International action on peatlands

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PEATLAND CONSERVATION AND REWETTING:

Working for Wetlands in South Africa

South Africa, Africa

The environment
South Africa is a semi-arid country with an average annual precipitation of 497mm – significantly lower than the global average of 860mm. This means that peatlands occur mainly in the wetter eastern and southern parts of the country. Evapotranspiration exceeds precipitation in most parts and peatlands are therefore groundwater dependant.

Degradation
Wetlands, including mires and peatlands, have been extensively used as an agricultural resource in South Africa. Practices such as damming, draining, cultivation, pasture and overgrazing have severely degraded about 50% of the country's wetlands. For example:

- The Palmiet (*Prenomium serratum*) fens in the Cape Fold Mountains are eroding due to overgrazing in the catchment area and the drainage of the peatlands for orchids.
- Drained peat swamp forests are used for banana plantations in the rural communities on the eastern subtropical coastal plain.
- In the Highveld plateau, peatlands are burnt and dried out as a result of timber expansion (e.g. Eucalyptus) or irrigation schemes.

Recognition of a problem
The South African government has acknowledged that wetlands provide valuable ecosystem services, and has recognised that a high level of wetland loss and degradation occur in the country. A wetland rehabilitation initiative called *Working for Wetlands* was established within the South African National Biodiversity Institute.

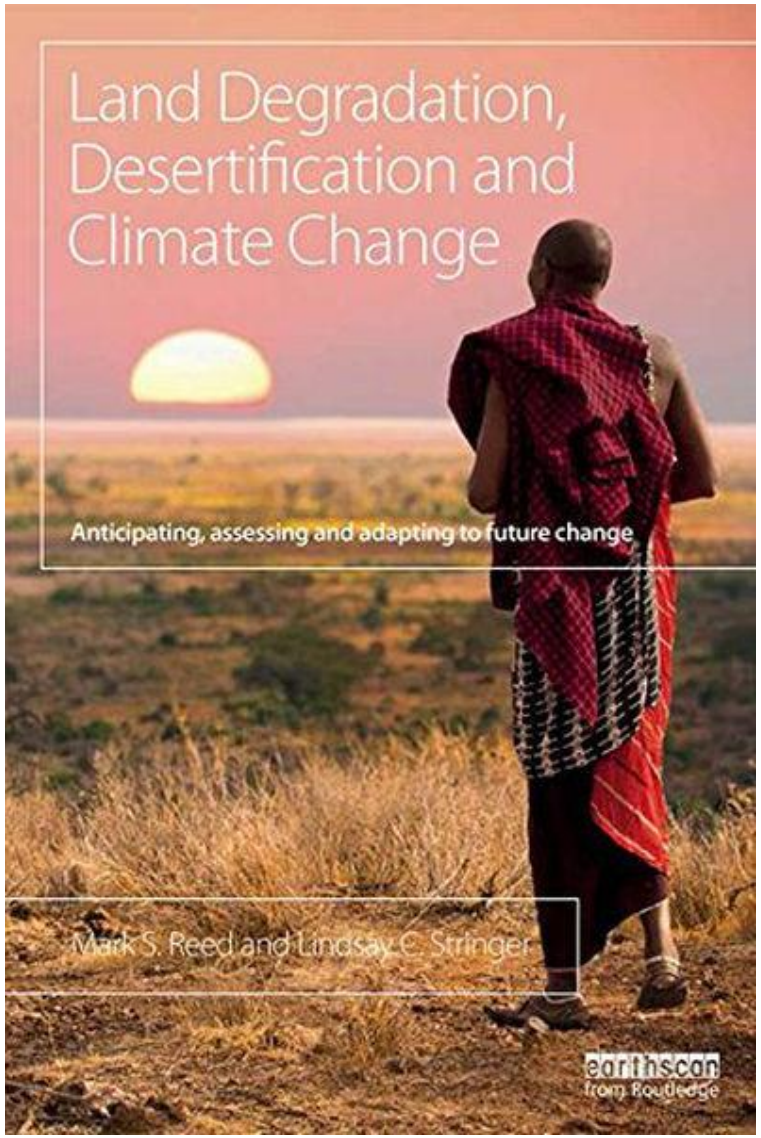
Working for wetlands
It is the vision of *Working for Wetlands* to facilitate the conservation, rehabilitation and sustainable use of wetland ecosystems, in accordance with South Africa's national policy and commitment to international conventions and regional partnerships. Working for Wetlands combines the provision of work, training and opportunities to the poorest of the poor with the rehabilitation of wetlands. During 2004-2013 the programme received a budget of about US$63million and created around 15,000 jobs (resulting in two million actual person days of work and 190,000 days of training) with women comprising approximately 60% of the work force.

Working for Wetlands combines proactive preventative measures (e.g. erosion control) with remedial interventions (e.g. rewetting) and focuses on the conservation of 20 peatlands. Rather than focusing exclusively on engineering solutions, the project aims to raise awareness and influence behaviour and practices that have an impact on wetland habitats. The aim is to maximise opportunities with respect to ecological integrity, water and food security, human well-being and poverty alleviation.

- The programme comprises of five key areas:
- Wetland rehabilitation
- Partnerships
- Communication, education and public awareness
- Capacity building
- Research and planning

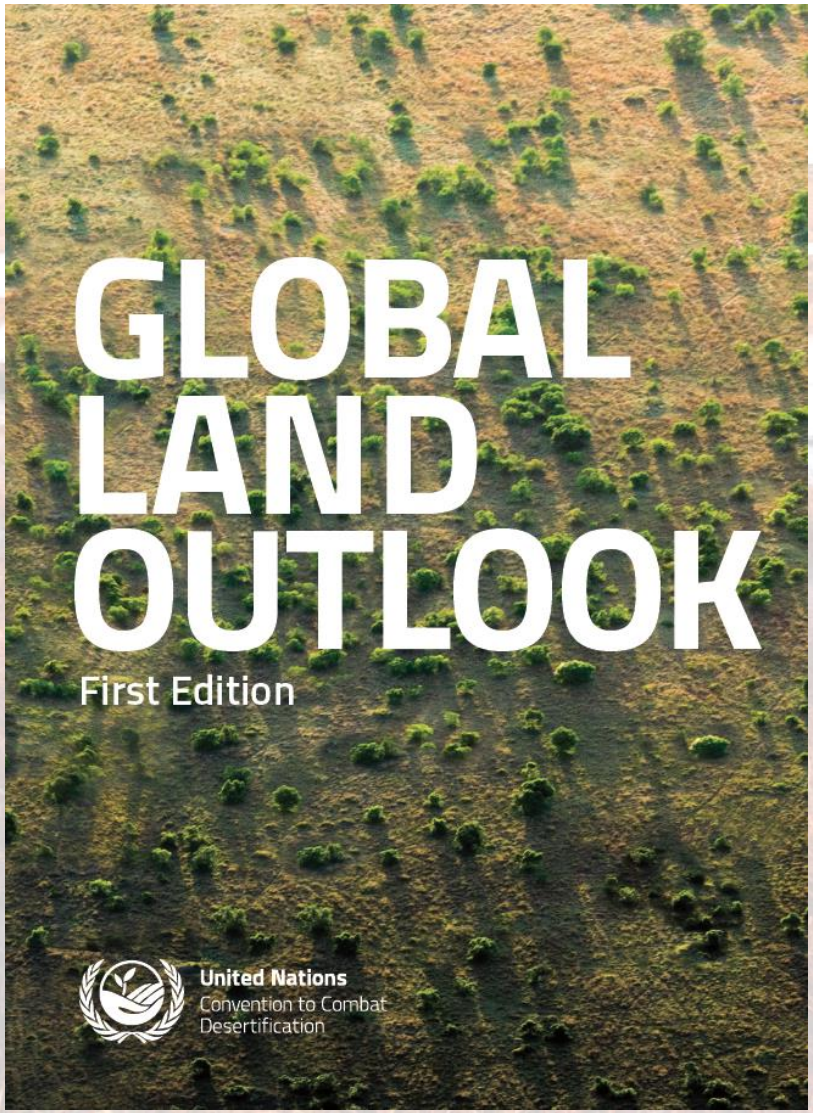
The importance of conserving even small areas of peatland
Rehabilitation and good management of wetlands, such as peatlands, can generate multiple benefits, including poverty alleviation, combating of land degradation, maintaining biodiversity and mitigating climate change. Recognising this, and even though peatlands only make up a fraction of South Africa's wetlands, 40% of all rehabilitation projects undertaken by the *Working for Wetlands* Programme have targeted peatlands or their catchments.

- Drained peatlands continue to emit 174 MtCO2 every year, placing the EU second only to Indonesia
- Degraded organic-rich soils are responsible for a quarter of CO_2 emissions from the global land use sector and represent 75% of greenhouse gas emissions from agricultural land in the EU


Land Degradation, Desertification and Climate Change
Anticipating, assessing and adapting to future change
Mark S. Reed and Lindsay C. Stringer
earthscan
from Routledge

Science-policy interfaces

- Science-Policy Interface (SPI) report on the contribution of sustainable land management to climate change adaptation and mitigation for 13th Conference of the Parties in China (2017) (UNCCD)
- Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) Thematic Assessment on Land Degradation and Restoration (2018) (UNCBD)
- Intergovernmental Panel on Climate Change (IPCC) Climate Change and Land Special Report (2019) (UNFCCC)



GLOBAL
LAND
OUTLOOK WORKING PAPER

SCALING UP SUSTAINABLE LAND MANAGEMENT AND RESTORATION OF DEGRADED LAND

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September 2017

United Nations
Convention to Combat
Desertification

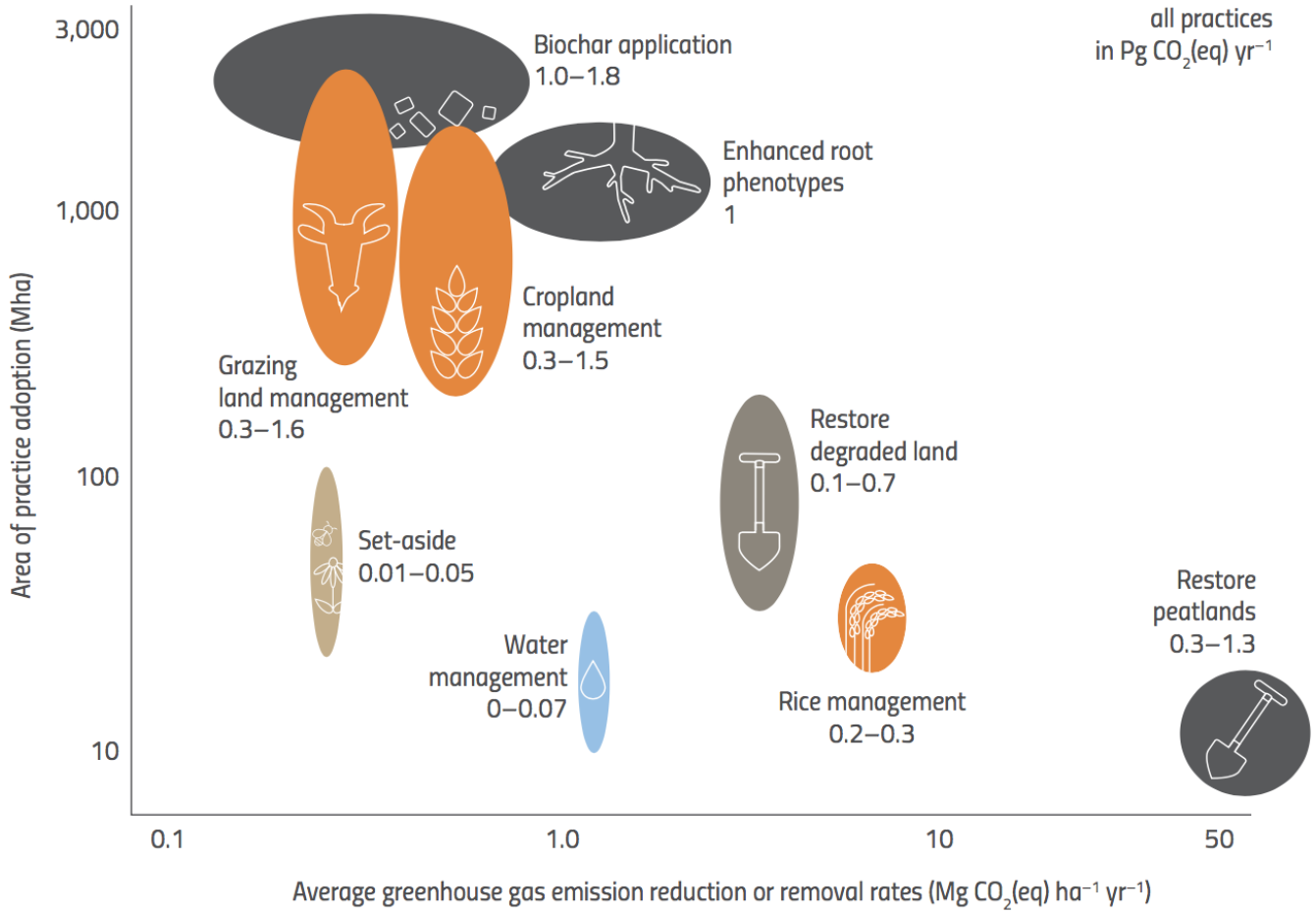

Figure 10.2: Global potential for agricultural-based GHG mitigation practices where 1Pg (Pentagram) equals 1 billion metric tons and Mg (Megagram) equals 1 metric ton: Redrawn from[78]

046 - Securing the future for global peatlands

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NOTING that peatlands occur in every continent of the world;

RECOGNISING that peatlands occupy 3% of the Earth's land surface area yet store more carbon than all the world's vegetation, including all forests, and that damaged peatlands release two gigatonnes of carbon to the atmosphere each year, equivalent to the carbon emissions of all air travel;

RECOGNISING that peatlands are among the most valuable ecosystems on Earth (also providing clean water and playing a key role in flood management), and support a wide range of rare, specialist and threatened biodiversity, and are valuable as a palaeontological archive;

RECOGNISING that peatlands are areas of geological interest on our planet and that they are of great scientific interest in recording climate evolution, the composition of the atmosphere, geological processes and agents, as well as biodiversity during the Quaternary Period;

WELCOMING the recognition by international environmental agreements and initiatives, including the Convention on Biological Diversity (CBD) and the Ramsar Convention, of the importance of peatlands for climate change, biodiversity conservation, and a wide range of ecosystem services, and RECALLING that the restoration and sustainable use of peatlands has long been recognised as a priority under such activities but that implementation of these has been largely ineffective;

VALUING NATURE

Peatland Tipping Points

Newcastle University

N8 AgriFood

Dr Gav Stewart

Prof Mark Reed

Prof Mark Whittingham

Centre for Ecology & Hydrology

NATURAL ENVIRONMENT RESEARCH COUNCIL

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BTO

Looking out for birds

Dr James Pearce-Higgins

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IUCN National Committee United Kingdom

Peatland Programme

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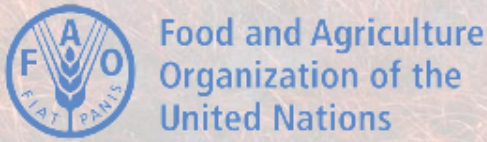
Global Peatland Initiative



Global Peatland Initiative

- Global assessment: extent, status and importance
- Activities to restore and more sustainably manage peatlands with private sector engagement in three initial partner countries: Indonesia, Peru and the Republic of Congo

Conclusion

- Challenge and opportunity…
- IUCN UK Peatland Programme is synthesizing research from the UK peatland research community and contributing to the international policy agenda
- Continue to help with us and we will help get your work to this increasingly interested international audience