PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE

Project Name	Grassland and Savannas of the Southern Cone of South America: Initiatives for their conservation in Argentina.
Region	**Latin America and the Caribbean**
Sector	Environment
Project ID	P091659
Borrower(s)	Argentine Republic
Implementing Agency	Aves Argentinas & Fundación Vida Silvestre Argentina
Environment Category	[ ] A [X] B [ ] C [ ] FI [ ]
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I. Country and Sector Background

The Republic of Argentina is the second largest country in South America, and is constituted as a federation of 23 provinces and an autonomous capital city, Buenos Aires. It has the second highest Human Development Index (at 0.860) and GDP in Latin America, and is currently classified by the World Bank as an Upper-Middle Income Country and a Secondary Emerging Market. Argentina can be broadly divided into four regions: the fertile plains of the Pampas in the center of the country, the Patagonian plateau to the south, the subtropical Gran Chaco to the north, and the Andes mountain range forming the western border with Chile. The Pampas is the source of Argentina's agricultural wealth and the country is one of the world's major agricultural producers. In 2007, agricultural output accounted for 9.4% of GDP, and nearly one third of all exports (INDEC 2008). Crops of particular importance include soybean, sunflower seeds, maize and wheat. Cattle-raising is also a major industry, although it is mostly for domestic consumption.

The Argentine Pampas forms part of the larger Pampas grasslands of southern South America, covering an area of one million square kilometers in four Mercosur countries: Argentina, Brazil, Paraguay and Uruguay. They constitute one of the richest areas of grassland biodiversity in the world, especially noted for plant species diversity (many of considerable economic value) and grassland-dependent birds. The Pampas also have strong cultural roots – as represented by the figure of the "gaucho" (a South American "cowboy"). Traditionally used for free-range cattle-ranching, the Pampas grasslands have largely been replaced by intensive agriculture (primarily cereal crops), and the area of natural grasslands remaining is fast dwindling.

At a global level, four ecoregions with strong biogeographic, economic and cultural similarities are recognized within the Pampas grasslands: Humid Pampas, the Semi-arid Pampas, the Southern Cone Mesopotamian Savanna and the Uruguayan Savanna. The conservation status of three of these ecoregions is considered "Critical/Endangered" by the World Wide Fund for Nature (WWF) while that of the Southern Cone Mesopotamian Savanna is categorized as "Vulnerable". At a regional level, six different ecological units have been recognized within the Argentine Pampas, based on geology, geomorphology, drainage, soils and vegetation. These are, from north to south, Northern Campos, Mesopotamic Pampa, Rolling Pampa, Inland Pampa, Flooding Pampa, Southern Pampa. Only one-third of the surface area of

the five Pampas ecological units is covered by natural or semi-natural grasslands, whereas in the Campos, up to 80% is covered by grasslands.

The Pampas grasslands are one of the richest areas of grassland biodiversity in the world. The Argentine Pampas holds several thousand species of vascular plants, including 550 grass species. In the subtropical parts of the Pampas, the species richness of grasses and legumes is as high as that of the vegetation of some tropical forests (Miñarro & Bilenca 2008[1]). There are 450–500 bird species (about 60 of which are strictly grassland dependent) and about 100 species of mammal. In addition to numerous endemic plant species, several small reptiles and rodents and three bird species are endemic to the region, the latter restricted to the Endemic Bird Area "Argentine Mesopotamian Grasslands" (EBA 077), as identified by BirdLife International. As would be expected from the threatened status of the component ecoregions, much of the Pampas biodiversity is threatened. The global extinctions of Eskimo Curlew *Numenius borealis* and Glaucous Macaw *Anodorhynchus glaucus* are the most visible of a string of local population extirpations, such as Saffron-cowled Blackbird *Xanthopsar flavus* and Strange-tailed Tyrant *Alectrurus risora*, and a number of large mammals, including Jaguar *Panthera onca* and Pampas Deer *Ozotoceros bezoarticus*. The latter is now restricted to less than 0.5% of its original range within the Pampas, and is one of the most threatened representative mammal species of the temperate grasslands of South America. A total of 15 Pampas bird species are globally threatened with extinction, and the grasslands are key to the conservation of many others, including various Arctic-breeding shorebirds.

Modern agriculture, greatly expanded since the second half of the 20th Century on all suitable soils, has caused profound changes to the Pampas grasslands at both landscape and regional scales. The more recent expansion has been led by soybean cultivation. Formerly a marginal crop that represented less than 3% of the cultivated area in the early 1970s, soybean has now become the main crop in Argentina, covering nearly 40% of the cultivated area (more than 14 million ha in 2003/2004). Among the consequences of the recent agricultural intensification in the Pampas are the relocation of livestock (primarily cattle) to areas which are less suitable for crops, and an increase in the stocking rate, such that traditional cattle-breeding areas such as the Flooding Pampas now suffer from overgrazing. Meanwhile, in Entre Ríos and Corrientes provinces, over 400,000 ha of grasslands have been converted to forestry plantations, with severe changes to the structure and function of the landscape.

Despite the traditional and cultural ties that many landowners have to cattle-ranching, market and political forces create pressure to convert land to crops: existing beef production systems are no longer as profitable as crop cultivation. Even in those areas where extensive cattle-ranching is still practised, poor management techniques (primarily overgrazing leading to soil erosion, but in some areas also frequent set-burns) imperil many grassland species.

Additional threats to the biodiversity of the Pampas grasslands are primarily linked to agricultural intensification. These include the excessive use of agrochemicals, the frequent burning of grasslands and the replacement of native species by invasive exotic species (and the related loss of natural habitats).

With the vast majority of the Pampas grasslands under private ownership and dedicated to agriculture, and with public and private protected areas covering no more than 2% of area, conservation of Pampas biodiversity is dependent on the integration of biodiversity into agricultural practices in a way that is both biologically and economically viable and sustainable. Traditional, responsibly managed cattle-ranching is potentially far less detrimental to grasslands than clearance for cultivation – because the cattle require natural grasslands for grazing. The mainstreaming of biodiversity conservation into cattle-ranching activities thus needs to be the central element in the framework for conservation of the Pampas

[1] Miñarro, F. & Bilenca, D. (2008) *The conservation status of temperate grasslands in central Argentina*. Fundación Vida Silvestre Argentina. Buenos Aires, Argentina.

biodiversity. To create an environment favorable to mainstreaming, current financial realities dictate a key need for new market-based instruments that provide cattle-ranchers with financial incentives to integrate biodiversity into their grassland management regimes, and that enable them to withstand pressures from market forces to convert their land to agricultural crops.

A number of barriers exist to the successful mainstreaming of biodiversity conservation into cattle-ranching in the Pampas. These include:

- A lack of readily available information and experiences regarding grassland management regimes that combine cattle-ranching with biodiversity conservation;
- A lack of technical capacity to support/guide appropriate grassland management techniques;
- A lack of market incentives for cattle-ranching on natural grasslands; and
- The omission from current sectoral policy and regulatory frameworks of measures that seek to conserve and sustainably use biodiversity.

II. Objectives

The project has a **goal** to conserve grassland biodiversity of global and national importance and to protect vital ecosystem services, through the development and implemention of a strategy for sustainable management that combines conservation with production. The project has an **objective** to assist the Government of Argentina in its efforts to develop, disseminate, and promote biodiversity conservation by mainstreaming it with livestock grazing systems in Argentina's highly valuable grassland areas.

III. Rationale for Bank involvement

In order to address the challenges of integrating environmental concerns into use of natural grasslands, and recognizing the key role the Bank has played in the environment and natural resource sectors in Argentina, the GoA has endorsed a new grasslands project beginning in 2010. The proposed GEF project is aligned with the 2009 CPS. The World Bank's extensive experience in implementing biodiversity, forestry, and natural resource management projects in Argentina, and its strong relationships with national and provincial authorities, give it strong comparative advantages as an implementing agency.

Under the new CPS, the Bank program will provide support to (i) increase the areas of forest and forest plantations under sustainable management, (ii) strengthen urban and solid waste management, improve environmental management and governance, and (iii) increase access to international carbon markets. Support for Argentina's "green" (natural resources) agenda will build on ongoing operations in *Sustainable Natural Resource Management* (IBRD) and *Biodiversity Conservation in Productive Forestry Landscapes* (GEF). The latter works with small farmers, including indigenous peoples, to introduce biodiversity-friendly practices in productive forests. These operations will be complemented by a new GEF-funded *Rural Corridors and Biodiversity Conservation project* which would stitch together conservation corridors necessary for the survival of several endangered species and the sustainable management/ use of native forest and arid steppe while strengthening the federal system of protected areas.

IV. Description

There are four core project components that - along with their associated outcomes, outputs and activities - will contribute to achieving the project goal and objective. These are:

Component 1 Developing a responsible production model that combines grassland conservation with cattle-ranching.
Component 2 Refining the model at pilot sites and strengthening it through the development of a "natural grasslands beef" certification scheme.
Component 3 Building individual- and institutional-level capacity to implement the model; and
Component 4 Creating sectoral policy and regulatory frameworks that encourage uptake of the model.

It is envisaged that these four components, once successfully completed, will generate market-based instruments that will create (a) a favorable environment for the mainstreaming of biodiversity conservation beyond the geographical and chronological scope of the current project, and (b) the technical capacity to replicate the project's pilot experiences both elsewhere in Argentina and at other grassland sites in the wider Pampas region (southern Brazil, southern Paraguay, Uruguay).

Component 1: Development of a responsible production model for the Argentine Pampas grasslands . Under this component, a series of activities will be undertaken leading to the development of a new model for grassland conservation and cattle-ranching – that of responsible production. This model will include specific environmental, social, economic and market dimensions, and will be made readily available for application in the Argentine Pampas. Through the application of this model, it is expected that there will be an increased biodiversity value of grazed grasslands, and an increased income for cattle-ranchers (who apply the model). Under this component, the project will produce the following outputs:
i) Updated assessment of the conservation status of the Argentine Pampas grasslands, with the primary threats, their drivers and causal links and indirect impacts clearly identified and quantified;
ii) Relationship between the different stakeholders, government policies, markets and grassland ecosystems identified and modeled;
iii) Assessment of existing and potential economic and market incentives for natural grassland beef and feasibility study of their application;
iv) Review of natural grassland beef experiences elsewhere (within Mercosur and globally), and key lessons learned and documented;
v) Compilation of technical and empirical knowledge of Pampas grassland management regimes, with best practices for natural grassland grazing regimes documented, and the biodiversity conservation value of different regimes evaluated and documented; and
vi) Identification of best tools and mechanisms for sharing best practice information between producers.

Component 2: Validation and demonstration of the responsible production model. The objective of this component is to implement and adapt the responsible production model to the field through its implementation at four pilot sites, and to further strengthen it through the development of a "natural grasslands beef" certification scheme. A total of 16 livestock producers at the four pilot sites (descriptions are presented in Annex F) are expected (a) to participate in field trials of the responsible production model and (b) to contribute to the development of good agronomic and sustainable practices for livestock. The four selected pilot sites are:
Pilot site 1 The coastal grasslands of the Bahía de Samborombón, Buenos Aires province
Pilot site 2 The grasslands of the Gualeguaychú zone, Entre Ríos province;
Pilot site 3 The grasslands of San Javier and Alejandra, Santa Fe province; and
Pilot site 4 The grasslands of the Arroyo Aguapey basin, Corrientes province.

All four areas have traditionally comprised extensive livestock ranches (primarily cattle), but are increasingly under pressure from more intensive (and, at present, financially rewarding) uses, such as agricultural crops, forestry plantations and intensive cattle-raising. All four pilot sites have been identified as key areas for biodiversity conservation – as IBAs (Important Bird Areas) and AVPs (High Value Grassland Areas). Moreover, Aves Argentinas and Fundación Vida Silvestre Argentina have already conducted extensive groundwork in the selected sites, including identifying producers interested in

participating in a responsible production and certification scheme. Two major outcomes are expected as a result of the activities to be undertaken under this component. They are as follows:
i) an increase in the biodiversity value of 16 properties at four sites as a result of the adoption of responsible production model; and
ii) a fledgling "natural grassland beef" certification scheme that promotes higher market value for responsibly produced beef and beef products from the pilot sites.

The outputs envisaged under this component are:
i) Responsible production model piloted at 4 sites, involving at least 4 producers at each site, with established biodiversity monitoring protocol and demonstrable net increase in the biodiversity conservation value of each site by project end;
ii) Established best practices and adaptive management training program in place, with 16 producers and their technical staff having received training;
iii) Grassland management plans developed and under implementation for all 16 properties at the 4 sites, including site-specific best practices;
iv) "Natural grasslands beef" business plan developed;
v) Minimum standards for the certification of "natural grasslands beef" developed and international recognition sought;
vi) At least one pilot certification scheme established at one of the pilot sites;
vii) Evaluation of existing (international) markets for "natural grassland beef" and one accessed for pilot certification scheme; and
viii) Potential novel (including domestic) markets identified and under development.

Component 3: Sharing the responsible production model with a wider audience (nationally and regionally). The objective of this component is to disseminate information and to build capacity regarding the responsible production model on broad scale, both within Argentina and regionally (e.g. throughout the Pampas grasslands region). Two major outcomes are expected from this component: (i) the replicability of the pilot schemes ensured through the training of additional producers (from both Argentina and neighbouring countries); and (ii) increased awareness of the economic and biodiversity conservation benefits of responsible production among key producers, producer associations and rural communities. Outputs planned for this component are:
i) Lessons-learned regarding best practice, certification and marketing of natural beef compiled, documented and available as an online tool and through articles in industry journals;
ii) Pilot site experiences compiled into a handbook on grassland conservation and livestock production and launched at major agricultural meeting;
iii) Best practice reference and training center established;
iv) Producers from throughout the Pampas grasslands (including neighboring countries) trained in the responsible production model during four workshops;
v) Four communications tools on grassland values targeted to rural stakeholders and broader audiences (calendar, DVD, educational pack, catalogue) produced and widely disseminated;
vi) Grassland conservation educational "roadshow" developed, and presented at a minimum of 6 agricultural and provincial fairs during the project lifetime;
vii) Minimum of two producer exchanges to share experiences between pilot sites and producers in grasslands in neighboring countries completed; and
viii) One international grassland conservation and production symposium to share experiences between the Pampas grasslands and other grassland regions completed.

Component 4: Building the responsible production model into policy and regulatory frameworks. Under this component, a series of activities will be undertaken with the objective of incorporating the responsible production model into national and provincial policy and

regulatory frameworks, and ideally, into new business plans for the livestock sector in Argentina. The project will use a multi-stakeholder cross-sectoral engagement process to gain support from key public and private agricultural policy and decision makers, and to develop a cross-sectoral strategy for the conservation and sustainable use of Pampas grassland biodiversity. This will be accompanied by an outreach and awareness campaign emphasizing: i) biodiversity conservation as a sign of social responsibility in agribusiness, and ii) environmental health as a determinant of human health. Expected outputs under this component are:

i) Cross-sectoral strategy for conservation and sustainable use of Pampas grasslands developed and launched at high profile event; and

ii) Best practice grassland management guidelines incorporated into at least one national and two provincial sectoral plans.

Component 5: Project management. Under this component, activities will have the objective of ensuring the smooth organization and implementation of the entire project. Activities will include the management of staff, the organization of activities under the four core components, the management of stakeholder relations, the management of project finances, and support for the needs of the Executing Partners and Project Steering Committee.

V. Financing

Project Components	**GEF Financing**		**Co-Financing**		**Total ($) c=a+ b**
	($) a	**%**	**($) b**	**%**	
1. Development of a responsible production model for the Argentine Pampas grasslands	90,000	39	138,943	61	228,943
2. Validation and demonstration of responsible production model	450,000	31	999,044	69	1,449,044
3. Sharing the responsible production model with a wider audience (nationally and regionally)	180,000	19	763,970	81	943,970
4. Building the responsible production model into policy and regulatory frameworks	90,000	52	83,455	48	173,455
5. Project Management	90,000	44	114,630	56	204,630
	900,000		**2,100,042**		**3,000,042**

VI. Implementation

Aves Argentinas and the Fundación Vida Silvestre Argentina (Fundación Vida Silvestre Argentina) are the two non-governmental organizations that are responsible for the implementation of the project. The governmental Instituto Nacional de Tecnología Agropecuaria (INTA) will be a key collaborator. Aves Argentinas will act as the Executing Agency for the project, while the World Bank is the Implementing Agency. Aves Argentinas and Fundación Vida Silvestre Argentina have already signed a Memorandum of Understanding to guide project co-implementation.

VII. Sustainability

The conservation of the Southern Cone Grasslands, one of the most fragile and threatened environments in the continent, will not be possible without long-term and sustained efforts that continue beyond the period set out for this proposal. Therefore, the Project seeks to achieve sustainability of effort by the end of the 3-year Project term. Environmental restoration of degraded areas and the procurement of land for biodiversity conservation clearly need investment beyond the scope of the proposed Project. This will require the commitment of new partners and the creation of new instruments. These alternatives exceed the terms and amount of investment foreseen in this proposal for a Medium Sized Project of the GEF, but the procurement of new funding and the search for strategic alliances will be part of the mandate of the Regional Coordination Mechanism. During the first phase, the Project Management Unit, with the support of the partner organizations, will identify sources of new funding in order to achieve the extension of the Project to a fourth year of activities. On the other hand, it is expected that the creation of a "Regional Strategy for the Conservation of the Southern Cone Grasslands" (Component 3) and the "Alliance for Conservation" will attract new partners and stakeholders to the Project with potential to fund conservation actions in the rural sector. This is likely to attract large enterprises from the agriculture and forestry sectors, and companies who provide commodities for agriculture. Most of the outputs and proposed actions will build new capacities or alliances that will be self sustaining and long lasting, such as: (a) the development of a Regional Strategy for the Conservation of the Southern Cone Grasslands; (b) the endorsement of a Treaty of Parties between the governments of member countries of the Mercosur; (c) actions connected to Component 4 (creating public awareness, new tools and institutional capacity); (d) promotion of management models for agriculture that respect biodiversity, designed in the Pilot Sites; and, (e) the establishment of a certified quality brand for meat produced on sustainable managed grassland. All those are long term actions that exceed the limits of the proposed Project and will require independent and self-sustaining management.

Project design will seek to effectively engage several stakeholders (such as ranchers and farmers) located in key grassland areas. This approach is considerably more efficient and cost effective than the alternative of purchasing lands and managing them under a single authority (as would be the case for protected areas). For example, sustainable livestock management promotes the conservation of grassland biodiversity and at the same time improves the profitability of this economic activity. Operating with the goal to adjust large-scale cattle ranching practices makes it possible to achieve positive results and avoid costly land purchase schemes (including the maintenance costs and controls they would require). Such an alternative would exclude those people living in the productive landscape whose cooperation is required to achieve the effective conservation of biodiversity. In this respect, strengthening demonstration and dissemination mechanisms in the proposed project are essential and would further support an efficient and cost-effective means of implementation.

VIII. Lessons Learned from Past Operations in the Country/Sector

The World Bank has implemented numerous GEF biodiversity projects in Argentina and the rest of the Southern Cone, including the Biodiversity Conservation Project (BCP), Biodiversity Conservation Mid-Sized Projects in Argentina and in Chile in the Valdivian Region of Chile, and the Environmental Protection and Sustainable Development of the Guarani Aquifer regional project. These projects have allowed the Bank to build the knowledge base and relationships which are critical to the preparation and implementation of a successful project which will integrate the biodiversity and forestry sectors in Argentina for the first time. The Bank's Forestry Development Project, which, as the first ever forestry project financed by the Bank in Argentina, focused among other things on improving the sustainable growth of plantations, provided numerous lessons learned which have been incorporated into the project. The Bank has also implemented the Native Forests and Protected Areas Project, which focuses on policy, norms, research and information. Two years ago, the Bank has approved the Natural Resources Management Project, with which the proposed GEF project is partially co-financed. The integration of

these two projects also allows the proposed GEF project to leverage a far greater degree of resources than it would have been able to do alone.

IX. Safeguard Policies (including public consultation)

In terms of Environmental Assessment (OP/BP 4.01) and Natural Habitats (OP/BP 4.04), this project will have positive impacts. No potential large scale, significant or irreversible impacts are expected. Among other strategies to address the challenges above, the development and dissemination of economically and environmentally compatible land use models is one of the most important topic. Large-scale sustainable cattle ranching on native grasslands, sustainable agriculture, forestation with biological corridors, and nature and scientific tourism are all promising economic activities in the region. However, there is currently a lack of information or experience regarding these activities specifically for grassland systems. The present proposal draws from available technical information on grassland management in livestock activities and involves conservation efforts at various territorial scales in key areas in order to contribute to the conservation of grasslands in Argentina. The proposed project will be carried out through the implementation of four components described before which have no negative impacts in the environment.

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment (OP/BP 4.01)	[X]	[]	
Natural Habitats (OP/BP 4.04)	[]	[X]	
Pest Management (OP 4.09)	[]	[X]	
Physical Cultural Resources (OP/BP 4.11)	[]	[X]	
Involuntary Resettlement (OP/BP 4.12)	[]	[X]	
Indigenous Peoples (OP/BP 4.10)	[]	[X]	
Forests (OP/BP 4.36)	[]	[X]	
Safety of Dams (OP/BP 4.37)	[]	[X]	
Projects in Disputed Areas (OP/BP 7.60)*	[]	[X]	
Projects on International Waterways (OP/BP 7.50)	[]	[X]	
Piloting the Use of Borrower Systems to Address Environmental and Social Issues in Bank-Supported Projects (OP/BP 4.00)	[]	[X]	

X. List of Factual Technical Documents

Soriano, A., R. J. C. León, O. E. Sala, R. S. Lavado, V. A. Deregibus, M. A. Cahuepé, O. A. Scaglia, C. A. Velazquez & J. H. Lemcoff. 1992. Río de la Plata grasslands. In: Coupland, R.T. (ed.) Ecosystems of the world 8A. Natural grasslands. Pp. 367-407. Elsevier, New York.

Miñarro, F. & Bilenca, D. (2008) *The conservation status of temperate grasslands in central Argentina*. Fundación Vida Silvestre Argentina. Buenos Aires, Argentina.

XI. Contact point

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* *By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas*

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