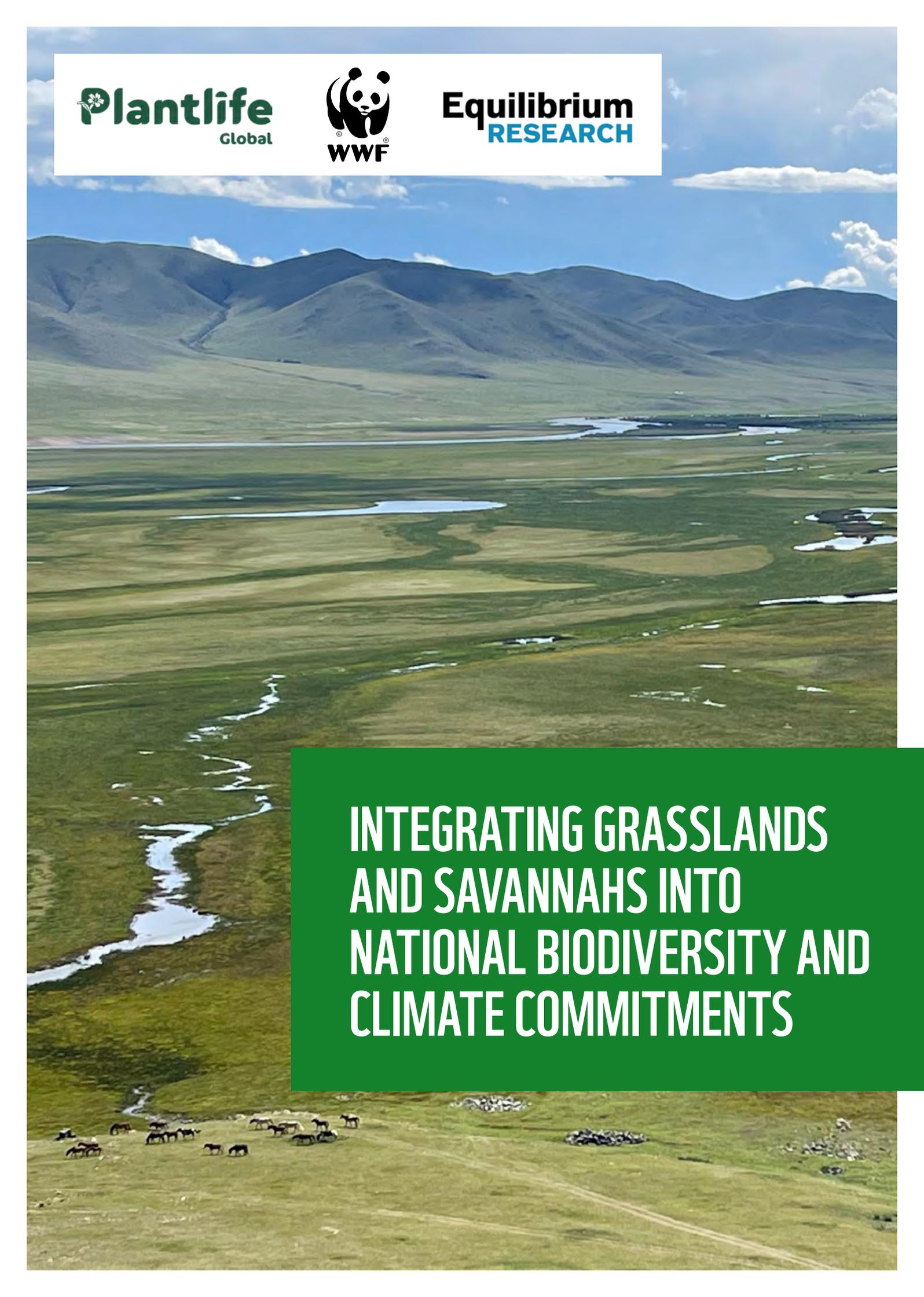




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**INTEGRATING GRASSLANDS
AND SAVANNAHS INTO
NATIONAL BIODIVERSITY AND
CLIMATE COMMITMENTS**

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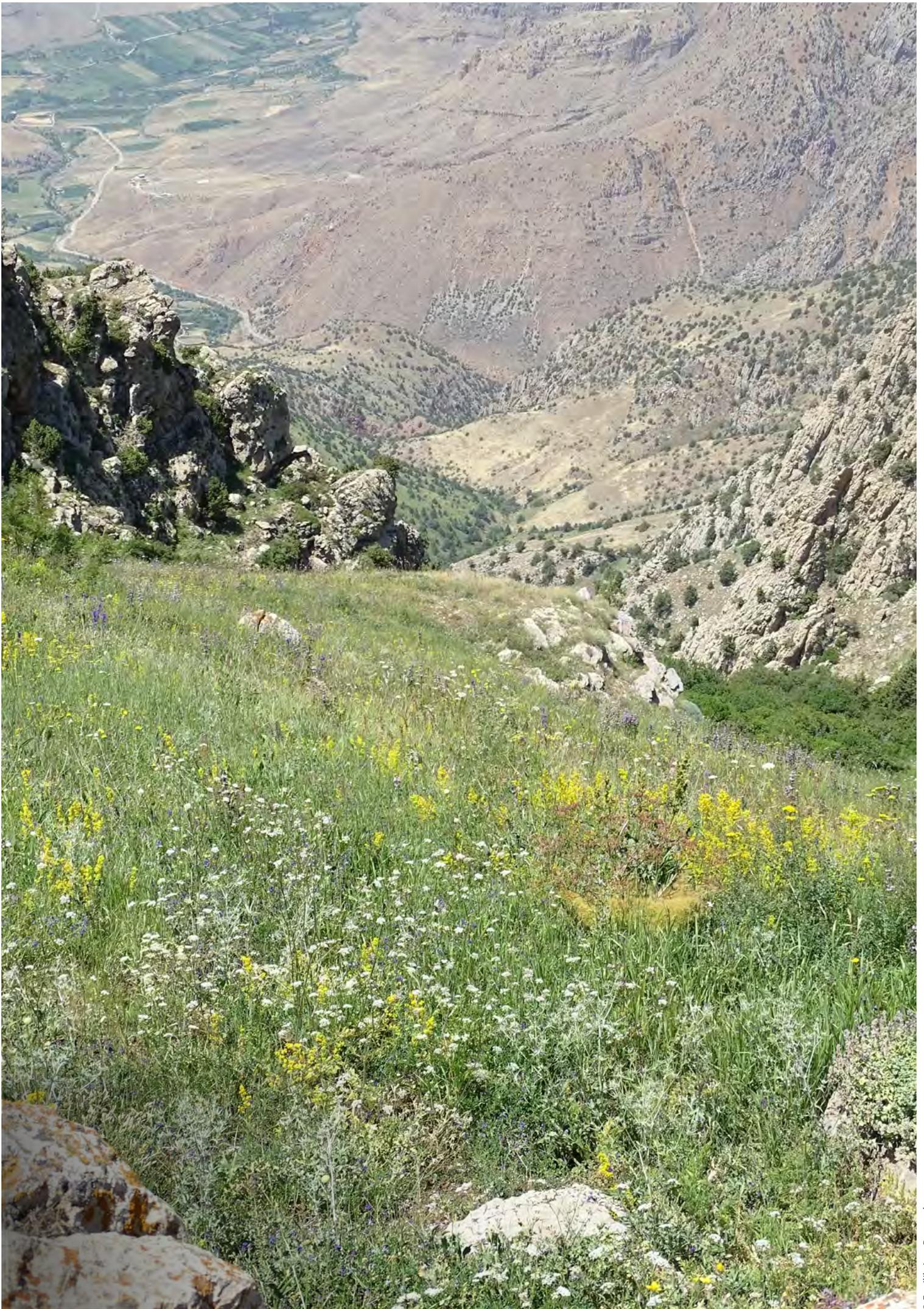
Governments around the world have agreed to take urgent action to address the biodiversity and climate crises, as well as halting desertification and land degradation.

Grasslands and savannahs, covering more than 50% of the world's land, offer a unique mechanism to achieve this.

There are opportunities to plan joined-up actions as Parties to the UN Convention on Biological Diversity (UNCBD) and Framework Convention on Climate Change (UNFCCC) revise two key documents:

National Biodiversity Strategies and Action Plans (NBSAPs) by December 2024

Nationally Determined Contributions (NDCs) by 2025



This briefing explores why and how these ecosystems, and their carbon stores, should be more prominently recognised in NBSAPs and NDCs.

The importance of grasslands and savannahs for people, agriculture, nature and our climate has been systematically undervalued and overlooked around the world. Every opportunity must be taken by governments to meet the UNFCCC and UNCBD targets for climate change and biodiversity loss, alongside the land degradation neutrality targets set by Parties to the UN Convention to Combat Desertification (CCD).

To achieve this, they cannot afford to ignore grassland and savannah biomes that cover over 50% of the world's land. Therefore, countries' NDCs and NBSAPs must specifically include targets, actions and legislation for the protection, sustainable management, and restoration of grasslands and savannahs.

Key recommendations for inclusion of natural and semi-natural grasslands and savannahs in NBSAPs and NDCs

1. Establish systematic mapping and monitoring of extent, trends in decline, and ecological condition;
2. Assess key drivers of loss, decline, and degradation, linked to specific targets, objectives and indicators of progress against each threat;
3. Support indigenous people, local communities, farmers and herders to adopt sustainable livestock grazing and management practices as part of sustainable agri-food systems; facilitating greater carbon storage, enhancing biodiversity, and sustaining food production and livelihoods;
4. Establish protection principles from inappropriate afforestation;
5. Develop a programme of protection, sustainable management and restoration

Grasslands and savannahs host unique biodiversity.

They can support some of the highest levels of biodiversity in the world, particularly in temperate regions. For instance, there can be up to 89 plant species/m² in upland Argentina

and 98 species/10m² in parts of Romania, with numerous associated insects.¹ Grasslands and savannahs also host some of the longest and most impressive terrestrial animal migrations in the world.²

Healthy grasslands and savannahs are critically important for carbon storage and climate resilience. They:

- Provide carbon stores to mitigate climate change,³ possibly more reliably than forests in places at high fire risk,⁴ with huge restoration potential.⁵ Recent figures for grasslands suggest they store between 25-35% of terrestrial carbon,^{6,7,8} 90% of it underground;⁹
- Reduce soil erosion, dust storms and desertification,¹⁰ and protect against flooding, contributing to climate change adaptation;¹¹
- Aid water security through protection of surface and groundwater sources.¹²



Grasslands and savannahs provide a huge range of other ecosystem services, if maintained in good ecological condition. This is true for both natural^I and semi-natural grasslands^{II}. They:

- Support food security¹³ through livestock,¹⁴ wild food collection,¹⁵ and maintenance of pollinators;¹⁶
- Maintain a wide range of recreational,¹⁷ cultural and aesthetic benefits,^{18,19} and many contain sacred landscapes;²⁰
- Support a quarter of the world's people with a huge cultural diversity, including cultures that are highly under threat, from gauchos in South America to nomadic pastoralists of Central Asia.²¹



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Despite these riches, grassland and savannah ecosystems are arguably undergoing the fastest rate of conversion and degradation of any terrestrial biome.

Over 40% have been converted,²² leaving much of the rest liable to fragmentation and loss, with national laws often too weak to provide security.²³ Temperate grasslands are the most altered ecosystem, with only 4.5% in protected areas.²⁴ Losses come from **conversion** to agricultural crops^{25, 26} and tree plantations (the latter sometimes under the auspices of “reforestation policies”), from **reseeding** for intensive livestock production,²⁷ **woodland encroachment** in the absence of natural grazers or livestock; and through the

impacts of **development** including urbanisation, transport infrastructure, mining. These changes are all having catastrophic impacts on biodiversity and ecosystem services.

Conversely, there is evidence that biodiverse grassland ecosystems have greater resilience in the face of environmental change.^{28,29} Increased grassland plant and fungal species diversity can therefore help to mitigate many of the impacts mentioned above.³⁰

I ‘Natural’ is used here to mean ecosystems with a full, or almost full, mix of expected plant species and natural ecological interactions.

II A habitat with some human intervention: where cutting, grazing or burning prevents succession to scrubland, but is otherwise unmanaged and with little to nil inputs such as fertilisers.



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Grasslands and savannahs are prime candidates for protection, management and restoration under NBSAPs and NDCs, covering about 54% of global land.³¹

Securing and maintaining grasslands and savannahs as healthy ecosystems, delivering their full range of services, requires a **strategic approach** through national policy and legislation. Globally, these ecosystems are in urgent need of **three overarching actions**, applied under a landscape approach:³²

1. **Protect:** increasing the area conserved effectively in ecologically-representative protected areas and other effective conservation measures (OECMs) to include viable and well-connected examples of all grassland and savannah ecoregions – GBF Target 3; Paris Agreement Article 5
2. **Manage:** improving management of the world's grasslands and savannahs to increase carbon storage,³³ optimise grazing levels, boost biodiversity to help adaptation to climate change,³⁴ reduce compaction and erosion,³⁵ and increase other ecosystem services – GBF Targets 8 & 10; Paris Agreement Article 5 & 7
3. **Restore:** implementing restoration over large areas of degraded land to restore ecosystem services and improve the livelihoods of over a billion people living on degraded farmland. The UN Decade on Ecosystem Restoration and the GBF both provide a clear mandate – GBF Target 2³⁶; Paris Agreement Article 5 & 7



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These three overarching actions can be integrated into, and achieved by, specific commitments within NBSAPs and NDCs.

For example, Mongolia's NBSAP^{III} included a National Biodiversity Programme with specific goals, objectives, and outputs. This provides an assessment of the current condition and threats to grassland and pasture in Mongolia, and sets out commitments - with target dates and indicators – for legislation and economic mechanisms to address these threats. Pakistan's NDC^{IV} includes specific restoration targets for degraded grassland, funded by an independent and transparent 'Eco-System Restoration Fund' to 'mobilize and finance Pakistan's climate compatible development'.

Further, there are opportunities for governments to engage with international organisations and processes to stimulate knowledge-exchange, such as the International Union for Conservation of Nature's (IUCN) Grassland Resolution,^V the EU Grassland Watch mapping platform^{VI}, and the UN's International Year of Rangelands and Pastoralists in 2026^{VII}. However, many countries have not included grasslands and savannahs within their NDCs or NBSAP. Where included, it is often a descriptive reference and without concrete actions or targets, therefore limiting the vital role grasslands could play in climate change mitigation and adaptation and nature recovery.

III Mongolia NBSAP (2015). Accessed at: cbd.int/doc/world/mn/mn-nbsap-v2-en.pdf

IV Pakistan's NDC (2022). Accessed at: Pak-INDC.pdf (unfccc.int)

V 010 – Protecting and restoring endangered grassland and savannah ecosystems | IUCN World Conservation Congress 2020 (iucncongress2020.org)

VI EU Grassland Watch (europa.eu)

VII Home | International Year of Rangelands and Pastoralists Initiative (iyrp.info)

Recommendations for commitments to protect, sustainable manage, and restore natural and semi-natural grasslands and savannahs by including them within NDCs and NBSAPs^{VIII}

1. Establish systematic mapping and monitoring of extent, trends in decline, and ecological condition

Example actions:

- Ensure access to high-quality land use and land cover datasets, over a time series;
- Combine maps of general degradation indicators, such as primary productivity and soil organic carbon, with spatial information on climate, edaphic and socio-economic data.³⁷

Enables:

- Development of standardised indicators for monitoring, such as indicators of abandonment and degradation. This provides actionable information that can be used to drive management actions, policy development, or track compliance with conservation commitments.

2. Assess key drivers of loss, decline, and degradation, linked to specific targets, objectives and indicators of progress against each threat to inform policy

Example actions:

- Establish data collection requirements to assess the threats and use these to establish a baseline and measure future trends; for example, the use of nitrogen fertiliser on grassland, land use change and non-native species proliferation;
- Assess the severity of degradation and its consequences for biodiversity and ecosystem services;
- Establish a legislative and policy framework specifically for grasslands and savannahs, or ensure these habitats are adequately represented in existing policy and legislation;
- Assess the impact of climate change on natural and semi-natural grasslands, identifying and implementing adaptation measures where needed.

Enables:

- Implementation of targeted interventions to address threats, supporting a greater extent of healthy grassland and savannah ecosystems, within and outside of protected areas.

3. Support indigenous people, local communities, farmers and herders to adopt sustainable livestock grazing and management practices as part of sustainable agri-food systems; facilitating greater carbon storage, enhancing biodiversity, and sustaining food production and livelihoods

Example actions:

- Assessment of economic value and benefits of ecosystem services delivered through a shift to more sustainable grazing practices, such soil carbon storage and climate change adaptation potential, diversity of pollinator communities, and increasing crop productivity;
- Identification of factors that hinder the adoption of more sustainable grazing practices, along with actions to reduce their impacts – supported by guidance;
- Identification and adoption of agricultural policies, such as agri-environment schemes, that support and incentivise less intensive agricultural practices - recognising the rights of indigenous people and local communities;

VIII These recommendations could be integrated with Global Plant Conservation Actions as part of the new Global Strategy for Plant Conservation (GSPC) agreed in the Kunming-Montreal Global Biodiversity Framework.

- Removal or alteration of subsidies that perversely incentivise conversion or degradation of grasslands and savannahs;
- Promotion of product certification and labelling schemes that promote sustainable agricultural management practices;
- Robust regulation to minimise environmental pollution from agriculture that decreases biodiversity, damages public health and contributes to climate change;
- Introduce specific grazing/disturbance regimes to promote biodiversity and re-establish ecosystem functions, where required.

Enables:

- Development and introduction of policies that mutually support indigenous people and local communities, while conserving or rehabilitating biodiversity and ecosystem services in grasslands and savannahs.

4. Establish protection principles from inappropriate afforestation

Example actions:

- Communication with policy makers and the public about the benefits of natural and semi-natural grasslands and savannahs, value of restoration, as well as highlighting afforestation risks;
- Forestry sector directly contributes to biodiversity objectives for grasslands and savannahs;
- Development of Forestry Standards and Planning Tools.

Enables:

- Protection of existing, or with restoration potential, ecologically important grassland and savannah, guiding tree planting initiatives towards more appropriate land.

5. Develop a programme of protection, sustainable management and restoration

Example actions:

- Identify and take steps to maintain natural and semi-natural grasslands with high levels of native biodiversity, through protection or tailored management policies;
- Interventions within Protected Areas and in Other Effective Area-based Conservation Measures (OECMs), such as Important Plant Areas (IPAs), to restore or maintain grassland habitats;
- Cross-sectoral partnerships between governments, non-governmental organisations, indigenous people & local communities, and private sector;
- Funding for pilot studies that inform policy and management/restoration approaches, including optimal ways to maintain grasslands in the absence of natural predators;
- Establish systems for community-based biodiversity management, such as community seed banks or local donor site registers.

Enables:

- Co-ordinated and strategic approach to policy and practice, that ensures responsibilities and accountabilities are embedded across relevant sectors.

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