



Infinity War or a just transition? The IPBES assessment on land degradation and restoration

European Parliament

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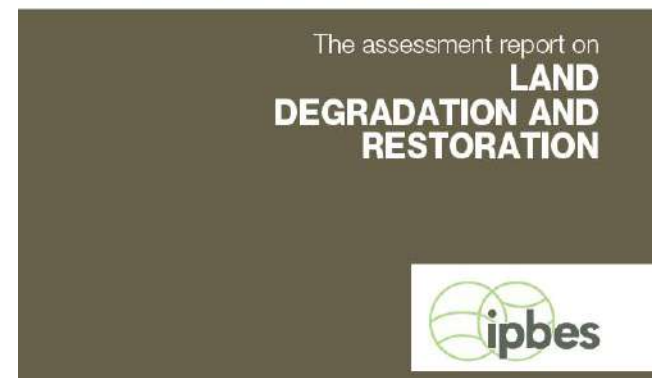
Food and Agriculture
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What is the Land Degradation and Restoration Assessment?

- Requested in 2015 by over **100 countries** and **80 participating organisations** of IPBES
- Conducted by **>150 leading experts** from 55 countries, over three years
- Assessed over **4,000 sources** (scientific papers, Government reports, indigenous & local knowledge)
- Reviewed in three cycles , involving over **7,300 comments** from external reviewers, scientific bodies, and Governments



Major findings in the Summary for Policymakers

- There are instances of land degradation in virtually **every ecosystem type in the world**, and in every country.
- The severity and consequences vary, depending on the **social and ecological context**, and **when** the degradation took place.
- The problem is **ongoing and worsening**, rather than improving, as the demands we place on land increases and its capacity to satisfy them is progressively and persistently weakened.
- Present efforts to address the problem have demonstrated that it is **possible to make a difference**, but the current level of effort is far below that required.

The Underlying Causes of Land Degradation

- **Over-consumption of ecosystem-derived goods**, partly driven by continued population growth, but mostly by growth of demand per capita
- **De-coupled consumption – production systems**, especially at global scale
- **Failure to perceive land degradation as a key issue**, and arguments about its definition and causes
- **Fragmented policy responses & negative incentives**
- **Worsening climate change**

Land degradation is a pervasive, systemic issue. Halting and fixing it should be an urgent priority

- It negatively impacts the well-being of **3.2 billion** people
- **Only 25% of the Earth's land surface is substantively free of human alteration**
 - Cropland, managed forest, grazing lands, habitation and infrastructure occupy the other 75%. More than **1.5 billion hectares** of natural ecosystems have been converted to croplands.
 - By 2050, **less than 10%** of the land surface will remain free of human impact
- The hidden costs of land degradation amount to about **10% of annual global gross product**

Land degradation endangers other species too

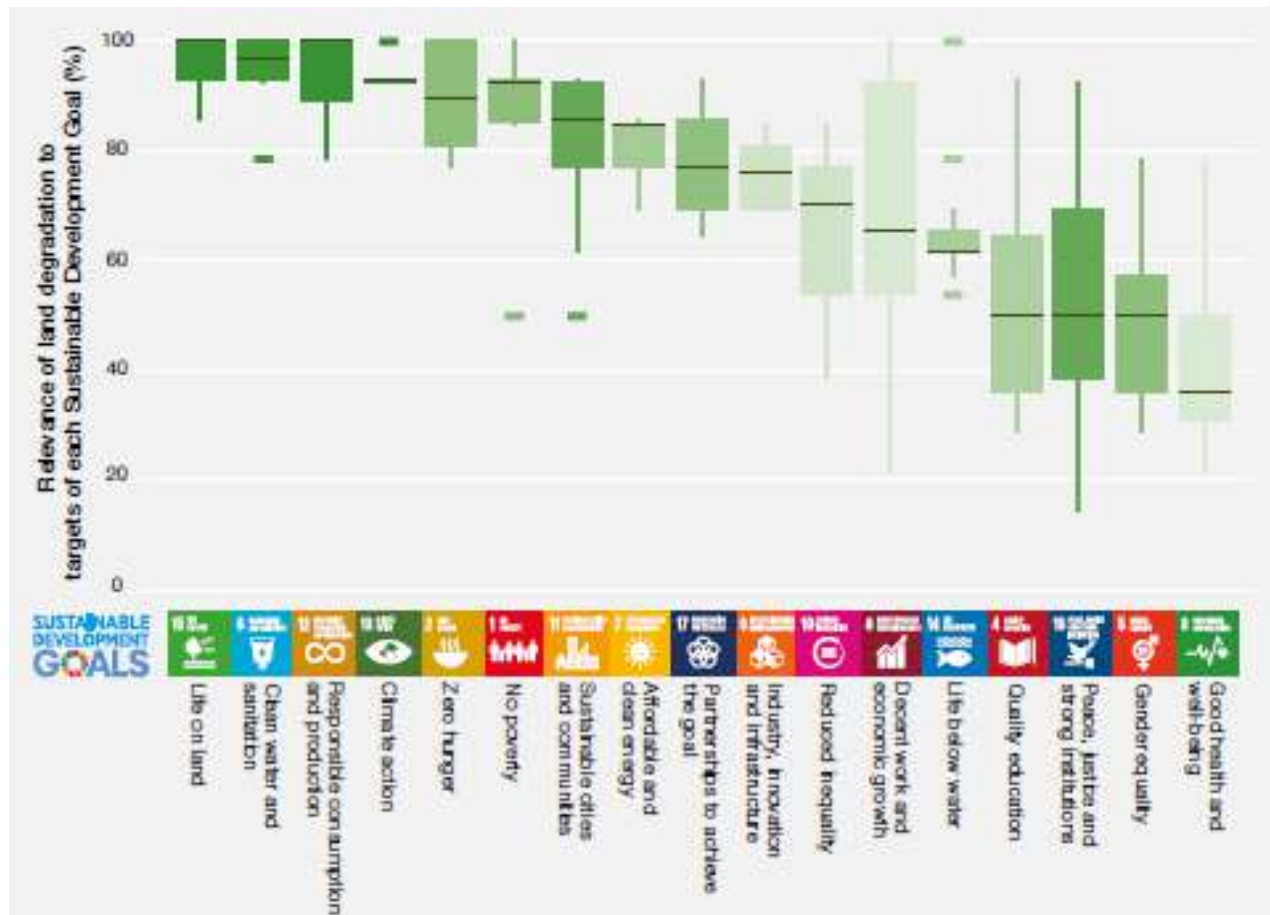
- Degradation of the Earth's land surface through human activities is the top cause of biodiversity loss
- By 2010, **24% of global biodiversity has been lost**, measured as abundance.
- Recent transformation of natural ecosystems has occurred in some of the most species-rich ecosystems on the planet.



There are strong, two-way interactions between land degradation and climate change

- Between 2000-2009, land degradation was responsible for annual global emissions of up to **4.4 billion tonnes of CO₂**
- Deforestation alone amounts to **10%** of all human-induced greenhouse gas emissions.
- Halting and reversing land degradation can provide more than **1/3 of the most cost-effective greenhouse gas mitigation** activities to keep global warming under 2°C
- The combination of land degradation and climate change projected to reduce global crop yields by **10% (up to 50% in some regions)** by 2050, forcing up to **700 million people** to migrate

Successfully addressing the Sustainable Development Goals requires simultaneously halting and reversing land degradation.



Five LDRA conceptual innovations

1. Defining degradation as a **persistent loss of productivity, services and biodiversity**

The key elements of this definition can be traced to the Millenium Assessment:

- the notion of persistence; ie poor reversibility, not swiftly self-correcting
- the link to reduction in ecosystem services, ‘the benefits people derive from Nature’

It is *highly aligned* with the UN Convention on Combatting Desertification definition, which talks of ‘sustained productivity loss’

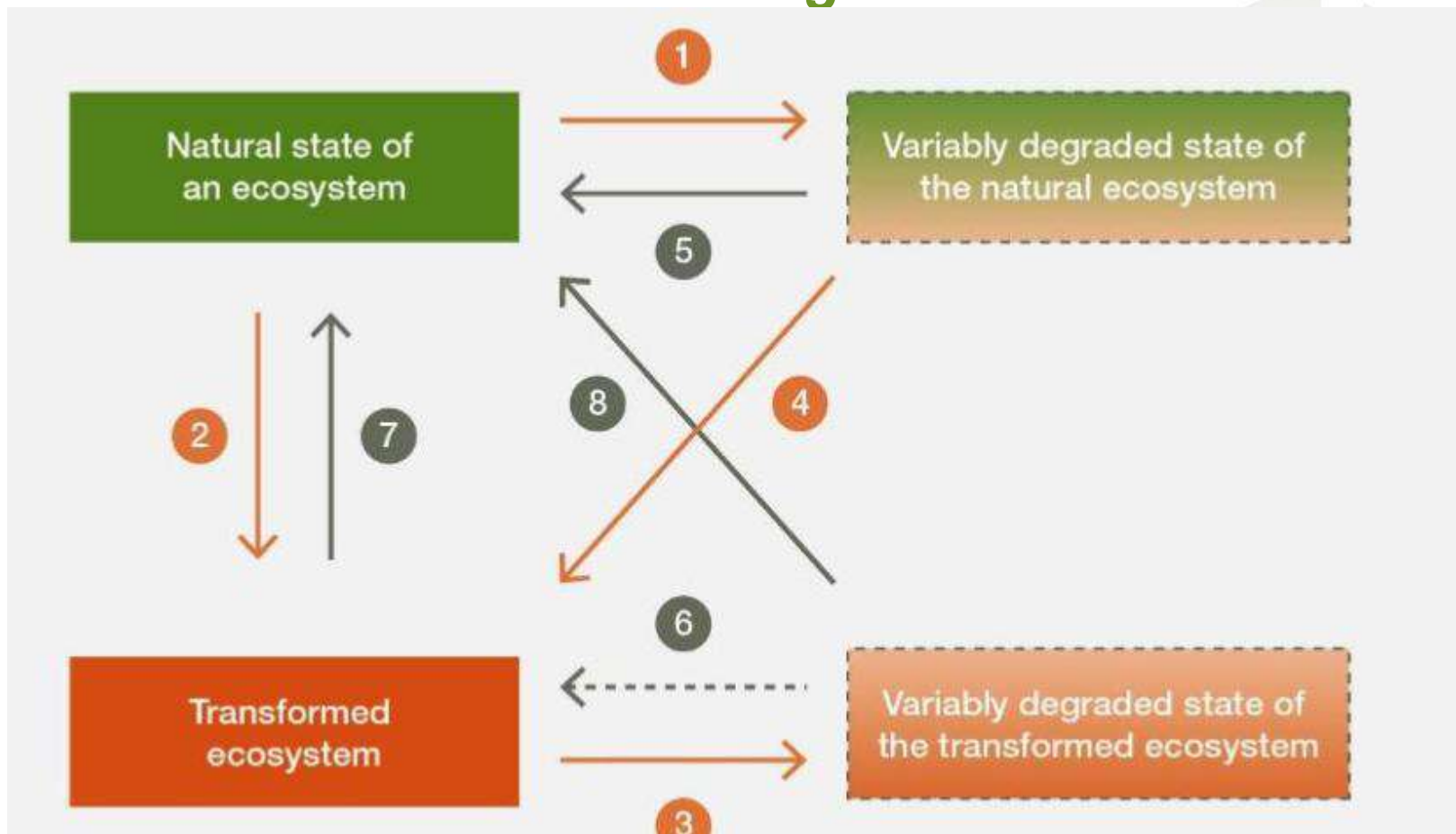
The addition of biodiversity in the IPBES definition potentially introduces ambiguity

- It frequently happens that a desired service increases, but biodiversity decreases (or vice versa)
- If the definition is interpreted as .OR., then the whole world is degraded

This ambiguity can be removed by being explicit: ‘With respect to X, the land is degraded’

LDRA conceptual innovations continued...

2. The LDRA makes a distinction between *transformation* and *degradation*



LDRA conceptual innovations continued...

3. Reframing land degradation as having both international causes and consequences, as well as local ones

Teleconnections are an important driver of degradation: much results from the 'export of demand'. Global trade separates the consumer from the consequences of consumption

Well-intentioned policies in one region often have unintended consequences elsewhere.

The consequences of degradation are also exported: as dust, pollution, novel diseases, climate change and the migration of desperate people.

The existence of global causes does not absolve local land stewards from their responsibilities.

LDRA conceptual innovations continued...

4. Recognition of Indigenous and Local Knowledge

This is a brave IPBES experiment, and work in progress. It is hard to do well.

A great deal is accomplished simply by asking, and listening respectfully to local and indigenous people's concerns.

Indigenous knowledge tends to get more attention than Local knowledge, but the latter is often more important in terms of numbers of people engaged.

LDRA conceptual innovations continued...

5. Enlarging the scope of land degradation beyond drylands

The UN Convention on Combatting Desertification focusses on degradation in the dry parts of the world, especially in Africa.

As a result it became marginalised and ghettoised – a faraway problem, of local concern, an object of charity

The reality is that degradation occurs in all ecosystems, worldwide. Often land degradation is not noticed because it is gradual, or happened long ago, or the lost services have been substituted from elsewhere

The links between degradation, poverty, wellbeing, conflict and migration

The relationships are complex, multi-factorial and conditional, but emerge from many studies

- For example, in drylands, years with extreme low rainfall are associated with an increase of up to **45% in violent conflict**



How to avoid and reverse land degradation

- **Improve monitoring and verification systems**
- **Coordinate policies between different authorities with an interest in the land**
 - **integrate the agricultural, forestry, energy, water, environment, infrastructure and service agendas;**
- **Eliminate ‘perverse incentives’ that promote land degradation**
 - **and promote incentives that reward sustainable land management.**



The multiple scales of intervention

Global treaties

Regional bodies

National governments

Local governments

Land custodians

Especially in Chapter 8: policies, decision support, regulatory and economic measures, trade certification schemes, consumer awareness etc

Proven, situation-specific restoration practices are assessed in chapter 6



Many case studies show that rehabilitation is possible. Full restoration takes a long time

Chapter 1 of the LDRA gives details of 8 'success stories', and how they were evaluated. They were selected to cover many different types of degradation, in different environments

Chapter 6 provides many other examples, relating to specific practices.

Investing in restoration is sound economics

- Benefits of restoration exceed the costs many-fold
- There are **multiple benefits** : increased employment, increased business and household spending, improved gender equity, and increased local investment in education, among others
- **Avoidance** of degradation is even more beneficial

Full Report Outline

Chapter 1: Benefits to people from avoidance of land degradation and restoration of degraded land

Chapter 2: Concepts and perceptions of land degradation and restoration

Chapter 3: Direct and indirect drivers of land degradation and restoration

Chapter 4: Status and trends of land degradation and restoration and associated changes in biodiversity and ecosystem functions

Chapter 5: Land degradation and restoration associated with changes in ecosystem services and functions, and human well-being and good quality of life

Chapter 6: Responses to avoid land degradation and restore degraded land

Chapter 7: Scenarios of land degradation and restoration

Chapter 8: Decision support to address land degradation and support restoration of degraded land



Questions and Answers

<https://www.ipbes.net/outcomes>