Document of
The World Bank

Report No:

GEF PROJECT DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT USD 30.0 MILLION

AND A

PROPOSED GRANT FROM THE
GLOBAL ENVIRONMENT FACILITY TRUST FUND

IN THE AMOUNT OF USD 7.0 MILLION

TO THE

ORIENTAL REPUBLIC OF URUGUAY

FOR AN

INTEGRATED NATURAL RESOURCES AND BIODIVERSITY MANAGEMENT PROJECT

April 22, 2005

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 2005)

Currency Unit = Uruguayan Peso
Ur$ 25.27 = US$1

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

APL	Adaptive Program Lending
AUSID	Uruguayan Minimum Tillage Association
BCRU	Central Bank of Uruguay
BP	Bank Procedures
BROU	Banco de la Republica Oriental del Uruguay
CAS	Country Assistance Strategy
CBD	Convention on Biological Diversity
CQ	Consultant Qualifications criteria
DINAMA	National Environment Agency
DINOT	Directorate of Territorial Planning
DNH	National Hydrographical Directorate
DSA	Soils and Water Division
DWA	Direct Withdrawal Applications
EIA	Environmental Impact Assessment
ERL	Emergency Recovery Loan
ESW	Economic and Sector Work
FAO	Food and Agriculture Organization
FMR	Financial Management Reporting
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information System
GOU	Government of Uruguay
GPs	Good Practice statements
GPN	General Procurement Notice
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
ICC	Inter-ministerial Coordination Committee
IDA	International Development Association
IDB	Inter-American Development Bank
IERR	Internal Economic Rate of Return
IFAD	International Fund for Agricultural Development
INIA	National Institute of Agricultural Research
ISDS	Integrated Safeguards Data Sheet
LCS	Least Cost Selection
M&E	Monitoring and Evaluation

MDR	Rural Development Committee
MGAP	Ministry of Livestock, Agriculture and Fisheries
MIS	Management Information System
MTR	Mid-Term Review
MVOTMA	Ministry of Housing, Territorial Planning and Environment
NBF	Non Bank-Financed
NBS	National Biodiversity Strategy
NCB	National Competitive Bidding
NGOs	Non-Governmental Organizations
NRM	Natural Resources Management
O&M	Operation and Maintenance
OD	Operational Directive
OP	Operational Policy
OPN	Operational Policy Note
OPP	Office of Planning and Budget
OPYPA	Office of Agricultural Planning and Policy
PAEFA	Foot and Mouth Disease Emergency Recovery Loan
PCN	Project Concept Note
PDF	Project Development Facility
PEU	Project Executing Unit
PIC	Public Information Center
PID	Project Information Document
POA	Annual Operating Plan
POPs	Persistent Organic Pollutants
PRENADER	Natural Resources Management and Irrigation Development Project
QBS	Quality Based Selection
QCBS	Quality and Cost Based Selection
RENARE	General Office for Renewable Natural Resources
RVP	Regional Vice Presidency
SAL	Structural Adjustment Loan
SFB	Fixed Budget Selection
SOEs	Statements of Expenditures
SSAL	Special Structural Adjustment Loan
STAP	Scientific and Technical Advisory Panel
TA	Technical Assistance
TC	Account Court
TCP	FAO Technical Cooperation Project
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
UNFCCC	United Nations Framework Convention on Climate Change
UY	Oriental Republic of Uruguay

Vice President:	Pamela Cox
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Sector Manager:	John Redwood
Task Team Leader:	Michael G. Carroll

URUGUAY
Integrated Natural Resources and Biodiversity Management Project

CONTENTS

URUGUAY
Integrated Natural Resources and Biodiversity Management Project

GEF Project Document

Latin America and Caribbean Region
LCSER

Date: April 22, 2005 Country Director: Axel van Trotsenburg Sector Manager/Director: John Redwood Project ID: P070653 Lending Instrument: Specific Investment Loan	Team Leader: Michael G. Carroll Sectors: Agricultural extension and research (20%);Animal production (20%);Irrigation and drainage (20%);Forestry (20%);Sub-national government administration (20%) Themes: Other rural development (P);Other environment and natural resources management (P) Environmental screening category: Not Required Safeguard screening category:
Global Supplemental ID: P077676 Lending Instrument: Specific Investment Loan Focal Area: B-Biodiversity Supplement Fully Blended?: Yes	Team Leader: Michael G. Carroll Sectors: General agriculture, fishing and forestry sector (70%);Agricultural marketing and trade (20%);Sub-na Themes: Biodiversity (P);Other environment and natural resources management (P);Climate change (S)

Project Financing Data

[X] Loan [ ] Credit [x] Grant [ ] Guarantee [ ] Other:

For Loans/Credits/Others:
Total Bank Financing (US$m): 30.00
Total GEF Financing (US$): 7.00

Borrower Rationale for Choice of Loan Terms Available on File:

Proposed Terms (IBRD): Fixed Spread Loan (FSL)

Commitment fee: 0.85%

Front end fee (FEF) on Bank loan: 0.5%

Financing Plan (US$m): Source	Local	Foreign	Total
BORROWER	3.00	0.00	3.00
IBRD	22.90	7.10	30.00
GEF	5.40	1.60	7.00
Sub-Total:	31.30	8.70	40.00
BENEFICIARIES	43.00	12.85	55.85
TOTAL	74.30	21.55	95.85

Borrower:

Responsible agency: Ministry of Livestock, Agriculture and Fisheries (MGAP)

Estimated Disbursements (Bank and GEF FY/US$m):

FY	2005	2006	2007	2008	2009	2010		
Annual: Bank	0.5	4.0	8.0	8.0	5.5	4.0		
GEF	0.5	2.0	2.0	1.0	1.0	0.5		
Cumulative: Bank	0.5	4.5	12.5	20.5	26.0	30.0		
GEF	0.5	2.5	4.5	5.5	6.5	7.0		

Project implementation period: 6 years, from mid-calendar year 2005 to 2011

Expected effectiveness date: 1 September 2005 **Expected closing date:** 31 August 2011

Does the project depart from the CAS in content or other significant respects? ***Ref. PAD A.3***	[ ]Yes [X] No
Does the project require any exceptions from Bank policies? ***Ref. PAD D.7***	[ ]Yes [X] No
Have these been approved by Bank management?	[ ]Yes [ ] No
Is approval for any policy exception sought from the Board?	[ ]Yes [X] No
Does the project include any critical risks rated "substantial" or "high"? ***Ref. PAD C.5***	[ ]Yes [ ] No
Does the project meet the Regional criteria for readiness for implementation? ***Ref. PAD D.7***	[ ]Yes [ ] No

Project development objective ***Ref. PAD B.2, Technical Annex 3***

Global Environment objective ***Ref. PAD B.2, Technical Annex 3***

Project description *[one-sentence summary of each component]* ***Ref. PAD B.3.a, Technical Annex 4***

Which safeguard policies are triggered, if any? ***Ref. PAD D.6, Technical Annex 10***

Significant, non-standard conditions, **if any**, for:
Ref. PAD C.7
Board presentation:

Loan/credit effectiveness:

Covenants applicable to project implementation:

A. STRATEGIC CONTEXT AND RATIONALE

1. Country and sector issues

1. **Key Development Issues.** Uruguay is well endowed with natural resources for livestock and agricultural production, and the combination of agriculture and agro-industry sectors represent up to 23 percent of the Gross Domestic Product (GDP) of Uruguay. But, even this figure belies the combined importance of these two sectors to the economy as a whole; over half of the output from the agriculture and agro-industry sectors is exported, and in the early 2000s this produced over 70 percent of Uruguay's total export earnings. For agriculture to continue its role of supporting economic development, it must increase even further its export focus, paying particular attention to production specialization, quality improvement and processing; and to taking advantage of Uruguay's important advantages, such as its counter-season relationship with the northern hemisphere and its capacity for natural, organic and "green" crop and livestock production.

2. The increase in agricultural production must come from increased productivity as there is little scope for further land conversion. For long-term sustainability, it is essential that such intensification does not prejudice the natural resource base that supports it. There are encouraging signs that the erosion and degradation of soils caused by inappropriate cultural practices established half a century ago have been significantly reduced over the past 20-30 years. The reduction in the total cropped area has largely eliminated the cultivation of the marginal and vulnerable soils, and has been accompanied by the adoption of rotations (including planted pastures) and agricultural practices (such as minimum and zero tillage) that significantly reduce erosion. However, in recent years an increase in soybean cultivation is providing short term benefits to the rural economy but threatening the natural resource base and especially biodiversity.

3. Increases in livestock production will come largely from increased productivity in Uruguay's extensive beef production sector and from improved management of natural pastures, which form the basis of this production system. While a reduction in the size of the national sheep flock (from 26 to 12 million) during the 1990s has removed one of the main threats to natural pastures of over-grazing, the extensive beef production system remains fragile and its long-term sustainability is still threatened by the risk of natural pasture degradation.

4. Although land and pasture degradation has been reduced over the past quarter century, many of the activities that make up the current production systems present new environmental challenges that need to be addressed within a context of sustainable development. A lack of profitability at the farm level could provoke an inappropriate and eventually detrimental use of natural resources, to the extent that producers would be forced to lower their planning horizon and place emphasis on the achievement of immediate and short-term solutions to cash flow shortages. This is particularly true in the case of the extensive beef production sector, which uses 80% of the country's land, 70% of which is currently natural pasture. Additionally, biodiversity has seldom been considered by farmers as an integral element of their production strategies. Uruguay must, therefore, develop strategies and mechanisms to exploit fully the attributes of its natural resources, such as its natural pastures, the potential for organic farming and sustainable use of agricultural biodiversity, in the pursuit of market opportunities presented by increasingly aware and demanding consumers.

5. Significant changes have taken place also in the way producers utilize and manage water resources in Uruguay. Reduced crop pressure on land and livestock pressure on natural pastures has been accompanied by a substantial expansion of irrigated agriculture, partially supported by the Bank-financed Natural Resources Management and Irrigation Development Project, PRENADER , (Loan 3697-UY) implemented between 1994 and 2002. As pressure grows on available water resources, an

expansion of irrigated agriculture would have to be accompanied by improved efficiency of water use and management in the agricultural sector that will require a broad range of initiatives, from consolidating existing irrigation investment, increasing investment in irrigation technology and improving water quality for proper management of livestock-related effluents through to establishing more systematic systems of groundwater monitoring.

6. Besides the potential of making natural products and following an integrated systems approach, the additional possibility of biodiversity conservation consistent with such a use of natural resources offers many further opportunities for rural economic activities. The conservation and management of biodiversity requires the establishment of a framework of incentives to private landowners to promote land-use practices that exploit the synergy between conservation and the new opportunities for rural income generation.

7. Due to its location in the confluence of the Amazonian and Chaco domains, Uruguay's biodiversity has global significance, containing mosaic-like habitats dominated by grasslands and interspersed with marshes, spiny woodland ("espinal"), gallery forest, and bodies of standing water ("esteros"). Because of its comparatively small size, its relatively smooth topography and absence of major geographic disturbances, the country tends to be uniform from a biological viewpoint, compared to other countries in the Neo-tropical region. The grassland ecosystem ("pastizal") is the most representative area of the country and this occurs alongside periodically-inundated and interspersed marshes, espinal, gallery forest, and esteros.

8. The specific habitats present in Uruguay do not occur in isolation from each other but are interspersed, with a series of localized geographic features including rocks, hills, small ravines and a highly-branched hydrological network; it is this "mosaic" pattern that defines the uniqueness and importance of the eco-region from a biodiversity perspective and, under natural conditions, allows it to maintain its species diversity. The main eco-systems present in the country are:

- Savanna, which covers about 14.0 million hectares, or about 80% of total land and includes a heterogeneous herbaceous community of 2000 species, of which around 400 are gramineae, the diversity of which is determined by the relative complexity of the soils. The savanna also supports various legumes with importance from a range management perspectives, as well as shrubs.
- Native Forests, which cover around 0.6 million hectares (3.5% of total) and include various distinct types, among them gallery forests (along rivers and other water courses), ravine forests (which appear in patches and benefit from specific micro-climate conditions), "Bosque Serrano", palm forests (including the important and endemic "Butia" association covering 70,000 ha), "monte de parque", "algarrobal", and litoral spiny forests ("monte espinoso del litoral").
- Wetlands, which are primarily located in the south-east, especially in the Laguna Merín watershed and the coast of Rocha and cover more than 1.0 million hectares.
- Coastal Ecosystems, which are productive and have an important associated wildlife. They occur along the two main coasts of the country, the River Plate coast (460 km) and the Atlantic coast (220 km).

9. Within this rich biodiversity, livestock production (primarily cattle and sheep) has developed and been the main pillar of the rural economy for several hundred years. From the beginning, livestock production was based on the use of natural pastures, at first extensively but gradually with increasing intensity, including enclosure with fencing in the 19th century and significant attempts to improve grazing capacity in the latter half of the 20th century through the use of fertilizers, exotic pasture species, drinking water storage and electric fencing. The original savanna ecosystem with associated

forests has thus been heavily altered and, with it, the natural features of the landscape have changed substantially.

10. Although less than 1% of the soils are affected by severe soil erosion, the combination of severe and moderate soil erosion, that affects about 10% of the area, has had some impact on natural habitats. Of the 16 million hectares that are appropriate for livestock and agriculture production, around 70 percent is still under natural pastures. These natural pastures are in a vulnerable condition because of fragmentation that results in isolated plant populations and threatens the fauna associated with these native grasslands. Some herbaceous vegetation, mainly *gramineae* and some *leguminosae* are currently suffering from habitat isolation and land use changes.

11. There is growing recognition that expanded production and increased productivity in the livestock and agriculture sub-sectors must be compatible with the protection and conservation of the natural resources. Moreover, the Government of Uruguay recognizes that the public sector has an important role to play in the promotion of sustainable rural development through the provision of a supportive framework of public goods, and an incentive structure that would encourage the private sector to identify and exploit the opportunities made available by world markets. The success of government policies to promote irrigation development and to expand commercial forestry over the past fifteen years are good examples to build on and replicate.

12. As part of its natural resources conservation strategy, the GOU is combining its activities to strengthen its Protected Area System, with conservation efforts outside the 31 protected areas. The ecological characteristics of the country favor this type of approach, given the synergies that can be found between existing ecosystems and the generation of rural income opportunities, and the resilience and restoration potential of Uruguay's ecosystems. The key concept to achieve biodiversity conservation outside Uruguay's system of protected areas would be the promotion of biodiversity-compatible, multiple land-use practices, within a landscape approach. Under this approach, it is possible to promote the adoption of land-use practices that exploit the synergies that exist between biodiversity conservation and opportunities for rural income generation.

13. **Government Commitment.** By the request of the government, the Bank prepared, in 2002, a sector review to analyze the main issues related to natural resources management in Uruguay (*Uruguay: the Rural Sector and Natural Resources, Report No. 24409-UR*). Based on this review, the Ministry of Agriculture, with the agreement of the Ministry of Economy and OPP, requested World Bank technical and financial assistance for the preparation and execution of the proposed Natural Resources and Biodiversity Management Project. Furthermore, during 2003, the local preparation team, with the assistance of an FAO Technical Cooperation Project (*TCP/URU/0167: Preparación de un Proyecto de Manejo Integral de los Recursos Aguas y Suelos*), prepared background information and a preliminary proposal for a possible natural resources management project. To accelerate the project preparation process, the Ministry of Livestock created an ad-hoc Commission to coordinate preparation work and ensure coordination of the proposed project activities and those currently being executed under other programs of the MGAP. Finally, with the financial assistance of a GEF PDF Block B Grant, the Ministry of Agriculture provided a comprehensive analysis of the status and trends of agricultural biodiversity and of their underlying threats; and submitted proposals for mainstreaming biodiversity in on-farm investment projects to improve natural resources management and strengthening the capacities of farmers and their organizations as well as local and central authorities to manage agricultural biodiversity. Uruguay ratified the Convention on Biological Diversity (CBD) on May 11, 1993 In compliance with art. 6 of the CBD, the National Biodiversity Strategy (NBS), was prepared during 1998 and 1999 (Project URU/96/G31) by the National Environment Agency (*Comisión Nacional de Medio Ambiente, DINAMA*), with financial support from the GEF. The Uruguayan NBS was published and officially presented by the Ministry of

Housing, Territorial Planning and Environment (*Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente, MVOTMA*) on December 29, 1999, and submitted to the CBD Secretariat. The GOU sees the present project as a means to provide support to Uruguay's commitments to advance in the area of biodiversity conservation, as agreed during the recent Conference of the Parties carried out in Malaysia (February 2004).

14. The new administration, which took office in March 2005, has expressed its commitment to supporting the sustainable management of natural resources and biodiversity by providing assistance to producers, with emphasis on small and medium size farmers. The administration has ratified the overall project rationale, objectives and components.

2. Rationale for Bank involvement

15. The Government of Uruguay and the World Bank have collaborated for more than fifty years in the development of the agricultural sector. Most of this effort was directed towards the productive aspects of agriculture, but during the past decade a broader approach has been adopted in the rural areas. In particular, there has been an increased emphasis on environmental issues and on the achievement of long-term sustainable production systems, mainly through improved natural resources management. Lessons learned from the recently completed Bank-financed project (Loan 3697-UR) and the conclusions of the NRM Sector Work completed in 2002, indicate that any future operation in the agricultural sector in Uruguay should go beyond irrigated agriculture and dairy production and include natural resources management in the extensive livestock and crop production sub-sectors as well as the conservation and management of biodiversity in the productive landscape. The long standing collaboration with Government in the country's agricultural development and the recent experience with the implementation of the PRENADER and the Foot and Mouth Emergency Projects, plus the Bank's experience with GEF-financed biodiversity projects throughout Latin America, would make the Bank a privileged partner to support Government efforts to improve natural resources and biodiversity management. The main purpose of the 2002 CAS was to define the best strategy for the Bank to assist the Uruguayan Government to deal with the economic and financial crisis that was affecting the country that year. Consequently, its conclusions and recommendations are not directly relevant for investment project lending.

3. Global Program objective addressed by the Project

16. The proposed fully blended project, which would be partially financed by GEF resources, is consistent with the Biodiversity Strategic Priority of Mainstreaming Biodiversity in Production Landscapes and as such would aim at developing systemic and institutional capacities of government agencies and other stakeholders and management procedures, disseminate relevant knowledge, and promote partnership building between agencies, local communities and the private sector that secure biodiversity conservation. The promotion of better practices in which natural resource management would be enhanced, incorporating biodiversity into the production matrix, would be evaluated in terms of the country's area under sustainable use, the number of species and habitats conserved and the economic value of biodiversity for the rural sector.

B. PROJECT DESCRIPTION

1. Lending instrument

17. The project would be a Specific Investment Loan, fully blended with a GEF Grant.

2. [If Applicable] Program objective and Phases

18. N/A

3. Project development objective and key indicators

19. The proposed Bank/GEF blended project would assist the Government in its efforts to promote the adoption of economically and environmentally viable integrated production systems among small- and medium-sized farmers and livestock producers. Within the context of a holistic ecosystem and natural resources management approach, the project would improve natural resources management and conservation of soils, water and rangelands, while increasing productivity and mainstreaming biodiversity conservation in producers' investment and production decisions. This would ensure the economic and environmental sustainability of agricultural and livestock development. Within this integrated production system approach, the project also aims to promote increased understanding of the role of biodiversity in agricultural landscapes and the potential impact of the various land use practices upon biodiversity and their economic and ecological sustainability.

20. The Project would provide financial incentives on a matching-grant basis and technical assistance to medium- and small-sized farmers, with emphasis on proposals made by groups of farmers, to invest in sustainable agricultural and livestock production practices integrated with measures to conserve biodiversity. This would ensure the conservation and sustainable use of natural resources and biodiversity, as well as consolidating and expanding existing productive investments, particularly in the irrigation infrastructure.

21. While the proposed project would be carried out nation-wide, GEF-funding would be available only for the savanna and native forest ecosystems, with special emphasis on two key geographical areas, one in the north and the other in the east of the country. The "*quebradas*" in these areas represent the last remaining areas of native vegetation associated with springs and water courses.

22. The project would strengthen the Ministry of Agriculture's overall natural resource management capabilities through training of staff and expanding the Geographical Information System and related natural resource management tools. Additionally, the project would support an institutional capacity building program at the central and regional level in order to help develop and implement national strategies for the conservation and sustainable use of agricultural biodiversity and to promote their mainstreaming and integration in sectoral development programs.

23. **Project global environment objective and key indicators**. While the integrated production systems in agricultural and livestock landscapes would be applied at the national level, integrated systems in key biodiversity areas would be supported by the GEF component, with support being provided to finance the incremental costs of project interventions.

24. The promotion of practices to improve natural resource management and incorporate biodiversity into farmers' production matrices, would be evaluated in terms of the area under sustainable use, the number of species and habitats conserved and the economic value of biodiversity for the rural sector. Key performance indicators would include areas under improved pasture management techniques;

areas under sustainable use of natural resources; number of biodiversity-friendly projects implemented; number of farmers adopting innovative market incentives, such as certification and easement implementation; and number of species and/or populations under conservation. The methodology for the definition of the respective baselines and the establishment of key project performance indicators were agreed during appraisal preparation. The list of performance indicators to be used will be presented at negotiations.

25. The Project's overall objective would be achieved by providing technical and financial assistance to farmers to develop and implement appropriate technologies for increasing the productivity of agricultural and livestock systems while: ensuring biodiversity conservation; promoting the adoption of cultural practices to conserve soils; reducing the impact of grazing; reducing the risk of erosion and enhancing the efficient use of water resources; understanding the carbon sequestration potential of various land-use practices; and delineating a strategy to promote carbon sequestration in Uruguay's productive landscapes. The main project instrument would be the implementation of demand-driven subprojects that would be complemented by a series of supporting activities such as: technical assistance; training aimed at raising awareness of natural resources and biodiversity conservation; management in the productive sectors; and building institutional and landowners' capacity for holistic management of natural resources that integrates biodiversity conservation into productive landscapes.

26. These biodiversity conservation and management activities are consistent with the guidelines of the GEF's Biodiversity Operational Program 13: Conservation and Sustainable Use of Biological Diversity Important to Agriculture. The biodiversity component focuses on managed ecosystems and biological habitats that provide a broad range of goods and services important to human development and the global environment, as well as on maintaining diverse farming systems and conserving biodiversity in agricultural landscapes. This strategy would promote positive impacts and at the same time mitigate the negative impacts of agricultural systems and practices on biological diversity in agro-ecosystems and their interface with other ecosystems. It would also promote the conservation and sustainable use of genetic resources. These activities would contribute to the objectives of the CBD in the area of agricultural biological diversity, thus providing significant means for improving living conditions in rural areas while increasing productivity of biological and rural resources. The project would achieve these goals by providing technical and financial assistance to local producers in Uruguay and creating demonstration pilot areas to address constraints that are currently preventing the introduction, dissemination and widespread use of ecologically sound and socially responsible management concepts, which have good prospects for sustainable, multiple focal area benefits. The Uruguayan Government, through this fully blended World Bank/GEF-financed project, intends to create a management system that could be replicated in other areas of the country and the region to generate multiple local area benefits and to enhance the potential of the rural landscape. Therefore, the project includes systematic reviews of experience gained, documentation of good practices, and dissemination of lessons learned and know-how. The project would also develop local capacity for the monitoring of carbon sequestration and balance.

4. Project components

27. Total project costs have been estimated at about US$ 96.0, which would be financed through a Bank loan of US$30.0 million blended with a GEF Grant of US$7.0 million, Government counterpart funds of about US$ 3.0 million, and beneficiaries' contributions of about US$ 56.0 million. The project would finance four main components as follows:

Project Financing Matrix by Component

Component	Indicative Costs	% of Total	Bank Finan.	% of Bank	GEF Finan.	% of GEF	Gov. finan.	% of Gov	Benef. Finan.	% of Benef.
	US$M		US$M		US$M		US$M		US$M	
1. Natural Resources and Biodiversity Management Component, the project would provide technical and financial assistance to demand-driven activities aimed at promoting sustainable management of natural pastures and rainfed as well as irrigated agriculture. GEF resources would support mainstreamed demand for biodiversity initiatives in priority ecosystems.	87.63	91.42	25.17	83.73	4.97	71.00	1.65	55.00	55.85	100.00
2. Establishment of Pilot Areas, to implement pilot demonstrations of sustainable use of natural resources and biodiversity in key micro-watersheds of biodiversity.	1.50	1.57	--	--	1.50	21.40	--	--	--	--
3. Support Services, which would include training to farmers, institutional strengthening of local and central authorities (through improved GIS and studies), studies and applied research, and specialized training for technical staff providing technical assistance to farmers.	3.86	4.03	2.87	9.57	0.29	4.10	0.69	23.00	--	--
4. Project Executing Unit, which would be responsible for overall project implementation and the Monitoring and Evaluation System.	2.61	2.98	1.80	6.50	0.25	3.59	0.66	22.00	--	--
Front-end Fee	0.15		0.15							
Total Project Costs	95.85	100.00	30.00	100.00	7.00	100.00	3.00	100.00	55.85	100.00

5. Lessons learned and reflected in the project design

28. Key lessons learned from implementation of natural resources management projects in general, and the PRENADER Project in particular, include:

- The importance of adequately targeted Government incentives to promote irrigation development and production diversification into high-value export crops, particularly in an environment that has been traditionally dominated by extensive agriculture and livestock production like Uruguay.

- In a country where extensive agricultural and livestock production are predominant, natural resources management programs should address, in an integrated manner, issues related to soil, water, pasture management and conservation and sustainable use of biodiversity.

- The project was successful in promoting sustainable agricultural practices among small farmers, through a micro-catchment approach in areas of intensive agriculture, and demonstrated the importance of the participatory approach and farmers' organizations for achieving a successful natural resources management program. Through adequate monitoring and evaluation of results, pilot experiences can establish the foundations for a scaled-up nationwide program.

- In order to maximize the impact and sustainability of financial incentives that promote the expansion of privately-owned irrigation infrastructure, procurement should encourage beneficiary ownership and reduce, or eliminate, reliance on public institutions for operation and maintenance (O&M).

- Continuity of TA services beyond the duration of the project is essential for achieving long-term impacts and sustainable investments.

- In addition to agronomists, the establishment of professional teams for the delivery of extension services in programs related to Natural Resources Management (specifically sociologists, engineers and economists), enables a project to be better prepared to respond to multiple demands of producers.

- The incorporation of private organizations in the implementation of applied research programs (as in the case of AUSID) increases the possibilities of collaboration between researchers, producers, extension specialists, and local institutions, and consequently provides an effective synergism and potentially higher adoption rates. Adequate beneficiary ownership and participation is also instrumental to the effective implementation of government programs aimed at promoting diversification and exports of non-traditional products.

- A holistic approach is key to developing sustainable agricultural production systems among small farmers. Such an approach should include elements relevant to increasing competitiveness of production, beyond mere productivity, such as awareness of commercial opportunities, product quality, certification, integration with commerce and with agro-industry to promote joint actions by producers.

29. General lessons learned from other related GEF projects are:

- Innovative financing and support mechanisms are needed for the long-term conservation of biodiversity, especially outside protected areas.

- The true root causes of biodiversity losses must be addressed, such as the social and political aspects as in the case of Uruguay where biodiversity is the main productive landscape but not appropriately incorporated into the productive matrix.
- The necessary mechanisms should be provided to avoid the tendency for biodiversity to be a stand alone activity and to promote its inclusion into the country's economic development plans and strategies.
- The sustainability of the proposed approach, once the GEF financial support is finished, needs to be guaranteed, thus providing ways for the continuation of sound practices for biodiversity conservation.
- Interventions should be based on conservation of sites and ecosystems, rather than on single species, thus providing alternatives for *in situ* conservation of globally important species.
- Capacity building at the local and regional level is essential to provide the necessary skills and knowledge not only to promote biodiversity conservation but also to ensure that an adequate legal and policy framework is in place.
- Stakeholders' participation should be promoted from the very beginning of the project's conception. During project preparation, all issues related to biodiversity conservation and management should be raised and a sense of ownership must be created.
- Biodiversity projects should adopt a holistic approach to the protection of biodiversity of global importance, such as land degradation, forest conservation, and freshwater management combining global benefits from individual focal area projects.
- The private sector should be incorporated into biodiversity management, especially outside protected areas where, as in the case of Uruguay, the conservation of biodiversity is in private hands.

6. Alternatives considered and reasons for rejection

30. The initial idea was to propose a project to reactivate the sector following the economic crises that affected the country in the early 2000s. Such a project would have been strictly production-oriented to promote increased agricultural and livestock production, including some activities to promote improved natural resources management, combined with a stand-alone GEF Project for biodiversity conservation and management.

31. Recent performance of the agriculture sector, however, indicated that, in general terms, the sector was reacting positively to market signals and did not require special assistance to increase growth. There was, nevertheless, an underlying threat that, if special incentives and technical assistance were not given to farmers, there was a real danger that high rates of growth in agricultural and livestock production would be achieved at the expense of the country's natural resource base.

32. The alternative of preparing a repeater PRENADER project, which would have benefited from a shorter preparation and processing period, was considered but rejected in favor of an integrated natural resources and biodiversity management project.

33. Lessons learned from the implementation of other GEF-financed biodiversity conservation and management projects in Latin America, indicated that projects' impacts on biodiversity conservation were greatly enhanced when they were fully blended with Bank-financed natural resources management projects. Moreover, as in other countries, even if Uruguay allocated 10-15% of its territory under some sort of protection (which is very expensive and may be not applicable for Uruguay), this would not be sufficient to maintain large-scale ecological processes and to ensure sustainable biodiversity conservation over the long term. Consequently, and also in the light of the conclusions of the ESW and Bank experience with other natural resources and biodiversity

conservation and management projects, it was decided to opt for a project that would concentrate on promoting improved natural resources management and mainstream agricultural biodiversity through support to integrated on-farm natural resources management plans.

C. IMPLEMENTATION

1. Partnership arrangements (if applicable)

34. N/A

2. Institutional and implementation arrangements

35. The overall responsibility for the management of the Project will rest with the Ministry of Livestock, Agriculture and Fisheries (*Ministerio de Ganadería, Agricultura y Pesca, MGAP*). An Inter-ministerial Coordination Committee (ICC), led by the Minister of Livestock, Agriculture and Fishery and including the Minister of Housing, Territorial Planning and Environment (*Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente, MVOTMA*), and the Director of the Office of Planning and Budget (*Oficina de Planeamiento y Presupuesto, OPP*), will be created to coordinate project activities with other MGAP programs, define the policy framework within which project implementation will take place, and discuss main policy and budget issues related to the project. The representative of the Minister of MVOTMA would be an official from its National Environment Division (*Diiección Nacional del Medio Ambiente, DINAMA*).

36. The Project would provide financial incentives on a matching-grant basis and technical assistance to medium- and small sized farmers, with emphasis on proposals made by groups of farmers, to invest in sustainable agricultural and livestock production practices integrated with measures to conserve biodiversity. This should ensure the conservation and sustainable use of natural resources including biodiversity, as well as consolidating and expanding existing productive investments, particularly in the irrigation infrastructure.

37. In the overall management of the project, MGAP will be assisted by a Project Executing Unit (PEU), that would partly integrate the existing Project Units of the PRENADER and PAEFA projects, to benefit from their experience in implementing Bank-financed projects. The PEU will assume responsibility for the overall coordination of the proposed project activities and carry out project management functions, including all aspects of the sub-projects cycle, M&E, financial management, and overall reporting and coordination with the Bank. The PEU would report directly to the Minister and would be assisted by the Renewable Natural Resources Division of MGAP (*Dirección General de Recursos Naturales Renovables, RENARE*) and its regional offices.

38. After the formal launching of the project, the PEU would implement the project dissemination and promotion program, with the participation of RENARE and its regional offices; the Regional Offices of the MGAP; DINAMA; DINOT; local governments; and local organizations, such as cooperative farmers organizations and rural development commissions.

39. The preparation and execution of investment proposals to be financed by the project will be the responsibility of beneficiaries, for which they will receive specialized technical assistance, partly financed by the project. Beneficiaries would be able to submit their proposals either to the regional offices of RENARE or directly to the PEU. Sub-projects will be reviewed in the first instance by RENARE's Regional Offices and then submitted to the PEU for final evaluation and approval.

40. The operational and financial flows of the subproject cycle are presented in Annexes 6 and 7 respectively. Details of procedures and implementation arrangements will be included in the Project Operational Manual.

3. Monitoring and evaluation of outcomes/results

41. A project monitoring and evaluation system would be developed during the first semester of project execution. The system, which would be managed by the PEU, would use a comprehensive list of indicators for performance, result, and impact of the project. The full list of indicators, as well as the frequency of monitoring and the contents and frequency of evaluation reports, will be agreed upon during negotiations. The baseline would be developed during the first year of project execution.

42. Given the demand-driven nature of the project and the strong stakeholder participation in the adoption of sound practices in natural resources management, the project would employ an adaptive management framework characterized by regular monitoring and concurrent evaluation, a comprehensive mid-term review, and a final assessment. Regular monitoring would be the responsibility of the PEU, which would prepare semi-annual reports on implementation progress. These reports would include progress achieved vis-à-vis the Operational Manual's timetable for the various project activities, the Procurement Plan and schedule, and agreed Annual Operation Plans (POA). The outputs of the M&E System, as will be indicated in the Operation Manual, would be used to assess the performance of the various project components and suggest improvements and changes whenever necessary. An annual report would be prepared indicating project achievements, experiences, problems and lessons learned during the previous year.

43. Evaluations would be carried out at mid-term and at the end of the project. These evaluations would be the responsibility of the PEU, with the assistance of independent consultants. The Mid-Term Review (MTR) would be carried out by September 2008. The project would support a review workshop and Implementation Completion Report stakeholder meeting, wherein all participating parties (farmers, farmers associations, academia, NGOs and governmental agencies) would participate to review and assess the project's findings and develop a post-project sustainability plan.

4. Sustainability and Replicability

44. This newly developed approach in the rural landscape of Uruguay would develop and promote modifications to "business as usual" without changing the productive context but, rather, promoting improved practices for natural resource management and incorporating biodiversity into this sector. It would provide, bringing country-driven information, advisory, technical and extension services and would draw special attention to viable farming and silvo-pastoral practices that promote conservation and sustainable use biodiversity in the agricultural landscape. It would promote the identification and development of new marketing and business opportunities for more diversified production systems, including eco-friendly produce, and would create a sense of "ownership" of native biodiversity among private landowners. In turn, it would establish the human and institutional capacity to independently develop sustainable solutions to agro-silvo-pastoral initiatives after the project has finished. Incremental costs for this improved way of doing business and for mainstreaming biodiversity into the rural landscape would be covered by the GEF. The sustainability would also be demonstrated by the demand for investments in which farmers would have to contribute partially refundable capital. Though this project is based upon a land-use strategy further research may demonstrate further national opportunities (for instance easements are already considered in the legal framework) or may provide further international funding for biodiversity conservation.

45. Demonstration areas in micro-watersheds of importance to biodiversity would be developed jointly with small- and medium-sized local farmers. These demonstration pilot projects would remain in place after project completion, given that farmers would be the owners and the proponents of these activities in partnership.

46. **Replicability.** As a locally-based set of initiatives, implemented by the demand and interest of small- and medium-sized farmers in previously defined key areas in Uruguay, the project would only be able to invest in some of these sites while the entire project would be carried out at the national level. This indicates the potential opportunities for replication of biodiversity initiatives. The ecosystems of Uruguay's natural habitats consist mainly of interspersed savannas and forests, wetlands and hilly tracts of lands which continue into neighboring Brazil and Argentina. There is a strong possibility that this project could be used for replication units not only within Uruguay but also outside the country where a similar type of habitat combination may be found. Even without a similar combination of habitat types, the mainstreaming of biodiversity in the rural sector and the value added to rural land production based on sound practices may be replicated elsewhere with a strong communications scheme as planned in the project. The academic sector and civil society organizations would be key elements to disseminate and implement the lessons derived from this initiative.

5. Critical risks and possible controversial aspects

Cause	Rating	Mitigation
Lack of counterpart funds will delay implementation.	Low	If economic recovery continues at its present rate, there is likely to be a sound fiscal situation during project implementation. Strong government commitment and higher Bank financing should also help.
Lack of central governmental commitment to establishing the necessary and appropriate institutional framework for biodiversity conservation and promotion of sustainable use of natural resources.	Low	Creation of local and regional constituencies for biodiversity conservation and eco-region consolidation. Creation of alliances with the private sector, civil society organizations and the academia to support the Government.
The project does not generate enough demand from farmers willing to invest in natural resources management.	Moderate	Strong communication campaign, extension work, technical assistance, and training for producers plus financial incentives should generate demand.

Cause	Rating	Mitigation
Non-conventional rural components such as biodiversity are difficult to implement and not seen by farmers as economic opportunities.	Moderate	Integrated Environmental Monitoring, biodiversity management intervention support, community training and demonstration projects on natural resources sustainable use.
Investment in the agricultural sector has been low as a result of the economic crisis; therefore, demand for financial and technical assistance under the project will be low.	Moderate	The recent recovery of agricultural growth would indicate that the investment environment is improving in the sector and that this risk has been minimized to a large extent.
Institutional capacity for project execution is weak, particularly on biodiversity-related activities.	High	Intensive training and capacity building at local, regional and central (UEP) levels will minimize this risk.
Macroeconomic and fiscal policies are not in place to stimulate economic opportunities being created in key areas for biodiversity conservation.	Low	Recent economic recovery indicates that the correct macro-economic policies are in place. Biodiversity conservation and management sub-projects will demonstrate their economic and financial viability.
Local communities and regional authorities do not participate fully in the establishment and management of initiatives.	Low	Capacity building at the governmental and community levels, with standardization and control, and environmental technical assistance. PRENADER experience demonstrated the viability and effectiveness of participatory approach.

6. Loan/credit conditions and covenants

47. The Preparation of the final draft of the project's Operational Manual was completed as a condition of negotiations.

48. Conditions of effectiveness are: (a) the GEF Trust Fund Grant Agreement has been executed and delivered and all conditions precedent to its effectiveness or to the right of the Borrower to make withdrawals thereunder, except only the effectiveness of the Loan Agreement, have been fulfilled; (b) the Operational Manual, satisfactory to the Bank, has been adopted by the Borrower; (c) the PEU has been established and staffed as set forth in Section 3.04 of this Agreement; and (d) the Borrower has established, and made operational, financial management arrangements satisfactory to the Bank, and the format for FMRs has been agreed with the Bank.

D. APPRAISAL SUMMARY

1. Economic and financial analyses

49. Given the demand-driven nature of activities to be executed under the project, it is not possible to determine *a priori* the exact composition of the portfolio of investment sub-projects that will be financed under the project. Consequently, as only activities identified and presented by potential beneficiaries would be considered, an ex-ante determination of costs and benefits of productive

investments would not be feasible. Therefore, economic return estimates were based only on a sample of investment sub-projects likely to be demanded by beneficiaries, following the experience of PRENADER. The impact of these investments on natural resources and biodiversity management, agricultural productivity and farmers' income was analyzed with the help of farm models illustrative of typical farming situations in the main agro-ecological zones, and situations in which biodiversity was mainstreamed into the farmer's investment decisions. Assumptions regarding yield increases are conservative to reflect the risk-minimizing production strategies that normally characterize farmers. The return of the project is estimated at about 22.5%. Although the estimated rate of return took into consideration only part, albeit a substantial part, of the possible investments to be financed under the project, is presented here in order to give an estimate of the order of magnitude of the economic returns that can be expected from the proposed project.

50. Economic return calculations included the cost of incremental on-farm productive investment and recurrent expenditure for the adoption of sustainable agricultural production systems promoted under the project. The analysis of the sample of representative subprojects indicated that economic returns on most investments by crop farmers and livestock producers are likely to be above 18%; farm models with ERR of less than 10% were excluded from the analysis as this would be the minimum rate of return that any sub-project would have to have in order to be eligible for financing under the proposed project.

51. The financial analysis was carried out to assess the financial viability of a sample of productive investments most likely to be demanded by irrigation farmers, along the same lines followed for the economic analysis. The financial viability of these investments was analyzed within the framework of the most common production systems used by producers using the same set of farm models prepared for the economic analysis. As is to be expected, given the level of subsidy provided, the selected farm models showed relatively high financial rates of return. Input and output prices were assumed constant, as was the real exchange rate, throughout the 20 year time horizon used in the financial analysis. The discount rate was assumed to be10%.

2. Technical

52. Overall, the project is considered technically sound, given that:
    - The main constraints to improved management of natural resources and productivity of extensive livestock and crop production have been adequately identified during project preparation and included in the implementation strategy of the project.
    - Farmers' participation in investment decision making processes and the demand-driven approach that will characterize project execution have already been tested by the implementing agency.
    - The main technical aspects of the matching grant scheme that would be adopted by the project have been adequately defined during preparation.
    - The compliance of individual beneficiary sub-projects with acceptable technical standards would be ensured through a combination of instruments, including the participatory preparation of sub-projects, provision of technical support for the identification and preparation of farmers' investment proposals, and the establishment of a detailed monitoring and evaluation system.
    - The link between natural resources and biodiversity has been clearly diagnosed, and project design is expected to address both elements in an integrated manner.

53. From a biodiversity viewpoint, the project is consistent with the general state-of-the-art conclusions and involves a holistic approach to the main areas of interest of the GEF and the Bank to mainstream biodiversity in the productive sector in rural areas. Thus, the project is technically sound given that it:

- Provides a focused and innovative way of financing and supporting biodiversity conservation biodiversity in the long-term by providing alternative uses of biodiversity in the rural landscape.
- Addresses the true root of biodiversity loss in Uruguay by including biodiversity within a strategy of natural resources management, thus avoiding the generally ineffective stand-alone approach.
- Ensures sustainability by involving biodiversity as a productive factor in the rural landscape with a biological vision from which the key biodiversity areas will be derived and prioritized for project financing.
- Provides the needed capacity and the creation of other innovative knowledge tools to produce a sound management toolkit for biodiversity.
- Provides a strong and broad framework for stakeholders' participation to increase ownership whilst at the same time ensuring that several other key cross sectorial issues are included such as provision of freshwater, forest conservation, reduction of land degradation, etc.
- Presents a demand-driven approach to promote ideas and innovative ways of adopting sound biodiversity practices and its combination with other natural resources in a broader scope of rural landscape management.
- Includes private sector participation in biodiversity management especially outside protected areas where as in the case of Uruguay, the conservation of biodiversity is in private hands within a biological vision of key biodiversity areas.

3. Institutional

3.1 Executing Agencies

54. Project investments are expected to be demand driven, with decisions regarding investment proposals being financed and decisions about investment priorities being made by the beneficiaries, with the help of private technical assistance.

55. Although project design poses a considerable institutional challenge, due to the decentralized nature of implementation and the need for adequate coordination between MGAP and MVOTMA, the project is considered institutionally sound. This assessment is based on the fact that both MGAP and DINAMA have experience in managing these types of projects, particularly Bank-financed projects such as PRENADER. Moreover, roles and responsibilities of both institutions involved in the subproject cycle, which is the key to successful implementation of the main components of the project, are well defined. The institutional strengthening component is designed to assist MGAP to adequately support the subproject cycle.

56. The Project Executing Unit, which would benefit from the experience of some of the staff that were responsible for the execution of PRENADER and PAEFA, would be provided with additional institutional strengthening to ensure adequate implementation capacity to deal with biodiversity activities and would report directly to the Minister of MGAP. In the performance of its responsibilities, the PEU will be assisted by the Renewable Natural Resources Division of MGAP (*Dirección General de Recursos Naturales Renovables, RENARE*). The current weaknesses of RENARE´s Regional Offices that were identified during preparation as a result of a comprehensive participatory Institutional Assessment would be addressed by the project as part of the Institutional Strengthening Component.

3.2 Project Management

57. As indicated above, the project will be managed by a Project Executing Unit, working in close collaboration with RENARE. An Inter-ministerial Coordination Committee (ICC), led by the

MGAP´s Minister, with the participation of the MVOTMA Minister and the Director of OPP, would be created to support the PEU on the main policy decisions. Technical Committees would be created to solve specific issues according to MGAP´s necessities.

58. The proposed project management structure is considered adequate for the needs of the Project and in comparison with previous Bank operations, it provides a more participatory and decentralized structure to receive and evaluate the subprojects to be presented by the beneficiaries. These arrangements appear to be operationally viable, as they combine the former experience of the PRENADER and with a new decentralized and participatory approach to this kind of project in Uruguay.

3.3 Procurement Issues

59. Implementation of the PRENADER Project as well as the Foot and Mouth Emergency Recovery Project suggest that, overall, the proposed PEU would have adequate institutional capacity to handle project implementation issues, including procurement. While some weaknesses were identified with respect to procurement processes carried out under the former project, key staff in the PEU are experienced and familiar with Bank fiduciary requirements. The said weaknesses will be addressed under the proposed project through improvements to project design (i.e. demand-driven, beneficiary executed subprojects with appropriate technical assistance, monitoring and supervision arrangements), as well as additional procurement training and technical assistance for the PEU (see Annex 8).

60. In addition to a limited amount of procurement (primarily technical assistance), the PEU will be responsible for: (i) selecting eligible beneficiaries on the basis of established criteria; (ii) signing with beneficiaries a standard project agreement approved by the Bank; (iii) providing or supervising technical assistance to the beneficiaries for sub-project preparation and implementation; (iv) supervising procurement carried out by the beneficiaries; and (v) managing a MIS with comprehensive procurement and financial information on the subprojects. It is anticipated that the subprojects will be pre-financed by the beneficiaries who will be reimbursed by the PEU, provided that agreed procurement procedures have been used.

61. The Subprojects are expected to include small works and small value goods to be procured using commercial practices on the basis of standard simplified documentation and procedures. However, Sub-projects will also include technical assistance provided by individual consultants to be selected on the basis of comparison of highly decentralized and demand driven qualifications and experience of three qualified consultants, whenever possible.

3.4 Financial Management Issues

62. Financial management will be under the direct responsibility of the Financial Manager and team in the PEU. Before effectiveness, the project preparation team in MGAP will study and propose a financial system to use during implementation. The OPP will guarantee inclusion of the project in the national multi-year budget.

63. Based upon the Rules for Financial Statements and Auditing and Projects Financed by the World Bank in the Disbursement Manual and in the Accounting, Financial Statements and Auditing, MGAP, assisted by the PEU through its financial manager, will be responsible for the following actions: (i) coordination and monitoring of the flow of funds; (ii) management of the Financial Information System; (iii) Preparation of financial reports to be submitted to the Bank, consistent with the Bank Rules; (iv) Implementation of the necessary corrective measures of the financial management during

Project Implementation; (v) Contracting of auditors using Bank procedures for financial verification and control in accordance with Bank Guidelines (see Annex 7).

64. There are no major risks in relation to financial management, given MGAP's long-standing experience with financial management of World Bank projects (especially related to PRENADER).

4. Social

65. Given the current socio-economic situation in the country, there are no major social issues, as demonstrated during the implementation of PRENADER and ratified by the social assessment prepared by the local preparation group and evaluated by the World Bank Specialist.

5. Environment

66. The approach proposed to sustainable integrated renewable resource management, including biodiversity, is based on the successful experience of over a ten-year period. Of the four sub-components which directly relate to use and conservation of natural resources only one, irrigation, poses any significant risk of negative environmental impact. Nevertheless, the project will ensure effective environmental screening with introduction and enforcement of mitigating measures. The design of the environmental impact assessment (EIA) and procedures is drawn from experience gained during the past project implementation. That experience has been thoroughly evaluated with respect to the procedures used for environmental assessment and the outcome in terms of resource management and demonstrates significant improvement in the quality of land and water resources and little evidence of environmental degradation attributable to project-funded activities. Nevertheless, isolated cases were identified where performance could have been improved. Lessons learned have led to the introduction of a number of measures to deal with such shortfalls – a "blacklist", specifying activities which are ineligible for funding and improved technical assistance.

67. Impact assessment: In the irrigation component, EIA methodologies that have been tested and refined over the past decade would be applied. Measurement of potential impacts in the extensive agriculture and native pasture components is expected to be relatively straightforward, principally requiring the application of a checklist and a blacklist. The biodiversity component in savanna and native forest ecosystems introduces an innovative dimension. It is exclusively focused on conservation (and use) of threatened biodiversity with global priority. Estimating the degree to which reduction in the rate of degradation or enhancement of biodiversity and associated soil and water resources may be attributable to the specific activities will draw on invaluable insights from PRENADER's micro-catchment component. The lessons have been incorporated into a more rigorous specification of hypotheses on key cause-effect relationships and the baseline and M&E work needed to test them. The existing GIS will be of critical importance. The research proposed on carbon sequestration in pastures and methane generation from livestock should contribute to the on-going debate on how these issues impact on climate change.

68. Procedures: All funding proposals from individual farmers or groups would be required to include a statement on potential environmental consequences. All proposals will be screened by the PEU on the basis of a "blacklist" (as detailed in the Operational Manual) prior to submission to relevant government authorities. Based on the specific content of individual proposals, the PEU would seek advice from DNH, DSA, DINAMA or DINOT for review and approval of subprojects. The PEU would be responsible for final design and supervision in execution of the EIAs in accordance with DINAMA's norms and consistent with the project's environmental assessment specifications.

69. Institutional capacity: The PEU as well as the Regional Natural Resources Management Offices of MGAP would receive training in EIA methodology and it would be in a position to contract environmental specialists to assist in various phases in the sub-project cycle. The DSA's capacity in GIS and EIA would be strengthened. DINAMA and DNH are fully qualified to handle the project's environmental requirements.

6. Safeguard policies

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP/GP 4.01)	[x]	[ ]
Natural Habitats (OP/BP 4.04)	[ ]	[x]
Pest Management (OP 4.09)	[ ]	[x]
Cultural Property (OPN 11.03, being revised as OP 4.11)	[ ]	[x]
Involuntary Resettlement (OP/BP 4.12)	[ ]	[x]
Indigenous Peoples (OD 4.20, being revised as OP 4.10)	[ ]	[x]
Forests (OP/BP 4.36)	[ ]	[x]
Safety of Dams (OP/BP 4.37)	[ ]	[x]
Projects in Disputed Areas (OP/BP/GP 7.60)*	[ ]	[x]
Projects on International Waterways (OP/BP/GP 7.50)	[ ]	[x]

7. Policy Exceptions and Readiness

70. N/A

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

Annex 1: Country and Sector or Program Background

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

1. Uruguay is well endowed with natural resources for livestock and agricultural production, and the combination of agriculture and agro-industry sectors represent up to 23 percent of the Gross Domestic Product (GDP) of Uruguay. But, even this figure belies the combined importance of these two sectors to the economy as a whole; over half of their output is exported, and in the early 2000s represented over 70 percent of Uruguay's total export earnings.

2. For agriculture to continue its role of supporting economic development, it must increase even more its outward orientation, paying particular attention to production specialization, quality improvement and processing; and on the exploitation of Uruguay's particular advantages, such as its counter-season relationship with the northern hemisphere and its capacity for natural, organic and "green" agriculture and livestock production.

3. The increase in agricultural production must come from increased productivity, precisely because the geographical frontier was reached long ago. For long-term sustainability, it is essential that such intensification must not prejudice the natural resource base that supports it. There are encouraging signs that the erosion and degradation of soils provoked by inappropriate cultural practices established half a century ago have been significantly reduced over the past 20-30 years. The reduction in the total cropped area has largely eliminated the cultivation of the marginal and vulnerable soils, and has been accompanied by the adoption of rotations (including planted pastures) and agricultural practices (such as minimum and zero tillage) that significantly reduce erosion. During the last years, an increase in the land covered by soybean plantation is providing an alternative to the economy of the country, but at the same time represents another threat to natural resources, especially to biodiversity. Increase in livestock production will come largely from increased productivity in its extensive beef production sector and from improved management of natural pastures, which constitute the basis of this production system. While a reduction in the size of the national sheep flock (from 26 to 12 million) during the 1990s has removed one of the main threats to natural pastures from over-grazing, the extensive beef production system remains fragile and its long-term sustainability threatened by the risk of natural pasture degradation. Natural pastures are under vulnerable conditions because of fragmentation of habitats thus resulting in isolated plant populations and threatening fauna associated with these native grasslands. Some herbaceous vegetation, mainly gramineae and some leguminosae are currently suffering from habitat isolation and land use changes.

4. Although land and pasture degradation has been reduced over the past quarter century, many of the activities that make up the current production systems present new environmental challenges that need to be addressed within a context of sustainable development. A lack of profitability at the farm level could provoke an inappropriate and eventually detrimental use of natural resources, to the extent that producers are forced to lower their planning horizon and place emphasis on the achievement of immediate and short-term solutions to cash flow shortages. This is particularly true in the case of extensive beef production sector, which uses 80% of the country's land, 70% of which is under natural pastures. Uruguay must, therefore, develop strategies and mechanisms to exploit fully the attributes of its natural resources, such as its natural pastures, the potential for organic farming and sustainable use of agricultural biodiversity, in the pursuit of market opportunities presented by ever-more-aware and demanding consumers.

5. Significant changes have taken place also in the way producers utilize and manage water resources in Uruguay. Reduced crop pressure on land and livestock pressure on natural pastures has been accompanied by the dramatic expansion of irrigated agriculture (partially supported by the Bank-financed Natural Resources Management and Irrigation Development Project - Loan 3697-UY). As pressure grows on available water resources, an expansion of irrigated agriculture would have to be accompanied by improved efficiency of water use and management in the agricultural sector that will require a broad range of initiatives, from investment in irrigation technology and improved water quality to proper management of livestock-related effluents through to the establishment of a more systematic groundwater monitoring systems.

6. In tandem with an agricultural use of natural resources that emphasizes natural products and integrated production systems approach, biodiversity conservation and the maintenance of healthy eco-systems offer additional opportunities for the rural economy. The conservation and management of biodiversity requires the establishment of a framework of incentives to private landowners to promote land-use practices that exploit the synergy between conservation and new opportunities for rural income generation.

7. The forestry sector, though of little importance for the national economy in the past, has shown recently a very rapid increase due to incentives for plantation forestry. The area under plantation has grown by close to 800% in the 1990s, and today the total area under plantation forestry covers approximately 400,000 ha. The economies of scale that have been achieved allow for industrial processing that can be internationally-competitive. Such industry is not, per se, supportive of biodiversity conservation since it relied on introduced species with various negative environmental impacts. Nevertheless, it can benefit from diversification and can increase its ecological value through associated native forest conservation and regeneration of native species.

8. The global significance of Uruguay's biodiversity is based on it being a confluence of Amazonian and Chaco domains, with mosaic-like habitats dominated by grasslands, interspersed with marshes, spiny woodland ("espinal"), gallery forest, and bodies of standing water ("esteros"). Because of Uruguay's comparatively small size, relatively regular topography, and absence of major geographical accidents, the country tends to be uniform from a biological perspective when compared with other countries in the Neo-tropical region. The grassland ecosystem ("pastizal") is the most representative area of the country, periodically-inundated and interspersed marshes, espinal, gallery forest, and esteros. The relative importance of these habitats and the clear dominance of the grassland (pradera) ecosystem are shown in the Table below.

Principal Natural Habitats and Land Use in Uruguay

Habitat Type	**Area (million ha)**	**Percentage**
Savanna, currently rangelands	14.00	79.4
Natural Forest	0.60	3.5
Wetlands and other Aquatic Ecosystems	1.14	6.5
Permanent Agriculture	0.92	5.2
Urban and Infrastructure	0.30	1.7
Plantation Forests	0.40	2.2
Other	0.26	1.4
Total	17.62	100.0

9. The richness at ecosystem and site level is enhanced by its having transboundary ecosystems. Uruguay holds one of the world's few "savanna" ecosystems, which in turn is very important from a

global standpoint, having being recognized as being of "bioregionally outstanding" value with around 1,200 species of vertebrates, including 580 of fish, 41 of amphibians, 62 of reptiles, 434 of birds, and 111 of mammals. The other eco-regions represented in the country include the Humid Chaco and the Brazilian Atlantic Coast Restingas. Of the 111 species of mammals present in the country, four have already become extinct, and an additional 5 are in danger of extinction. Being an Endemic Bird Area, Uruguay holds 3 restricted-range *Sporophila* species, one of which is in critical condition, another endangered, and the third nearly threatened. From a botanical perspective, Uruguay has over 2,500 plant species of which the great majority is herbaceous species or shrubs corresponding to the dominant savanna ecosystems. Almost exclusive Private ownership of land, the weakness of the protected areas system, and public policy decision that biodiversity conservation must be secured mostly outside of protected areas, makes this project a unique opportunity to develop sound practices for rural development in harmony with nature conservation and based conservation of biodiversity through appropriate use. The country has declared 31 protected areas under different types of management categories accounting for 302,364 hectares.

10. The specific habitats present in Uruguay do not occur in isolation from each other but are interspersed, with a series of localized geographic features which include rocks, hills, small ravines and a highly-branched hydrological network; it is this "mosaic" pattern that defines the uniqueness and importance of the eco-region from a biodiversity perspective and, under natural conditions, allows it to maintain its species diversity. The following are the main eco-systems present in the country:

- Savanna – which includes a heterogeneous herbaceous community (2000 species, of which 400 are *graminidae*), whose diversity is determined by the relative complexity of the soils. There are also various legumes with importance from a range management perspective, as well as shrubs.

- Native Forests – which includes various distinct types, among them gallery forests (along rivers and other water courses), ravine forests (which appear in patches and benefit from specific micro-climate conditions), "*bosque Serrano*," palm forests (including the important and endemic "*Butia*" association covering 70,000 ha), "*monte de parque*," "*algarrobal*," and litoral spiny forests ("*monte espinoso del litoral*").

- Wetlands – which are primarily located in the south-east, especially in the Laguna Merín watershed and the coast of Rocha.

- Coastal Ecosystems - which are productive and have an important associated wildlife. They occur along the two main coasts of the country, the River Plate coast (460 km) and the Atlantic coast (220 km).

11. Within this richness in terms of biodiversity, livestock production (primarily cattle and sheep) has developed and been the main pillar of the rural economy since the last century. Livestock production was always based on the use of natural pastures, at first extensive but gradually with increasing intensity, including enclosure with fencing in the 19th century and significant attempts to improve its grazing capacity in the latter half of the 20th century with investments in fertilizer, exotic pasture species, drinking water storage and electric fencing. The original savanna ecosystem with associated forests (a product of rich soils and a temperate climate) has thus been heavily altered and, with it, the natural features of the landscape have changed substantially.

12. These changes have produced some effects: a) the localized effects, which include a change in the composition of species (primarily grasses) both from the invasion of exotic species (such as introduced grasses) and from the selective effects of grazing (which favors certain species over others, and thus alters the natural competitive forces). In addition, grazing causes soil compaction which also distorts the

ecological forces present before widespread grazing; and b) ecological effects, which are larger-scale changes resulting from the alteration (due to range management practices) of flooding patterns, fire cycles, and natural succession cycles, which in turn create a savanna ecosystem different from its original natural condition, with the consequent change in species composition and dominance patterns. Another major alteration of natural habitats (directly or indirectly associated with range management practices) has been the heavy loss of native forests, with the consequent loss of biodiversity habitats, biological corridors, and ecosystem services. Fortunately, both main habitat types (savanna and native forests) are fairly resilient and, unlike many tropical habitats, they can be the subject of restoration efforts that can be cost-effective and feasible in time.

13. Soil erosion has also altered natural habitats. Some 30 percent of all agricultural land has suffered from some form of erosion. Nevertheless, soil erosion seems to strongly depend on the appearance of periodic heavy rain episodes (associated with El Niño Southern Oscillation events), with the resulting damage being heavily correlated with the type of land use present, which is minimal under permanent forest. Wetland loss and degradation has also occurred to a substantial degree because of a variety of factors, including the early expansion of rice cultivation which both replaced the habitats and degraded them through the application of fertilizers and pesticides. This effect has been particularly important in the east (Bañados del Este). Finally, invasion by exotic species (both animals and plants) has also caused significant impacts. For example, since the 1960s the growth of the livestock sector has been based in part on the improvement of natural pastures via the introduction of improved grasses and legumes and the use of fertilizers, with the consequent ecological impacts already discussed. Fortunately, from a biodiversity perspective, of the 16 million ha that are appropriate for livestock and agriculture, 91 percent is still under natural pastures.

14. Almost exclusive private ownership of land, Uruguay has a weak protected areas system, and public policy decision that biodiversity conservation must be secured mostly outside of protected areas, makes this project a unique opportunity to develop sound practices for rural development in harmony with nature conservation and based conservation of biodiversity through appropriate use. The country has declared 31 protected areas representing an estimated 300,000 ha. under different types of management categories. The presence of a fledgling system of protected area is a contribution to provide ways of conserving natural habitats to unite these yet to be established protected areas. As in other countries, even if Uruguay were able to place 10-15% of its territory under some sort of protection (which is very expensive and may be not applicable for Uruguay), this wouldn't be sufficient to maintain large-scale ecological processes and to ensure sustainable biodiversity conservation over the long term.

15. The government of Uruguay is convinced on the need to complement its fledgling system of protected areas with aggressive conservation efforts outside it. Fortunately, the ecological characteristics of the country, the synergies that can be found between the types of ecosystems found and the generation of rural income opportunities, and the resilience and restoration potential of Uruguay's ecosystems are all very important supportive ingredients for such an approach. The key concept to achieve biodiversity conservation outside Uruguay's system of protected areas would be the promotion of biodiversity-compatible, multiple land-use practices, within a landscape approach. Under this approach, it is possible to promote the adoption of land-use practices that exploit the synergies that exist between biodiversity conservation and opportunities for rural income generation. Some of these practices of "integrated ecosystem management" may include a combination of the following land-uses, whose relative emphases will be determined by the local conditions, the feasibility of implementing an incentive framework, the ability for market-based mechanisms to support these land-uses, and their relative contribution to conservation: as a) maintenance of scenic beauty for rural tourism and recreation, b) wildlife ranching, c) integrated savanna ecosystem management, d) silvopastoril systems, e) wildlife hunting, among other arising opportunities. Besides, this contribution to the conservation of natural areas, the project will support Uruguay to advance in the conservation of conservation units, either public or private by

identifying mechanisms to conciliate conservation and biodiversity conservation in management units, thus contributing to the CBD's recent conclusions on expanding the areas conserved in the signatory countries.

16. Uruguay's policies have established that these possibilities do not need to be implemented in isolation from each other. In fact, even though they may be relatively modest from an economic perspective when analyzed individually, they can become a major alternative to inappropriate land-use practices through income diversification and complementarity to traditional practices. From a biodiversity perspective, what is key is the promotion of a geographic configuration that maintains the mosaic nature of Uruguay's original habitats, restoring biological corridors through a diversified rural landscape. As in many other countries and region, many of these possibilities are still fledging; therefore, they can be sharpened and benefit from additional research and the establishment of pilot activities. Eventually, and with the growing internationally trends that are favoring the competitiveness of green and environmental-friendly markets, biodiversity conservation offers vast opportunities for the future well-being of Uruguay's rural economy and for the regeneration and maintenance of healthy ecosystems in the country.

17. This ecological importance has been in conflict with traditional rural development, mainly with biodiversity conservation not being included as a key part of the productive sector. The conservation and management of biodiversity require the establishment of a framework of incentives to private landowners to promote land use practices that exploit the synergy between conservation and new opportunities for rural income generation. In this project, agricultural use of natural resources would emphasize natural products and an integrated production systems approach, biodiversity conservation and the maintenance of healthy ecosystems to broaden the supply of additional opportunities for the rural economy. By providing incentives for the conservation of key species and habitats using innovative tools for private initiatives (easements, certification, private reserves, land tax exemptions, and others) and by providing economic value to biodiversity by making proper use and perpetuating the issue of the resource, the country will have appropriate mechanisms to incorporate biodiversity into the productive alternatives of the rural sector.

18. In summary, although the agricultural sector has a demonstrated capacity to further innovate by adopting technology and diversifying both production and markets, there is a growing recognition that the need to expand production and to increase productivity must be compatible with the protection and conservation of the natural resources on which it is based. In addition, it must be recognized that the issues and challenges of the rural areas go beyond the ability of agriculture alone to solve. A large part of the public sector's role in promoting development of the rural areas is to provide a supportive framework of public goods, while encouraging the private sector to identify and exploit the opportunities made available by world markets. There is also an important role for government in using public expenditure, both in support of infrastructure and in the application of specific incentives to achieve a demonstration effect in selected sub-sectors; the achievements in irrigation development and commercial forestry over the past fifteen years are good examples to expand and replicate.

19. **Government commitment**. The Government is keen to expand the work initiated under the PRENADER Project, but with more emphasis on natural resources and biodiversity conservation and management. To that end, the Bank prepared a sector review to analyze the main issues related to natural resources management in Uruguay (Uruguay: the Rural Sector and Natural Resources, Report No. 24409-UR), which was well received by Government The Ministry of Agriculture, with the agreement of the Ministry of Economy and OPP, requested World Bank technical and financial assistance for the preparation and execution of the proposed project, and would like to start implementing the project as soon as possible . Furthermore, during 2003, the local preparation team, with the assistance of an FAO Technical Cooperation Project (TCP), has already prepared background information and a preliminary

proposal for a possible natural resources management project. Finally, with the financial assistance of a GEF PDF Block B Grant, the Ministry of Agriculture is currently preparing a proposal to provide a comprehensive analysis of the status and trends of agricultural biodiversity and of their underlying threats; mainstream biodiversity in on-farm investment projects to improve natural resources management; and strengthen the capacities of farmers and their organizations, local and central authorities to manage agricultural biodiversity. The proposal would be submitted to GEF for financing and would be an integral part of the Natural Resources and Biodiversity Management Project under preparation that would be financed by the Bank.

20. Livestock production has been and is important for the national economy, Uruguay is lowly populated with an early disappearance of native communities, very high urbanization rate and the very high proportion of lands under private ownership: all these have prevented Uruguay from developing a "Protected Area System" of similar characteristics to those of other Latin American countries with some ad-hoc created areas covering less than 1.6% of the national territory. For correcting this situation, a recent law created the National System of Protected Areas with no implementation until now. On the other side native forests are protected under law, but this legal protection, although necessary, is not a sufficient condition to ensure that native forest ecosystems recover their ecological functionality. This functionality requires the existence of contiguous areas of a minimum size, the maintenance of habitat quality, the proper configuration of forest patches in biological corridors, etc. Furthermore, there is a lack of effective incentives for reforestation with native species, which given the losses already occurred, is a pre-requisite for the recovery of these ecosystems.

21. It was thus understood that the future of biodiversity in Uruguay cannot be analyzed in isolation from the government policy regarding rural development, and ranching in particular. This resulted in a livestock strategy (through MGAP) based upon three main pillars: (a) sectoral growth based on productivity increases, (b) equitable sharing of the costs and benefits of this growth, and (c) conservation of natural resources. Over the long term, the strategy prioritizes diversification, increase in productivity, product differentiation, product value-added, and increase in quality. The fate of Uruguay's biodiversity is intimately linked to this sector, and it is thus critical to develop and implement a biodiversity policy that can be effectively applied within that context.

22. **Country Eligibility**. Uruguay ratified the Convention on Biological Diversity (CBD) on May 11, 1993 In compliance with art. 6 of the CBD. The National Biodiversity Strategy (NBS), was prepared during 1998 and 1999 (Project URU/96/G31) by DINAMA with financial support from the GEF. The Uruguayan NBS was published and officially presented by MVOTMA on December 29, 1999 and submitted to the CBD Secretariat. The project will provide support to advance in the commitments from Uruguay to advance in the conservation of biodiversity as derived from the recent Conference of the Parties carried out in Malasya (Feb'04).

23. **Country's Drivenness.** The Government of Uruguay and the World Bank have collaborated for more than fifty years in the development of the agricultural sector. Most of this effort was directed towards the productive aspects of agriculture, but during the past decade a broader approach has been adopted in the rural areas; in particular, emphasis has gradually been increased on environmental issues and on the achievement of long-term sustainable production systems, mainly through improved natural resources management. Lessons learned from the recently completed Bank-financed project, the Natural Resources Management and Irrigation Development Project (PRENADER), indicate that any future operation in the agricultural sector in Uruguay should go beyond irrigated agriculture and dairy production and include natural resources management in the extensive livestock production sub-sector, which uses over 70% of the land, and extensive crop production, as well as conservation and management of agricultural biodiversity. The proposed project is therefore committed to include biodiversity as another component of the rural productive sector.

24. At the international level, Uruguay has been an active participant in the Convention on Biological Diversity since its ratification on May 11, 1993 by Law nº 16408. The Operational Focal Point for the CBD is DINAMA, and the national agency responsible for the implementation of the CBD is MVOTMA/DINAMA according to National Government Decree 487/993. The GEF Operational Focal Point is also DINAMA. The National Biodiversity Strategy contains the principal recommendations and instruments for the implementation of the CBD in the country and is the result of a participatory process. Within this strategy the need to mainstream biodiversity into the rural landscape has been established based upon and agreed by about 125 delegates representing 58 institutions from the public and private sectors (Ministries, local governments, educational and research institutions, NGOs, farmers associations, etc.) and from the University, among others, who attended the thematic workshops during the project period. The NBS includes recommendations on the directions upon which the proposed project is based, with emphasis on in situ conservation, research, capacity, and information exchange, and education and public awareness. A letter of endorsement was provided by Uruguay's GEF focal point on November 7, 2001. The Uruguayan Government has expressed its support and interest in the development and implementation of this project, which would be executed by the MGAP, and explicitly acknowledges that it is in agreement with, and supportive of, the NBS.

25. This project is consistent with the guidelines of the GEF's Biodiversity Operational Program 13: Conservation and Sustainable Use of Biological Diversity Important to Agriculture. The project focuses on managed ecosystems and biological habitats that provide a broad range of goods and services important to human development and the global environment, as well as on maintaining diverse farming systems and conserving biodiversity in agricultural landscapes. This strategy would promote positive impacts and at the same time mitigate the negative impacts of agricultural systems and practices on biological diversity in agro-ecosystems and their interface with other ecosystems. It would also promote the conservation and sustainable use of genetic resources. These activities would contribute to the objectives of the CBD in the area of agricultural biological diversity, upon which part of the Uruguay economy is based, thus providing significant means for improving living conditions in rural areas while increasing productivity of biological and rural resources. The project would achieve these goals by assisting local producers in Uruguay and creating demonstrative pilot areas to address constraints preventing the introduction, dissemination and widespread use of ecologically sound and socially responsible management concepts which have good prospects for sustainable, multiple focal area benefits. The Uruguayan Government, through this GEF project and fully blended with the loan, intends to create a management system that would be replicated in other areas to generate multiple local area benefits and to enhance the potential of the rural landscape. Therefore, the project includes systematic reviews of experience gained, documentation of good practices, and dissemination of lessons and know-how. The project will be also creating capacity at the national level in carbon sequestration and balance, but this contribution would be a minimal contribution from the GEF financing.

Annex 2: Major Related Projects Financed by the Bank and/or other Agencies

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

1. The World Bank has a long-term engagement in Agriculture Development in Uruguay. Most of this effort was directed towards the productive aspects of agriculture, but during the past decade a broader approach has been adopted to the rural areas; in particular, emphasis has gradually been increased on environmental issues and on the achievement of long-term sustainable production systems, mainly through improved natural resources management.

2. The Government of Uruguay implemented PRENADER project, supported by the World Bank. The principal objective of the project was to develop and implement a soil and water management strategy focused on the development of irrigation and intended to increase, diversify and sustain agricultural output and exports. The principal objective was to be reached via the achievement of five subsidiary objectives: (a) increasing the level of sector investment through the rehabilitation and development of irrigation and drainage schemes and related service infrastructure; (b) strengthening the technical foundation and the regulatory framework of water use; (c) establishing a policy on: (i) the operation and maintenance cost, and (ii) the capital cost recovery of sector investment; (d) supporting agricultural diversification; and (e) establishing the framework to improve the management of natural resources. The project had three components: a) Natural Resource Management component; b) Irrigation Development component; and c) Project Management and Implementation. The project was closed on December 31, 2002. The project overall was successful, and substantial progress was made towards achieving the objectives. There were no financial or macro-economic objectives. The outcome of the project was satisfactory with respect to all three categories of objectives - sector policies, physical objectives and institutional development. The project's sustainability has been rated as **Likely**. At the end of the project, PRENADER had become institutionalized and was considered among the farming community as the institution in charge of irrigation development. Furthermore, the project managed to promote a system of private investment in irrigation sub-projects, which together with the development of an improved technological base and an important human and institutional capital, would guarantee the sustainable operation of these sub-projects in the future without the need for further Government assistance. Key lessons that have been incorporated in the design the proposed project have been listed on Section 5 of Project Description in the project document.

3. The Bank is financing the Regional Project "Environmental Protection and Sustainable Integrated Management of the Guarani Aquifer" which deals with a unique source of water indirectly related to this project in that irrigated farms depend on the aquifer for irrigated water supply. Uruguay's Ramsar site Bañados del Este received a GEF financing sponsored by the UNDP giving the basis for land use in an area of importance for rice production but also of great importance for biodiversity conservation. Other projects that deserve mentioning are a) the IFAD - Uruguay Rural, b) the IDB - Competitiveness Livestock Project (follow on under preparation, Livestock Development Project), c) UNDP - Institutional Strengthening and Enabling Activities to Comply with the UNFCCC, d) UNEP - Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants (POPs): National Implementation Plan for Uruguay, e) IBRD - Landfill Methane Recovery Demonstration Project, Climate Change, f) IBRD - UY Road Maintenance Project, and g) IBRD - Foot and Mouth Disease Emergency Recovery Project. The following table summaries the status of these projects.

Sector Issue	Project	Status
World Bank financed		
NRM	**Natural Resource Management and Irrigation (PRENADER) ($41.0 million)**	**Completed in 1992**
Agriculture	**Foot and Mouth Disease Emergency Project ($18.5 million)**	**Ongoing**
Rural Roads	**Transport Infrastructure Maintenance and Rural Access ($70.0 million)**	**Preparation**
GEF		
Climate Change	**Landfill Methane Recovery Project ($1.0 million)**	**Ongoing**
International Waterways	**Environmental Protection and Sustainable Integrated Management of the Guarani Acquifer ($13.4 million)**	**Ongoing**
Other development agencies		
International Fund for Agricultural Development (IFAD)	**Uruguay Rural (Rural Poverty Project) ($24.5 million)**	**Ongoing**
Inter-American Development Bank (IDB)	**Competitiveness Livestock Project (Follow up Livestock Development) ($16.0 million)**	**Preparation**
United Nations Development Program (UNDP)	**Institutional Strengthening and Enabling Activities to Comply with UNFCCC ($0.7 million)**	**Ongoing**
United Nations Development Program (UNDP)	**Conservation of Biodiversity in the Western Wetlands ($3.0 million)**	**Ongoing**
United Nations Environment Program	**Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants (POPs) ($0.5 million)**	**Ongoing**
United Nations Development Program (UNDP)	**Protected Areas Project (Amount to be defined)**	**Preparation**

Annex 3: Results Framework and Monitoring

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

Results Framework

Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
Sector-related CAS Goal: Promote sustainable economic growth in rural sector through sustainable land-use and water and biodiversity management.	**Sector Indicators:** • Improved the natural resources conditions in the country • Increased economic importance of environmental services • Improved livelihood of people in critical eco-regions	**Sector/Country Reports:** • Annual statistics • Audit reports • Semi-annual performance reports • Mid-term review	**(from Goal to Bank Mission)** • Need to maintain the Government's commitment to the project in order to guarantee priority to the conservation of natural resources activities.
Project Development Objective (PDO): To promote, mainly among groups of small and medium-sized farmers, the adoption of economically and environmentally viable integrated production systems within a context of holistic ecosystem and natural resources management, while mainstreaming biodiversity. To promote also increased understanding of role of biodiversity in agricultural landscapes and the potential impact of the various land use practices upon biodiversity and their economic and ecological sustainability To develop partnerships between the public and private sectors, as well as effective institutional collaboration within the public sector, and the strengthen a demand-driven	**Outcome/Impact Indicators:** • Indicators that show the improvement of the natural resources and biodiversity conservation and management, including regeneration of natural grasses and other vegetation, maintenance and regeneration of natural forests, reduced impact grazing, and carbon sequestration. • Maintenance of mosaics of natural habitats within rural landscape through support for ecotourism and rural tourism • No. of beneficiaries that present integrated proposals at the farm level; • No. of farmers involved in projects in which biodiversity is mainstreamed into their production system. • Increased area of natural habitats	**Project Reports and Data Collection Strategy:** • Annual reports/site visits • Semi-annual evaluation done by the RENARE; • Semi-annual reports edited by the PEU (Project Executing Unit)	**(from Objective to Goal)** • Uruguayan small- and medium-sized farmers are willing to adopt an integrated natural resources management approach on their farms • The rural population's economic situation makes it possible to operate a matching-grant scheme • Project incentives generate enough demand from farmers to invest in natural resources management activities • Soil, water and biodiversity conservation can create economic opportunities • Government commitment to environmentally sustainable development.

approach to investment decisions and financing.	managed for conservation and sustainable use for tourism activities. • Increased management and land restoration by combining tools and methods of integrated habitat management • Native biodiversity subject to sustainable use by either farming or ranching in rural landscape, isolated or combined with other means of rural production • Hectares of natural habitats including natural forests under restoration or management for conservation and production		• There is an effective participation of beneficiaries, particularly in the preparation of sub-projects
Component A. Natural Resources and Biodiversity Management • Funds to promote the adoption of integrated production systems to improve natural resources management among small and medium-sized producers in extensive livestock and agricultural production areas as well as in irrigated agriculture and dairy sub-sectors; • Funds to promote mainstreaming of biodiversity into integrated natural resources management plans adopted by beneficiaries;	No. of proposals to adopt integrated approach to natural resources management; No. of hectares with soil conservation activities; No. of hectares with improved by irrigation; No. of business plans developed for specific uses of biodiversity as an integral part of rural productive system	Workshop implementation and results reported Financial aspects of component execution reported. Annual reports; site visits; survey instruments	Appropriate policy, institutional and legal framework for soil, water and biodiversity management in general and at farmers' level specifically Appropriate macroeconomic and fiscal policies are in place to stimulate economic opportunities being created in key areas for soil, water and biodiversity conservation Sufficient and suitable capacities are available at national level for project management Governmental support to mainstream biodiversity in the rural productive system Beneficiaries have the necessary financial

			capacity to pay for counterpart Effective participation of beneficiaries in the definition of priorities;
Component B. Implementation of Pilot Areas • Demonstration areas of sustainable use of natural resources in key micro-catchments which are of importance for biodiversity • Combination of sound practices for natural resources management • Increased public awareness of significance and socioeconomic importance of biodiversity	• No. of demonstration areas implemented to integrate biodiversity in rural productive landscape • No. of experiences published and socialized in each of the country's eco-regions	Presentation of pilot areas Annual and Semi-annual reports to be prepared by the PEU according the conclusions of the S&M System. Evaluations to be held by RENARE Evaluations to be held by MGAP	Appropriate macroeconomic and fiscal policies are in place to stimulate economic opportunities being created in key areas for soil, water and biodiversity conservation Governmental support to mainstream biodiversity in the rural productive system
Component C. Support Services • Strengthening of institutions responsible for natural resources and biodiversity conservation (RENARE); • Increased capacity to support sub-regional needs in natural resources and biodiversity conservation • Create and strengthen natural resources and	Local and national institutions are empowered with new tools for managing soil, water and biodiversity as a productive resource and provide a nationwide service to improve soil, water and biodiversity management.	Training workshops and exchange visits reported Annual reports/training documentation Annual and semi-annual reports; personnel contracts	Government commitment to the strengthening of RENARE; Government commitment to create a sound and structured PEU;

biodiversity management and monitoring instruments, including Geographic Information System ; • Training; • Technical Services; • Increased international awareness of project concepts and achievements • Development of a biological vision and eco-regional planning of the project's intervention areas • Creation of national capacity for carbon balance projects	Local and regional stakeholders capitalize mainstreaming of natural resource management by means of at least more than two demonstration/pilot projects in the most important sites for the conservation of the Uruguayan biodiversity. No. and category of the people trained; No. of beneficiaries had Technical services to their needs; No. of people trained in carbon balance sub-projects; No. of new layers incorporated in the GIS; No. of natural resources management instruments be improved by the project; • Eco-regional vision based on key biodiversity elements with priority setting	Visits to webpage; number of "hits"; participation in regional/international Mid-term review mission; Monitoring Reports; Biological vision and eco-regional planning published and socialized	Priority of Institutional management regarding institutional strengthening efforts; Existence of expertise to carry out training events; Existence of a technical services availability market; The continuity of the GIS;
Component D: Project Management • Project Executing Unit • Monitoring and evaluation system;	A Project Executing Unit implements the project and provides periodically	Annual and semi-annual reports; personnel contracts	Government commitment to set up a project management structure; Existence of technical training in the PEU to manage the project;

• Public Information and Dissemination Program;	indicator to assess the evolution of the project implementation. Relation between sub-projects presented and approved; No. of days to process the sub-projects; Development of a M&E system;	Visits to webpage; number of "hits"; participation in regional/international Mid-term review mission; Missions and Monitoring Reports; Public Surveys to determine the impact of the Public Information and Dissemination Program;	Government commitment with the Public Information and dissemination Program; Government commitment to the monitoring and evaluation needs and necessities;

Activities:	Input/Resources:	Project Reports:	(from Components to Outputs)
COMPONENT A: Natural Resources and Biodiversity Management 1.1- Natural Resources Management • Farm integrated development Plans (FIDPs); • Improvement of the natural pastures; • Soil conservation activities; • Water management activities; • Improved efficiency of existing irrigation systems; • Expansion of sustainable irrigated agriculture; • Technical assistance in integrated natural resources management plans 1.2 – Biodiversity Conservation and Management Fund • Maintenance, recovery and improvement of biodiversity in natural pastures; • Maintenance and improvement of native species in systems of intensive use with crop rotations; • Multiple use of natural pasture lands (honey; medicinal, nutritional, ornamental and other uses); • Implementation of soil protection techniques in riparian areas to conserve and improve hydrological system; • Training, technical assistance and sharing of experiences in the conservation and sustainable use of biodiversity in natural pastures; • Sustainable management of timber and non-timber products from native forests	US$ 87.63 millions • Application of resources to integrate soil, water and biodiversity management in rural productive landscape established • No. of FIDPs presented; • No. of hectares with improved natural pastures; • No. of hectares with improved soil conservation; • No. of has. to be improved with rotation systems; • No. of farmers receiving technical assistance • At least one experience published and socialized in each of the country's priority eco-regions • No. of farmers presenting and involved in implementation of integrated natural resources management initiatives • At least 50 species of	Disbursement and audit reports Annual and Semi-annual project monitoring and evaluation reports. Disbursement and audit reports Annual and Semi-annual project monitoring and evaluation reports Disbursement and audit reports Annual and Semi-annual project monitoring and evaluation reports	Government committed to establishing the necessary and appropriate institutional framework for soil, water and biodiversity conservation and promotion of sustainable use of natural resources Small- and medium-sized farmers commit necessary counterpart financing to integrate natural resources management projects Co-financiers provide committed resources in a timely manner Local communities and regional authorities participated fully in establishment and management of initiatives Real participation of the beneficiaries in the preparation and execution of the project;

• Management and conservation of native fauna • Generation of silvo-pastoral initiatives • Development of rural tourism based on natural native species • Technical assistance and sharing of experiences in conservation and management of biodiversity.	regional/global importance addressed by these integrated natural resources management initiatives • At least 1.0 million hectares of land under improved natural resources management • Sub-regional workshops on an annual basis • Campaign for information supply and demand-driven construction • At least 10 farmers visit projects of similar scope		
Component B – Establishment of Pilot Areas • Generation of pilot demonstration areas in priority micro-catchments;	US$1.5 million • Business plans developed for specific uses of biodiversity as an integral part of rural productive system • At least one pilot project implemented by farmer(s) in key biodiversity areas and no less than 10 implemented in main eco-regions (savanna and forest ecosystems) • Updated and functional GIS for rural productive landscape • Development of a	Disbursement and audit reports Annual and Semi-annual project monitoring and evaluation reports	Governmental support to mainstream biodiversity in the rural productive system

	replicability strategy based on pilot projects		
COMPONENT C : SUPPORT SERVICES 1 Creation of national capacity for carbon balance projects 2 Creation of national governmental capacity for integrated management of natural resources and biodiversity, focused in RENARE of MGAP; 3 Up-grading of Geographic Information System 4 Establishment of organic product certification programs 6 Implementation of training programs 7 Promote technical services to the beneficiaries 8 Create new Natural Resources Management Instruments. 9. Generation of ecological vision and eco-regional planning for the project intervention area	US$ 3.86 millions No. of people trained in Carbon Balance Projects; Indicators that can show the improvement level of institutional strengthened carried out to RENARE; No. of new layers of information placed at the GIS; At least 10 environmental awareness activities undertaken and disseminated through three information media instruments No. of trained people; No. of farmers that already received technical services; No. of new natural resources management instruments be created. Eco-regional vision based on key biodiversity elements with priority setting	Disbursement and audit reports Annual and Semi-annual project monitoring and evaluation reports	Government commitment with the GIS upgrading ; Government commitment with a future National Carbon Program; Existence of a private market to render technical services; There should be the ability for training; Commitment of managers and technical staff of RENARE;

COMPONENT D: PROJECT MANAGEMENT 4.1 Project Executing Unit 4.2 Monitoring and evaluation System to the project implementation 4.3 Public Information and Dissemination Plan	US$ 2.61 millions Establishment of PEU Existence of the M&E System; Public Survey to evaluate the Public Information and Dissemination Plan. Project webpage developed in first 6 months after project initiation and information updated regularly	Monitoring Reports Financial reports Audits Procurement Reviews Ex-post evaluation	Government commitment to the project; Managerial capacity of executing agencies (PEU and RENARE); Government commitment to the Public Information and Dissemination Plan;

Annex 4: Detailed Project Description

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

General Project Features

1. The proposed Bank/GEF blended project would assist Government in its efforts to promote among farmers and livestock producers the adoption of economically and environmentally viable integrated production systems, within a context of holistic ecosystem and natural resources management. The adoption of improved natural resources management systems is expected to promote the conservation of soils, water and rangelands, while increasing productivity and mainstreaming biodiversity conservation in producers' investment and production decisions, thus ensuring the economic and environment sustainability of agricultural and livestock development. Within this integrated production system approach, the project aims to promote also a better understanding of the role of biodiversity in agricultural landscapes and the potential impact of the various land use practices upon biodiversity and their economic and ecological sustainability.

2. The project also would implement support services such as technical assistance and training to promote the adoption of integrated natural resources management systems at the farm level and increase awareness of biodiversity conservation in the productive sectors. The project would contribute also to building institutional and landowners' capacity for holistic management of natural resources and integrating biodiversity conservation in productive landscapes. While the adoption of integrated production systems in agricultural and livestock landscapes would be promoted at the national level, the GEF support for integrated systems would be concentrated in key biodiversity areas.

3. Based on a blending of GEF-financing with an IBRD loan and a demand-driven strategy with the commitment of rural landowners and with strong training and capacity building, this project would maintain mosaics of natural habitats within the rural landscape through sustainable wildlife use, support for ecotourism and rural tourism operation, promotion of integrated savanna ecosystem management including regeneration of natural habitats using agro-forestry systems (including silvo-pastoral systems and techniques for native vegetation propagation in nurseries). It would also promote innovative forms of private land conservation such as ecological easements, diversification of rural production, increase in ecological value, and the establishment of conservation corridors, all of them within a holistic approach that would mainstream biodiversity into the rural productive sector. GEF funds would be allocated to incremental costs throughout the various project components.

4. Given its relatively high cost, the expansion of the protected areas system in Uruguay would not be a viable solution to maintain large-scale ecological processes and ensure sustainable biodiversity conservation over the long term. Consequently, Government is planning to complement its system of protected areas with aggressive conservation efforts outside it. The ecological characteristics of the country, the synergies that can be found between the types of ecosystems found and the generation of rural income opportunities, and the resilience and restoration potential of Uruguay's ecosystems are supportive elements for such an approach. The key concept to achieve biodiversity conservation outside Uruguay's system of protected areas would be the promotion of biodiversity-compatible, multiple land-use practices, within a landscape approach. Under this approach, it is possible to promote the adoption of land-use practices that exploit the synergies that exist between biodiversity conservation and opportunities for rural income generation. Some of these practices of "integrated ecosystem management" would include a combination of various land uses whose relative emphases would be determined by local conditions, the feasibility of implementing an incentive framework, the ability for market-based mechanisms to support these land uses, and their relative contribution to conservation. Within this

framework, the project would be focused on the promotion of a geographic configuration that maintains the mosaic nature of Uruguay's original habitats and restoring biological corridors through a diversified rural landscape

5. The project would provide technical and financial assistance for the implementation of demand-driven subprojects that would promote the adoption of integrated production systems in agricultural and livestock landscapes to increase productivity within a context of holistic ecosystem and natural resources management while conserving soils, water, rangelands, and biodiversity. The project would assist farmers with the development and adoption of appropriate technologies to increase the productivity of agricultural and livestock systems, while ensuring biodiversity and soil conservation, promoting the adoption of production systems to reduce the impact of grazing and the risk of erosion, and enhancing the efficient use of water resources. Additionally, the project would promote a better understanding the carbon sequestration potential of various land-use practices and define a strategy to promote carbon sequestration in Uruguay's productive landscapes.

6. The proposed approach in the rural landscape of Uruguay would develop and promote a different way of "doing business as usual" without changing the productive context but including improved practices for natural resources and incorporating biodiversity into this sector, bringing country-driven information, advisory, technical and extension services and drawing special attention to viable farming and silvo-pastoral practices that help conserve and sustainable use biodiversity in the agricultural landscape, which require farmers' contribution to finance investments in improved natural resources management operations. It would ensure public participation in a new means of getting products from rural sectors, promote the identification and development of new marketing and business opportunities for more diversified production systems including eco-friendly produce, and create a sense of belonging for native biodiversity. In turn, it would establish the human and institutional capacity to promote sustainable solutions to agro-silvo-pastoral initiatives beyond the project while at the same time conserving biodiversity, including training, demonstration, and technology transfer, among others. The sustainability would be also confirmed by the demand for investments.

Project Design

7. The Project would provide financial incentives and technical assistance to medium- and small-sized farmers, emphasizing investment proposals by groups of farmers, to invest in sustainable agricultural practices and mainstream biodiversity, in order to ensure the conservation and sustainable use of natural resources and biodiversity, and consolidate investments made under PRENADER. The project would also strengthen the Ministry of Livestock, Agriculture, and Fisheries' overall natural resources management capabilities through staff training and the upgrading of the Geographical Information System and related natural resource management tools developed under PRENADER, while at the same time creating ways for inclusion of innovative means of biodiversity conservation.

8. This fully blended IBRD/GEF project would promote the adoption of integrated production systems in agricultural and livestock landscapes to increase productivity within a context of holistic ecosystem and natural resources management while conserving soils, water, rangelands, and biodiversity. While the Bank loan would finance the productive and competitive components related to agricultural crop production and livestock development, the GEF would finance the incremental costs required to restore or improve the capacity of the productive rural landscape to maintain and improve ecological processes and conserve biodiversity, by means of involving biodiversity as a key element for rural development.

9. To achieve its objectives, the project would adopt a demand-driven project implementation strategy in which small- and medium-sized farmers, but preferably groups of farmers, would submit to the Project Executing Unit investment proposals to improve natural resources and biodiversity management. Those proposals approved by the project, following agreed selection criteria, would receive financial and technical support through the project. GEF resources would cover the incremental costs of adopting production systems that would result in the conservation and improved management of agricultural biodiversity. The different menus of options in innovative ways to mainstream biodiversity and other natural resources in the rural landscape would be shown by demonstration pilot projects to be implemented in partnership with stakeholders in previously defined key areas of conservation. A strong training scheme would be implemented at stakeholder level.

10. While the entire project will have a national scope, the GEF-funding will be focused on the savanna and native forest ecosystems. These ecosystems hold heterogeneous herbaceous community and its associated areas of native Forests, including gallery forests (along rivers and other water courses), ravine forests (which appear in patches and benefit from specific micro-climate conditions), and mainly the "*bosque Serrano*". The project has already identified two key areas, one in the north and the other in east where the "*quebradas*" are the last remaining areas of native vegetation associated with water springs and water courses (preliminary areas selected for its biodiversity importance are shown in the following map). Main threats to grassland ecosystems are livestock/agriculture production systems in some cases incompatible with biodiversity conservation which produce the loss of carrying capacity of livestock areas, loss of productivity and soil degradation, loss of native herbaceous vegetation with the recurrent water pollution, changes in the vegetation features and the loss of shelter and food for wildlife. While in "*serranías*" though livestock and crops have not extensively arrived yet, some of these areas are vulnerable because of the need of more land for agriculture and livestock production. Traditional productive systems in these areas will reduce the productivity, would eliminate the last remnant of particular wildlife and plant species and may alter the capture and distribution of water into the "*quebradas*".

11. By providing incentives for the conservation of key species and habitats using innovative tools for private initiatives (easements, certification, private reserves, land tax exemptions, and others) and by providing economic value to biodiversity by making proper use and perpetuating the issue of the resource, the country will have appropriate mechanisms to incorporate biodiversity into the productive alternatives of the rural sector.

Project Components:

12. To achieve its objective the project would execute its activities over a period of 6 years, which would be financed under four main components: the natural resources and biodiversity management component; the establishment of pilot areas; support services; and the Project Executing Unit. Total project costs have been estimated at about US$ 96.0 million, which would be financed by a Bank loan of US$ 30.0 million; a GEF Grant of US$ 7.0 million; Government counterpart funds of US$ 3.0 million; and contribution of about US$ 56.0 million by beneficiaries.

1.- Natural Resources and Biodiversity Management Component (US$ 87.63 million, or 91.4% of total project costs)

13. Through this component, the project would finance demand-driven activities to promote sustainable management of natural resources and biodiversity.

14. Within this component, the Bank loan would finance financial and technical assistance to promote:

a.- Improved natural resources management practices, in livestock production systems, with special reference to improved management of natural pastures and biodiversity. Under this heading the project would finance investment in, among others, fences to improve natural pasture management; water supply for livestock; small irrigation systems for the strategic production of forage crops; and improved drainage.
b.- The adoption of improved cultural practices in agriculture that could improve the conservation and management of soil and water resources. Typical investment to be financed by the project within this component would soil leveling, soil improvement, and the introduction of minimum or zero tillage systems.
c.- Improved natural resources management systems in irrigated areas, which would include investment to consolidate and expand irrigation development financed under PRENADER. This would include investment in improved soil management in irrigated areas; investment in irrigation technology to improve the efficiency of irrigated water use; investment to expand agricultural diversification into high value crops, such as vegetables and fruits; improvement of water use efficiency water waste treatment in dairy farming. Farmers would access the project's financial resources for their investment proposals according to clear selection and eligibility criteria to be defined.
d.- Biodiversity Conservation. Within this component, the GEF contribution would be allocated for biodiversity initiatives that would result in better rural practices, improved populations of key elements of Uruguay's biodiversity, increased areas of conservation for biodiversity, increased incomes for biodiversity used, as well as innovative means to promote private land conservation. This would be implemented by small- and medium-sized farmers living in key areas for biodiversity conservation. Extension services will rely on private groups such as cooperative, producer associations, and professional extension groups, for the promotion of the biodiversity component within the rural sector. Specific activities to be implemented with the support of GEF financial resources could include, among others, the following:

- Incremental costs of biodiversity conservation and management. This subcomponent is expected to contribute to the maintenance, recovery and improvement of natural pastures, working with native species in systems of intensive use with crop rotations, providing alternatives for multiple uses of natural pasture lands (honey, medicinal, nutritional, ornamental and other uses) and implementing soil protection techniques in riparian areas to conserve and improve hydrological system. This component would be accompanied by training, technical assistance and sharing of experiences in the conservation and sustainable use of biodiversity in natural pastures.

- Sustainable management of timber and non-timber products from native forests. This subcomponent is expected to contribute in implementing forest conservation initiatives by utilizing forestry management techniques (thinning, pruning, enrichment, recovery, etc.) and improving native forests with reintroduction, reforestation and restoration of native forests. The multiple uses of forests (resins, honey, fruits, medicinal, ornamental, etc.) will be promoted and activities will be accompanied by training, technical assistance and sharing of experiences in conservation and sustainable use of biodiversity in native forests.

- Management and conservation of native fauna. This subcomponent would be based upon the fauna resources of the country, some of which are already under use and others are still to be implemented. The subcomponent would try to invest in implementation of farming practices for native species with different purposes (slaughtering by-products, pets, breeding-stock, etc.), ranching practices for native species (slaughtering by-products, pets, breeding-stock, etc.), development of strategies for restoration of degraded habitats for native fauna species and any other type of innovative way of conserving and making sound use of wildlife. Training and extension services would also be provided.

- Generation of silvo-pastoral initiatives. This subcomponent would seek the implementation of combined activities to promote livestock production in native landscapes by implementing practices to recover the natural biodiversity of forest-pasture ecosystem, by improving cattle-raising in forest areas, for purposes of certification. Training, technical assistance and sharing of experiences in agro-silvo-pastoral systems with native species would be provided.

- Development of rural tourism based on native species. Based on the experiences already existing in the country, this subcomponent would enhance the role of biodiversity-based tourism by supporting implementation of agro-ecotourism experiments, ecotourism and nature tourism experiments, ranch tourism experiments, while at the same time providing training, technical assistance and sharing of experiences in rural tourism and agro-biodiversity.

2.- Establishment of Pilot Areas (US$ 1.5 million, or 1.5% of total project costs)

15. This component, which would be fully financed by GEF resources, would establish demonstration areas within the selected areas of GEF-interventions (grasslands and *serranías*)**,** for sustainable use of natural resources in key micro-catchments which are of importance for biodiversity, combining sound practices for natural resources management and creating increased public awareness of the significance and socioeconomic importance of biodiversity. The 10 areas of importance for biodiversity where these demonstration areas would be established were defined during preparation, based upon a generation of a biological vision and eco-regional planning of the project's intervention areas, and are detailed in the Operation Manual. These pilot demonstration areas would be developed jointly with small- and medium-sized local farmers and therefore are expected to remain in place after project completion, given that farmers would be partners in these activities. The existence of areas of importance for biodiversity conservation as derived form the already 31 sites identified nation-wide and the vision generated by this project would set up the basis for a zoning of the country in which vulnerability, aptitudes and potentials would be amalgamated in a joint vision.

3.- Support Services (US$ 3.86 million, or 4.0% of total project costs)

16. The main objective of this component is to develop support services that would contribute to the efficient implementation of sub-projects financed under the previous two components. Activities to be financed under this component would include training of farmers, institutional strengthening of local and central authorities, applied research, and specialized training for technical staff providing technical assistance to farmers. GEF Funds would reinforce the skills of institutions responsible for biodiversity conservation, would increase the capacity to support sub-regional needs in biodiversity conservation and create international awareness of the project's concepts and achievements. This component would also improve the national capacity to prepare a successful project on carbon balance, enhance the potential of the already existing GIS and the overall natural resources management capacity of the public and private sector.

17. The proposed component is divided into four sub-components:

a) Institutional Strengthening (US$ 1.45 million): the project-financed institutional strengthening program will focused on RENARE (*Dirección de Recursos Naturales Renovables*) to increase the efficiency with which to carry out its mandate in the field of natural resources and biodiversity conservation and management, as well as strengthen its support to the Project Executing Unit. In principle, the project would finance: (i) an upgraded computerized system, including upgraded software, to improve the general administration as well as the coordination of technical activities

between the RENARE headquarters and the 9 regional offices; (ii) an upgraded program of technology transfer and dissemination of soil and water conservation issues; (iii) consultant services; and (iv) upgrading of RENARE's Soil and Water Laboratory.

b) Natural Resources Management Instruments (US$ 380,000): includes: (i) upgrading of the Geographical Information System (GIS) developed under PRENADER I; (ii) improve the biological vision of the Biodiversity Pilot Areas, in order to promote better knowledge about flora and fauna; and (iii) Eco-Regional Planning activities to be carried out in the country.

c) Training (US$ 1.83 million): The project will promote several training activities: (i) for professionals who will provide technical assistance to beneficiaries for sub-project preparation and implementation; (ii) for producers (final beneficiaries) in innovative forms of biodiversity use and improved natural resource management techniques, certification, easements, land tax exemptions; (iii) for employees of the RENARE and the PEU; and (iv) for employees of other public agencies participant in the project. The training program would be delivered through: (a) courses; (b) seminars; (c) workshops; (d) field trips; and (e) twinning of institutions.

d) Studies and Applied Research (US$ 200,000): The Project would finance studies to improve the natural resources management policy framework and to cover other subjects relevant to the project that would be identified by MGAP. Similarly, the project would finance applied research proposals to develop improved natural management practices in areas with particularly difficult conditions, that be would submitted to the PEU during the first year of project implementation.

4.- Project Executing Unit (US$ 2.61 million, or 3.0% of total project costs)

18. The objective of this component is to guarantee a sound and efficient management of the Project and includes 3 (three) sub-components:

a) Project Executing Unit, including staff and operation costs. The MGAP will establish a PEU to manage and coordinate project execution. The Unit would include: (i) an agronomist, as PEU Director; (ii) two agronomist to coordinate the execution of agricultural sustainable development activities and biodiversity conservation activities; (iii) a social scientist to coordinate socio-economic activities promoted by the project; (iv) an accountant and an assistant accountant responsible for financial management of the project; (v) a procurement specialist; (vi) a computer expert to operate the Monitoring and Evaluation (M&E) System; (vii) two technical assistants; and (viii) one secretary. The final composition of the PEU will be agreed during negotiations.

b) Monitoring and Evaluation System (US$ 92,000): The MGAP will present at negotiations the set of indicators to be used by the M&E System. These indicators would include, at least: (i) management indicators; (ii) efficiency or project execution indicators, and (iii) impact indicators.

c) Public Information and Dissemination Program: The project would finance the design and implementation of a public information and dissemination program of potential project activities, focused in the priority areas, with the objective of informing the general public, political leaders, beneficiaries and its associations, and media on e rules of the project, the value of biodiversity and the need for conserving and maintaining the natural resources. The final content of the program will be developed and included in the final version of the Operational Manual

Annex 5: Project Costs
URUGUAY: Integrated Natural Resources and Biodiversity Management Project

Project Cost By Component and/or Activity	(US$ '000)		
	Local	**Foreign**	**Total**
A. Natural Resources and Biodiversity Management	74,403.8	13,225.2	87,629.0
B. Pilot Areas	1,500.0	-	1,500.0
C. Institutional Strengthening and Training			
Institutional Strengthening	648.1	820.1	1,468.2
GIS	177.0	175.0	352.0
Training	1,607.6	186.8	1,794.3
Subtotal Institutional Strengthening and Training	2,432.6	1,181.9	3,614.5
D. Project Unit			
Executing Unit	2,259.3	184.3	2,443.6
Monitoring and Evaluation	35.1	49.4	84.5
Subtotal Project Unit	2,294.4	233.7	2,528.1
	80,630.8	14,640.8	95,271.6
Physical Contingencies	89.0	27.9	117.0
Price Contingencies	420.3	45.4	465.7
TOTAL PROJECT COST[1]	81,140.1	14,714.2	95,854.3
Front-end Fee		150.0	
TOTAL FINANCING REQUIRED[2]		37,000.0	

[1]Identifiable taxes and duties are US$m 8.5, and the total project cost, net of taxes, is US$m 87.4. Therefore, the share of project cost net of taxes is 91%.
[2] Including US$ 30.0 million of Bank loan, and US$ 7.0 million of GEF Grant

Annex 6: Implementation Arrangements

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

Main Performance Monitoring Indicators

Project Implementation

19. The project's main objective is to assist the government in its efforts to promote the adoption of integrated natural resources management systems, while at the same time ensuring increased income for beneficiaries, thus contributing to the long term sustainability of the sector. These efforts would require a partnership between the public and private sectors, as well as an effective institutional collaboration within the public sector, and the strengthening of a demand-driven approach to investment decisions and financing.

20. MGAP will have the overall responsibilities for the management of the project, with the collaboration of DINAMA in bio-diversity related activities, with special reference to studies on biodiversity and carbon sequestration issues. In the operation and implementation of the project, MGAP will be assisted by a Project Executing Unit, which will be created within the office of the minister. During project implementation, the PEU will be assisted by RENARE.

21. An Inter-ministerial Coordination Committee (ICC), lead by the Minister of Livestock, Agriculture and Fishery and including the Minister of Housing, Territorial Planning and Environment, and the Director of the Office of Planning and Budget (*Oficina de Planeamiento y Presupuesto, OPP*), will be created. The main responsibilities of the ICC would be to coordinate project activities with other MGAP programs, define the policy framework within which project implementation will take place, and discuss main policy and budget issues related to the project.

22. Project investment proposals (subprojects) are expected to be demand-driven, with decisions regarding the type of investment sub-projects to be submitted to the project authorities for financing resting with beneficiaries. Private technical assistance would be available to assist beneficiaries with the preparation and execution of investment proposals.

23. The project's financial assistance to beneficiaries would be managed by the PEU. Additionally, the PEU, with the assistance of RENARE, would manage the special pilot projects as well as all activities within institutional strengthening component.

Operational Flow

24. For Negotiations, MGAP presented to the Bank draft versions of : (i) legal and institutional documents, including the composition of the PEU; (ii) Operational Manual; (iii) the Training Plan; and (iv) set of Monitoring and Evaluation Indicators.

25. As a condition of Effectiveness the MGAP would present to the Bank the final versions of the above documents.

26. For demand-driven sub-projects, the Public Information and Dissemination Plan would be implemented during the first 6 months of project implementation, including designing and launching the Web-page of the project and promoting regional and thematic information seminars.

27. Additionally, the training program would be implemented during the same period. Starting with those training activities related to beneficiaries, PEU and RENARE staff. Finally, during the first 12 months of the project the PEU, with the assistance of RENARE, would also prepare and promote the Pilot Areas ;

28. It is assumed that beneficiaries would require between 60 and 90 days to prepare their proposals according to the rules of the Operational Manual. Requests for technical assistance for sub-project preparation and guidance with the submission of proposals would be addressed directly to one of the 9 regional offices of the RENARE or the PEU. The regional office would be also the recipients of proposals to be submitted for financing. The Regional Offices of RENARE, after receiving the sub-projects, would carry out a preliminary review of the proposals, with special reference to soil and water conservation issues. The subprojects would be discussed also at a regional instance, such as the "Rural Development Tables" or similar institutional arrangement.

29. The Regional Offices of RENARE would then proceed to send the proposals to the PEU, together with its own preliminary assessment. The PEU would complete the evaluation and selection procedures.

30. The PEU would sign the contracts with beneficiaries directly or with their associations,

31. During the execution of the sub-project, the Monitoring and Evaluation System would be operated with the participation of beneficiaries and professionals providing the respective technical assistance (to generate the sub-project indicators), the PEU (to generate management indicators) and the RENARE (to generate impact indicators).

Annex 7: Financial Management and Disbursement Arrangements

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

General Summary

1. This Annex states the findings and agreements at the moment of the PAD distribution and will be updated when the assessment is completed. The FM Assessment takes into consideration Project Executing Unit's (PEU) considerable experience in Bank financed projects.

2. The project will be implemented by a Project Executing Unit's (PEU) under the Ministry of Livestock, Agriculture and Fishery (MGAP), which would be the contact point with the Bank. This mechanism has already been implemented in two Bank financed projects:

L3697 – (P008173) Natural Resources Management and Irrigation Development Project (PRENADER) - Effectiveness: 06/30/1994 – Closing: 12/31/02; Loan amount: $40.85 million dollars.
L7070 – (P074543) Foot & Mouth Disease Emergency Recovery Loan – Effectiveness: 08/30/2001 – Loan Amount $18.5 million dollars. This project is still under implementation.

3. MGAP through the referred PEU, the executing agency of this operation, has the requisite institutional capacity and human resources required for project administration. The project Financial Management design is based on the previously implemented project. However, from the review of the lessons learned and the PEU's execution experience some opportunities for improvement in financial management matters have arisen. These opportunities were taken into account in the design of this project. The assessment would result in a detailed Action Plan with Financial Management improvement actions that will be agreed with the counterparts for its full implementation prior to loan effectiveness.

4. The main issues identified to be included in the action plan are:

(i) Create a specific budget line in the MGAP budget to keep track of project execution separated from other MGAP execution.
(ii) Adapt the existing financial information system to project requirements (adjust chart of accounts and possibility of put in place an Integrated FM and Monitoring System);
(iii) Agree on the format for the Financial Management Reports (FMR) for monitoring and evaluation purposes;
(iv) Reach an agreement on the proposed external auditors (Tribunal de Cuentas de la República) and prepare the terms of reference for the required external auditing process;
(v) Adjust the existing Operational Manual, including the detailed procedures for internal control system to be implemented;
(vi) Agree on the disbursement arrangements for the use of the special account (SA), and counterpart funds accordingly to Bank policies and procedures.

5. The action plan is part of the financial management assessment included in this document.

Use of Funds

6. All funds will be processed under the Public Administration Control Framework (SIIF – Sistema Integrado de Información Financiera), and in the PEU accounting system, and supported by documentary evidence for works, goods and services procured in line with Bank guidelines for the project.

Executing Agency and the Project

7. The financial management arrangements including: accounting, budgeting, internal control, external auditing, financial monitoring reports preparation and disbursement will be under the PEU. Project accounting will also be kept by the PEU.

8. The proposed arrangements on organization were found acceptable, and MGAP has provided evidence of the assignment of skilled staff to the financial management Unit.

Financial Management Information System

9. The PEU will maintain the accounts for the project in its own accounting system with the chart of accounts reflecting the categories and components of the project (This is part of an Action Plan). The PEU will also maintain an adequate asset ledger for the project. The accrual basis will be used for internal reporting and the FMRs. The International Accounting Standards (IAS) will be followed.

10. In terms of financial monitoring, the PEU will prepare the following reports: (i) a summary of uses and sources of funds and a statement of uses by project activity; (ii) procurement monitoring reports, and (iii) Output monitoring reports, all in accordance with formats to be agreed upon at effectiveness which completion will be part of an Action Plan. Additionally, the PEU will prepare annual financial statements in line with the Bank requirements.

11. The PEU will be responsible for the financial management of the project, including accounting, timely submission of the Financial Management Reports -FMRs, annual audits and disbursements and will record all transactions in its system. The FMRs will be submitted semiannually to the Bank. The physical progress indicators and the timing of the FMRs will be consulted with the TTL to ensure the usefulness of the FMRs in the overall project supervision.

Disbursement Arrangements

12. Loan and Grant proceeds would be disbursed against the following expenditure categories:

Project Cost By Category	Amounts allocated Loan	% of Bank Financing	Amounts allocated GEF	% of GEF Financing
1. Goods/Works/Services for Sub-projects 1.1 Natural Resources Management Subprojects	23.0	95	-	-
1.2 Biodiversity Subprojects	-	-	5.8	95
2. Goods	0.6	95	-	-
3. Consultant Services 3.1 Services for Natural Resources Management	2.8	100	-	-
3.2 Services for Biodiversity Conservation	-	-	0.4	100
4. Operating Costs	1.0	100	0.3	100
5. Unallocated	2.6		0.5	
Total Project Costs (US$ million)	**30.0**	**96**	**7.0**	**96**

13. Special Accounts in dollars will be established in the Central Bank of Uruguay (BCRU) with an authorized allocation of US$3.0 million for the loan and $0.7 million for the grant to cover six months of local currency operations. As expenditures arise, funds will be converted monthly to local currency and deposited into an account in the Banco República, account under the administration of the PEU. The PEU will make payments from this account and follow the formal procedures to control payments as ruled by the Contraloría de la República. Special provisions will be established to ensure that the loan funds in the BCRU are promptly transferred after the PEU request.

14. The financial management and reporting system for the project meets the requirements of the Bank, including accounting and budgeting, preparation of financial reports, and auditing in accordance with international accounting and auditing standards.

Special Account arrangements:

15. Use of statements of expenditures (SOEs): Disbursements will be made on the basis of traditional Statements of Expenditures (SOEs) and Direct Withdrawal Applications (DWAs) as well. In the case of the latter, disbursements will be made on the basis of full documentation for all expenditures made under contracts requiring prior review by the Bank, and contracts whose value would surpass the prior review limits as a result of amendments. All consolidated SOEs documentation will be maintained by the PEU for post-review and audit purposes for at least one year after the final withdrawal from the loan. Whenever possible, reimbursement requests should be sent to the Bank on a monthly basis.

16. Replenishment: Applications for replenishment would be submitted monthly or whenever the account needs to be replenished by al least 50%. Replenishments, up to the Authorized Allocation(s) will be made initially on the basis of Applications for Withdrawals (Form 1903) accompanied with the supporting and other documentation specified in the Disbursement Handbook. The project will request access to Bank's Client Connection webpage to get the 1903 Form from the web and to perform on a periodic basis the reconciliation process between their bank account and the resources received.

Project Financial Statement Audit Arrangements

17. The project financial statements audit will be performed under Terms of Reference prepared in line with Bank Guidelines by the Tribunal de Cuentas de la República (TCR). The audit would cover all funding and expenditures reported in the project financial statements. The government has indicated that it will propose TCR for this purpose.

Risk Analysis

18. Steps pending in the financial management arrangements include:

Action Plan and Condition of Effectiveness

Action	Responsible Entity	Completion Date
1. Final Operational Manual satisfactory to the Bank	MGAP	Before Effectiveness
2. Accounting Plan satisfactory to the Bank	MGAP	Before Effectiveness
3. FMR format satisfactory to the Bank	MGAP	Before Effectiveness

Annex 8: Procurement Arrangements

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

Procurement Assessment

Introduction.

1. This report keeps records of the findings of the review of the implementation capacity of existing institutional structures within the Ministerio de Ganaderia, Agricultura y Pesca- MGAP. The assessment was carried out by Emilio Rodriguez, Consultant, LCOPR, at the request of the Task Team Leader, Michael Carroll. The assessment and the actions proposed in the Plan of Action were discussed with the Project preparation staff, who in principle agreed to the main mission findings. The Action Plan, discussed with the Project authorities at appraisal and the recommended actions will be incorporated as Project components and funded through the Grant, as required.

2. The objectives of the assessment were: (a) to evaluate the capability of the implementation agencies and the adequacy of procurement and related systems in place to administer procurement in general, and Bank-financed procurement in particular; (b) to assess the risks that may negatively affect the ability of the agency to carry out procurement; (c) to develop an action plan to diminish existing risks; and (d) to propose a suitable Bank procurement supervision plan.

3. The Project would aim at developing systemic and institutional capacities of government agencies and other stakeholders, management procedures, disseminate relevant knowledge, and promote partnership building between agencies and local communities, and private sector that secure biodiversity conservation. The Project is composed of the following: (a) a Natural Resources and Biodiversity Management Component, which would provide technical and financial assistance to farmers; (b) establishment of Pilot Areas to carry out demonstrations of sustainable use of natural resources; (c) support services, including training to farmers and technical staff, and institutional strengthening; and (d) Project management.

4. The Project cost, estimated at US$ 96.0 million, would be financed as follows: (a) a US$ 7.0 million grant from the GEF, US$ 30.0 million by a Bank loan, US$ 56.0 million by beneficiaries' contributions, and US$ 3.0 million by the Government. 90% of the Project cost would finance sub-projects executed by farmers, 1 % would finance purchase of goods, and 6 % would be utilized to hire consultant services, while the remaining 3% to contract non-consultant services.

5. Procurement to be implemented in the Project implementation period (2005-11) is organized as follows: (a) The Natural Resources and Biodiversity Management Component consists of small loans to farmers to finance small works and small value goods, and technical assistance contracted through commercial practices; (b) almost all assignments for consultant services will be contracted with individual consultants selected from three candidates on the basis of their qualifications. If required, small contracts with consultant firms, de small value, but requiring a team of consultants, would be selected also on the basis of Consultants Qualifications; (c) non consultant services, mostly for training and organization of training and consultation events, will be bid and awarded to the lowest offer; (d) procurement for goods consists of small packages to be contracted by shopping.

Background.

6. Project management for preparation and implementation is the responsibility of the MGAP. Regarding procurement, the MGAP will be responsible for: (a) carrying out procurement under components 2 and 3; and (b) the overall supervision and control of the procurement carried out by farmers under component 1. Direct supervision of procurement carried out by farmers will be carried out with assistance from the regional offices of the Direccion General de Recursos Renovables-RENARE. The staff of these offices will be strengthened by individual consultants.

7. To discharge the responsibilities to manage the Project, the MGAP will make use of a project unit-PEU, which has been in charge of the preparation and implementation of the previous Bank projects. The implementation of the required procurement under both projects has been satisfactory. PEU is staffed with seasoned professionals, with experience in implementing Bank-financed projects, and would be able to fulfill the requirements of the Project. Two aspects, however, should be taken into account to make the assessment of the capabilities of PEU for procurement. Project implementation will be heavily decentralized as compared with the two previous Bank projects. For this reason, a well designed management system should be in place to prevent overloads and the resulting delays of Project implementation. Recent changes in Government result in changes of the staff of the PEU, and experienced staff regarding implementation of Bank-financed projects, are been substituted by staff, although qualified, with less experience. The Plan of Action includes recommendations to mitigate the impact of the changes.

Capacity Assessment

8. The capacity review follows the Bank's instructions of August 11, 1998 and includes the following areas:

(a) *Legal Aspects and Procurement Practices.* According to Uruguay's legislation (Tocaf- Texto Ordenado de Contabilidad y Administracion Financiera y Normas Concordantes y Complementarias- Decree 194-97 of June 10, 1997), there is precedence for the use of Bank's procurement policies and procedures (clause 42). The MGAP applies consistently the Bank rules. Because of the nature of the Natural Resources and Biodiversity Management component, with procurement dispersed in rural areas for small components, most procurement will consist on abbreviated procedures in accordance with commercial practices.

(b) *Procurement Cycle Management.* (a) Planning. The PEU agreed to prepare a procurement plan covering the first 18-months of Project implementation and to update it annually. The plan should be submitted at Loan Negotiations. For the procurement based on commercial practices, the plan will establish only global advance of the component; (b) Procurement Documentation: The Operational Manual, under preparation, will spell out the kind of documents to be used in each case, and the kind of forms for the processes. (c) Bid evaluation: it will be carried out by an evaluation committee, assisted as necessary by specialized personnel. (d) Contract Management: For the centralized components, will be carried out by PEU with own personnel. For the farmers component, by the farmers with RENARE's assistance. The review of existing practices for each phase of the procurement cycle, and the assessment of the quality and timeliness of these practices is summarized in a table attached to this report. The adjustment of these practices to the requirements of the Project are summarized in the table, and in the Action Plan, summarized below.

(c) *Support and Control Systems:* (a) audit: all operations are audited by the Tribunal de Cuentas de la Republica. The audit will cover all funding and expenditures reported in the Project financial statements. Also, specific audits are made, upon request, by the Auditoria Interna de la Nacion; (b) project

management system: a comprehensive system to handle administrative, financial, procurement and disbursement data, and able to produce management reports will be established prior to the end of 1995. This system would be critical for the supervision and control of Project activities, especially regarding the farmer's credit component; (c) a Project monitoring and evaluation system will be developed during the first year of Project execution. The full list of performance indicators as well as the monitoring plan will be submitted at Loan negotiations; (d) an operational manual is under preparation, and a draft version would be submitted at Negotiations. In the chapter for procurement, the Manual will include a description of Project's procurement; the institutional responsibilities for carrying out procurement, the applicable guidelines, the procurement procedures for the Project, the procurement plan, relation and samples of bidding documents, outline for TORs, forms for evaluation of proposals, and, documents on files.

(d) *Record Keeping:* Availability, security and completeness of procurement records in MGAP are satisfactory.

(e) *Staffing:* Issues regarding staffing in the PEU have been summarized above. To diminish the risks from staff changes, and the lack of experience for the implementation of Bank-financed projects, the carrying out of a Project launch seminar, including procurement, is recommended.

Risk Assessment.

9. The MGAP has shown efficiency in dealing with projects with similar complexity as the Project, and consistent in the application of rules of procurement adhering to TOCAF and to Bank guidelines. However, as mentioned above, the decentralized nature of the Project, together with potential changes of the staff in PEU, and the lack of a management system in place, contribute to raise the level of risks above average. Accordingly, the Project's procurement system's risk is assessed as high, until all the recommendations in the Action Plan are implemented.

Procurement Arrangements

Bank-financed works and contracts will be procured in accordance with the World Bank Guidelines: *Procurement under IBRD Loans and IDA Credits, dated May 2004.* Bank-financed contracts for consulting services will be procured following the World Bank Guidelines: *Selection and Employment of Consultants by World Bank Borrowers, dated May 2004.*

1. Procurement under the Project. Bank- financed procurement, to be carried out in the Project's implementation period 2005-11, would be organized as follows:

(a) for *natural resources and biodiversity management,* which consists of small grants to farmers to finance small works and small value purchase of goods, to be procured on the basis of standard documentation and procedures, utilizing commercial practices. Sub-projects may also include technical assistance provided by individual consultants, to be selected on the basis of qualifications and experience of three qualified consultants. The cost of this component, including the pilot areas component, represents about 93% of the total Project cost.

(b) for *support services*, which consists of training and technical assistance to farmers and technical staff, and institutional strengthening at local and central level, to be procured as consultant services (mostly provided by individuals) and other services, related mostly to training. Represent about 4% of the total Project cost.

(c) for the *Project Executing Unit-PEU,* which consists on incremental operational costs of the Unit and RENARE, mostly including purchase of consumables and contracting of small packages of services, by shopping. Equipment for improving the existing information system may also be included. Represent about 3% of the total Project cost.

2. Responsibilities for Carrying Out Procurement. The Project's implementing agency, MGAP, will have the responsibility over the execution of all project components. Regarding procurement, the MGAP will be responsible for: (i) carrying out procurement under components (b) and (c); and (ii) overall supervision and control of procurement carried out by farmers under the component (a). Direct supervision of activities mentioned in (ii) above, and assistance to farmers, will be the responsibility of the PEU, with the assistance of *RENARE- Direction General de Recursos Renovables,* through its *Regional Offices.*

3. Based on the implementation of the PRENADER Project, as well as the Foot and Mouth Disease Emergency Recovery Project, the PEU is deemed to have adequate institutional capacity to handle the procurement requirements from both projects. The challenge for the implementation of the Project will be the decentralized nature of its operations, together with limited capabilities of RENARE's regional offices in some of the Project areas. The Action Plan to Build Procurement Capacity, presented later in this Annex, is designed to address the weaknesses identified during Project preparation.

4. Procurement Plan. The PEU is expected to prepare a detailed Project implementation schedule covering the implementation period 2005-11. This report includes a tentative procurement plan, which identifies categories, methods of procurement and allocation amounts. This tentative plan will be discussed at negotiations on the basis of the above mentioned implementation plan.

5. Procurement Arrangements. The following table A summarizes methods and amounts for each expenditure's category.

Table A: Project Costs by Procurement Arrangements
(U$S million equivalent)

Procurement Method					
Expenditure Category	**ICB**	**NCB**	**Other**	**N.B.F.**	**Total**
Farmers Sub-projects			86.0		86.0
			(31.0)		(31.0)
Consultant Services			6.0		6.0
			(4.2)		(4.2)
Other Services			3.2		3.2
			(1.4)		(1.4)
Goods		0.6			0.6
		(0.4)			(0.4)
Total		0.6	95.2		95.8
		(0.4)	(36.6)		(37.0)

Figures in parentheses are the amounts to be financed by the Loan and Grant. All costs include contingencies. Other includes works and goods to be procured through national shopping, consulting services, services contracted staff of the Project Unit, training, technical assistance services and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds.

6. Bid Advertisement. A General Procurement Notice (GPN) will be published in the Development Business announcing planned bidding and inviting interested eligible suppliers, contractor and consultants to express interest and request any complementary information from the Borrower. The GPN will be updated annually for all outstanding procurement. For consultant assignments exceeding U$S 200,000, expressions of interest will be obtained by advertising in the Development Business online, supplemented with notices issued in the national press.

7. Procurement Documentation. Bidding Documents for NCB and Request for Proposal (RFP) will follow the Bank Standard Documents. Standard documents for shopping will be prepared and agreed upon prior to Loan effectiveness. A draft Operational Manual will be prepared and submitted at negotiations, which will include all the Project's procurement arrangements and procedures.

8. Procurement Review and Methods. In view of the nature of the project's expenditures, prior review will be rather limited: (a) all contracts for goods under NCB under component (c); (b) procurement for the first two sub-projects with farmers each year; (c) procurement for consulting contracts of over U$S 100,000; and, (d) procurement for individual consultants and other services of over U$S 50,000. The rest will be subject to ex-post review. The table C presented below summarizes the thresholds and Bank's prior review. Table B summarizes the consultant selection arrangements.

Table B: Consultant Selection Arrangements.
(in U$S thousand equivalent)

Category	QCBS	QBS	SFB	LCS	CQ	Prior Review
Firms	>200				<200	>100
Individuals					all	>50

Table C; Thresholds for Procurement Methods and Bank's Review.
(in U$S thousand equivalent)

Category	ICB	NCB	Shopping	Prior Review	Ex-post Review
Civil Works			<250	First /year	Once a year.
Goods			<50	First /year	
Services			<50	>50	

Frequency of procurement supervision missions: (i) first implementation year, every six-months; (ii) other, once a year.

9. Action Plan to Build Procurement Capacity. The following set of actions/recommendations resulted from the analysis which has been summarized in earlier paragraphs, and in attachment to this report. All these actions, which have preliminary agreed with the Borrower, should be confirmed during Loan/Grant Negotiations, be part of the Project documents and completed according the time-frame indicated in the table below.

Description	Objective	Time-frame
Hiring full-time procurement specialist for PEU	Achieve procurement efficiency and coaching Project staff	Project Effectiveness
Training staff in Bank's procurement	Make known procurement for Bank-financed projects	Project Launch Seminar
Preparation Operational Manual	Define and communicate Project operational rules	Project Effectiveness
Carrying out Project Launch Workshop	Same as above	Within thirty days of Effectiveness
Establishment of Project Information System	Monitor and control Project implementation.	Prior to December 31, 2005

10. Recommended Project's thresholds: (a) it is not expected to have ICB under the Project. For ICB, the equivalent of US3.0 million for works and US$ 250,000 for goods. NCB: > US$ 3,000,000 for civil works and >US$250,000 for goods. The rest will be shopping.

11. Procurement procedures with firms: QCBS over US$200,000. The rest and for contracts with individual consultants will be CQ.

12. In view of the nature of the Project's expenditures, prior review will be rather limited: (a) all contracts for goods and civil works under component (c); (b) procurement for the first subproject with farmers each year; (c) procurement for consultant contracts with firms over US$ 100,000; and, (d) procurement for individual consultants and other services of over US$ 50,000. The rest will be subject to ex-post review, which will take place once a year.

Annex 9: Economic and Financial Analysis

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

Summary of Benefits and Cost:

1. The project would provide technical and financial assistance and training to some 8,000 mostly medium- and small-sized farmers and livestock producers, to improve natural resources and biodiversity management and ensure the sustainability of crop and livestock production systems in an increasingly open economy. As a result of project activities, over 1.0 million hectares are expected to benefit from improved natural resources management systems, thus contributing to the conservation of the natural resource base of the main production systems and the long terms sustainability of agricultural development in the country.

2. The project would provide technical and financial assistance (on a matching-grant basis) to demand-driven activities aimed at promoting sustainable management of natural pastures and extensive agriculture; and consolidating PRENADER activities in irrigated agriculture and dairy farming. The GEF contribution would support mainstreamed demand for biodiversity initiatives.

3. The project would provide also training, workshops and field days to nearly 5,000 farmers. The project activities would be implemented nationwide but determined by beneficiaries demands, with the exception of GEF-supported activities which will be concentrated in areas of particular importance from the viewpoint of biodiversity. The technical and economic viability of investment proposals submitted for financing by beneficiaries and the definition of investment priorities would be assessed applying simple and easily verifiable criteria established in the Operation Manual. In any case, no investment proposal with an ERR of less than 10% would be eligible for financing under the project.

4. Economic benefits of the project would be the result of increased agricultural and livestock production as well as a sustainable use of biodiversity of importance to agriculture. From an analysis of a sample of farm models it can be concluded that small and medium-sized commercial farmers would see a significant increase in their on-farm income as a result of investment financed under the project.

5. The project would promote also private sector participation in the provision of production support services, particularly technical assistance to producers, which is expected to increase the impact of project-financed on-farm investments.

6. Sustainability of project benefits is expected to be high, given that the increase in physical assets would be complemented with improvements in social and human capital through training, technical assistance, organization and better access to project financial, marketing and technological services. Over 70% of project resources are likely to be channeled to investment oriented to the adoption of integrated production systems and improved natural resources and biodiversity management activities demanded by beneficiaries, while an additional 18% would be allocated to technical assistance and training of the target population. The combination of farmers' participation in the investment decision-making process and in project implementation is expected to increase the effectiveness and efficiency of public expenditure.

7. Total project cost, including farmers' contribution, has been estimated at about US$ 96 million. The World Bank loan would be US$30 million; the GEF Grant would be about US$ 7.0 million; Government counterpart funds would be about US$ 3.0 million; while beneficiaries contribution would finance the remaining US$ 56.0 million.

Main Assumptions:

Economic Analysis

8. Given the demand-driven nature of activities to be executed under the project, the exact composition of the universe of investment sub-projects that will be financed under the project cannot be determined *a priori*. Consequently, as only activities identified and presented by potential beneficiaries would be considered, an ex-ante determination of costs and benefits of productive investments would not be feasible. Therefore, economic return estimates were based only on a sample of investment sub-projects likely to be demanded by beneficiaries, following the experience of PRENADER. The impact of these investments on natural resources and biodiversity management, agricultural productivity and farmers' income was analyzed with the help of farm models illustrative of typical farming situations in the main agro-ecological zones, and situations in which biodiversity was mainstreamed into the farmer's investment decisions. Assumptions regarding yield increases are conservative to reflect the risk-minimizing production strategies that normally characterize farmers. The estimated overall rate of return of the project is estimated at about 22.5%. Although the estimated rate of return took into consideration only part, albeit a substantial part, of the possible investments to be financed under the project, it provides an order of magnitude of the economic returns that can be expected from the proposed project.

9. Economic return calculations included the cost of incremental on-farm productive investment and recurrent expenditure for the adoption of sustainable agricultural production systems promoted under the project. The analysis of the sample of representative subprojects indicated that, in the majority of cases, economic returns on investments by crop farmers and livestock producers are likely to be above 18% (See Table below). Farm models with ERR of less than 10% were excluded from the analysis as this would be the minimum rate of return that any sub-project would have to have in order to be eligible for financing under the proposed project.

10. **Pricing Assumptions:** Price contingencies were excluded and base costs plus physical contingencies less taxes were used for the IERR. Given the policy reforms and the opening of the economy that have been taking place since the early 1990s, the rate of exchange of the Uruguayan Peso is currently determined in the open market and trade restrictions have been gradually lowered and domestic prices tend to correspond much closer to border economic values. For the purposes of economic analysis, border prices were estimated for main tradable produced by the project, based on OPYPA projections. While the project would increase on-farm and off-farm employment in the priority areas, unemployment and under-employment would not be eliminated. Therefore, shadow prices for unskilled labor were estimated at 80% of the market wage rate, while for skilled labor, the market rate was assumed to reflect its opportunity cost.

Financial Analysis

11. The financial analysis was carried out to assess the financial viability of a sample of productive investments most likely to be demanded by irrigation farmers, along the same lines followed for the economic analysis. The financial viability of these investments was analyzed within the framework of the most common production systems used by producers using the same set of farm models prepared for the economic analysis. As is to be expected, given the level of subsidy provided, the selected farm model showed relatively high financial rates of return (>25%). Input and output prices were assumed constant, as was the real exchange rate, throughout the 20 year time horizon used in the financial analysis. The discount rate was assumed to be10%.

12. **Fiscal Impact**. The counterpart contribution of the GOU to the project is US$ 3.0 million, over a period of 6 years. Most of these resources (US$ 1.7 million) would be for the Natural Resources Management Component. The rest would finance part of the Institutional Strengthening Component (US$ 0.7 million) and the Project Executing Unit (US$ 0.6 million). Project-generated revenues from indirect taxes would be about US$ 8.5 million, while the overall subsidies allocated through the matching-grant system would represent about US$ 26.0 million, including the GEF Grant for biodiversity-related activities.

Models		Investment	W/P Cash flow per Ha	FRR %	ERR %
	No. Ha	Per Ha			
1. Traditional rice/livestock system	2,200	50	71	17.7	17.2
3. Small livestock producer, w/pasture	900	31	14	49.4	19.4
4. Small livestock producer, w/o pasture	900	14	11	22.9	11.8
5. Large livestock producer, w/pasture	1,550	20	15	39.5	22.8
6. Large livestock producer, w/o pasture	1,550	4	13	32.3	24.0
7. Livestock production (Full cycle) w/o irrig.	1,062	36	16	21.0	20.5
8. Livestock production (Full cycle) w/ irrig.	1,060	69	23	16.3	15.6
9. Livestock/crops with pastures	700	66	124	59.7	49.4
10. Livestock/crops w/ pastures and irrigation	700	191	141	30.0	30.4
11. Livestock/crops without pastures	700	60	121	28.6	26.6
13. Small dairy farmer	79	172	90	26.9	21.6
14. Medium dairy farmer	326	291	130	39.1	35.1
15. Medium dairy farmer w/irrigation	326	352	155	20.7	33.0
16. Horticulture I	11	1,457	1,257	83.8	32.9
17. Horticulture II	7	1,957	1,206	81.0	40.4
18. Fruits	17	8,722	2,662	18.3	16.9
19. Vineyard w/irrigation	6	6,980	1,986	22.1	16.8
20. Citrus w/irrigation	100	1,627	1,243	17.8	17.4

Annex 10: Safeguard Policy Issues

(Environmental Assessment)

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

Project Impact

1. The project has four renewable resource management components within two main inter-related areas: first, the improvement of sustainable production and management of soil and water under three farming systems (irrigation, dryland cropping and extensive livestock production); and second, conservation and use of biodiversity, principally within the extensive livestock zone which covers 15 million ha – over 80% of the country. It is designed as a follow-up to the PRENADER program which was executed between 1993 and 2002 and was basically oriented to improvement in environmental management through consolidation and expansion of irrigation for dairy, fruit, vegetables, rice and other annual crops. Although the present project shares this objective, it has been greatly expanded to address the general question of integrated renewable natural resource management at the national level with a significant focus on conservation and use of biodiversity. Thus, the primary objective is improvement in environmental quality. Since this is the expected outcome, it does not qualify as a positive "impact". The standard aim of environmental impact assessment (EIA) is identification of unplanned externalities which may positively or negatively alter the rate of change in the state of physical and biological systems; and specification of measures to mitigate negative or enhance positive externalities. Of the four components which directly relate to use and conservation of natural resources, only one – irrigation – poses any significant risk of negative environmental impact. Nevertheless, the project will ensure effective environmental screening in the four components with introduction and enforcement of mitigative measures and application of baseline studies and M&E to yield insights on change in environmental quality which may be attributable to project-funded activities, particularly in those components where sub-projects are oriented to a landscape approach.

Bank Safeguards

2. There are ten Operational Policy (OP) statements covering safeguards in the project cycle required for environmental and socio-cultural aspects. Of these, only Environmental Assessment (OP 4.01) is relevant to the project.

Impact Assessment

3. As a sectoral project where the financing of specific sub-projects will be examined on a case by case basis during implementation, environmental impact hinges on : (i) how each sub-project is assessed with respect to potential environmental consequences leading to rejection, acceptance, redesign or acceptance subject to mitigation measures; and (ii) the probability that there is an institutional structure in place which can implement EIA recommendations.

4. The design of both EIA and procedures for implementation is drawn from experience gained in PRENADER. That experience has been thoroughly and transparently evaluated with respect to what and how environmental assessment was applied and the outcome in terms of resource management. There was significant improvement in the quality of land and water resources and little evidence of environmental degradation attributable to the project-funded activities. However, isolated cases were identified where performance could have been improved: notably

in aspects such as soil management under irrigation, treatment of manure effluents on dairy farms and flooding of native forest areas. Lessons learned have led to introduction of a number of measures to deal with such shortfalls – a "blacklist", specifying activities which are ineligible for funding, improved technical assistance and better specification of baseline situations.

5. Regardless of the nature of sub-projects proposed for financing through the $64.3 million Natural Resource Management and Biodiversity component, all will be subject to initial screening on the basis of a blacklist and a checklist. The blacklist will be used to disqualify sub-projects (or selected components contained therein) which impinge on prohibited activities, such as : flooding or conversion of areas in native forest or high biodiversity value (HBV) native pasture to other uses; use of illegal agrochemicals; drainage of wetlands; or road construction. The full list will be specified in the Operations Manual. The checklist of potential environmental impacts will also be specified in the Operations Manual.

6. For the component which addresses resource management in consolidation and expansion of irrigation, the EIA methodology tested and refined in PRENADER over the past decade will be applied. During that time less than 3% of the 2040 irrigation works financed were of a size which required a DINAMA-approved EIA. The same focus on small and medium size farms will be retained in this project. Thus, it is expected that environmental assessment of water supply, storage and distribution investments will be minimal. However, experience suggests that particular attention be paid to water use and soil management under irrigation, use of pesticides and other agro-chemicals, treatment and disposal of manure on dairy farms, and potential upstream/downstream conflicts related to quantity (flows) and quality of surface and ground water. In this latter area, linkages to downstream wetlands will receive special treatment. As in the case of PRENADER, no irrigation projects will be approved where they are shown to have potential to alter the water regime within the Ramsar Treaty area in the Departments of Rocha and Treinta y Tres.

7. EIA in sub-projects within the component dealing with resource management in zones of dryland agriculture is expected to be relatively straightforward. Most activities will address conservation of soil and water e.g. contour seeding, reduced soil compaction and minimum till. In those cases where large areas are involved, or where topographic change is contemplated e.g. land leveling, more intensive EIA will be required.

8. In the component for improved resource management in zones used for livestock production, it is anticipated that the EIA will rarely go beyond the checklist stage. More detailed work may be needed where sub-projects include works for water supply (dams, wells and conveyance) in small-scale irrigation or stock drinking water. This component has a direct interface with the fourth component, - "Natural Resources and Biodiversity Management" - under which $9.5 million of grant funding will be available to promote sustainable use of biodiversity in savanna and native forest zones. The fragmented mosaic of savanna, other grassland, gallery forest and spiny woodland ecosystems (85% of the country) constitutes the zone of the extensive livestock production component. Within this zone, GEF has identified ten priority areas which are characterized as being relatively undisturbed and containing HBV. These areas provide the bases for developing demonstration landscape approaches to integrated sustainable natural resource management, where the prime focus is conservation and use of threatened biodiversity of global importance. These innovative dimensions will demand an iterative approach to assessment. Estimating the degree to which reduction in the rate of degradation or enhancement of biodiversity, and associated soil and water resources, may be attributable to the specific activities will draw on invaluable insights from PRENADER´s micro-catchment component. The lessons have been incorporated into a more rigorous specification of hypotheses on key cause-effect

relationships, the baseline indicators and M&E work needed to test the hypothesis. The GIS developed by PRENADER, and further strengthened in this project, will be of critical importance. Also the research proposed on carbon sequestration in pastures and methane generation from livestock should contribute to the on-going debate on how these issues impinge on climate change.

Procedures

9. Proposals from individual farmers or groups, whether submitted through regional entities, or directly to the Project Executing Unit, will be required to include a statement on potential environmental consequences with a self-determined classification ranging from "A" - no expected impacts to "C" - a potential for significant impact which would require specific mitigatory measures. All proposals will be screened by PEU, on the basis of the "blacklist", the checklist and other procedures developed in PRENADER, prior to submission to other government authorities. Those relating to the irrigation component must be approved by the National Hydrological Directorate (DNH) of the Ministry of Transport and Public Works (MTOP) with respect to design of structures and water rights, under Decree 16.858. Approval by the Directorate of Soil and Water (DSA) within the Ministry of Livestock, Agriculture and Fisheries (MGAP) is also required under Decree 15.239 for proposed use and management of water and soils. This latter approval must also be obtained for all sub-projects in the extensive agriculture component. Once approved by these entities, or, in the case of the extensive livestock component approved by the PEU, all sub-projects which exceed the minimum size and technical specifications defined in Decree 16.466, must be submitted to the National Directorate for Environment (DINAMA), within the Ministry of Housing, Territorial Planning and Environment (MVOTMA). This entity undertakes a standard review and issues its findings on the self-determined "classification" of the proposal. In the event of a B or C classification it will specify the type of EIA required. This directive will be sent to the MAGP/PEU for action. The PEU will be responsible for final design and supervision in execution of the EIAs in accordance with DINAMA´s norms (in coordination with the Unit for Technical Cooperation Projects – UPCT - and the General Directorate of Renewable Natural Resources – RENARE - in MGAP) and consistent with the project's environmental assessment specifications as defined in the Operations Manual. The PEU will also be responsible for any baseline studies and the M&E. Oversight of all these procedures will be in the hands of DNH and DSA, and ultimately DINAMA.

Consultation on Environmental Issues

10. Extensive consultation on incorporating environmental dimensions into project design, implementation and monitoring, were undertaken prior to and during PRENADER. These were continued in the process of the Bank's agricultural sector review and in preparation of this project. This culminated in a meeting called by MGAP and DINAMA in July 2004, attended by approximately 80 representatives of agricultural producer associations, universities, consulting firms, local authorities, NGOs and central government agencies. All activities proposed for funding were discussed. Two similar meetings, one in the north and the other in the east of the country, will be held. The presentation of the minutes from these meetings will be a condition for loan approval.

Institutional Capacity

11. Implementation of the environmental procedures in the project and the associated monitoring and ex-post evaluation will basically hinge on the PEU. It will be in a position to contract specialists

to assist in the various phases of the sub-project cycles. As a result of previous Bank experience in Uruguay applicable to the irrigation component, more attention will be given to the water use and soil management aspects in the design phase; the cost of consultants for sub-project preparation will be advanced to approved applicants and subsequently incorporated as part of the loan to individual farmers or groups; technical assistance will be made available to all beneficiaries in implementation of resource management dimensions of their sub-projects. RENARE's capacity will be strengthened in areas of GIS, environmental assessment and planning to enable improved formulation and implementation of the soil, water and fauna conservation dimensions of its mandate. DINAMA and DNH have the capacity to handle the project's environmental conditions.

12. With respect to all four resource management subcomponents, specialized training will be provided for technical staff offering extension services to farmers. Special attention will be paid to strengthening the capacity of regional entities expected to assist farmers, particularly where a landscape approach may suggest group action in formulating proposals which address environmental dimensions.

Annex 11: Project Preparation and Supervision

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

	Planned	Actual
PCN review	09/15/2003	02/24/2004
Initial PID to PIC	03/02/2004	05/27/2004
Initial ISDS to PIC		
Appraisal	07/14/2004	07/16/2004
Negotiations	05/03/2005	
Board/RVP approval	06/10/2005	
Planned date of effectiveness	09/01/2005	
Planned date of mid-term review	09/01/2008	
Planned closing date	08/31/2011	

Key institutions responsible for preparation of the project:

Ministry of Livestock, Agriculture and Fishery (MGAP), Food and Agriculture Organization (FAO); General Office for Renewable Natural Resources (RENARE)

Bank staff and consultants who worked on the project included:

Name	Title	Unit
Michael Carroll	Sr. Natural Res. Mgmt. Spec.	LCSER
Edgardo Floto	Sr. Economist	FAO/CP
Alberto Yanosky	Biodiversity Specialist	Consultant
Luiz Correa Noronha	Institution Specialist	Consultant
Emilio Rodríguez	Procurement Specialist	Consultant, LCOPR
Enzo de Laurentiis	Sr. Procurement Specialist	LCOPR
Antonio Blasco	Financial Management Analyst	LOCA
Michael Nelson	Environment Specialist	ECSSD
Roberto Adrian Senderowitsch	Social Scientist	LCSPR
Marisa Miodosky	Junior Professional Associate	LCSES
Jeannette Ramirez	Operations Analyst	LCSER
Greicy Amjadi	Information Assistant	LCSEN
Mauricio Cifuentes	Extended-Term Temporary	LCSES

Bank funds spent to date on project preparation:

1. Bank resources: 117,773.17
2. Trust funds:
3. Total:117,773.17

Estimated Approval and Supervision costs:

1. Remaining costs to approval: 20,000.00
2. Estimated annual supervision cost: 100,000.00

Annex 12: Documents in the Project File

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

URUGUAY: Proyecto de Manejo Integral de los Recursos Aguas y Suelos - TCP/URU/0167, Volumes I-V, Rome: FAO Investment Centre, 2004

Proyecto Combinado GEF/IBRD "Manejo Integrado de Ecosistemas y Recursos Naturales en Uruguay" - Componente "Manejo y Conservación de la Diversidad Biológica"- Subcomponente Turismo Rural – Laura García Tagliani, Diciembre 2003

Proyecto Combinado GEF/IBRD "Manejo Integrado de Ecosistemas y Recursos Naturales en Uruguay" - Componente "Manejo y Conservación de la Diversidad Biológica" – Subcomponente Manejo Integrado de Pradera – Pablo Boggiano, Diciembre 2003

Proyecto Combinado GEF/IBRD "Manejo Integrado de Ecosistemas y Recursos Naturales en Uruguay" - Componente "Manejo y Conservación de la Diversidad Biológica" – Subcomponente Bosque Nativo - Compilación, sistematización y análisis de la información disponible publicada o en proceso, descripción de la situación actual y propuestas de intervención – Rafael Escudero, Carlos Brussa & Iván Grela, Marzo 2004

Proyecto Combinado GEF/IBRD "Manejo Integrado de Ecosistemas y Recursos Naturales en Uruguay" - Componente "Manejo y Conservación de la Diversidad Biológica" – Subcomponente Fauna Silvestre (Rancheo y Caza) – Francisco Rilla Manta, Enero 2004

Proyecto Combinado GEF/IBRD "Manejo Integrado de Ecosistemas y Recursos Naturales en Uruguay" - Componente "Manejo y Conservación de la Diversidad Biológica" – Subcomponente Generación de Iniciativas Silvopastoriles – Luis Gallo, Enero 2004-07-06

Annex 13: Statement of Loans and Credits

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

			Original Amount in US$ Millions						Difference between expected and actual disbursements	
Project ID	FY	Purpose	IBRD	IDA	SF	GEF	Cancel.	Undisb.	Orig.	Frm. Rev'd
P077172	2003	UR Structural Adjustment Loan	151.52	0.00	0.00	0.00	0.00	50.00	-51.52	0.00
P078726	2003	UY Public Services & Social Sectors SAL	151.50	0.00	0.00	0.00	0.00	100.00	50.00	0.00
P080263	2003	UY SSAL	151.52	0.00	0.00	0.00	0.00	50.00	-51.52	0.00
P081495	2003	UY Public Services & Social Sectors SSAL	101.02	0.00	0.00	0.00	0.00	75.00	25.00	0.00
P074543	2002	UY FOOT & MOUTH DISEASE - ERL	18.50	0.00	0.00	0.00	0.00	5.26	-13.24	-13.24
P070937	2002	UY- Basic ED3	42.00	0.00	0.00	0.00	0.00	34.99	6.54	0.00
P070058	2001	UY PUBLIC SERVICES MODERNIZATION TA	6.00	0.00	0.00	0.00	0.00	5.09	2.62	0.00
P063383	2000	UY APL OSE MOD&REHAB.	27.00	0.00	0.00	0.00	0.00	20.32	20.32	-0.36
P039203	1997	UY FOREST PROD.TSP	76.00	0.00	0.00	0.00	5.00	26.63	31.63	0.00
P008177	1996	UY POWER TRNMSN & DISTR	125.00	0.00	0.00	0.00	0.00	47.56	47.56	0.00
		Total:	850.06	0.00	0.00	0.00	5.00	414.85	67.39	- 13.60

URUGUAY
STATEMENT OF IFC's
Held and Disbursed Portfolio
In Millions of US Dollars

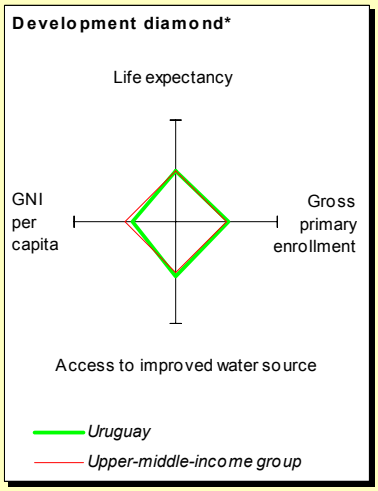
		Committed				Disbursed			
		IFC				IFC			
FY Approval	Company	Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
1985	Azucitrus	0.00	3.45	0.00	0.00	0.00	3.45	0.00	0.00
2002	Conaprole	20.00	0.00	10.00	0.00	15.00	0.00	10.00	0.00
1995	Consorcio Aerop.	0.83	0.00	2.87	0.21	0.83	0.00	2.87	0.21
2001	Umontevideo	4.89	0.00	0.00	0.00	3.19	0.00	0.00	0.00
	Total portfilio:	25.72	3.45	12.87	0.21	19.02	3.45	12.87	0.21

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic.
2002	Conaprole	0.00	0.00	0.00	0.02
	Total pending committment:	0.00	0.00	0.00	0.02

Annex 14: Country at a Glance

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

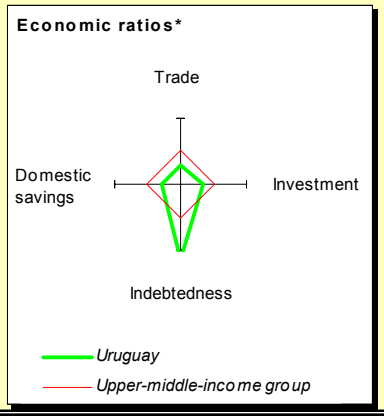
POVERTY and SOCIAL	Uruguay	Latin America & Carib.	Upper-middle-income
2002			
Population, mid-year *(millions)*	3.4	527	331
GNI per capita *(Atlas method, US$)*	4,370	3,280	5,040
GNI *(Atlas method, US$ billions)*	14.8	1,727	1,668
Average annual growth, 1996-02			
Population *(%)*	0.7	1.5	1.2
Labor force *(%)*	1.1	2.2	1.8
Most recent estimate (latest year available, 1996-02)			
Poverty *(% of population below national poverty line)*	..	..	..
Urban population *(% of total population)*	92	76	75
Life expectancy at birth *(years)*	75	71	73
Infant mortality *(per 1,000 live births)*	13	27	19
Child malnutrition *(% of children under 5)*	..	9	..
Access to an improved water source *(% of population)*	98	86	90
Illiteracy *(% of population age 15+)*	2	11	7
Gross primary enrollment *(% of school-age population)*	109	130	105
Male	110	131	106
Female	109	128	105



KEY ECONOMIC RATIOS and LONG-TERM TRENDS

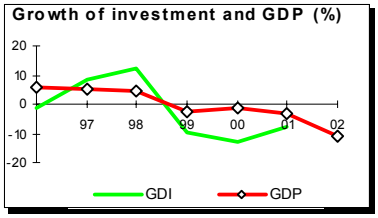
	1982	1992	2001	2002
GDP *(US$ billions)*	9.1	12.9	18.6	12.3
Gross domestic investment/GDP	19.8	15.4	13.5	..
Exports of goods and services/GDP	14.3	20.4	18.7	..
Gross domestic savings/GDP	16.8	16.2	12.3	..
Gross national savings/GDP	..	14.6	10.7	..
Current account balance/GDP	-2.6	-0.1	-2.8	..
Interest payments/GDP	2.0	1.6	2.2	3.2
Total debt/GDP	29.0	35.5	52.3	85.5
Total debt service/exports	30.5	18.8	36.0	32.9
Present value of debt/GDP	..	..	53.2	..
Present value of debt/exports	..	..	240.9	..

	1982-92	1992-02	2001	2002	2002-06
(average annual growth)					
GDP	2.7	1.2	-3.4	-10.8	2.0
GDP per capita	2.1	0.5	-4.1	-11.3	1.5

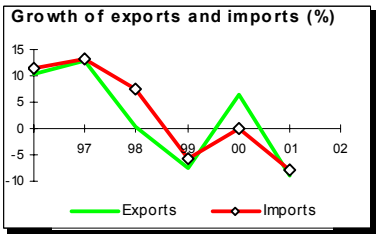


STRUCTURE of the ECONOMY

	1982	1992	2001	2002
(% of GDP)				
Agriculture	11.0	8.8	6.4	..
Industry	29.4	32.8	26.6	..
Manufacturing	19.8	24.8	16.6	..
Services	59.6	58.4	67.0	..
Private consumption	67.5	72.2	74.2	..
General government consumption	15.7	11.6	13.5	..
Imports of goods and services	17.3	19.6	20.0	..

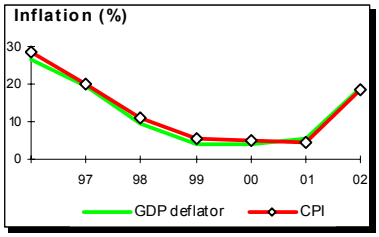


	1982-92	1992-02	2001	2002
(average annual growth)				
Agriculture	1.4	0.9	-5.1	..
Industry	2.1	0.5	-5.6	..
Manufacturing	2.3	-0.4	-6.2	..
Services	3.4	3.1	-1.8	..
Private consumption	3.4	3.2	-2.7	..
General government consumption	2.1	2.1	-1.3	..
Gross domestic investment	1.6	1.9	-7.7	..
Imports of goods and services	5.9	5.6	-7.7	..



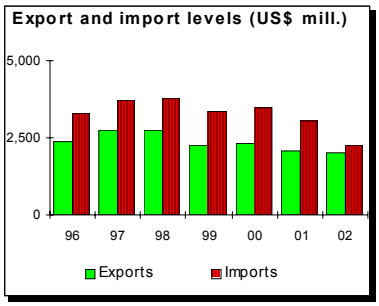
PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
Domestic prices				
(% change)				
Consumer prices	0.0	68.4	4.3	18.3
Implicit GDP deflator	18.2	59.6	5.3	18.8
Government finance				
(% of GDP, includes current grants)				
Current revenue	..	17.4	19.8	20.8
Current budget balance	..	2.3	-2.7	-2.6
Overall surplus/deficit	..	0.7	-4.4	-3.4



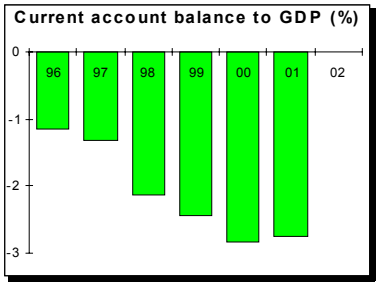
TRADE

	1982	1992	2001	2002
(US$ millions)				
Total exports (fob)	1,023	1,703	2,060	2,040
Meat	290	383	517	512
Vegetables	152	181	292	289
Manufactures	435	923	967	957
Total imports (cif)	1,110	2,058	3,061	2,261
Food	69	188	279	206
Fuel and energy	115	260	469	347
Capital goods	286	742	824	609
Export price index *(1995=100)*	..	88	82	90
Import price index *(1995=100)*	..	98	92	91
Terms of trade *(1995=100)*	..	90	89	99



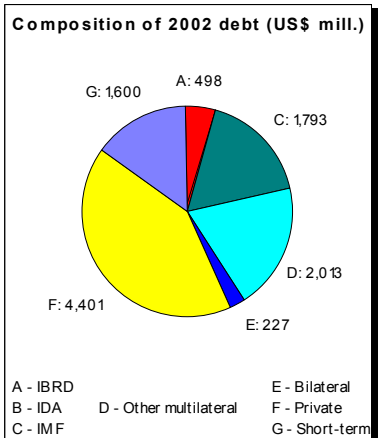
BALANCE of PAYMENTS

	1982	1992	2001	2002
(US$ millions)				
Exports of goods and services	1,537	2,558	3,272	3,066
Imports of goods and services	1,586	2,515	3,675	2,860
Resource balance	-48	43	-403	206
Net income	-197	-187	-115	-202
Net current transfers	..	29	43	39
Current account balance	-235	-9	-513	..
Financing items (net)	-182	198	1,030	..
Changes in net reserves	417	-189	-518	1,082
Memo:				
Reserves including gold *(US$ millions)*	..	1,050	3,341	2,259
Conversion rate *(DEC, local/US$)*	1.39E-2	3.0	13.3	21.3



EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
(US$ millions)				
Total debt outstanding and disbursed	2,647	4,571	9,706	10,532
IBRD	85	521	544	498
IDA	0	0	0	0
Total debt service	513	524	1,476	1,275
IBRD	13	75	111	99
IDA	0	0	0	0
Composition of net resource flows				
Official grants	0	12	6	..
Official creditors	41	147	114	379
Private creditors	201	150	478	-31
Foreign direct investment	0	0	318	..
Portfolio equity	0	0	0	..
World Bank program				
Commitments	0	76	52	0
Disbursements	22	174	65	29
Principal repayments	7	45	73	75



Annex 15: Incremental Cost Analysis

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

Introduction

This project will promote sustainable land management practices incorporating biodiversity as another component of the spectrum of products from the rural landscape in Uruguay. The entire project will promote the integration of sound management practices of natural resources and biodiversity and the GEF-funding will be used to promote the incorporation of biodiversity within the general framework of analysis prioritizing key biodiversity areas. Uruguay is one of the few places over the world with extensive savannas interspersed with other key habitat types which have been used for agriculture and livestock production since the Spanish colonization and is the basis for the economy of the country. Uruguay is well endowed with natural resources for livestock and agricultural production, most of the times overlapped with key biodiversity areas which were not known or acknowledged until recently. The combination of agriculture and agro-industry sectors represent up to 23 percent of the country's Gross Domestic Product (GDP). But, even this figure belies the combined importance of these two sectors to the economy as a whole; over half of their output is exported, and in the early 2000s represented over 70 percent of Uruguay's total export earnings. This importance in the economic sector has been achieved without much regard towards biodiversity conservation. Major threats to biodiversity conservation and natural resources are inappropriate management of livestock and natural grasslands, introduction of alien species, overgrazing, natural grassland forestation with exotic species, irrational burning, dam constructions, urbanizations, non ecofriendly practices of certain crops such as rice plantations, and some other minor threats. These practices have been carried out by small, medium-sized farming operations mainly, being large-sized operations in most of cases left important tract of natural habitats.

The development of the rural landscape for production is now recognized to have advanced with some practices negative for the conservation of the rich natural resources, mainly biodiversity in a highly productive rural country. The constraints limiting the adoption of sound conservation practices that have impeded integrated and cross-sectoral approaches to lead sustainable landscape management are, amongst others: a) limited policies to promote sustainable patterns and support for the adoption of integrated approaches; b) limited technical assistance and the need for additional financial incentives for sustainable land use; c) limited resources if any to support targeted research important for biodiversity conservation and enhanced opportunities raising at the global level such as environmental services and carbon sequestration; d) lack of integration of conservation and traditional development, including areas of importance for a unique biodiverse habitats; e) lack of information and a general vision of the landscape ameliorating the natural resources and including biodiversity into the productive sector of the country.

In light of this situation the national government, based upon the experience derived from Prenader and Bañados del Este Projects, has decided to promote natural resources and biodiversity management techniques at the national level focused on the small and medium-sized landowners, who are in charge with the pertinent governmental support to change the unsustainable use of their lands and promoting the conservation of natural resources and biodiversity, mainly located in private hands. Little if any support has been given to such a different view of doing landscape management and this strategy has been mentioned as a priority in the Biodiversity Conservation Strategy.

The baseline scenario

Preliminary surveys conducted by the preparation team have not identified governmental or civil society projects for the conservation of biodiversity. The only baseline information which can be included in this analysis is the operations of the GEF in Bañados del Este GEF UNDP-sponsored Project, already finished, which left ideas of how to improve the actions and lessons learnt are key part of this initiative. The other example is PRENADER, with clear steps left for the future of a second Prenader to which this GEF is fully blended. Under the baseline scenario, policy and capacity development for environmental and natural resources planning is left; e.g. provision of technical assistance for participatory landowners planning and the microcatchment-focussed initiatives.

The "Integrated Natural Resource and Biodiversity Management Project" would provide the general framework of operation, with provision of technical and financial assistance to small and medium-sized farmers who would propose strictly production-oriented projects to promote increased agricultural and livestock production, including some activities to promote improved natural resources management. Recent performance of the agriculture sector, however, indicated that, in general terms, the sector was reacting positively to market signals and did not require special assistance to increase growth. There was, nevertheless, an underlying threat that, if special incentives and technical assistance were not given to farmers there was a real danger that high rates of growth in agricultural and livestock production would be achieved at the expense of the country's natural resources base. Consequently, in the light of the conclusions of the ESW, it was decided to opt for a project that would concentrate on promoting improved natural resources management and mainstream agricultural biodiversity in the integrated on-farm natural resources management plans.

The proposed project would promote natural resources and biodiversity management, by financing demand-driven activities to promote sustainable management of natural pastures; improved cultural practices in rainfed agriculture; and consolidation and expansion of PRENADER´s activities in irrigated agriculture and dairy farming. In the implementation of this component, farmers would compete for financial resources for their investment proposals according to clear selection and eligibility criteria to be defined. Furthermore, support services, would include training and technical assistance to farmers, institutional strengthening of local and central authorities, and specialized training for agronomist and technical staff providing technical assistance to farmers. These activities would be carried out under the leadership of a Project Executing Unit, which would be responsible for overall project execution and the Monitoring and Evaluation System. Within this framework, the GEF would finance the incremental costs associated to incorporate biodiversity in this general productive landscape using improvement, incorporation, adoptive management skills at the farmers' level and at the same time providing a participatory framework of the biodiversity landscape in the country and pilot demonstration areas.

In the absence of the GEF funding, the implementation of the aforementioned activities, some of them are already on-going after Prenader and which would be continued and reinforced under the proposed project, would contribute to the project goal of integrating natural resource management systems; nevertheless, biodiversity component would not be included especially because this component has yet to show its benefit to the landowner who would not commit into a long-term commitment and be investing for potential future reimbursement on an activity that not shown locally the benefits herein explained. The GEF-financed activities would generate global benefits by increasing biodiversity of soils, pastures and the general landscapes, enhance the potential of the country to contribute positively to the carbon balance and create the conditions for survival and enhancement of wildlife populations in key biodiversity areas. It would thus finance technical assistance, rural infrastructure, management guidelines and services to small farmers, as well as to create the general vision of the biodiversity in the country under an ecological planning. However, the baseline would not address more far-reaching interventions funded by global

transfers, as it would not support particular aspects mainly focused on for example restoration and rehabilitation of non-productive or fragile areas within the microcatchments, the connectivity of fragments of importance to biodiversity, the entire vision of the ecological landscape to perpetuate biological resources, as well as investment of high-risk as those related to conservation of biodiversity in which the country has little experience.

The GEF alternative

The proposed GEF alternative and the existence of its insertion into the proposed project would achieve significantly greater conservation of threatened biodiversity of global importance, not only at the species/population level but also at the site and landscape levels in selected areas of importance for biodiversity within this unique habitat type found in Uruguay. Increased community participation and organization for biodiversity management, pilot demonstration projects developed jointly with landowners, donations to landowners with sound projects showing an integrated management of natural resources and the compliance with environmental legislation at the international and national level, proposed by this alternative strategy of blending the GEF with the proposed project, would in turn increase sustainability of interventions and would demonstrate the importance of mainstreaming biodiversity in the rural productive sector. Benefits of supporting this innovative way of biodiversity management outside Pas, working with private landowners to build on biodiversity friendly activities, increase the national capacity of managing natural resources and take advantages of the global opportunities arising, and enhancing the conservation of an ecosystem of such global importance, has to occur predominantly with the support of the global level and there warrant GEF funding.

The GEF activities, presented as part of the proposed project, would orient the agricultural and livestock baseline operations through the introduction of a cross-sectorial approach in support of sustainable land use practices in benefit of biodiversity within an ecosystemic approach. GEF resources would cover the incremental costs associated with: a) the development of appropriate strategies for the adoption of sound rural practices, b) the inclusion of biodiversity of global importance as part of the natural resources management in Uruguay, c) participatory and awareness support and efforts, d) capacity building amongst producers, leaders, managers and implementing agency, e) design and implementation of an incentive program for biodiversity conservation, f) needed research to validate appropriate technologies and practices, and finally g) M&E and communicational aspects to secure implementation excellence and replicability of sound practices.

The total cost of this Project with this GEF Alternative is estimated at US$ 96 million, which would be financed by a Bank loan of US$ 30 million, a GEF Grant of US$ 7 million, and Government counterpart funds of about US$ 3 million. In addition, beneficiaries' contribution would be about US$ 56 million. Tentatively, about 93% of project resources would be allocated to investment in improved natural resources and biodiversity management activities, including pilot areas; about 4% to support services, and the remaining 3% to the Project Executing Unit and the M&E System. The U$ 7 million GEF-contribution to match incremental costs would be allocated in the following way: 71.0% (US$ 5.0 million) for demand-driven support for the Promotion of Biodiversity Sustainable Practices; 21,4% (U$S 1,5 million) for the implementation of pilot areas; 4.1 % (US$ 0,3 million) for institutional strengthening and 3.6 % (US$ 0,2 million) for project coordination, thus the GEF follows the same criteria of funding allocation to the overall project.

With the GEF alternative, the Government of Uruguay and the other institutions working in partnership as municipalities, academia and NGOs will be able to experience a challenging program at the national level and mainly focused on key biodiversity areas encompassing both national and global benefits, enhancing the conservation of threatened and vulnerable species and habitats in Uruguay and assisting the

productive force of the country with effective implementation of sustainable rural and environmental initiatives. The co-financing of this GEF-supported project would be done by a contribution of US$ 11 million from the Bank loan and beneficiaries contribution, and an estimated contribution of US$ 1 million from the government.

Incremental costs

The difference between the costs of a baseline scenario where only the Bank loan would be implemented is about 7% given the contribution of the GEF's contribution. This 7% to be contributed by the GEF would make it possible to mainstream biodiversity as another key environmental source of creating rural development, by investing in sound practices, co-sharing farmers' investments and creating the capacity at the local and national level under the "umbrella" incremental costs of technical assistance, training, workshops and other services such as public awareness media campaigns, infrastructure, equipment, travel and subsistence allowances. The contribution from the GEF would be combined with the baseline committed by the Government to promote biodiversity conservation and use into the general natural resources management project. The GEF investment would promote the investment of US$ 1 million from the government and a combined (loan and beneficiaries) co-financing of US$ 47 million. The following tables show by components the total costs of the GEF contribution for biodiversity inclusion in the Project.

Biodiversity component within the "Integrated Natural Resource and Biodiversity Management in Uruguay"			
	Total Cost * 10 M	**Matching * 10 M Gov & loan**	**GEF * 10M**
Comp. 1: Promotion of SUB	**9.50**	**4.50**	**5.00**
Comp. 2. Implementation of Pilot Areas	**1.50**	**0.00**	**1.50**
Comp. 3. Support Services	**3.20**	**2.90**	**0.30**
Comp. 4: Project Executing Unit	**1.30**	**1.10**	**0.20**
Totals	**15.50**	**8.50**	**7.00**

Component 1. Promotion of Sustainable Use of Biodiversity. Total Cost $ 9.5 million = GEF contribution $ 5.0 million

Based upon a demand-driven strategy, activities to promote sustainable biodiversity management of natural pastures, farmers would compete for financial resources for their investment proposals according to clear selection and eligibility criteria to be defined. Improved livelihoods of small- and medium-sized farmers living in key areas for biodiversity conservation would be prioritized and integrated natural resources management projects would be implemented. Five main areas of project are expected to be generated by this demand-driven approach, as follows:

1.1. Conservation and sustainable use of natural pastures. This subcomponent is expected to contribute to the maintenance, recovery and improvement of natural pastures, working with native species in systems of intensive use with crop rotations, providing alternatives for multiple use of natural pasture lands (honey, medicinal, nutritional, ornamental and other uses) and implementing soil protection techniques in riparian areas to conserve and improve hydrological system. This component would be accompanied by training, technical assistance and sharing of experiences in the conservation and sustainable use of biodiversity in natural pastures.

1.2. Sustainable management of timber and non-timber products from native forests. This subcomponent is expected to contribute in implementing forest conservation initiatives by utilizing forestry management techniques (thinning, pruning, enrichment, recovery, etc.) and improving native forests with reintroduction, reforestation and restoration of native forests. The multiple use of forests (resins, honey, fruits, medicinal, ornamental, etc.) will be promoted and activities woul be accompanied by training, technical assistance and sharing of experiences in conservation and sustainable use of biodiversity in native forests.

1.3. Management and conservation of native fauna. This subcomponent would be based upon the fauna resources of the country, some of which are already under use and others are still to be implemented. The subcomponent would invest in implementation of farming practices for native species with different purposes (slaughtering by-products, pets, breeding-stock, etc.), ranching practices for native species (slaughtering by-products, pets, breeding-stock, etc.), development of strategies for restoration of degraded habitats for native fauna species and any other type of innovative way of conserving and making sound use of wildlife. Training and extension services would also be provided.

1.4. Generation of silvo-pastoral initiatives. This subcomponent would seek the implementation of combined activities to promote livestock production in native landscapes by implementing practices to recover the natural biodiversity of forest-pasture ecosystem, by improving cattle-raising in forest areas, for purposes of certification. Training, technical assistance and sharing of experiences in agro-silvo-pastoral systems with native species would be provided.

1.5. Development of rural tourism based on natural native species. Based on the experiences already existing in the country, this subcomponent would enhance the role of biodiversity-based tourism by supporting implementation of agro-ecotourism experiments, ecotourism and nature tourism experiments, ranch tourism experiments and at the same time providing training, technical assistance and sharing of experiences in rural tourism and agro-biodiversity.

Component 2. Implemented of Pilot Areas. Total cost of $ 1.5 million, which would be financed by the GEF.

This component would implement demonstrative areas of sustainable use of natural resources in key micro-catchments which are of importance for biodiversity, combining sound practices for natural resources management and creating increased public awareness of significance and socioeconomic importance of biodiversity. The areas of importance for biodiversity would be established based upon a generation of a biological vision and eco-regional planning of the project's intervention areas

Component 3. Support Services. Total cost of $3.20 million of which $ 0. 30 are requested from the GEF with a baseline of $ 2. 90 million.

This Component would focuse on the strengthening of institutions responsible for biodiversity conservation, facilitating an increased capacity to support sub-regional needs in biodiversity conservation, creating international awareness of project concepts and achievements, creating the national capacity for carbon balance projects and facilitating both the operation of the Geographic Information System and the management and marketing capacity in the private sector

Component 4: Project Execution. A total investment of $1.30 millions, of which with a baseline of $ 1.10 million to be contributed by the government, the GEF is requested to invest $ 0.20.

This component would assist the MGAP with Project execution, including the administrative structure and the implementation of the monitoring and evaluation.

Annex 16: STAP Roster Review

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

Project Review

Project Title: Integrated Ecosystem and Natural Resources Management in Uruguay

Executing Agency: Ministry of Agriculture, Livestock and Fisheries, Uruguay

Reviewer: Enrique H. Bucher

Date February 28, 2004

2. PROPOSAL'S GLOBAL PRIORITY AND RELEVANCE IN THE AREA OF THE BIODIVERSITY PROTECTION

This proposal deals with a region of significant biodiversity and ecological value. Uruguay still holds large portions of little-modified, temperate ecosystems of great conservation value. They include grasslands, savannas, native forests and wetlands. Of particular importance are native grasslands, which represent a still vast but constantly decreasing portion of the grasslands than once covered Pampas of Uruguay, Argentina, and Southern Brazil. It is worth mentioning that the Pampas grasslands in Argentina disappeared almost completely early in the XX century.

Native ecosystems in Uruguay are under significant and rapidly increasing threats because of rapid changes in land-use patterns that are taken place, particularly since the 1990's. Unless adequate measures are taken, it is very likely that present trends will accelerate a rapid loss of natural capital in Uruguay. Accordingly, pre-emptive actions aiming at the integration of sustainable production systems, from the individual property to the basin and landscape scale, are fully justified and timely. This approach is particularly important regarding conservation outside protected areas, which deserve special consideration because of the very small number and limited extension of protected areas in Uruguay.

In summary, this proposal is accordance with GEF objectives, particularly regarding conservation of grasslands, one of the most endangered ecosystems in the world.

SCIENTIFIC AND TECHNICAL SOUNDNESS

The strategy selected, based on developing compatible, complementary activities that enhance conservation, sustainability and productivity of current production systems is appropriate for Uruguay. Integration of landscape management, basin management, and multiple production systems that incorporate biodiversity conservation as a primary goal is an attractive and desirable concept.

Obviously, it implies a demanding challenge, particularly in terms of designing and making compatible multiple-use systems, which in some case imply conflicting demands in terms of land-use and management practices.

The present version of the proposal has however some components that would require being expanded or improved in order to strengthen its technical soundness, particularly regarding: a) diagnostic, b) focus and scale, b) biodiversity conservation, and c) feasibility analysis.

Diagnostic

In the diagnostic analysis of the main environmental problems affecting Uruguay, no consideration is given to expansion of forest plantation and agriculture, two critical factors that are displacing other land uses in the native grasslands and savannas ecoregion. As mentioned in the proposal, ***"****The area under plantation has grown by close to 800% in the 1990s, and today the total area under plantation forestry covers 400,000 ha."* Existing government policies and financial investments suggest further rapid growth of the planted area in the near future, as commented in the proposal:

In more recent years soybean expansion is also gaining momentum in western Uruguay, favored by current prices and new technological developments that allow cultivation in soils and region previously considered unsuitable for this crop.

Both factors (forestry with introduced species and agriculture) result in profound transformations of the original Uruguayan landscape, particularly because both provide higher economic returns than traditional land-uses. This situation requires, therefore, inclusion and careful analysis in this project.

RESPONSE: Both agriculture and forest plantations will be considered in the project design; while agriculture is considered in depth in the project description and the other related documents, forest plantations are included in the executive summary. The combination of agriculture and the agro-industry sector represent a large portion of the national, economy (up to 23 percent of the country's Gross Domestic Product, GDP), with over half of their output exported, and representing over 70 percent of Uruguay's total export earnings. Subsidies applied to the forestry sector has promoted the expansion of exotic plantations, mainly of Eucalyptus with an area under of 400,000 ha.; such industry is not, *per se*, supportive of biodiversity conservation since based upon an exotic species has produced various negative environmental impacts. The expansion of soybeans is a new threat to biodiversity mainly in the western part of the country. Though both production systems could impact negatively on biodiversity, this project would address conservation strategies of these two potential threats as part of implementation within the target areas.

Focus and scale.

The project is tailored around a holistic approach at the landscape, basin, and individual property levels, according to the following statements:

"The key focus of this project is the promotion of biodiversity-friendly, multiple-use land use practices, within a landscape approach. Under this approach, it is possible to promote the adoption of land-use practices that exploit the synergies that exist between biodiversity conservation and opportunities for rural income generation."

" From a biodiversity perspective, what is key is the promotion of a geographic configuration that maintains the mosaic nature of Uruguay's original habitats, restoring biological corridors through a diversified rural landscape."

However, specific themes assigned to consultants suggest emphasis on actions aimed at promoting changes in production systems at the individual property scale, with little consideration to integration at the basin and/or landscape scales. This limitation is clearly seen in the following statement:

"As explained earlier, the project will tailor activities to each of the production systems currently in use in Uruguay. Such systems will be used as a first "filter" to define the type of mainstreaming activities to be financed by the GEF. Nevertheless, the geographic areas of implementation have been broadly defined, and do not overlap with any of the other GEF-financed projects in Uruguay."

If site selection is guided by production system alone with no consideration to the basin/landscape scale, then it is unlikely that isolated actions at the individual property will succeed in influencing higher geographical levels of management. What a reader of this proposal would expect is to focus actions in specific landscapes/basins units, in which actions at all levels (basin, landscape, and individual property) could be integrated under the proposed holistic approach. Otherwise, it is difficult to conceive how expertise in basin and landscape management may be integrated with promotion of alternative, sustainable production systems. For example, what would be the criteria for suggesting conservation of a given forest or grassland patch to land owners interested in developing eco-tourism and biodiversity conservation? Survival of key species and biodiversity in general would require a landscape approach that goes beyond the individual farm or ranch.

Moreover, when landscape integration is mentioned, it would be desirable than this approach was made explicit in a more technical way, reflecting "state of the art" landscape ecology and management sciences. In summary, showing appropriate integration of the proposed actions at different landscape levels and production systems would strengthen the technical consistency of this proposal.

RESPONSE: As part of the preparation of the project, the country was divided in production areas and these areas were overlapped with natural communities and land aptitudes including the already known sites where natural vegetation is still found. This guided the site selection firstly by production system, giving us clear ideas that the GEF component would not be investing in highly modified habitats or areas where natural pastures have completely disappeared and the exotic species were introduced, or in forest plantations areas. Once these considerations were met, key areas were selected such as the "*basalto*" and the "*quebradas*" in the north and eastern parts of the country, within those large areas a criteria based in basin/landscape scale will be promoted and thus individual property or a group of farms would succeed in influencing higher geographical levels of management. Because of its demand-driven nature, the project would propose thematic areas of potential interventions but this has to be generated by the demand but the "state of the art" in landscape ecology and management sciences will be included as part of the development of the full proposal. he integration of the proposed actions at different landscape levels and production systems will strengthen the technical consistency of the project proposal.

Biodiversity conservation

The biodiversity component is based on the assumption that promotion of economic exploitation native fauna through consumptive use or ecotourism will ensure biodiversity conservation, as part of the integrated ecosystem management practices. However, the scientific and technical justification of this assumption is not made explicit. It would advisable to add clarifications on the following specific points

a) Economic utilization of most of the listed species is already in practice. In most cases, it is based on captive breeding more than in ranching of free or semi-captive populations (see previous Probides experience, for example). Captive breeding has limited influence in land-use practices. More details are needed to understand how captive breeding will improve biodiversity conservation and how it will be integrated in practice with other land-uses.

b) Other wildlife species widely used in "sport-hunting tourism" activities are not included in the proposal (particularly doves). They are becoming a very important economic activity in Uruguay.

c) No actions are considered for the protection of threatened or endangered species. For example, a specific management plan for such a charismatic species as the Pampas deer would be expected as an important component of this project. This valid also for other typical grassland species such as the Red Tinamou (*Rhynchotus rufescens*) and *Sporophila* grass-eater birds.

d) The same applies for native grass and herb species. Many of them have considerable potential for pastures, although in many cases adequate research is lacking, despite important efforts made by several Uruguayan academic and research groups. As mentioned earlier, overgrazing and expansion of introduced pastures threatens survival of native grass species.

e) Lack of any consideration on protected areas in this proposal weakens the scientific and technical soundness of the project, particularly because it is based on a holistic, landscape-based approach. Grasslands and savannas are extremely endangered ecosystems around the world. Unless some action is taken, it is very likely those native grasslands in Uruguay (and its associated fauna like the Pampas deer) may disappear, as already happened in the Argentinean pampas. This unique opportunity deserves careful consideration. Moreover, the need for protected areas is also supported by the priorities and criteria stated in Uruguay's National Biodiversity Strategy for *in situ* conservation.

RESPONSE: All these aspects are already in part considered in the full proposal but the recommendations are pertinent to produce a better document. Support to captive breeding is expected to be limited as the project aims to support either ranching operations requiring habitat management, or farming operations in liaison with other operations requiring habitat conservation. Game and other species with hunting potential are included and the full proposal addresses these opportunities for the country, including pigeons and doves, an important economic activity in the grassland ecosystem, generating chances to amalgamate management of population levels with income generation. Threatened or endangered species have a special consideration, in particular efforts are being placed on the charismatic Pampas deer for which plans to find compatibility between pasture production for livestock and Pampas survival as being both part of the landscape. The same applies for the Red Tinamou (*Rhynchotus rufescens*) and *Sporophila* grass-eater birds, native grass and herb species for which special plans will be developed in cooperation with stakeholders especially trying to bring together the Academia and NGOs. Regarding the lack of any consideration on PAs, the proposal addresses in its concept the existence of a very weak system of protected areas and a legal framework that is not conducive to any significant change to the current status. The government of Uruguay is convinced on the need to complement its fledging system of protected areas with aggressive conservation efforts outside the PAs. The key concept to achieve biodiversity conservation outside Uruguay's system of protected areas would be the promotion of biodiversity-compatible, multiple land-use practices, within a landscape approach. Under this approach, this project would work outside PAs and will promote the adoption of land-use practices that exploit the synergies that exist between biodiversity conservation and opportunities for rural income generation. Some of these practices of "integrated ecosystem management" may include a combination of the following land-uses: as a) maintenance of scenic beauty for rural tourism and recreation, b) wildlife ranching, c) integrated savanna ecosystem management, d) silvopastoril systems, e) wildlife hunting.

Feasibility analysis

The proposal does not make clear the specific strategy to be used to promote Integrated Ecosystem and Natural Resources Management in Uruguay, besides extension and outreach (courses, workshops, etc.) and support for initiatives at individual property level. However, it is clear that it in most cases, unless

some corrective policy is in place, commodity prices will dictate land-use preferences despite the conservation and sustainability values of other alternatives.

The same consideration applies for organizing the landscape at scales over the individual property (basin or any other management unit), one of the key aspects of the integrated ecosystem management approach driving this proposal. The general trend in Latin America is that, because of an almost complete lack of effective land-use planning policies, the landscape structure is driven almost exclusively by market forces. It would be useful if consideration and analysis were given to incentive mechanisms that Uruguay could apply to promote sustainable, conservation friendly land use at the landscape/basin scale. Moreover, these considerations should be matched against existing incentives for alternative land-uses, such as Eucalyptus plantations. Perhaps a consultant in this area could provide useful contributions.

Some statements in the proposal may answer my previous considerations, but unfortunately they do not provide enough details*: "Some of these practices of integrated ecosystem management will include a combination of various land-uses, whose relative emphases will be determined by the local conditions, the feasibility of implementing an* ***incentive framework****, the ability for market-based mechanisms to support these land-uses, and their relative contribution to conservation"*

RESPONSE: This proposal has been produced as a result of many years of working with the GOU and including a focus on incentives should have to be consulted with the national authorities regarding a particular consultancy on environmental services, it was concluded that the incentives based on tax considerations was not appropriate at present. Despite this the project would support the development and implementation of some innovative economic tools and approaches (such as promotion of market development and business opportunities, biodiversity-friendly production systems, consumer awareness-building, and others) as well as the creation of new incentives mainly based on development of necessary human and institutional capacities to promote sustainable solutions in agricultural biodiversity conservation, including training, demonstration, technology transfer etc.

Adequacy and cost-effectiveness of the project design

According with the information presented, the project design is sound and has good possibilities of achieving its goals. The fact that both the development and conservation agencies in Uruguay work in coordination increases the chances of effective implementation of the proposed actions.

My only comment regarding this topic is the apparent lack of adaptive research needed for adapting the proposed actions that will emerge from the consultancies to the Uruguayan conditions. My impression is that development of new production alternatives and/or their integration in existing production items inevitably require adaptive research. This research appears necessary in between the recommendations made by the consultant and the practical, generalized implementation of the corresponding practices. This gap would require some kind of experimental and development period, probably in close connection with academic and research organizations such as universities, INIA, etc. Moreover, this research may also contribute to improve the monitoring component of the project. An additional benefit of this approach would be to help to develop local expertise in Integrated Ecosystem and Natural Resources Management in Uruguay.

RESPONSE: Though adaptive research was one of the tools and mechanisms to achieve the goals, given the pertinent reviewers' comments, this will be addressed during the coming weeks and given much more importance before the appraisal mission to be consistent with the strategy of the project.

Miscellaneous comments

1) ***Title***: the project title is very wide in scope and does not reflect exactly its goals. My suggestion is to consider a more focused alternative.

2) ***Connection between this project and Prenador*** should be made more explicit. As stated, it appears like if more irrigation projects will be developed with some consideration to the environment, but the articulation with integrated ecosystem management is not clear besides the following very general statement. *"This GEF project is fully-blended with an IBRD loan that will promote the adoption of integrated production systems in agricultural production systems and livestock landscapes to increase productivity within a holistic ecosystem and natural resources management while conserving soils, water, grasslands and biodiversity. "* More specific details would be useful to clarify the articulation between these projects.

3) ***Carbon balance and methane***. The proposal states that *"Since the emission of both gases are the result of inefficiencies in the production system, a reduction of the emissions would also lead to better results for the farmers (higher nitrogen use efficiency, and more efficient conversion of animal feed into milk, meat, and wool.*)". Please consider also that the solution proposed is an increased N fertilization and replacement of native grasslands, which conflicts with the following statement also in the proposal: *"farmers seek increasing productivity levels and therefore, introduce exotic grasses and legumes and apply fertilizers in the natural rangelands. These practices result in higher livestock productivity levels and consequently increased farmer's income. On the other hand, alterations of the natural rangelands represent a clear threat to preserving native species and reducing biodiversity."*

4) ***Carbon balance***: Any analysis of carbon balance in rural Uruguay should include forest plantations of introduced species and agricultural areas, and not only native grasslands and savannas. Another point of concern is to what extent a consultancy and the use of general models may replace the basic research needed to assess carbon balance in Uruguay with the required accuracy. Here again, a research component appears necessary.

RESPONSE: All these recommendations will be considered during the final phases of project preparation. Especially regarding the carbon balance, the project aims to create the capacity at the national level to prepare well sustained projects of carbon balance including the three main pillars of economic, environmental and social sustainability, based on research to have country information on carbon and carbon balance measurements. The link with the loan financed components and how the synergies are expressed will be better described in the project Summary and Brief.

Feasibility of implementation, operation and sustainability

According with the strategy adopted in the proposal, implementation, operation and maintenance in the long term appear feasible. However, a critical question is whether innovative concepts in integrated ecosystem and natural resource management will be permanently adopted by Uruguay's government structure and the local communities. That would probably require further steps and projects according with the results obtained by this project.

Another critical question is which kind of land-use policy will be adopted in Uruguay taking into consideration the experiences gained in this stage. It would be advisable to consider these questions during the development of this project.

RESPONSE: This issue raised is also one raised during the project preparation phase and a key element for the sustainability of the practices to be carried out. The Ministry of Agriculture, Livestock and Fisheries has ratified its commitment to having this new holist approach to NRM management. Furthermore, the training and TA activities to be implemented as part of the support services component of the project would ensure long-term adoption of this integrated approach by beneficiaries.

Outputs.

Outputs are in general consistent with the project's goals, general strategy, and methodological approach. Please see also previous specific considerations.

Identification of the global environmental benefits and/or drawbacks

If this project is successful and protection and sustainable use of one of the last extensive, temperate grassland ecoregions remaining in South America is achieved, benefits would be outstanding. In my opinion, the opportunity is unique but greatly constrained by a very narrow time-window opportunity. The proposal fits adequately with GEF goals.

Replicability of the project

The project has clear value and feasibility for replicability in similar ecoregions of the world.

SECONDARY ISSUES

Linkages to other focal areas

The project clearly links with biodiversity, desertification, and climate change issues.

Other beneficial or damaging environmental effects

The project has the potential for bringing additional, positive effects to the region, including promotion of research on biodiversity and sustainable development ideas and practices in temperate ecosystems. It may also promote local public awareness on environmental issues, and integration of government agencies towards integrated regional management criteria and actions.

Degree of involvement of stakeholders in the project

Involvement of stakeholders seems satisfactory at the level of analysis presented in the report.

Capacity-building aspects

The proposed capacity building activities are useful and very broad in scope.

Annex 17: Maps

URUGUAY: Integrated Natural Resources and Biodiversity Management Project

MAP 1