



Global Grassland Dialogue Platform July Meeting

21. July 2020

Agenda

- Welcome
- WWF - Global Grasslands and Savannas Initiative
- Global Grassland Dialogue Platform up-date on IUCN Motion
- *Maria Eugenia Periago (FVSA): Defining value of Grasslands – Methodology and Challenges*
- *Fiona Flintan, ILRI: Mapping as a tool for contributing to the filling of data gaps in grasslands and savannas*
- *Sophie Reineremann, DLR: Assessment of Grassland State, Production and Management Based on Remote Sensing.*
- Discussion on expectation and next steps

WWF Global Grasslands & Savannahs Initiative (GGSI)

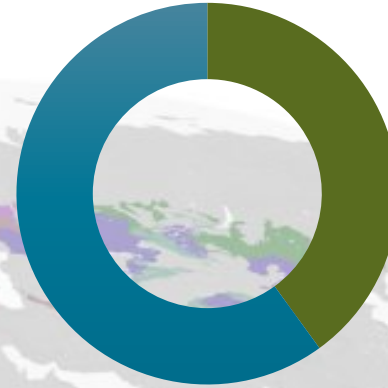


Why Grasslands and Savannahs?

up to 40%
of planet's total land



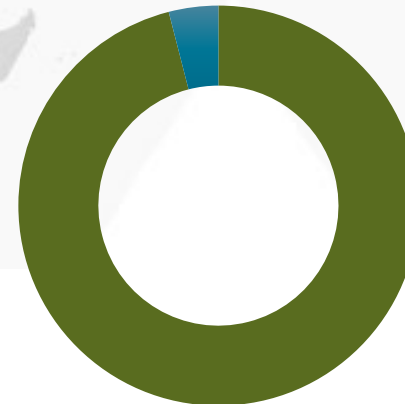
up to 80% of
agricultural lands



50% lost
(Cerrado, NGP)



Less than 10%
protected



Why Grasslands and Savannahs?

Biological Diversity

Support rich and distinct flora and fauna, including the last large herds of threatened and endangered wild animals & thousands of highly specialized endemic plant species.

Carbon Storage

Represent 20-34% of the global stock of carbon in terrestrial ecosystems; store in total 3x more carbon than tropical rainforests.

Freshwater

Originate or serve as freshwater catchment areas for most of the world's largest rivers and wetlands. They play an essential role in filtering and storing freshwater, as well as ensuring rain regimes and providing irrigation for agriculture.

Livelihoods & Food Security

Represent up to 80% of agriculturally productive land; widely used as rangeland for livestock used in meat and dairy production, providing livelihoods for millions of rural and indigenous people.

Cultural Identity

Home to last remaining nomadic cultures, retaining unique knowledge about sustainable use and management of their ecosystems, including fire, grazing and seasonal transhumance.

Global Grasslands and Savannas Initiative (GGSI)

The **Goal** of GGSI

Halt biodiversity loss and reduce greenhouse gas emissions from agricultural production and other threats in grasslands and savannas, and to **improve and restore the ecosystem services** provided by these biomes to nature and people.

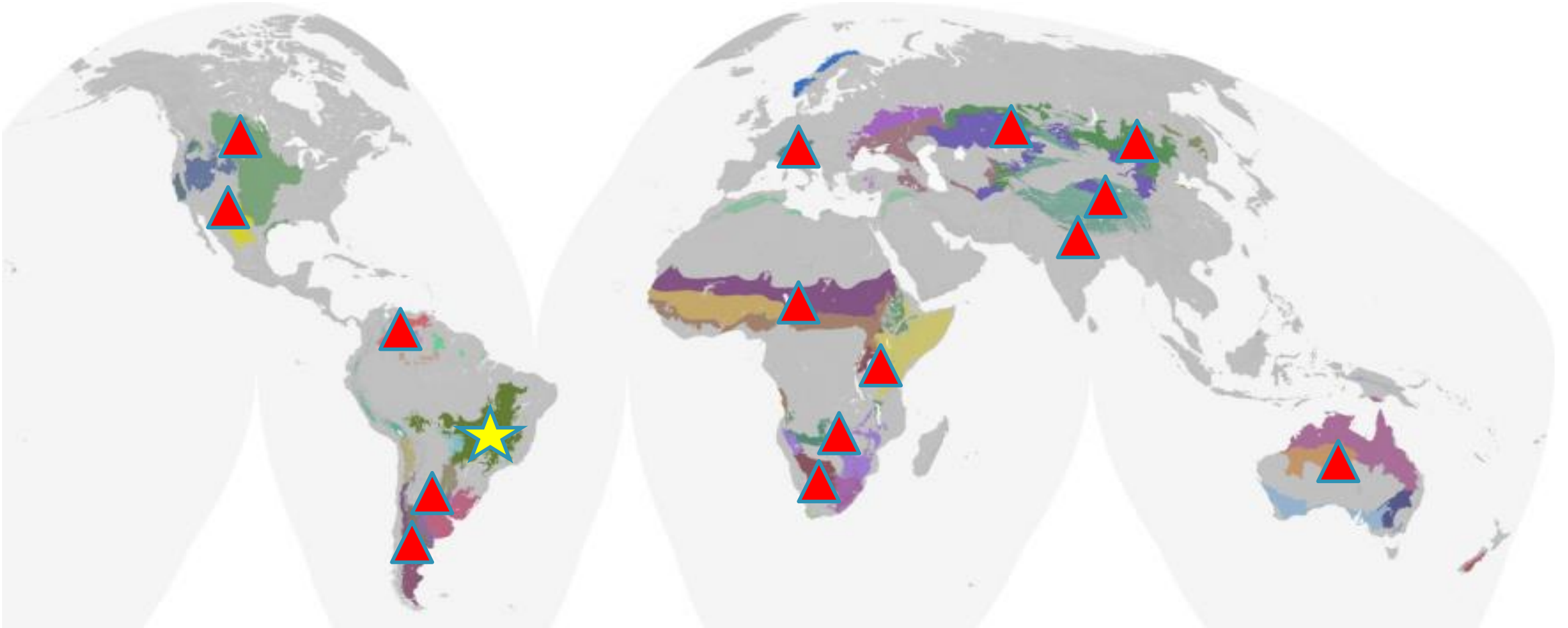


Our Proposed **Intervention**

The GGSI will be delivered via two workstreams:

1. **Elevate the profile of grasslands and savannas** to the highest levels of international attention, ensuring they get the investment they deserve
2. Deliver on-the-ground interventions in specific landscapes to **protect, better manage, and restore** these biomes, establishing models for wider replication

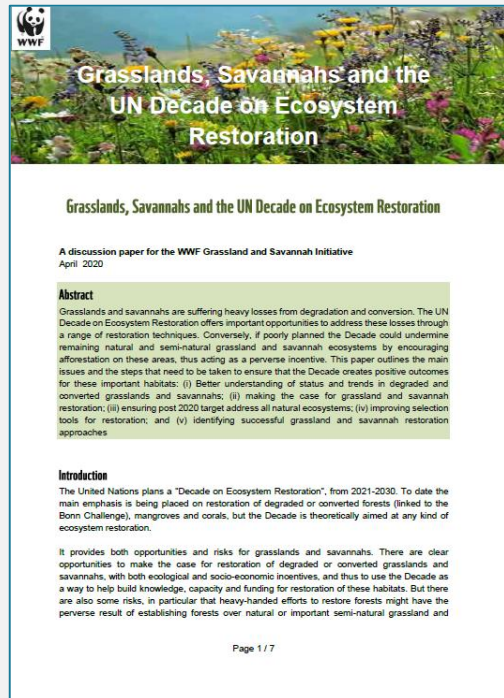
WWF's Presence in Grasslands & Savannahs



Outline Global Grassland Ecosystems Dialogue Platform



Targets and activities of the Dialogue Platform



- ✓ **Exchange knowledge** and insights about grassland management, restoration and protection
- ✓ Lessons-learned from **practical approaches on the ground**
- ✓ Up-date on **Grassland Ecosystems Maps**
- ✓ **Positioning** of grassland and savannah ecosystems in **global policies** like Global Biodiversity Framework and cooperate on side-events at high level conferences (UNGA, IUCN WCC, UNEA, CBD, UNCCD, UNFCCC) -
- ✓ Development of **joint science/policy papers**
- ✓ Cooperate on potential **funding opportunities**

Core team (3-6 people) – regular calls every two weeks

- Organize calls and invitation
- Generate participants
- Coordinate topics and themes, speaker

Group of experts and practitioner- monthly calls

Community of practitioners (WWF GGSI Member and partner)

- People with practical experience on the ground
- Contributing with concrete case studies
- Input of opportunities and challenges

Community of Science and academics

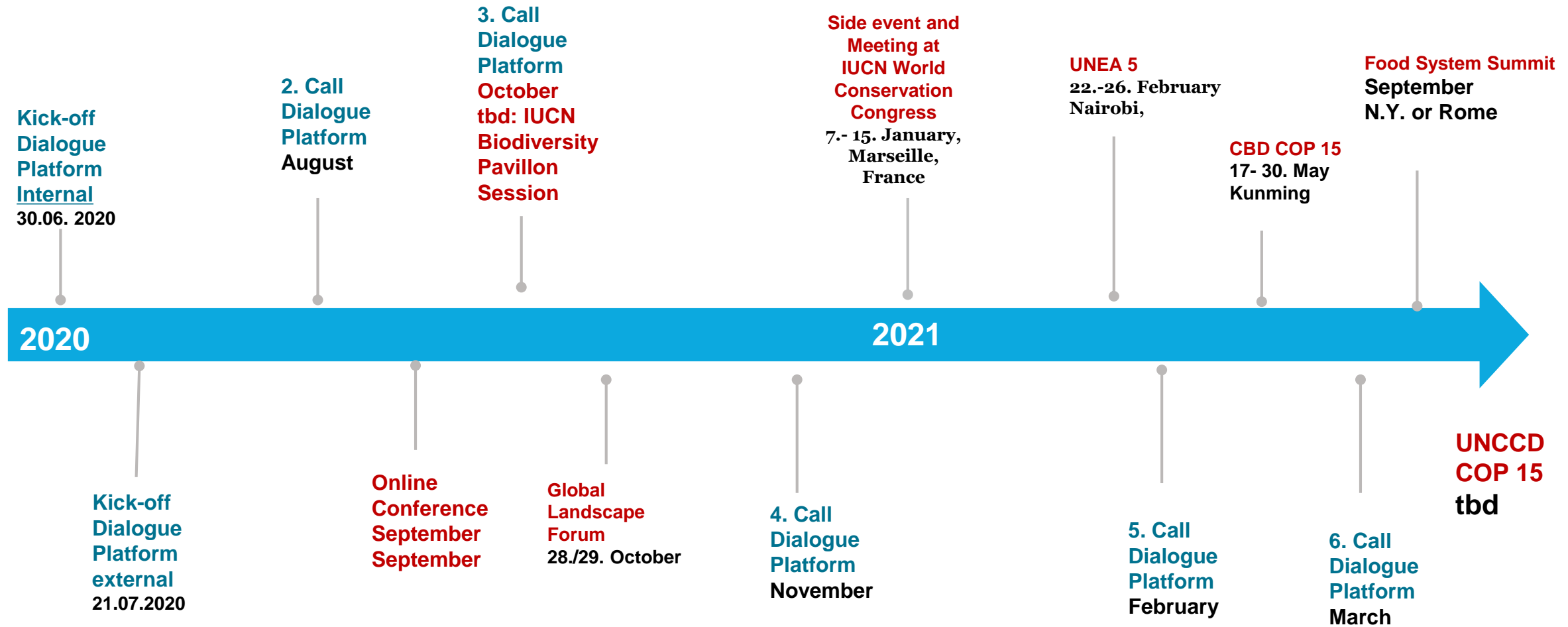
- Contributing to scientific discussions
- Latest science reports
- Support paper and publications

Policy community

- Linking up with UN Agencies
- Support of global processes like CBD, UN DECADE, IYRP,
- Development of policy briefs

Organization & Structure:

Key Activities and Meetings 2020/2021



Next Steps

- Global Biodiversity Framework: Develop Indicator for Grassland and Savannah Ecosystems for next SBSTA, 2. – 7. November 2020 in Canada, Montreal
- Develop a discussion paper on mapping, open questions and next steps
- Cooperate on joint side-events

- *Maria Eugenia Periago (FVSA):
Defining value of Grasslands – Methodology and Challenges*
- *Fiona Flintan, ILRI:
Mapping as a tool for contributing to the filling of data gaps in
grasslands and savannas*
- *Sophie Reineremann, DLR:
Assessment of Grassland State, Production and Management
Based on Remote Sensing.*



Defining Valuable Grassland Areas

METHODOLOGY AND CHALLENGES

Maria Eugenia Periago
Sustainable management and production Coordinator



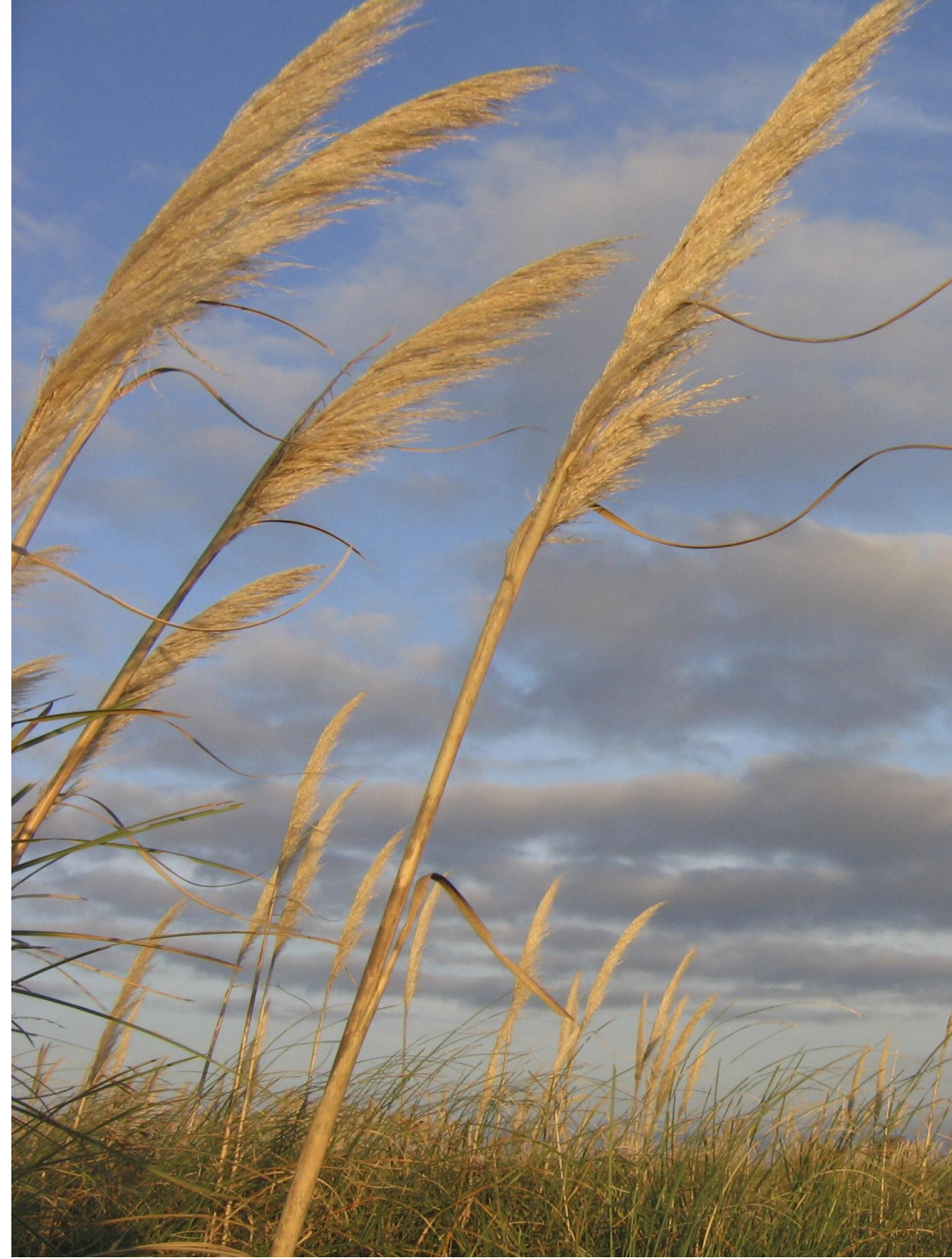
VIDA SILVESTRE ES UNA ENTIDAD ASOCIADA A LA
ORGANIZACIÓN MUNDIAL DE CONSERVACIÓN



Valuable grasslands

A considerable area of natural grasslands under good conservation conditions.

May vary from a few hectares –for example, the last relict of an endemic species – to large areas where patches of natural or semi-natural grasslands are the dominant element in the matrix





The Rio de la Plata Grasslands

750,000 km² (bigger than France)

Ecoregions of Pampas in central Argentina and campos of Uruguay.

550 different grasses of diverse genus.

Particular climatic conditions that allows the coexistence of C3 and C4 metabolisms.

450-500 bird species with approx. 60 strict grassland dwellers.

100 mammal species, including the endangered pampas deer.





2002-2004

Methodology

147 key informants from 56 institutions from Argentina, Brazil and Uruguay and one NGO from Paraguay

Online form sent to key informants, printed forms handed out in specific conferences, workshops, field visits.

Main criteria for consideration:

- size and ecosystem elements present
- biodiversity

- land tenure and use

- threats and opportunities for conservation
- cultural values

IDENTIFICACIÓN DE ÁREAS VALIOSAS DE PASTIZAL EN LAS PAMPAS Y CAMPOS DE ARGENTINA, URUGUAY Y SUR DE BRASIL (AVPs)



Factsheets

CERRILLADAS - LLANURA PERISERRANA DEL SISTEMA DE TANDILIA

Lorona Herrera en colaboración con Pedro Laterra y Gustavo Martínez

Descripción

Se trata de fragmentos de pastizal natural remanente (*cerrilladas*) de superficie variable (5 - 330 ha) ubicados dentro de la llanura periserrana, muy desconectados entre sí por cultivos. Se ubican en los partidos de Tandil, Lobería y Balcarce, provincia de Buenos Aires (36°38' a 37°56' S - 57°46' a 60°58' W).

Biodiversidad

Las comunidades de pastizal natural presentes son el pajonal dominado por *Paspalum quadrifarium* y el flechillar dominado por numerosas especies de los géneros *Stipa* y *Piptochaerium*. Algunas especies de la fauna son utilizadas como alimento: vicuña (*Lagotomus macinus*), perdiz colorada (*Rhynchotus rufescens*).

Uso de la tierra

Ganadería (51-70%), forestal (0-10%), urbano (0-10%), otros usos (0-20%).

Tenencia de la tierra

Privado (más de 20 unidades).

Amenazas

ACTUALES: pasturas implantadas (*Festuca arundinacea*), especies vegetales exóticas, plantaciones forestales, ganadería intensiva, sobrepastoreo, contaminación (derrame de agroquímicos desde campos agrícolas vecinos).

POTENCIALES: expansión de la frontera agrícola.

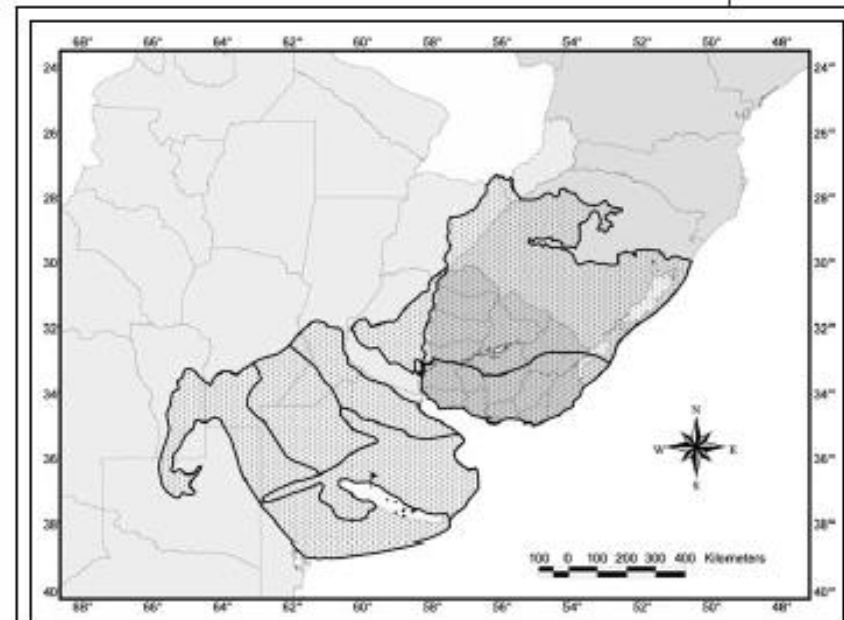
Acciones de conservación

Actualmente no se realizan acciones de conservación que prioricen el sistema de Tandilia en su conjunto, englobando las cerrilladas. Ver anexo "Bibliografía y proyectos desarrollados en las AVPs".

país: Argentina
provincia: Buenos Aires
eco-región: Pampas
subregión: Pampa Austral

Justificación

Verdaderos relictos de las comunidades de pastizal nativas de la llanura periserrana, que actualmente en su conjunto no superan el 5% de la superficie original debido al alto grado de transformación agrícola. A su vez estos fragmentos son refugio de predadores / reguladores de plagas agrícolas, refugio de fauna, protegen los suelos, conservan "in situ" germoplasma de papa y de forrajeras nativas y muchos de ellos tienen importancia arqueológica. *



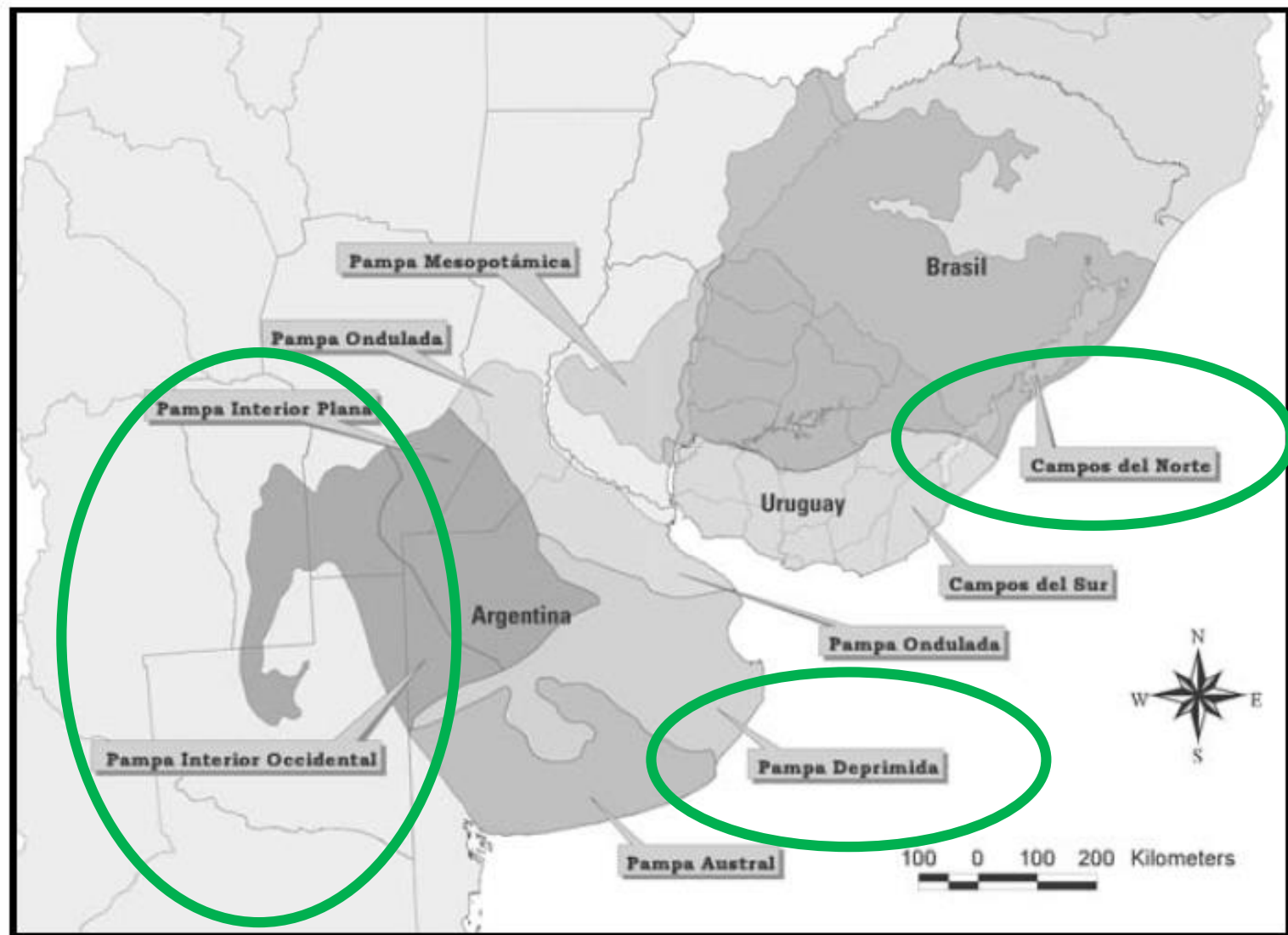
Results

68 Valuable Grassland Areas identified
(48 within the original boundaries).

3.570.000 hectares (equal to Belgium),
4.7% of the total surface, 10x more
than the protected area surface.

96% of the VGAs are located in the
subregions:

- Campos del Norte
- Pampa Interior
- Pampa deprimida





Challenges regarding VGAs

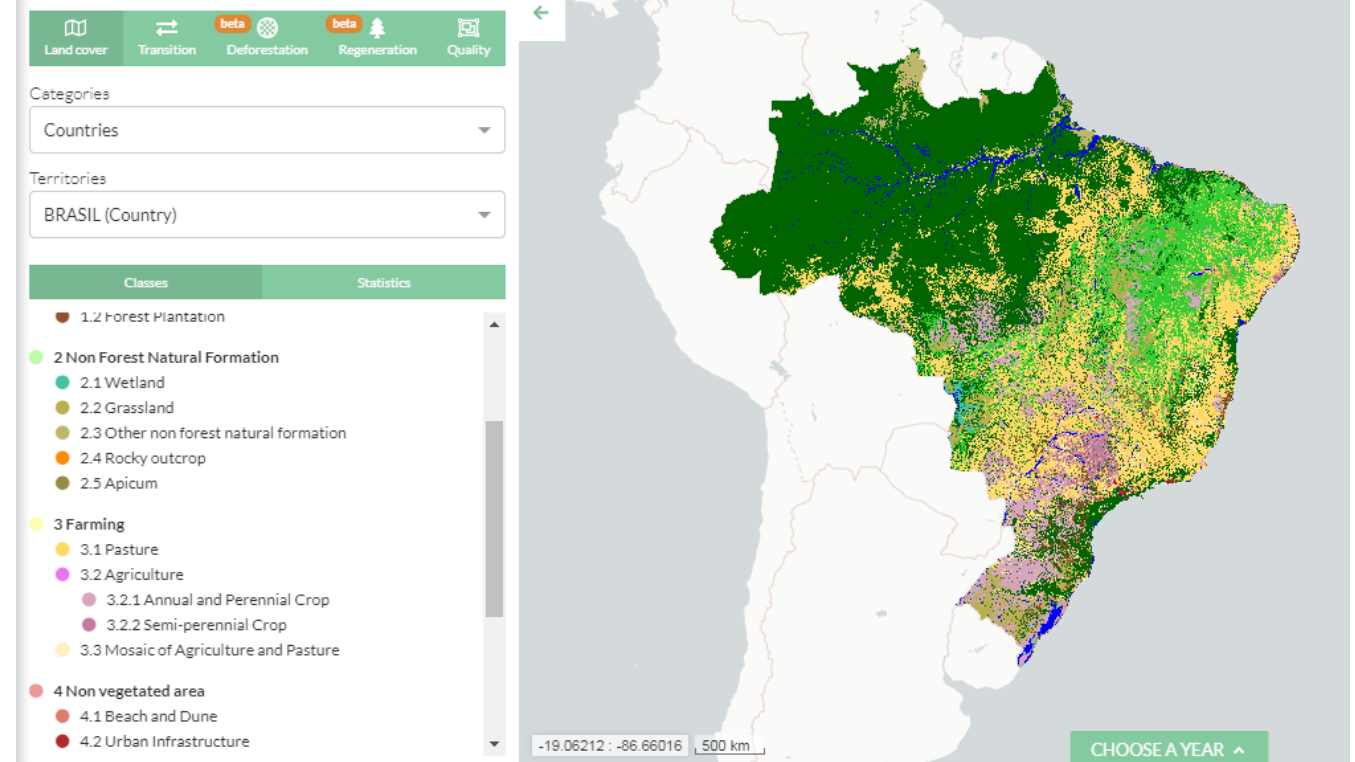
- The methodology is based on experts via questionnaire. Need to monitor on site or via remote sensing.
- VGAs are small and insufficient for the conservation of the Pampas grasslands.
- Almost all VGAs are in private lands, need to convince producers to conserve them.
- Too many grasslands have been converted and those that remain are valuable *per se* even if they do not contain endemic species or high biodiversity.
- High biodiversity is not a characteristic of this biome like rainforests, so looking for conservation reasons there is a mistake.
- The habitat of some strict grassland species is a more powerful reason for conservation. Another reason is the ecosystem services they provide.
- In EIA, in certifications such as FSC, they only consider not converting VGAs. But since most grassland areas are not VGAs, they are “justifiably” converted to activities such as pasture, agriculture and afforestation.



Going forward



MAPBIOMAS



- New mapping tools, such as Mapbiomas, which generate annual land use and land cover time series (Brazil, Trinational Ecoregions "Chaco, Atlantic Forest and Pampas") and carbon dynamic analysis.
- Re-definition of “valuable” to include last areas of highly transformed ecoregions.
- Some conversion (i.e. 20% max) may be acceptable in places that still have large areas of native grasslands (Corrientes province) but need to show that there is no need for large transformations to gain efficiency in production.
- Other regions need to stop conversion altogether and focus on protecting, conserving and restoring what is left.



FUNDACIÓN
VIDA SILVESTRE
ARGENTINA

MUCHAS GRACIAS



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More meat milk and eggs by and for the poor

Mapping as a tool for filling data gaps in grasslands and savannahs

Fiona Flintan and Bedasa Eba, ILRI

Global Grassland and Savannah Dialogue
Platform, July 21st, 2020, Webinar.



Big data gaps in grasslands and savannahs

There are various figures on area and %age of world's surfaced made up by rangelands (see Loud 2004)

How Much Rangeland Is There?

Rangelands are one of the Earth's major ecosystems. However, estimates of the amount of the Earth's land surface covered by rangelands vary from 18% to 80% (Fig. 2). The

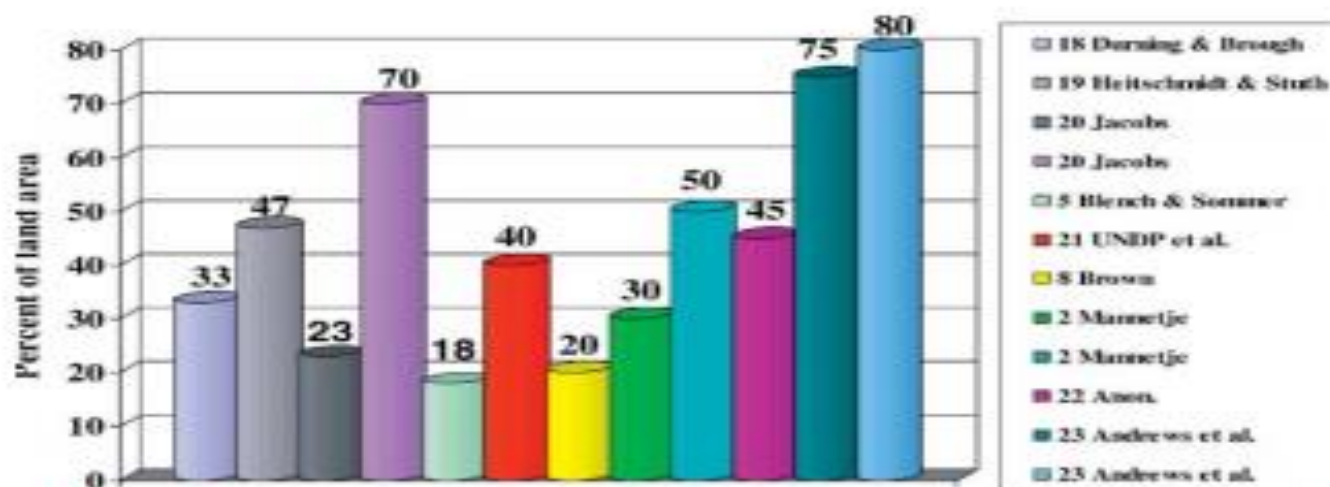


Figure 2. Recent estimates of world's rangeland (percent of total land area).¹⁷

Conflicting figures and descriptions

According to the study of World Resources Institute (1986) that support from FAO data, the rangeland area is about 51% of the total land mass. This was indicated in table 5.12

Table 5.12 Distribution of the World's Pastures and Rangelands 1955-83

	Area of Permanent Pasture ^a			Permanent Pasture As Percent of Land Area 1983	Open Forests ^b 1980 (million hectares)	Other Land ^c 1983 (million hectares)	Estimated Total Area Range and Pasture ^d (million hectares)	Rangeland As Percent of Total Land Area
	1955	1975	1983					
North America (United States and Canada)	277	265	265	14	275	746	913	50
Europe	83	88	86	18	22	91	153	33
USSR	124	374	373	17	137	702	861	39
Central America (inclusive & Caribbean)	79	94	95	32	0.3	99	145	48
South America	330	446	456	26	248	230	819	47
Africa	615	785	778	26	508	1,317	1,945	65
Asia (except China)	279	372	359	21	61	602	721	41
China	194	286	286	31	45	415	538	58
Oceania	377	472	460	55	76	182	627	75
World Total^e	2,358	3,181	3,157	24	1,372	4,384	6,721	51

Notes:

- Includes permanent meadows and pastures, and land that has been used for five years or more for the production of herbaceous forage crops, either cultivated or wild.
- Includes wooded land with a grass understory beneath the open canopy. Livestock and wildlife browse on both the leaves and twigs of the trees and on the grasses.
- "Other land" is a residual category defined by the U.N. Food and Agriculture Organization (FAO) in its Production Yearbook. About one-third of this land is so dry it lacks plant cover. However, a significant percentage of this land may be grazed seasonally or in years of heavy rainfall. Half of this category is counted in the estimated total area of range and pasture.
- Sum of areas of permanent pasture (1983), open forest (1980), and 50 percent of "other land" (1983).
- Numbers may not add up to totals because of rounding.

Sources:

- Data on "permanent pasture" and "other land" are from U.N. Food and Organization (FAO), 1983 Production Yearbook, Vol. 38 (FAO, Rome, 1985), Table 1, pp. 47-48; and FAO, 1955 Production Yearbook (FAO, Rome, 1965).
- Data on open forests and other wooded land are from FAO, 1985, Reference 10.

Interchangeability of terms

In the following two tables the figures of rangeland area reported the same (18% to 23%), except the name of grassland changed to rangeland. Is really currently rangeland are necessary equal to grassland? Or one include the other? The figures also differ from the above figures

Table 1 Estimates of the area of the world's rangelands

	Whittaker and Likens (1975)	Atlay, Dugvigneaud (1979)	Kettner, Olson, Watts and Allison (1983)
Savanna (million km ²)	15.0	22.5	24.6
Temperate grassland (million km ²)	9.0	12.5	6.7
Total (million km ²)	24.0	35.0	31.3
	%	%	%
Rangeland as % of world land area	16.1	23.7	20.7
Rangeland as % of world land area (excluding Antarctica)	17.9	26.5	23.1

Source: Groombridge (1992: 281)

Blench, R., and F. Sommer. (1999)

Table 21.1 Estimates of the area* of the world's grasslands

	WHITTAKER AND LIKENS (1975)	ATLAY, KETNER AND DUVIGNEAUD (1979)	OLSON, WATTS AND ALLISON (1983)
Savanna	15.0	22.5	24.6
Temperate grassland	9.0	12.5	6.7
Total grassland	24.0	35.0	31.3
Grassland as % of world land area	16.1%	23.7%	20.7%
Grassland as % of world land area (excluding Antarctica)	17.9%	26.5%	23.1%

Note: * in million km².

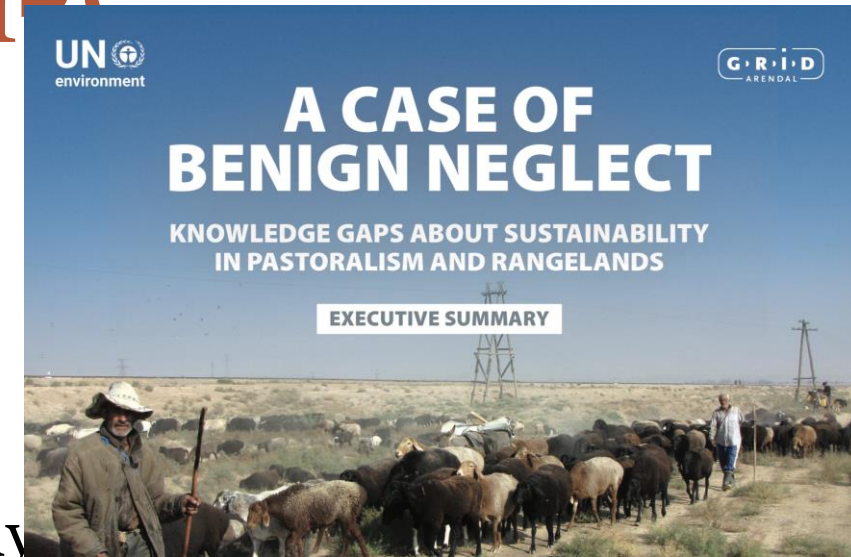
Source: Groombridge, B. (ed.) (1992)

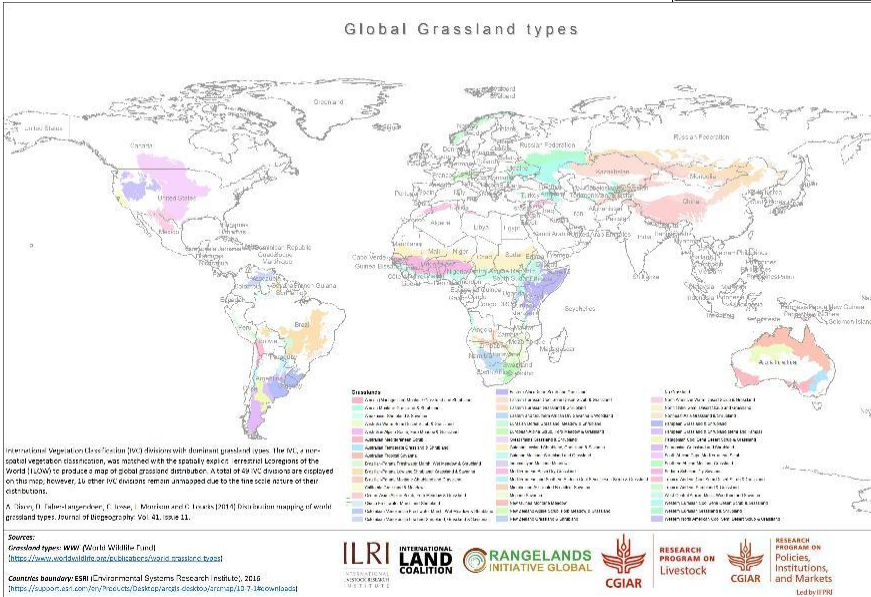
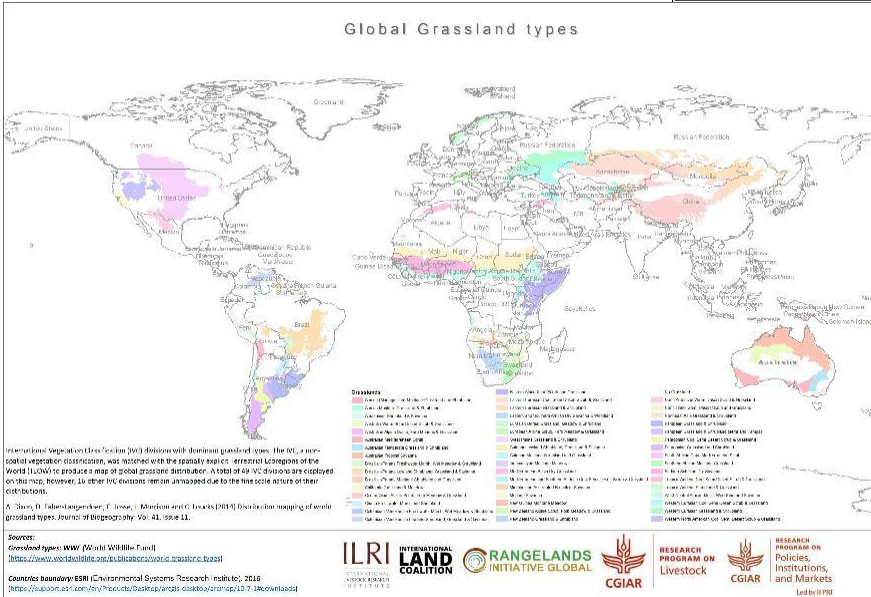
Today estimates of land area covered by rangeland vary from 18 per cent to 80 per cent of the world's land surface. Rangelands are a global phenomenon and can be found in two thirds (66 per cent) of all countries in the world (UNEP Gap Analysis: A Case of Benign Neglect, 2017).



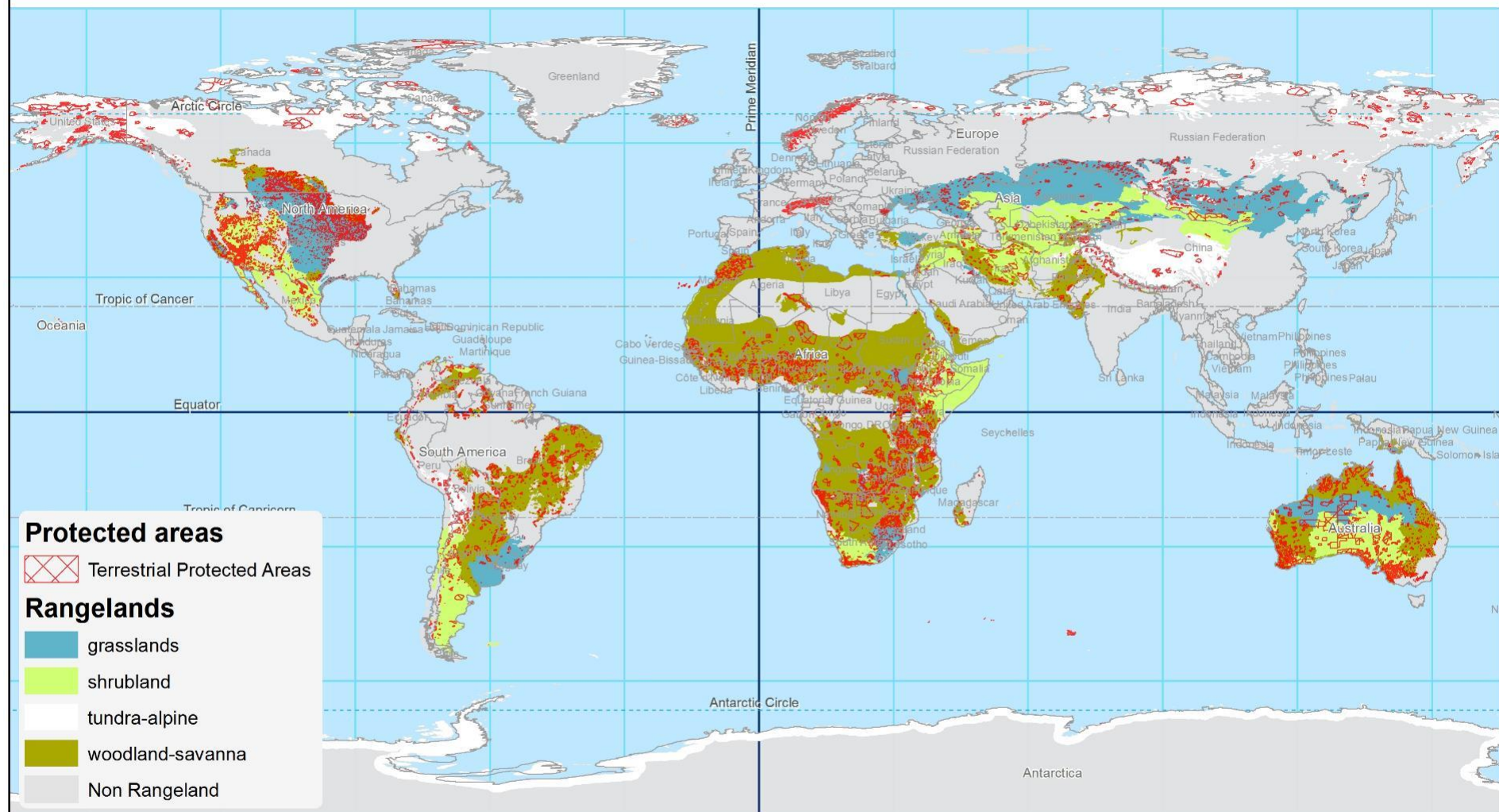
Conclusions of UNEP report (2017)

- Rangelands are globally significant, but under-recognized and undervalued
- Credible and publically available information on the condition of rangelands is lacking because existing estimates and databases do not sufficiently disaggregate data. Site-specific data is valuable but currently too limited in scale and scope.
- Internationally supported technical assistance does not appear to be commensurate with global importance of rangelands.





Protected Areas within Rangelands Globally with Country Boundaries

**Sources:**

WDPA - IUCN and UNEP-WCMC, The World Database on Protected Areas (WDPA) [Dec 2018].

Cambridge, UK: UNEP-WCMC. Available at: www.protectedplanet.net

Rangeland- University of Idaho, Rangeland Center, 875 Perimeter Drive MS 1135, Moscow, ID 83844

Countries boundary - ESRI 2016

Compiled by- Yasin Getahun & Fiona Flintan



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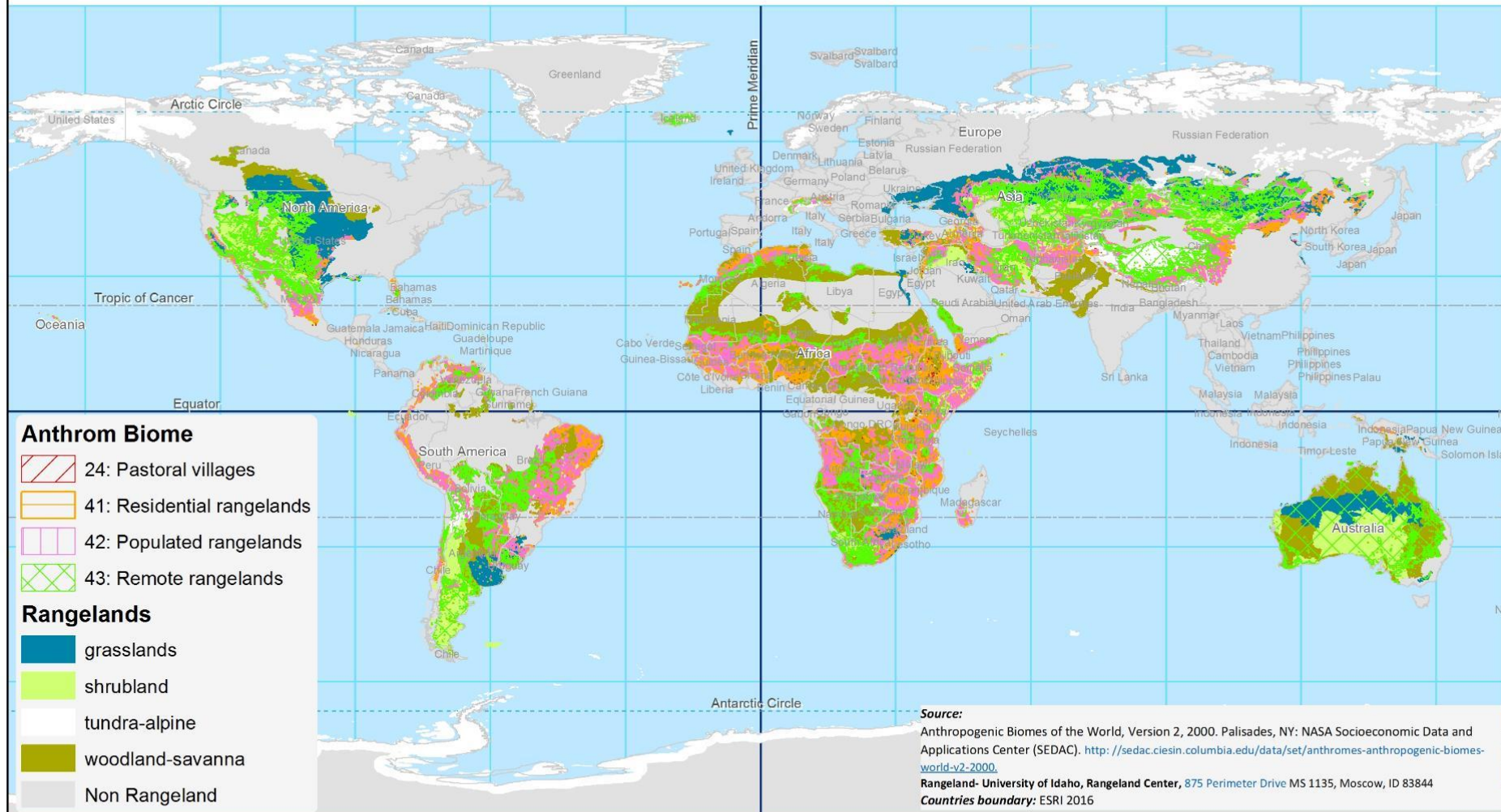
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Anthropogenic Biomes found in Rangelands Globally



University of Idaho
Rangeland Center

SRM Society for
Range Management



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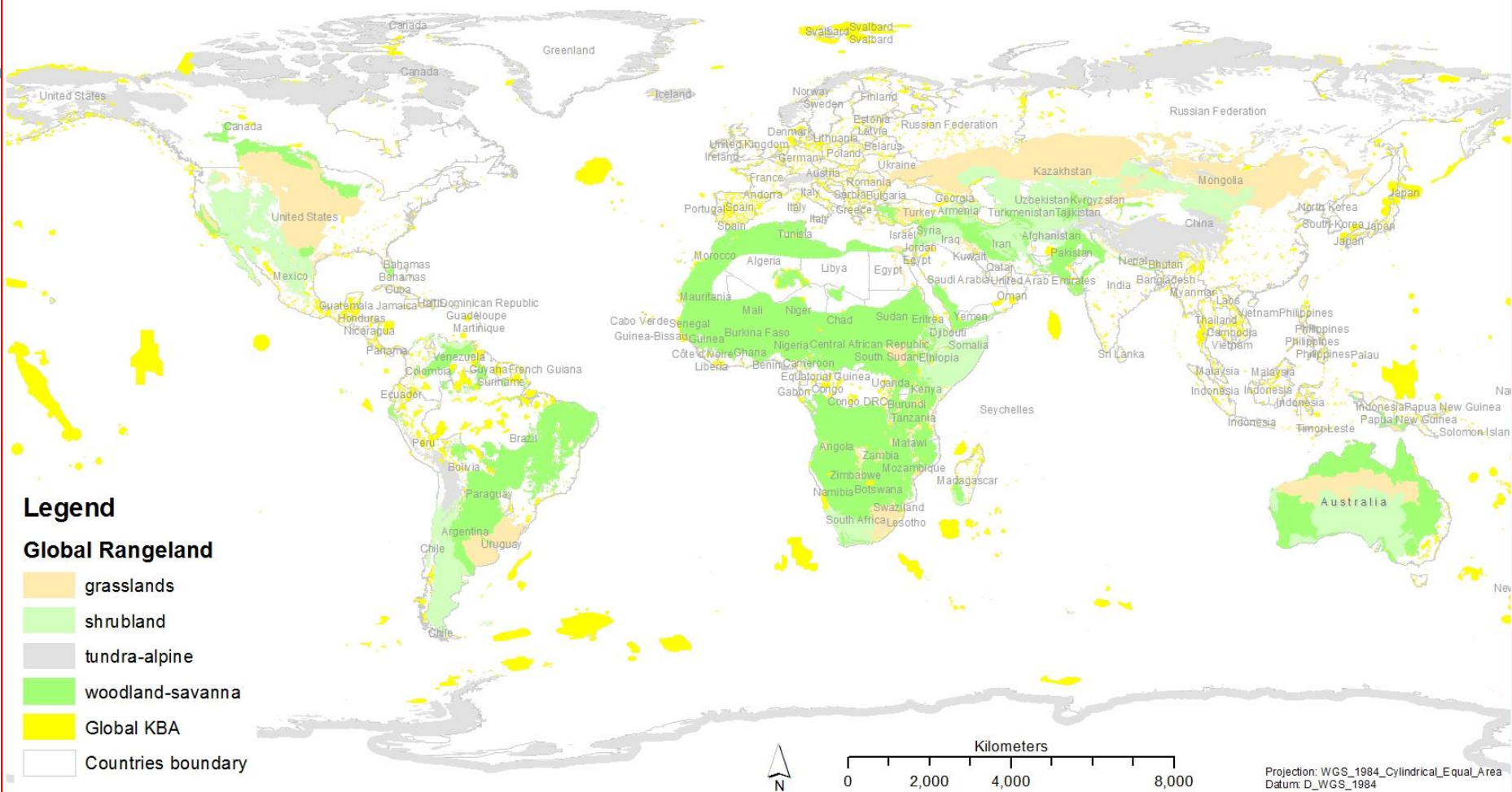


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Global KBA, Year 2020 with Global Rangeland



Source:
KBA - BirdLife International (2019). Digital boundaries of Key Biodiversity Areas from the World Database of Key Biodiversity Areas. Developed by the KBA Partnership: BirdLife International, International Union for the Conservation of Nature, American Bird Conservancy, Amphibian Survival Alliance, Conservation International, Critical Ecosystem Partnership Fund, Global Environment Facility, Global Wildlife Conservation, NatureServe, Rainforest Trust, Royal Society for the Protection of Birds, Wildlife Conservation Society and World Wildlife Fund. March 2020 Version. Available at <http://www.keybiodiversityareas.org/site/request>
GRL - University of Idaho, Rangeland Center, 875 Perimeter Drive MS 1135, Moscow, ID 83844
Countries boundary: ESRI (Environmental Systems Research Institute), 2016



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Moving forward

- Require additional funding to produce more maps.
- Ideally this information should be verified nationally, regionally, locally and adjustments made.
- Ideally should be part of a broader data collection process on grasslands and/or rangelands as a virtual data platform with open access,
- Aiming to launch at World Conservation Congress January 2021
- Feed into UN Decade of Ecosystem Restoration and other.



CGIAR Research Program on Livestock

The program thanks all donors and organizations which globally support its work through their contributions to the CGIAR system.

The **CGIAR Research Program on Livestock** aims to increase the productivity and profitability of livestock agri-food systems in sustainable ways, making meat, milk and eggs more available and affordable across the developing world.

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