IPBES
Land degradation and restoration assessment
Deliverable 3 (b) (i)

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Land degradation and restoration assessment

In response to original requests from:

- CBD
- UNCCD
- member states (China, France, Italy, Norway)
- Non-governmental stakeholders

Land, air and water are the cornerstones of life on Earth.

To sustain the vitality of our global ecosystem,
we must **understand the health of our natural assets**
and how to **halt and repair damage** done to them.

Land degradation and restoration assessment

Relevance

- Addresses urgent problem of high policy relevance
  - Loss of food production & other ecosystem services
  - Threat to livelihoods
- Economic importance
  - Significant loss: economic impact of land degradation

    > $40 billion annually
  - Important opportunity: restoration as key investment
- Climate change mitigation potential through restoration

Land degradation and restoration assessment
Overall policy context – Aichi Targets

Target 5
By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 7
By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 14
By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

Target 15
By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Land degradation and restoration assessment

Overall policy context – many SDGs

e.g. SDG target 15 Life on Land :

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation and halt biodiversity loss

Target 15.3 on Land Degradation Neutrality

By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

Target 8.4 Decouple economic growth from environmental degradation

Land degradation and restoration assessment: The approach

Start

- Scoping Document (from MEP/ Bureau)
- Pool of nominated experts

Selection of CLAs

- Mapping expertise onto chapters
- Maintaining geographic, gender, disciplinary balance

Selection of LAs

- In consultation with CLAs
- Maintaining geographic, gender, disciplinary balance

Land degradation and restoration assessment:
The people (102 experts)

- 2 Co-Chairs: Bob Scholes and Luca Montanarella
- 17 Coordinating Lead Authors
- 60 Lead Authors
- 7 Fellows
- 16 Review Editors
- + many contributing authors
- supported by Anastasia Brainich/IPBES

Land degradation and restoration assessment:
The people (102 experts) from 45 countries & organisations

- Australia
- Belgium
- Bhutan
- Bolivia
- Brazil
- Canada
- China
- Chile
- Colombia
- Cuba
- Czech Republic
- Ethiopia
- Germany
- Ghana
- Hungary
- India
- Indonesia Ireland
- Israel
- Italy
- Japan
- Nepal
- Niger
- Malaysia
- Mexico
- Portugal
- Russian Federation
- UK
- USA
- S-Africa
- Sweden
- The Netherlands
- Tanzania
- Trinidad &Tobago
- Japan
- Zimbabwe
- …
- FAO
- GEOBON
- ISSC
- IUCN
- Sahara and Sahel Observatory (OSS)
- UNCCD
- …

Land degradation and restoration assessment: The report

Assessment Report

- 8 Chapters
- with Executive summaries
- Main text (~850 pages)
- Based on >3000 peer reviewed publications

Summary for Policy Makers:

- 15 Key Messages
- 19 pages supporting text
- 6 UN languages

Land degradation and restoration assessment:
The report

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

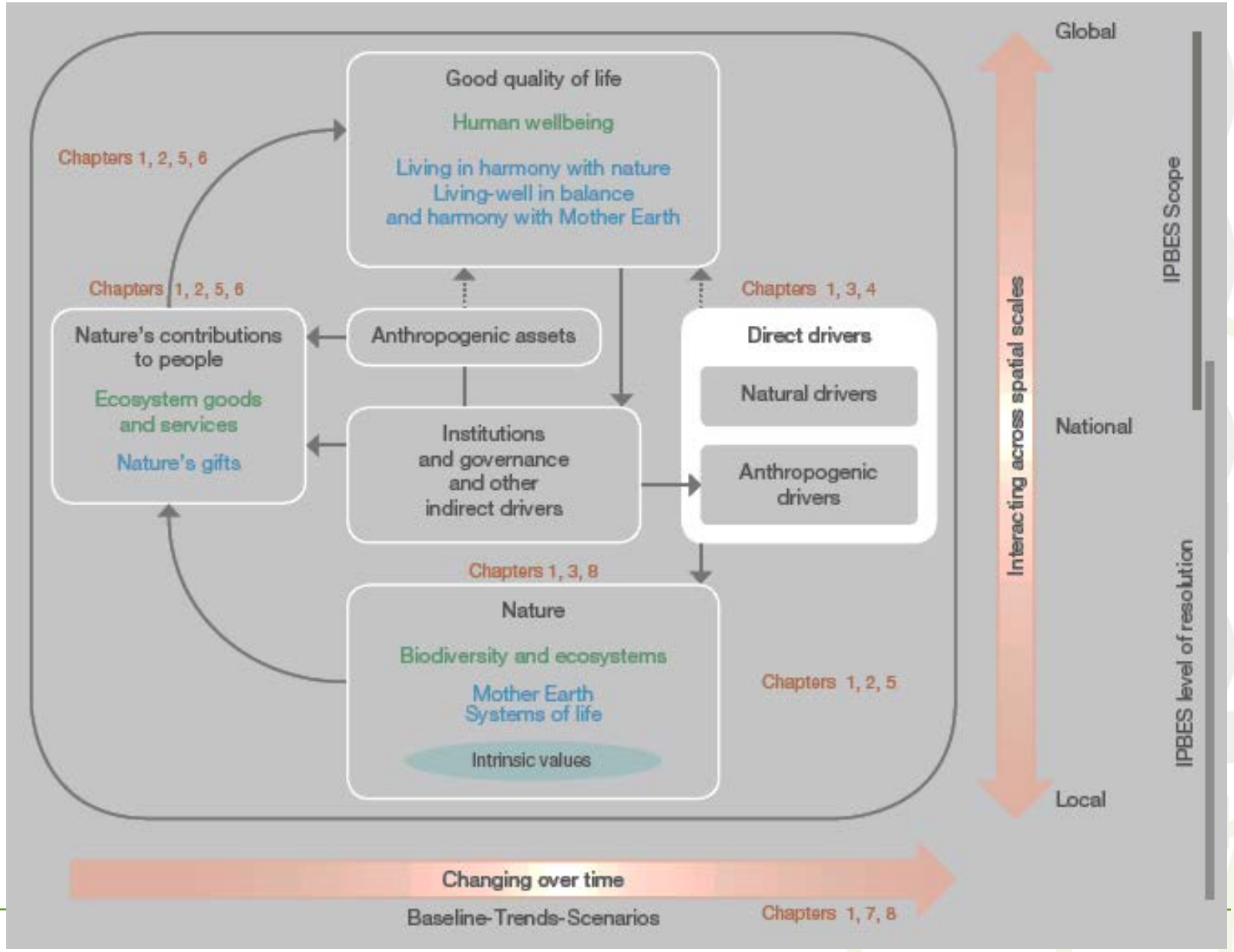
Chapter 4: **Status and trends** of land degradation and restoration and associated changes in biodiversity and ecosystem functions

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


Good quality of life
Human wellbeing
Living in harmony with nature
Living-well in balance
and harmony with Mother Earth
Chapters 1, 2, 5, 6
Chapters 1, 2, 5, 6
Chapters 1, 3, 4
Nature's contributions
to people
Ecosystem goods
and services
Nature's gifts
Anthropogenic assets
Direct drivers
Natural drivers
Anthropogenic
drivers
Institutions
and governance
and other
indirect drivers
Chapters 1, 3, 8
Nature
Biodiversity and ecosystems
Mother Earth
Systems of life
Intrinsic values
Chapters 1, 2, 5
Changing over time
Baseline-Trends-Scenarios
Chapters 1, 7, 8
Interacting across spatial scales
Global
National
Local
IPBES Scope
IPBES level of resolution

The process

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The land degradation assessment: The process

Land degradation and restoration assessment

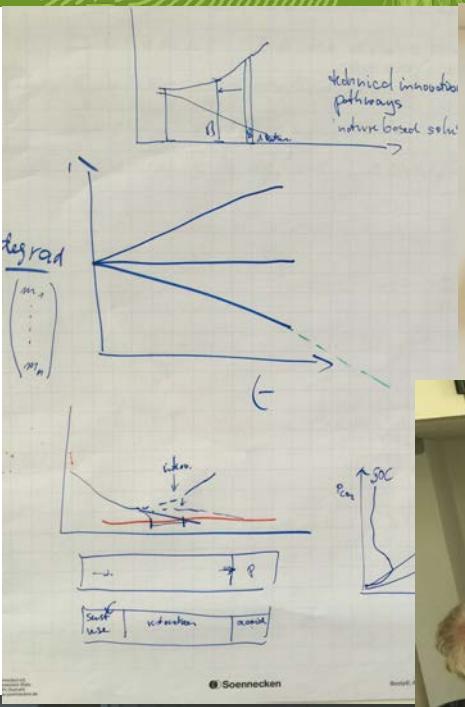
1rst Meeting in Bonn, Sep 2015

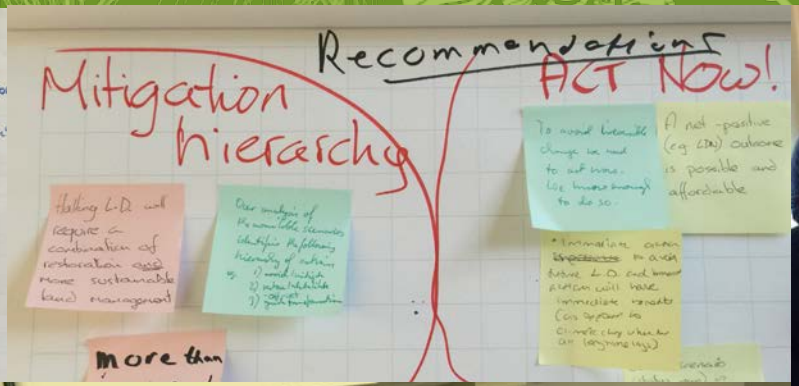
Scoping document → detailed chapter outlines

- Detailed writing plan for ZOD
- Selection of Review Editors

Post meeting:

- Write and internally review ZOD
- FOD sent for review by Experts


Soennecken


Recommendations
Mitigation hierarchy
ACT Now!


Chapter 7 Scenarios group


Conclusions/ over-arching messages from scenarios we examined
Uncertainty in scenarios
What is good enough?
Soennecken

Land degradation and restoration assessment: 2nd Meeting in Bonn, Aug 2016

Exchange between regional assessments & LDRA

- **CLA's and RE's handle review comments** (2277 comments by 85 reviewers)
- **Develop SPM outline**
- **Five thematic liaison groups** to ensure consistency of terminology & treatment of LDR with 1 expert per group from each assessment
  1) **nature's contributions to people**
  2) **status and trends**
  3) **drivers**
  4) **scenarios and modelling**
  5) **policy support**

Post meeting:

- **FOD → SOD**
- **SOD sent for review by Experts and Governments**

Workshops by expert group on scenarios and models
- Bilthoven, the Netherlands, Jan 2016
- Shonan Village, Japan, Nov 2016

Several workshops on the diverse conceptualizations of value

IPBES Land Degradation and Restoration Assessment
3rd Author Meeting

FAO, Rome, 17-21 July 2017

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Land degradation and restoration assessment:
3rd Author meeting in Rome, July 2017

- **CLA's, LA's and RE's handle review comments** (3,499 comments by 126 reviewers incl 16 governments)
- **SOD → TOD and Revise SPM**
- **Plan graphics**

Post meeting:

- **Technical report finalised**
- **Graphics developed**
- **SPM sent for review** (1,554 comments from 69 external reviewers, of which 21 were from governments)

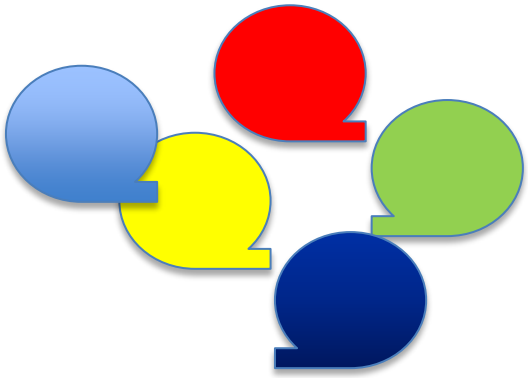
SPM presented for approval at Medellin, Colombia, 18–24 March 2018

Land degradation and restoration assessment: Review comments

35. The land degradation and restoration assessment received a total of 5053 comments from 131 reviewers. Among these were 21 Governments (India, Philippines, Finland, Australia, Belgium, Argentina, New Zealand, the Netherlands, Germany, Japan, Canada, China, Estonia, Colombia, Madagascar, France, Switzerland, UK, USA, Norway, and South Africa). Seven MEP and Bureau members submitted feedback, as well as three members of IPBES TSUs, task forces and expert groups. Eight institutions and conventions also submitted comments (FAO, CBD, Ramsar, UNCCD, EC, UNDP, UNEP-WCMS, UNCCD-SPI).

Chapter	No. Comments
Ch1	369
Ch2	589
Ch3	666
Ch4	690
Ch5	313
Ch6	409
Ch7	246
Ch8	184
SPM	1554
General	33
Total	5053

5053 comments from 131 reviewers,
incl. 21 governments
and 8 institutions & conventions



Land degradation and restoration assessment:

Chapter 7

Scenarios of land degradation and restoration

Coordinating Lead Authors

Ben ten Brink (the Netherlands), Matthew Cantele (United States of America)

Lead Authors

Aletta Bonn (Germany), Jonathan Davies (United Kingdom of Great Britain and Northern Ireland), Miguel Fernández (Bolivia), Nathanial Matthews (Canada), Joe Morris (United Kingdom of Great Britain and Northern Ireland), Wilson Ramirez Hernandez (Colombia), Machteld Schoolenberg (the Netherlands)

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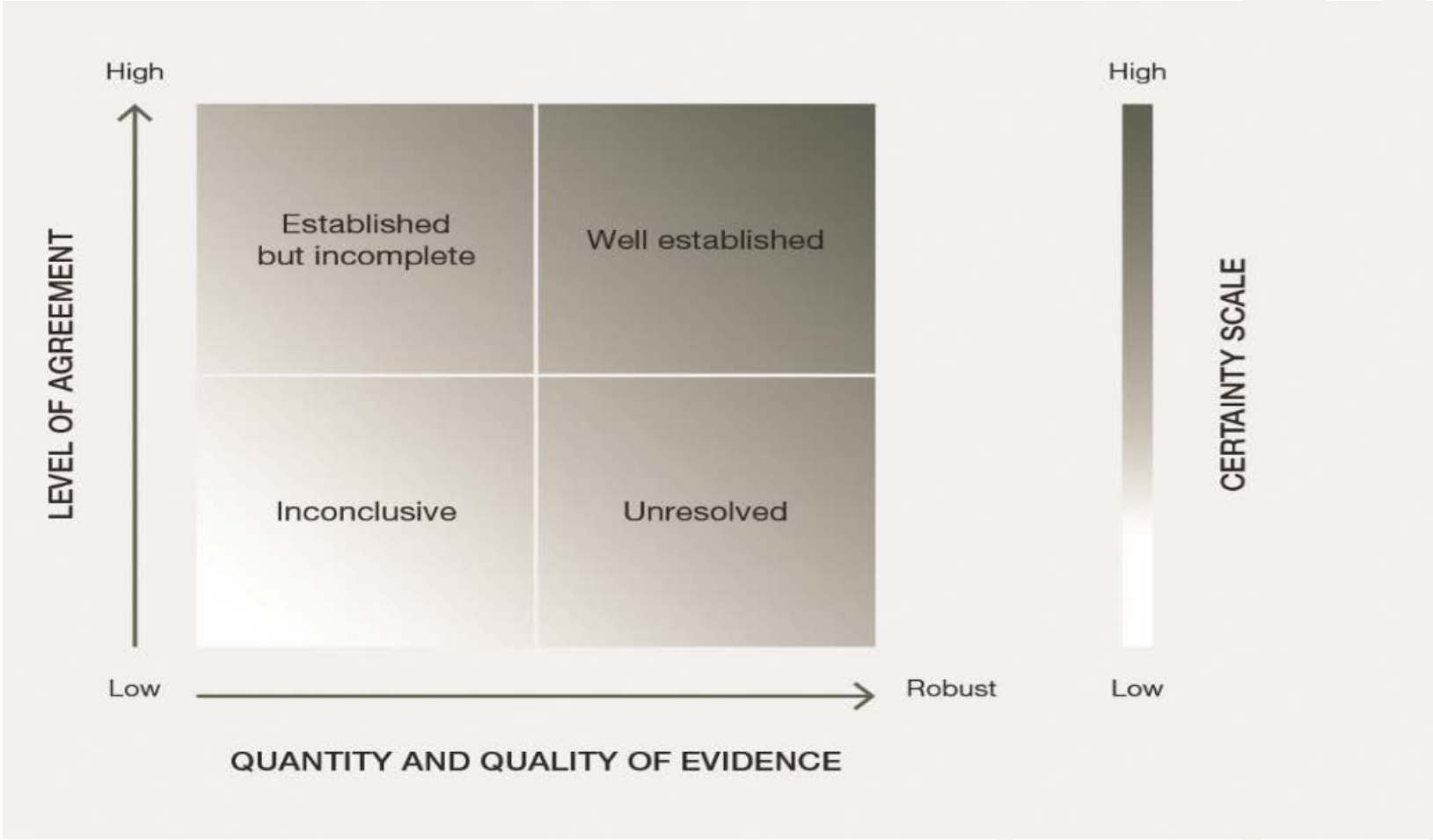
Oluwabunmi Ajilore (Nigeria), Mulubrhan Balehegn (Ethiopia), Maurits van den Berg (the Netherlands), Martin Mantel (Germany), Dan Pennock (Canada), Gergely Toth (Hungary), Detlef van Vuuren (the Netherlands).

Land degradation and restoration assessment:
Review comments

COMMENT	ANSWER
Regarding the issue of absent baseline data: Consider also analysing the relevance of the recently published "Global Soil Biodiversity Atlas": http://esdac.jrc.ec.europa.eu/content/global-soil-biodiversity-atlas	We will consider this, as baseline data suitable for modelling purposes. As such, the Atlas is a current state information and belongs to Chapter 4
Land degradation neutrality has been introduced to fill this gap.	There are no concrete implementation policies yet. Indeed, land degradation neutrality (and Bonn Challenge pledges, Aichi Targets etc) can be a first step towards quantitative national action plans.

Land degradation and restoration assessment

Confidence levels



Land degradation and restoration assessment

Challenges & Opportunities

Expertise and geographical balance

- Inevitable trade-off in some cases
- Ideally strive for nomination of well matched set of experts

Disciplinary & team mix

- Social & Economic Scientists welcome to engage (Health Scientists?)
- For expertise gaps - Contributing Authors very helpful
- **Young Fellows -** Great opportunity for early career scientists

Time Demand – Team Cohesion

- Necessarily high demand at peak times due to given schedule
- Regular skype meetings can manage and alleviate this
- Additional outputs may reward and incentivise high effort

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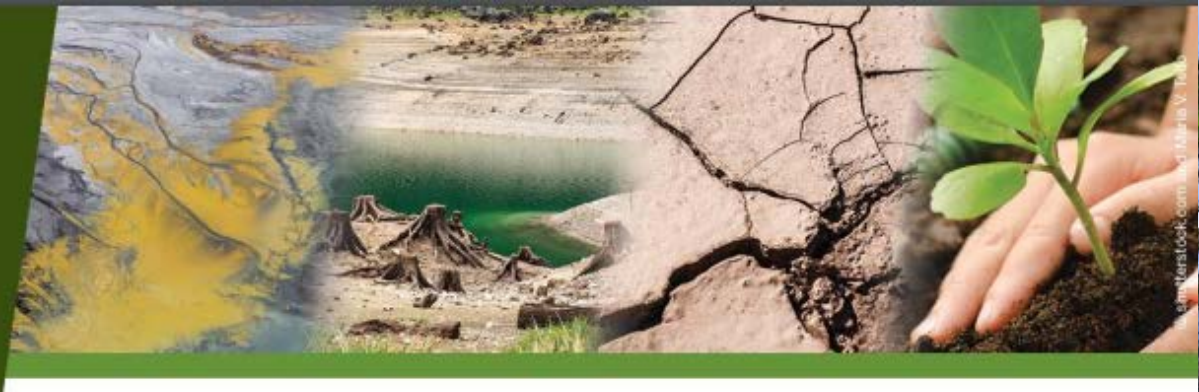

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

Worldwide Land Degradation and Restoration Assessment Report: A Primer

- Worlds 1st comprehensive evidence-based assessment report on land degradation will be launched in March 2018
- Best-available evidence for decision makers to make informed decisions to halt & reverse land degradation
- Prepared by more than 100 leading international experts from 45 countries over 3 years
- Draws on more than 3,000 scientific papers, Government reports, indigenous and local knowledge & other sources
- Improved by over 7,300 comments from more than 200 external reviewers, including Governments
- Examines implications of land degradation for achieving SDGs, Aichi Targets & Paris Agreement

Land, air and water are the cornerstones of life on Earth. To sustain the vitality of our global ecosystem, we **must understand the health of our natural assets and how to halt and repair damage** done to them.

Next steps?

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The land degradation assessment and key partners

- **United Nations to Combat Desertification (UNCCD)**
  100 countries have signed up to participate in voluntary process to achieve 2015 target of **land degradation neutrality** by 2030.
- **Bonn Challenge**
  Global effort started in 2011 to **restore 150 million hectares** of deforested and degraded land by 2020.
- **IPCC**
  Climate Change and Land: special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems – 2019

UNCCD
United Nations Convention to Combat Desertification

BONN CHALLENGE

IPCC
INTERGOVERNMENTAL PANEL ON climate change

The land degradation assessment and the CBD

The **13th Conference of the Parties of CBD** (December 2016) decided that:

Convention on Biological Diversity

the GBO-5 (Global Biodiversity Outlook 5) should draw on, among other things the thematic, regional and global assessments of IPBES and any relevant scenario analysis and modelling of biodiversity and ecosystem services undertaken as part of these assessments (decision XIII/29)

Uptake by national governments

Translation into own contexts, policy development & implementation.

Assessment of ultimate causes and interregional impacts.

Thank you!

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Land degradation and restoration assessment

1. Struktur, Aufbau und **Kernaussagen des SPMs**

2. Wie werden die **Aichi Biodiversitätsziele und SDGs** im SPM betrachtet?

3. Welche **Ergebnisse und Handlungsoptionen sind für Deutschland** besonders relevant (Abstraktionsniveau der Optionen?)?

4. Wo sehen Sie möglicherweise **kritische Stellen**, die für Deutschland bei den Verhandlungen auf ipbes-6 wichtig sein könnten?

5. Prozess zur Erstellung des SPMs, Umgang mit Kommentaren aus den Review-prozessen und möglicherweise übergeordnete Aspekte für die Erstellung des SPMs