



PATAGONIAN STEPPE

Developing a transboundary strategy for conservation and sustainable management



The Challenge

The Patagonian steppe is a vast semi-arid to arid region located on the southern tip of the continent, mainly in southern Argentina but also in Chile. Patagonia is a relatively dry and temperate region that occupies around 800,000 square kilometres. Vegetation physiognomy and floristic composition range from semi-deserts, grass and shrub steppes to humid prairies.

The two main economic activities in the Patagonian steppe are the oil industry and sheep grazing. Oil extraction is the most intensive anthropogenic disturbance, though it is restricted in extent. Overgrazing has been perceived to be the main agent of desertification in the arid and semi-arid Patagonian steppe. Overall, 35% of the rangelands have been transformed into deserts.

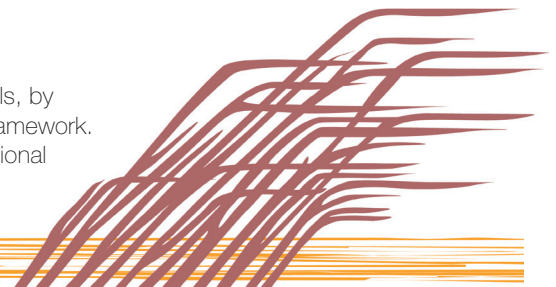
The consequences of deterioration have been profound from both the biodiversity conservation and the socio-economic perspective. Primary productivity has reduced, along with the provision of ecosystems services such as carbon capture, hydrological regulation, decomposition, nutrient cycling and mound dynamics. Climate change is already aggravating this scenario.

Formal protection of Patagonian steppe is poor. There are twenty protected areas that cover around 2,500,000 hectares (approximately 3% of the region). Urgent action is crucial to guarantee the long-term preservation of these ecosystems and their provision of environmental goods and services. An integrated transboundary strategy that increases the protection status and promotes the broad adoption of sustainable management practices in the Patagonian steppe of Argentina and Chile is urgently required.

A comprehensive strategy should include the following aspects:

- Designation of private and public protected areas;
- Broad adoption of sustainable systems for sheep and native fauna production and green commercialization models;
- Capacity building of local stakeholders in sustainable management;
- Policy development and adjustment;
- Assessment of grasslands economic value and development of financial tools that guarantee long-term conservation commitments;
- Evaluation of climate change impacts and identification of adaptation mechanisms;
- Communication and awareness campaigns.

It remains essential to coordinate conservation efforts at national and transnational levels, by lining-up agendas of different stakeholders and institutions to work within a common framework. It is hoped that by achieving this, the impact of actions carried out at local and sub-regional levels will be enhanced.



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The Opportunity to Make a Difference

There are several opportunities to improve the conservation status of the Patagonian steppe. Although unsustainable sheep grazing affects almost the whole region, the low incidence of ecosystem replacement makes Patagonian steppe suitable for conservation at the landscape level.

The current advances of research in sustainable management of sheep and native fauna offers a basis for an integral solution that is both ecologically and economically viable. Additionally, several conservation efforts have addressed preservation at local and sub-national levels and with a multiplicity of focus (native species, alien species and restoration).

This project should be built on the capacities and knowledge that already exist in the region. In this sense, the practical and conceptual experience of the partners included in the proposal is of vital relevance to guarantee the successful achievement of project goals.

It is crucial to consolidate ongoing efforts and to complement them by means of integrating different lines of work into a unique vision.

The international commitments of Argentina and Chile convey the adequate background upon which this project could be built, such as: the United Nations Convention to Combat Desertification (UNCCD); the United Nations Framework Convention on Climate Change (UNFCCC); the Convention

on Biological Diversity (CBD); the Convention on Wetlands of International Importance (RAMSAR); and the environmental agreements within the Common Market of the Southern Cone of South America (MERCOSUR), in which Argentina is a member country and Chile is an associated state.

The Temperate Grasslands Conservation Initiative (TGCI) in the Patagonian steppe can add value by:

- Involving the IUCN South America Regional Office, Commissions, institutional members and other key regional partners with a common approach, seeking joint actions and solutions in order to avoid and reduce Patagonian steppe degradation.
- Providing a comprehensive framework that complements and enhances ongoing efforts.
- Building on the existing capacities and knowledge in the region.
- Linking partners in Patagonian steppe to other grassland experts around the world included in the TGCI global network.
- Working towards the achievement of TGCI global target of improving conservation and sustainable use of indigenous temperate grasslands on a global scale.

Scope of the Project

The main goal of the project is **to improve the conservation status of the Patagonian steppe through the promotion of in-situ protection and the adoption of sustainable management practices by rural producers, regional and national governments, with the support of private companies, civil society and international agencies.**

The specific objectives are:

1. To promote the adoption by rural producers of husbandry and native fauna management practices and commercialization models which are both environmentally and economically sustainable.
2. To promote the development of regional and national policies that guarantee the conservation and sustainable use of temperate grasslands of the Patagonian steppe, such as policies related to landscape planning and environmental impact assessment.
3. To support a three-fold increase in the area under public and private conservation schemes and contribute to the consolidation of present protected areas.
4. To assess the economic value of the environmental goods and services provided by the Patagonian steppe as an input to the development of financial mechanisms that support the conservation and sustainable use of the ecosystem.
5. To evaluate and communicate the important role of the Patagonian steppe in the mitigation and adaptation to the global climate change effects, and to promote the use of the carbon sequestration international financial mechanisms to support the conservation and sustainable use in the ecoregion.

The project will operate in the Patagonian steppe ecoregion of Argentina and Chile. The intervention areas and pilot sites will be selected based on the prioritization exercises carried out by the partner agencies.

Discussions of progress and constant exchange of knowledge and capacities will take place between Argentinean and Chilean partners and key stakeholders of the project, in a joint effort towards the successful achievement of project goals.

The pillars of the project are: knowledge, field application, adaptive management, policy development and/or adjustment, awareness and capacity building of decision makers and land managers.



From this project, we expect that in the Patagonian steppe ecoregion of Argentina and Chile:

- Best management practices of sheep husbandry are developed.
- Competitive and profitable sheep and native fauna products derived from adequately managed grasslands are produced and commercialized.
- Environmentally certified products derived from adequately managed grasslands are increasingly consumed in the local, national and/or international markets.
- Landscape planning policy at different scales that take into account priority grassland areas are developed and implemented.
- A program of economic incentives that promote the maintenance of natural grasslands under conservation or sustainable use schemes are developed and implemented.
- At least 5 million hectares of natural grasslands under different land tenure schemes are included in the national or regional systems of protected areas.
- Evaluation of management effectiveness and follow-up of recommendations are applied in present grassland protected areas.
- Sustainable and innovative financial mechanisms for protected areas support (such as climate change financial framework or environmental impact compensation funds) are identified and implemented.
- Valuation studies of environmental goods and services of grasslands serve as a basis for pilot application of financial mechanisms for grasslands conservation and sustainable use.
- The important role of the Patagonian steppe in the mitigation and adaptation to the global climate change effects is assessed and communicated to decision makers at regional and national levels.
- Pilot experiences of mitigation and adaptation to climate change impacts are implemented.
- Advancements made by the project with regard to knowledge, policy and financial mechanisms, are recognized by MERCOSUR technical and political instances and included in regional policies.

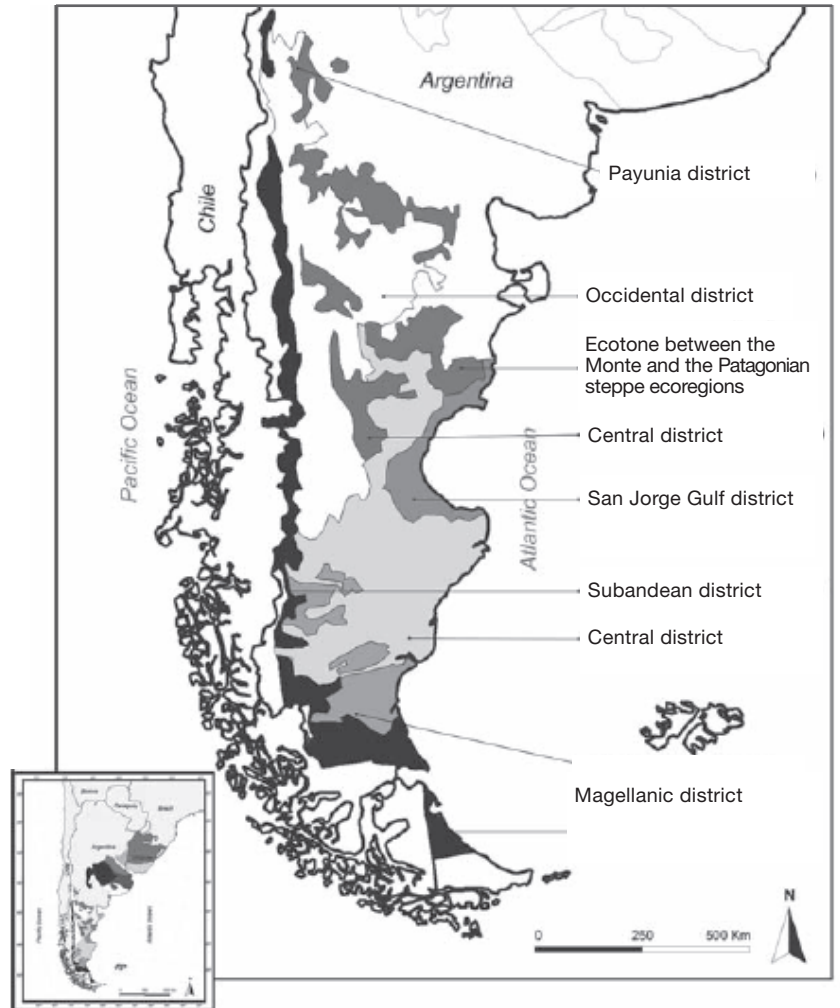
Patagonian Steppe

Occidental and Payunia districts: Graminous-shrub steppes.

Magellanic and Subandean districts: These are the wetter districts of the Patagonian steppe, mainly occupied by graminous steppes.

Central district: It is one of the most arid systems of the Patagonian steppe. The larger unit within this district is a semi-desert dominated by dwarf shrubs. The rest is occupied by different types of shrub steppes.

San Jorge Gulf district: The mountain sides of the plateaus present in this district are dominated by shrubs, while the adjacent plains are occupied by graminous-shrub steppes.



Map publication source:

Paruelo et al. 2007. The grasslands and steppes of Patagonia and the Rio de la Plata plains. In T. Veblen, K. Young and A. Orme (eds.). Chapter 14. **The Physical Geography of South America.** The Oxford Regional Environments Series, Oxford University Press. Pp 232-248.

Implementing Agencies and Partners

The project will be managed by IUCN South America Regional Office in conjunction with related expert Commissions, institutional members and other key partners in the region.

IUCN

South America Regional Office
World Commission on Protected Areas
Commission on Ecosystem Management
Commission on Education and Communication

ARGENTINA

The Nature Conservancy (TNC)
Fundación Vida Silvestre Argentina (FVSA)
Secretaría de Ambiente y Desarrollo Sustentable (SAyDS)
Wildlife Conservation Society (WCS)
Aves Argentinas
Administración de Parques Nacionales (APN)
Direcciones de Conservación de las Provincias Argentinas de Mendoza, Neuquén, Río Negro, Chubut, Santa Cruz y Tierra del Fuego
Instituto Nacional de Tecnología Agropecuaria (INTA)
Centro Nacional Patagónico (CENPAT)

Instituto de Investigaciones Fisiológicas y Ecológicas Vinculadas a la Agronomía (IFEVA), Facultad de Agronomía, Universidad de Buenos Aires

Departamento de Ecología y Ciencias Ambientales (CEBBAD), Universidad Maimónides

CHILE

Comité Pro Defensa de la Flora y de la Fauna (CODEFF)



Funding Requirements and Timetable

The indicative budget for this project is \$2,800,000US for 5 years in the two countries. Funds are likely to be leveraged by other ongoing initiatives that will be complemented by this project.

ACTIVITY	YEARS					BUDGET PER ACTIVITY (US\$)
	I	II	III	IV	V	
Project administration (salaries of regional and national coordinators, travel costs, communication, office maintenance).	X	X	X	X	X	600,000
Sustainable use (base line, best management practices development, information centre, pilot exercises, dissemination).	X	X	X	X		350,000
Policy proposals development and negotiation (landscape use planning, financial mechanisms).			X	X	X	450,000
Protected areas (priorization exercise completion, expansion, consolidation of effective management, seed fund for sustainable financing).	X	X	X	X	X	700,000
Valuation of grasslands goods and services (conceptual framework, pilot exercises).	X	X	X	X		350,000
Climate change (assessment and pilot exercises).		X	X	X	X	350,000
Budget per year (US\$)	500,000	600,000	600,000	600,000	500,000	
TOTAL BUDGET (US\$)						2,800,000



Temperate Grasslands Conservation Initiative

http://www.iucn.org/about/union/commissions/wcpa/wcpa_what/wcpa_conserving/wcpa_grasslandstf/

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