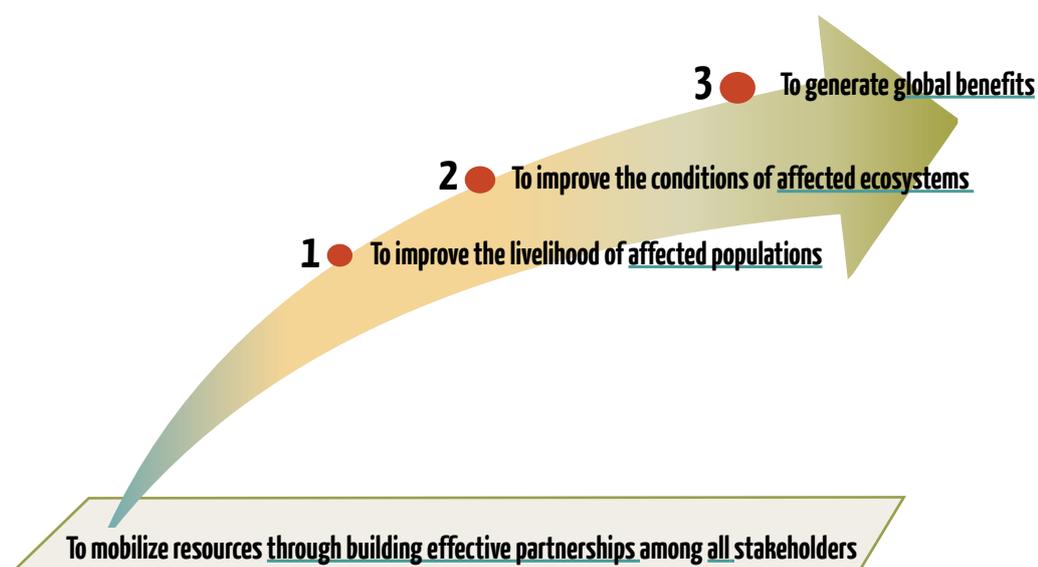
Conservation and SLM practices alone are not sufficient to stem the loss of biodiversity and ecosystem services that result from DLDD processes. Thus, a third critical pathway of action calls for increasing health and productivity by restoring and rehabilitating land that is already degraded. Global assessments estimate that there are more than 2 billion hectares of degraded lands worldwide with the potential for forest, landscape and mosaic restoration in which forestry is combined with other land uses, such as agroforestry and smallholder agriculture (WRI 2010).

• The Science-Policy Interface

In order to be most effective, a target-setting approach to land-degradation neutrality would specify a range of targets with associated pathways of action and indicators to measure progress. Indicators should be rigorous, repeatable, widely accepted, and easily understood and implemented.

In line with the UNCCD's strategic objectives (2008-2018), setting baselines and measuring progress implies having the necessary tools to measure the condition of affected populations and ecosystems as well as the global benefits achieved through the effective implementation of a target-setting approach. In addition to having the capacity to measure trends in land degradation and restoration, biophysical and socio-economic indicators should be linked in order to capture the complexity of DLDD processes and impacts. Therefore, it will be necessary to use both progress (quantitative) and narrative (qualitative) indicators in order to provide a complete picture.

Figure 5: The UNCCD Strategy: A framework for results-based implementation





If human needs are to be met, the Earth's natural resources must be conserved and enhanced. Land use in agriculture

and forestry must be based on a scientific assessment of land capacity and the annual depletion of topsoil.

(World Commission on Environment and Development: Our Common Future, 1987)



No community with a sense of justice, compassion or respect for basic human rights should accept the current pattern of

adaptation. Leaving the world's poor to sink or swim with their own meager resources in the face of the threat posed by climate change is morally wrong. We are drifting into a world of adaptation apartheid.

(Desmond Tutu, Archbishop of South Africa)

Continuing independent scientific assessment and expert inputs will be needed to develop models and methodologies to guide data collection, help quantify how healthy and productive land, ecosystems and landscape contribute to all dimensions of sustainable development, and clarify the mechanisms by which policies and practices improve the condition of land and the myriad services it provides. In this regard, the international community may wish to consider a credible and transparent authority on scientific and technical knowledge related to DLDD processes. For example, establishing a global database or knowledge platform in cooperation with key institutions including the Food and Agriculture Organization of the United Nations, UNEP (Convention on Biological Diversity), United Nations Development Programme, the Intergovernmental Platform on Biodiversity and Ecosystem Services, the regional economic commissions, the World Bank and the Global Environment Facility (GEF), which would assist with:

- measuring and monitoring the extent of impacts on productivity, biodiversity, ecosystems and affected populations at local, national and regional levels;
- generating and focusing projects and interventions in regions with DLDD 'hotspots';
- quantifying the impacts of SLM practices and other ecosystem management and restoration interventions on soil quality, water resources, land cover and socio-economic wellbeing; and
- developing recommendations at the global and regional levels to facilitate the implementation of strategies and policies to achieve a SDG for a land-degradation neutral world.

In addition to a solid scientific and technical basis for assessment and monitoring tools, a target-setting approach would be a catalyst for mobilizing the necessary resources and fostering the appropriate enabling environment by building the institutional and technical capacity to successfully implement the three pathways of action.

► Capacity-building, Partnerships and Good Governance

The slow uptake of SLM practices is often due to a lack of market incentives, insecure land tenure and resource use rights, high upfront costs and labor intensity, and limited access to education and information, vocational training and extension services. A target-setting approach would foster institutional and technical capacities to assist local communities and inspire action on the ground.

A target-setting approach would also catalyze synergies where possible with in the Rio Conventions - UNCCD, CBD, United Nations Framework Convention on Climate Change (UNFCCC) - and other relevant treaties and organizations such as FAO, development banks and regional economic cooperation organizations which could contribute to nurturing a paradigm shift in land stewardship from 'degrade-abandon-migrate' to 'protect-sustain-restore'. These organizations are well-positioned to assist countries and communities in their

quest for an enabling environment that supports policies and practices that address both the causes and impacts of land degradation as well as promote SLM and restoration practices.

Strong institutions and good governance structures that are vertically integrated, that is global to local and vice versa, could be developed or harnessed for targeted projects, interventions and existing SLM and restoration initiatives thus ensuring that land tenure and resource rights regimes are equitable and respected. Good governance will involve the active participation of all relevant stakeholders, including public/private sector decision makers, non-governmental organizations/civil society organizations, and technical experts. Capacity-building should be envisaged as a long-term, multi-sectoral, and participatory process shared by all actors whereby institutions, governance structures and partnerships evolve organically as needed. An inclusive, partnership-building approach whereby relevant stakeholders participate and engage in long-term commitments can strengthen institutional links, leverage scarce resources to address DLDD and help make the transition from degraded and unproductive lands to those that are healthy and sustainably managed.

In terms of resource mobilization and investment, international development agencies (both financial and technical) and corporations have already demonstrated their capacity to assist countries and communities in the shift to integrated SLM policies and practices. Partnerships and coordination among sectors at all levels will be needed to achieve a land-degradation-neutral world. In this regard, the GEF, regional development banks and other international partners will play an important role. For example, increased resource allocation to the GEF land degradation focal area would be a smart investment that will generate multiple benefits.

All sectors of the economy benefit directly or indirectly from healthy and productive land and their substantive engagement is required for the transition to green economic opportunities in the context of sustainable development and poverty eradication. Too often, the various sectors of society and governments (e.g. agriculture, health, water, energy) operate independently, or in silos, to secure the delivery of their targeted ecosystem services. Increased cooperation and coordination among these sectors will first require the understanding and recognition of multifunctional landscape processes that link production and benefits with ecosystem integrity and resilience.

Above all, healthy and productive land should be seen as the foundation for an integrated development strategy that involves diverse stakeholders with common goals -- starting with food and water security, jobs and sustainable livelihoods, drought and disaster mitigation, and the ongoing struggle to reduce poverty and socio-economic inequality.

In a few decades, the relationship between the environment, resources and conflict may seem almost as obvious as the connection we see today between human rights, democracy and peace.”

(Wangari Maathai – 2004 Nobel Peace Prize winner)



We also need to reward those who make drylands productive, so they will prosper and others will seek to emulate their example.

(Ban Ki-moon, Message on World Day to Combat Desertification, 17 June 2011)



Conclusion

Land is the vital natural capital resource at the nexus of food, energy and water security. Yet, we routinely take it for granted. For present and future generations, we need to systematically consider the impact of our land-use decisions and take account of the difficult trade-offs connected, both directly and indirectly, with natural resource management choices.

For sustainable development, in the face of rising demand for food, fuel and fiber along with growing population pressure and climatic change, a clear vision and concerted plan of action is required. At the United Nations Conference on Environment and Development in Rio de Janeiro in 1992, world leaders recognized the need for healthy and productive ecosystems to guide future sustainable development. Twenty years later, at the Rio+20 Conference, they reiterated these commitments with even greater urgency and agreed to strive to achieve a land-degradation neutral world in the context of sustainable development. Now, in the post-2015 development agenda, there is a unique opportunity to establish a new paradigm in land stewardship to underpin this bold vision.

It is accepted that land degradation poses a serious challenge to the economic growth and sustainable development of all countries. The drylands find themselves at the forefront of the risks associated with land degradation but would also benefit most from going land degradation neutral. While in the coming decades, with increasing climatic variability, we should be concerned that ongoing land degradation processes, at the margins of the expanding drylands, are likely to weaken resilience and leave a costly legacy of communities and ecosystems under increasing pressure.

As the understanding of the ecological processes and the drivers of DLDD grows, it is acknowledged that the costs of inaction are too high when there are proven pathways of action that can reverse DLDD trends and deliver tangible social and economic benefits worldwide. In this regard, the UNCCD's 2nd Scientific Conference even documented evidence that preventing land degradation is the most cost effective pathway of action.

With this in mind, land degradation neutrality should mean preventing land degradation wherever and whenever possible. It also means a concerted effort to protect, restore and sustainably manage our land and soil across all ecological zones. In the land degradation neutral world paradigm, we will build resilience and help achieve commitments on climate change adaptation and mitigation, biodiversity conservation, forest restoration and indeed many of the Millennium Development Goals. A land-degradation neutral world is the final piece of the puzzle that unites the challenge of DLDD with the tools at our disposal and the level of ambition needed to achieve “the future we want”.

References

- Adeel Z. 2005.** Millennium Ecosystem Assessment: Ecosystems & human well-being: desertification synthesis. World Resources Institute, Washington, DC.
- Bai Z.G., Dent D.L., Olsson L. and Schaepman M.E. 2008.** Global assessment of land degradation and improvement. 1. Identification by remote sensing. Report 2008/01, ISRIC – World Soil Information: Wageningen.
- Berry L., Olson J. and Campbell D. 2003.** Assessing the Extent, Cost and Impact of Land Degradation at the National Level: Findings and Lessons Learned from Seven Pilot Case Studies, commissioned by Global Mechanism with support from the World Bank.
- FAO. 2011.** The state of the world's land and water resources for food and agriculture (SOLAW) - Managing systems at risk. Food and Agriculture Organization of the United Nations, Rome and Earthscan, London.
- IFPRI. 2012.** 2011 Global Food Policy Report. International Food Policy Research Institute, Washington, DC.
- Kissinger G., Herold M. and De Sy V. 2012.** Drivers of Deforestation and Forest Degradation: A Synthesis Report for REDD+ Policymakers. Lexeme Consulting, Vancouver, Canada.
- Nachtergaele F., Petri M., Biancalani R., Van Lynden G., and Van Velthuisen H. 2010.** Global Land Degradation Information System (GLADIS). Beta Version. An Information Database for Land Degradation Assessment at Global Level. Land Degradation Assessment in Drylands Technical Report, no. 17. FAO, Rome, Italy.
- Ramankutty N., Evan A.T., Monfreda C. and Foley J.A. 2008.** Farming the planet: 1. Geographic distribution of global agricultural lands in the year 2000. *Global Biogeochemical Cycles* 22: (1).
- Safriel U., 2009.** Deserts and desertification: Challenges but also opportunities. *Land Degradation and Development* 20: 353–366.
- UNCCD. 1994.** Article 2 of the Text of the United Nations Convention to Combat Desertification. <http://www.unccd.int/Lists/SiteDocumentLibrary/conventionText/conv-eng.pdf>
- UNCCD. 2011.** The Changwon Initiative. Conference of the Parties, Tenth session, Changwon, Republic of Korea, 10-21 October, 2011. ICCD/COP(10)/MISC.5/Rev.4 <http://www.unccd.int/Lists/OfficialDocuments/cop10/misc5rev4eng.pdf>
- UNEP. 2012.** Measuring Progress: Environmental Goals & Gaps. United Nations Environment Programme, Nairobi.
- UNGA. 2012.** “The future we want”. United Nations General Assembly Resolution 66/288. http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288
- World Bank. 2012.** Why a 4°C Warmer World Must be Avoided. A Report for the World Bank by the Potsdam Institute for Climate Impact Research and Climate Analytics, Washington, U.S.
- WEF. 2012.** Global Risks 2012 – Seventh Edition. World Economic Forum, Geneva, Switzerland.
- WMO. 2005.** Drought Assessment and Forecasting. World Meteorological Organization, Geneva, Switzerland. <http://www.wmo.int/pages/prog/hwrrp/documents/regions/DOC8.pdf>
- World Resources Institute (WRI),** South Dakota State University, the IUCN and the Global Partnership on Forest Landscape Restoration. <http://www.wri.org/map/global-map-forest-landscape-restoration-opportunities>

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