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The World Bank

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Report No: 39628 AR

PROJECT APPRAISAL DCOUMENT

ON A

PROPOSED GRANT FROM THE
GLOBAL ENVIRONMENT FACILITY TRUST FUND

IN THE AMOUNT OF US\$7 MILLION

TO THE

ARGENTINE REPUBLIC

FOR THE

BIODIVERSITY CONSERVATION IN PRODUCTIVE FORESTRY LANDSCAPES
PROJECT

June 7, 2007

Sustainable Development Department
Argentina, Chile, Paraguay and Uruguay Country Management Unit
Latin America and the Caribbean Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective February 20, 2007)

Currency Unit = Peso
\$Peso 3.05 = US\$1
US\$ 0.3278 = AR\$1

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AA	Authorized Allocation
ACEN	Foundation for Conservation & Study of Nature
AECI	Spanish International Cooperation Agency
AGN	General Auditors Office of the Nation
ANPCyT	National Scientific Research & Technology Agency
APN	National Park Administration
BCP	Biodiversity Conservation Project
BNA	National Bank of Argentina
CAS	Country Assistance Strategy
CBD	Convention on Biological Diversity
CGN	General Accounting Office of the Nation
CFAA	Country Financial Accountability Assessment
CGIAR	Consultative Group of International Agricultural Research
CMU	Country Management Unit
COFEMA	Federal Council of the Environment in Argentina
CONICET	National Scientific Research & Technology Council
DF	Forestry Directorates at Federal level
DB	Forestry Directorates at Provincial level
EA	Environmental Analysis
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EOP	End of Project
FAO	Food and Agricultural Organization of United Nations
FM	Financial Management
FMR	Financial Management Report
FMS	Financial Management System
FONCyT	Fund for National Scientific Research & Technology
FSC	Forestry Stewardship Council
GDP	Gross Domestic Products
GEF	Global Environment Facility
GEFMSP	GEF Medium & Small Project
GEO	Global Environmental Objective
GIS	Geographic Information System
GoA	Government of Argentina

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GTZ	German Technical Cooperation Agency
IAU	Internal Audit Unit
IBRD	International Bank for Reconstruction & Development (the World Bank)
ICB	International Competitive Bidding
ICR	Implementation Completion Report
IDA	International Development Association
IDF	Institutional Development Fund
INIA	National Institute of Agricultural Research in Chile
INTA	National Institute for Agriculture & Technology
IPPF	Indigenous Peoples Participation Framework
IRR	Internal Rate of Return
IUFRO	International Union of Forestry Research Organizations
JICA	Japanese International Cooperation Agency
LAC	Latin America and the Caribbean
NAP	National Action Plan
NCB	National Competitive Bidding
NGO	Non-government Organization
NPV	Net Present Value
OP	Operational Policy
PAD	Project Appraisal Document
PMP	Pest Management Plan
POA	Annual Operational Plan
ROSC	Report on the Observation of standard & Codes
RPPF	Regimen of Promotion of Forest Plantation
SA	Special Account
SAGPyA	Secretariat of Agriculture, Livestock, Fisheries and Food
SAyDS	Secretariat of Environment & Sustainable Development
SBD	Standard Bidding Document
SFM	Sustainable Forestry Management
SIDIF	Integrated Financial Information System
SIGEN	General Syndicate of the Nation
SOE	Statement of Expenditure
SP-2	Strategic Priority 2
TA	Technical Assistance
UNCCD	UN Convention to Combat Desertification
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
WA	Withdrawal Application
WWF	World Wildlife Fund

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Task Team Leader:	Robert Ragland Davis

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ARGENTINA
Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

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ARGENTINA

**GEF BIODIVERSITY CONSERVATION IN PRODUCTIVE FORESTRY
LANDSCAPES PROJECT**

PROJECT APPRAISAL DOCUMENT

LATIN AMERICA AND CARIBBEAN

LCSAR

Date: June 7, 2007	Team Leader: Robert Ragland Davis
Country Director: Axel van Trotsenburg	Sectors: Forestry (75%);General agriculture, fishing and forestry sector (25%)
Sector Manager/Director: Ethel Sennhauser	Themes: Other environment and natural resources management (P);Other rural development (P);Participation and civic engagement (P)
Project ID: P094425	Environmental screening category: Partial Assessment
Focal Area: Biodiversity	
Lending Instrument: GEF Grant	

Project Financing Data

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

For Loans/Credits/Others:

Total Bank financing (US\$m.): US\$ 7 million (GEF Grant)

Proposed terms: GEF Grant

Financing Plan (US\$m)

Source	Local	Foreign	Total
BORROWER/RECIPIENT	4.74	0.00	4.74
GLOBAL ENVIRONMENT FACILITY	7.00	0.00	7.00
GLOBAL ENVIRONMENT - ASSOCIATED IBRD FUND	4.14	0.00	4.14
Total:	15.88	0.00	15.88

Grant Recipient: The Argentine Republic

Responsible Agency: Secretaría de Agricultura, Pesca, Ganadería y Alimentos

Director: Inga. Mirta Larrieu (54 11 4349 2103) milarr@mecon.gov.ar

Coordinator: Ernesto Andamatten (54 11 4103 3592) eandam@mecon.gov.ar

GEF Estimated disbursements (Bank FY/US\$m)

FY	I-08	II-08	I-09	II-09	I-10	II-10	I-11	II-11	I-12
Annual	0.60	0.60	0.80	0.70	1.00	1.00	1.00	0.80	0.50
Cumulative	0.60	1.20	2.00	2.70	3.70	4.70	5.70	6.50	7.00

Project implementation period: Start 08/26/07 End: 08/31/12

Expected effectiveness date: 08/26/07

Expected closing date: 31/01/13

Does the project depart from the CAS in content or other significant respects? <i>Ref. PAD A.3</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Does the project require any exceptions from Bank policies? <i>Ref. PAD D.7</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Have these been approved by Bank management?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is approval for any policy exception sought from the Board?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does the project include any critical risks rated "substantial" or "high"? <i>Ref. PAD C.5</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the project meet the Regional criteria for readiness for implementation? <i>Ref. PAD D.7</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Project development objective <i>Ref. PAD B.2, Technical Annex 3</i> Promote mainstreaming of biodiversity conservation into the plantation forestry sector of Argentina.	
Global Environment objective <i>Ref. PAD B.2, Technical Annex 3</i> To conserve globally and regionally significant biodiversity in production landscapes located in critical Argentine ecosystems.	
Project description <i>Ref. PAD B.3.a, Technical Annex 4</i> 1) <u>Institutional Development</u> : This component aims to create the required capacity at federal and provincial levels of government to spearhead the mainstreaming process. 2) <u>Development and dissemination of biodiversity-responsible plantation practices and technology transfer</u> : The component will document and disseminate improved forestry practices that integrate biodiversity conservation with production. 3) <u>Support for the adoption of biodiversity-responsible plantation practices</u> : Support for a demand-driven program of grant supported subprojects will be included complemented by environmental education and monitoring – the objective being to support and compensate owners for the inclusion of biodiversity-friendly practices in production landscapes. 4) <u>Project Implementation, Monitoring and Evaluation</u> : Incremental costs associated with the project implementation, as well as setting up a system of monitoring and evaluation of outcomes, will be supported through this component.	
Which safeguard policies are triggered, if any? <i>Ref. PAD D.6, Technical Annex 10</i> 1) Environmental Assessment, OP/BP 4.01, 2) Natural Habitats, OP/BP 4.04, 3) Forests, OP/BP 4.36 and 4) Pest Management, OP 4.09	
Significant, non-standard conditions, if any , for: <i>Ref. PAD C.7</i> Board presentation: no exceptions Loan/credit effectiveness: no exceptions Covenants applicable to project implementation: none expected	

A. STRATEGIC CONTEXT AND RATIONALE

1. Country and sector issues

1. Argentina has a competitive advantage in plantation forestry. The country has outstanding growing conditions, expanses of good quality land with low opportunity cost, a reliable system of land titling, and good infrastructure. Capitalizing on these assets, the sector has advanced significantly in the past decade, with many signs pointing to plantation forestry's growing importance in the Argentine economy. Since 1995, more than 0.5 million ha of plantations have been established; in 2002, Argentina reversed a ten-year trade imbalance in wood products when imports fell and exports increased dramatically; and in 2004, the sector's contribution to the GDP rose to a record 2.1%. While such growth is positive, a balanced approach is vital – one that promotes economic growth, yet preserves and protects Argentina's natural resources, including its rich and abundant biodiversity.

2. The globally important ecosystems of Argentina that overlap with tree plantations include both forests and grasslands. Plantations extend to 1.2 million ha, and are mostly composed of exotic pines and eucalypts. Although this is only a small fraction compared to the country's 34 million ha of native forests, plantations now provide 80 to 90% of the domestic wood supply, and virtually all of wood exports. In the past, planting with pines replaced significant areas of the endangered Atlantic Forests in Misiones, but today most new planting occurs on grassland sites in Corrientes, Entre Rios, and Buenos Aires – areas traditionally used for grazing livestock. Smaller-scale planting is also occurring in the Andean valleys of northern Patagonia.

3. Eight of the 18 ecoregions identified in Argentina have been classified as among the highest priorities for conservation in the Neotropics by a World Bank-World Wildlife Fund priority setting exercise. The high levels of biodiversity and urgent threats to the Atlantic Forest and the Valdivian Forests also led Conservation International to include these ecoregions among the five “hotspots” of South America, placing them among the highest global conservation priorities. These forest ecoregions include the Alto Parana Atlantic Forest and Valdivian Forests, both of which contain vulnerable, threatened and endangered species.

4. Many of Argentina's extensive grassland ecosystems provide excellent conditions for the cultivation of trees. At the same time, they are also important for protecting resident and migratory species of global concern. The wet grasslands of Entre Rios and Corrientes of the Mesopotamia ecoregion are considered part of an Endemic Bird Area by Birdlife International and provide a safe haven for globally threatened or range-restricted species of birds. The threatened grassland birds make up 41% of endangered species of the country. Argentina is second only to Brazil in total number of threatened Neotropical grassland species.¹

5. While the growing importance of plantation forestry in the Argentine economy and the potential for expansion can be viewed positively, there are drawbacks. The main risk stems from the low or nonexistent priority that private investors, seeking to maximize returns, assign to environmental values, while profit margins sit at the top rung of the ladder. Little government capacity is currently present for systematic planning that incorporates biodiversity conservation into productive landscapes. Furthermore, professionals are not trained in appropriate techniques,

¹ Wege, D. and Long, A. (1995). Key Areas for Threatened Birds of the Neotropics. Cambridge, UK. Birdlife International

and the regulatory framework is inadequate for ensuring biodiversity conservation outside of protected areas. Some growing corporate interest in minimizing the environmental impacts of plantations is evident by the recent certification of several corporations in northeastern Argentina. However, these efforts are still relatively isolated and limited in scope. What is needed is an institutionalized and systematic approach that promotes economic development while preserving Argentina's rich heritage of natural resources, including biodiversity, which have historically fostered the country's growth.

6. Properly managed, plantation forests do not have to compromise biodiversity and can provide multiple values: restoring degraded and fragmented landscapes; creating conditions in soils and the understory favorable to biodiversity; and providing critical ecosystem services, such as watershed protection and carbon sequestration. Plantations (both native and exotic) can even serve as important habitats and biological corridors for animal populations. Furthermore, plantations reduce deforestation, because they—rather than native forests—have become the primary source of the country's wood supply and provide virtually all of wood for exports.

7. The proposed GEF Biodiversity Conservation in Productive Forestry Landscapes Project has been carefully designed to help achieve an economic-environmental balance by mainstreaming biodiversity conservation into plantation forestry practices. This will not only help strengthen capacities within the expanding plantation sector, but will also ensure that future economic contributions go hand in hand with the protection of globally and regionally important biodiversity. By integrating and institutionalizing conservation into plantation development and providing the tools, knowledge, and incentives to land owners and policy makers, this project will contribute to Argentina's national development, while fostering environmental sustainability and biodiversity conservation.

Country Eligibility and Country Drivenness

8. Argentina signed the Convention on Biological Diversity on June 12, 1992. It was ratified by National Law 24375 on November 22, 1994. Argentina has also ratified the UN Convention to Combat Desertification on June 1, 1997.

9. The proposed project is to be partially-blended with the Sustainable Natural Resources Management project which is to be financed by an IBRD loan and which is presently being prepared by Secretariat of Agriculture, Livestock, and Fisheries (SAGPyA, for its acronym in Spanish) with the assistance of the World Bank. The project is consistent with national priorities in both the conservation and the forestry sectors, complements other GEF supported initiatives in Argentina and builds on successful experiences and lessons learned over the last decade in the forestry sector.

10. The government of Argentina's (GoA) commitment to sustainable and equitable development of plantation forestry has been demonstrated during the implementation of the Forestry Development Project (LN 3948 AR). Despite difficult country conditions, the project succeeded in improving the policy and legal frameworks, carrying out a national plantation inventory, generating important applied research information, creating the nucleus of a forestry extension system, improving the quality of planting seed, establishing a certified seed service, testing the viability of developing small holder agro-forestry systems, and in strengthening

institutions. In addition, the project stimulated interest in the SAGPyA in forestry related poverty alleviation initiatives and has laid the foundations of a solid forestry research capacity in Argentina.

11. The proposal is also consistent with the National Biodiversity Strategy adopted in 2003 by the Secretary of Environment and Sustainable Development (Resolution 91/03). This document provides the policy framework and priority setting for biodiversity conservation in Argentina in its many possible forms under the CBD. Sections I (institutional and policy framework), II (objective 1.2 on sustainable use of biological resources) and III (biological diversity and agroecosystems) have been considered and duly incorporated in the project design.

12. Several aspects of the proposal are consistent with the National Action Plan (NAP) prepared by Argentina within the context of the United Nations Convention to Combat Desertification (UNCCD), especially the priority activities the Patagonian ecoregion, including NAP sections 1 through 5 and section 9, regarding environmental education, monitoring systems, environmental information gathering and dissemination, sustainable land management, and civil society strengthening.

2. Rationale for Bank involvement

13. In order to address the challenges of integrating environmental concerns into plantation forestry, and recognizing the key role the Bank has played in the environment and natural resource sectors in Argentina, the GoA has requested the Bank to finance a new forestry project beginning in 2007. Both the proposed loan project and the proposed GEF project are included in the 2004 Country Assistance Strategy (CAS). The World Bank's extensive experience in implementing biodiversity, forestry, and natural resource management projects in Argentina, and its strong relationships with national and provincial authorities, give it strong comparative advantages as an implementing agency.

14. The Bank's Forestry Development Project, which, as the first ever forestry project financed by the Bank in Argentina, focused on improving the sustainable growth of plantations and provided numerous lessons-learned which have been incorporated into the project. The Bank is also implementing the Native Forests and Protected Areas Project, which focuses on policy, norms, research and information. Both projects have provided useful inputs into the next phase of project development. The World Bank has also implemented numerous GEF biodiversity projects in Argentina and the rest of the Southern Cone, including the Biodiversity Conservation Project (BCP), Biodiversity Conservation Mid-Sized Project in Chile in the Valdivian Region of Chile, and the Environmental Protection and Sustainable Development of the Guarani Aquifer regional project. These projects have allowed the Bank to build the knowledge base and relationships which are critical to the preparation and implementation of a successful project which will integrate the biodiversity and forestry sectors in Argentina for the first time.

15. Finally, to build on the successes of the recently completed Forestry Development Project, the Bank is preparing a follow-on operation, the Sustainable Natural Resources Management Project, with which the proposed GEF project is partially blended. By having one Bank team responsible for preparing and supervising both projects, a high degree of synergy and

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

3. Higher level objectives to which the project contributes

16. The Government of Argentina, through the Ministry of Economy and Production, confirmed its interest in a new forestry project during the CAS discussions, and the proposal is registered in the 2004 CAS (approved by the Board on 15 April 2004). The GEF-funded project is included in the CAS under *The Global Financing of Environment Investments in Argentina*.

17. The proposal is also consistent with the National Biodiversity Strategy adopted in 2003 by the Secretary of Environment and Sustainable Development (Resolution 91/03). This provides the policy framework and priority setting for biodiversity conservation in Argentina in its many possible forms under the CBD. Sections I (institutional and policy framework), II (objective 1.2 on sustainable use of biological resources) and III (biological diversity and agroecosystems) have been considered and duly incorporated in the project design.

18. The proposed project is consistent with the GEF Operational Programs for Forest Ecosystems (OP3) and Semi-Arid Ecosystems (OP1). The project responds specifically to the second objectives of OP3 and OP1, which specify that the sustainable use of forest and other natural resources will be sought by combining production, socio-economic, and biodiversity goals. The Operational Strategy calls for a range of uses from strict protection on reserves through various forms of multiple-use from conservation easements to full scale use.

19. The project also contributes directly to the GEF's Biodiversity Strategic Priority 2 - Mainstreaming Biodiversity in Production Landscapes and Sectors. Specifically in regard to priority areas for GEF intervention², component 1 will address strengthening capacity at the systemic level including establishment of policies that favor biodiversity conservation. In regard to sector planning, Component 1 will provide incremental funding for preparing the tools to guide producers and decision-makers regarding globally important habitat, endangered species, corridors, and other information relevant to biodiversity conservation. Because not all situations will be win-win for mainstreaming biodiversity with sustained economic gains, the component will provide important tools to strategically guide plantations away from sensitive areas and to help find ways to institutionalization incentive programs to compensate for the costs to production. Component 2 will look at developing best management practice guidelines specifically for the plantation forestry sector and disseminating the practices (as related to the strengthening capacities and improving production practice priority areas of mainstreaming). Component 3 will address priorities of improving production practice and advancing supply chain initiatives through the adaptation of production with small and medium producers while supporting voluntary measures and partnerships for biodiversity conservation and best practices with larger producers.

20. The project is consistent with the guidance of the Convention on Biological Diversity, in particular the guidance of the CBD COP 7 (decision VII/11) in regard to sustainable forest management under the ecosystem approach and the associated 12 principles delineated in that

² STAP. 2004. Mainstreaming Biodiversity in Production Landscapes and Sectors (Interim) Report. GEF.

decision (UNEP/CBD/COP/7/21 Decision VII/11 annex II). In addition, the Convention on Biological Diversity, in its technical document “*Assessment, Conservation and Sustainable Use of Forest Biodiversity* (2001), highlights the potential for corridors as a “win-win” solution for biodiversity in plantation landscapes, a measure which is also contemplated in the proposed GEF increment.

21. The GEF Biodiversity Conservation in Productive Forestry Landscapes Project is fully compatible with the Bank’s new forestry strategy, *Sustaining Forests: A Development Strategy* (2002), as well as with Bank’s recently issued rural strategy for Latin America and the Caribbean (LAC) *Reaching the Rural Poor: A Rural Development Strategy for the Latin America and Caribbean Region* (2002). In addition, the project is also compatible with the World Bank LAC Region’s environment strategy (2002), *Making Sustainable Commitments – An Environment Strategy for the World Bank*. Finally, the project will aim to tie in with the recently initiated World Bank initiative Forest Law Enforcement and Governance (FLEG). This effort will provide consultation fora for countries to discuss governance and enforcement issues with other country representatives in the region, and to share experiences and lessons learned that might be useful in Argentina’s own efforts to take action to address forest-associated crimes. The FLEG emphasizes partnership between governments, civil society and the private sector for improved governance of the forest sector.

B. PROJECT DESCRIPTION

1. Lending instrument

22. The proposed 5 year GEF Biodiversity Conservation in Productive Forestry Landscapes Project will be financed by a US\$7 million grant from the GEF. This grant will be blended with the proposed \$113 million IBRD Sustainable Natural Resources Management Project. (For reasons of timing, the projects are considered partially-blended.) An estimated \$4.14 million of this loan will contribute directly to the global environment objective of the GEF project, and is therefore considered cofinancing. The federal government, as recipient, will provide US\$1.74 million in counterpart funding. Beneficiaries will provide additional co-financing of US\$3.0 million. (Co-financing will be a requirement of subproject eligibility.) The total project cost for the GEF Biodiversity Conservation in Productive Forestry Landscapes Project, including IBRD co-financing, beneficiary and counterpart financing, will therefore be US\$15.8 million.

2. Program objective and Phases

23. The proposed project is not formally part of a larger program.

3. Project development objective and key indicators

24. The project’s Global Environment Objective (GEO) is to increase integration of biodiversity-responsible³ practices and policies into the plantation-forestry sector at the national level and in select provinces. Intermediate results for each component have been included in Section 4 of this document.

³ The term “biodiversity-responsible” is used in the present document in reference to policies and practices that are compatible with the maintenance of biodiversity at a landscape, ecosystem, or species level depending on the context.

25. The proposed GEF Biodiversity Conservation in Productive Forestry Landscapes Project will promote the mainstreaming of biodiversity conservation into plantation forestry practices, thus creating productive options that are both economically and ecologically viable. The project will show that, when properly managed, plantation forests do not compromise biodiversity and do provide multiple values: restoring degraded and fragmented landscapes; creating conditions in soils and the understory favorable to biodiversity; and providing critical ecosystem services, such as watershed protection and carbon sequestration. Plantations can even serve as important habitats and biological corridors for animal populations. By piloting innovative planning and management techniques and supporting their incorporation into both government regulations and private sector practices, the project will help ensure that the future economic contributions of the forestry sector go hand in hand with the protection of globally and regionally important biodiversity in Argentina. By integrating and institutionalizing conservation into plantation development and providing the tools, knowledge, and incentives to land owners and policy makers, this project will contribute to Argentina's national development, while fostering environmental sustainability and biodiversity conservation.

Associated Project

26. The GEF Project is partially-blended with an US\$ 113 million IBRD loan for the Sustainable Natural Resources Management Project which has a Project Development Objective to improve the management and conservation of natural resources, foster rural development and enhance the environmental values of management practices that are dependent upon Argentina's natural resources. This it would do by improving the policy framework, strengthening institutional capacity at federal and provincial levels, improving information delivery services, facilitating the involvement of small and medium-scale farmers, land owners and producers in environmentally-sustainable forms of forestry, agriculture and agro forestry, by institutionalizing environmental safeguards and incorporating best practices into activities which draw on the natural resource base, strategic planning, and by encouraging more private-sector involvement in service provision.

27. The project would also implement major efforts to secure and manage a biological-sustainable use corridor in the Chaco to extend to the frontier with Paraguay and Bolivia. The Copo National Park, already established through the GEF Project TF 028372, would serve as one of the nuclei for the corridor and provide a staging area for outreach for sustainable management and conservation activities to be implemented with provincial and federal support.

28. Project efforts would focus on (i) the rural poor, whose livelihoods depend on agriculture; (ii) medium- and small-scale producers in the forest sector, with limited access to technology needed for improving productivity; and (iii) innovative medium-scale farmers working in silvo-pastoral systems. In addition, the project would aim to bolster the technical capacity and outreach of federal and provincial organizations working in natural resource issues to provide technical, policy and regulatory leadership within the field of natural resource management.

Project Area

29. The project sites have been selected based on two key criteria: a) the current or potential importance of plantation forestry and b) presence of globally significant biodiversity of conservation importance. In addition, the baseline biodiversity studies looked at endangered and

endemic species distribution as well as critical habitat within globally important ecosystems. Specifically, the project will work in Misiones, Corrientes, Entre Rios, and Buenos Aires provinces, and will include clearly focused target activities in the Patagonian provinces of Neuquen, Rio Negro, and Chubut. Among the ecosystems represented within the project area are the Interior Atlantic Forest, Humid Chaco, Humid Pampas, Paraná Flooded Savannas, and Southern Cone Mesopotamian Savannas. Further details are provided on the selection criteria in Annex 17.

4. Components of the GEF project

30. To address the need to integrate biodiversity conservation into plantation development, the project has four components (see Annex 4 for detailed component and subcomponent descriptions, and Annex 5 for a table of component costs, including cofinancing):

31. Component 1 – Institutional capacities strengthened: This component aims to create the required capacity at federal and provincial levels of government within environmental and forestry agencies to spearhead the biodiversity mainstreaming process. Specialized in-depth training on biodiversity and ecosystem integrity and management, enrichment planting, environmental impact assessments and strategic environmental assessments, and best practices for forest plantations will be provided for senior federal and provincial officials, as well as for researchers and extension agents. Financing will support the development and extension of biodiversity-conservation techniques to be integrated into production practices. The component will also seek to improve and update the legal and policy frameworks needed to improve sustainable plantation planning and establishment, and invest in tools critical to biodiversity-responsible plantation location and design. This includes contributing to the dialog on the legislation which will replace Law 25.080, which expires in 2009. Through broad stakeholder participation and technical analysis, maps and ecoregional planning tools will be produced and disseminated for guiding government plantation promotion, as well as for orienting ongoing private sector investments. Strategic Environmental Impact Assessments also will be carried out in the project ecoregions to ascertain the broader impacts of forestry activities on the ecosystem. Key activities include:

- Capacity Building for plantation related biodiversity conservation
- Planning processes, maps and tools developed for plantation related biodiversity conservation
- Policies and forest sector studies for biodiversity mainstreaming in plantations
- Provision of information systems and integration of native forests and plantations databases for monitoring habitat changes.
- Study tours of national and provincial forestry officials to observe best practices and ecoregional planning and management.

32. Component 2 – Development and dissemination of biodiversity-responsible plantation practices and technology transfer: This component will document and disseminate improved forestry practices that integrate conservation with production. A special focus will be placed on practices for establishing native and mixed species plantations (within forest ecosystem settings), opening up the understory to the surrounding ecosystem, and creating set asides among approaches that maintain or enhance native ecosystem biodiversity. The economic and

biodiversity conservation implications of these practices will be monitored through Component 4. Native seed banks and nurseries will be supported, and field trials carried out to analyze different management approaches. Workshops will be held to bring together the private sector (small, medium, and large-scale producers) and public (provincial and federal) sector, as well as academia and NGOs, to discuss the establishment of standards for biodiversity-responsible practices in the forestry sector and to disseminate best practices drawn from studies and field trials. The dialog on best practices will be continued and expanded at a major international workshop linked to the World Forestry Congress to be held in Argentina in 2009, which will disseminate the mainstreaming approaches advanced with the GEF supported project. Key activities include:

- Development of standards and best practices for biodiversity in plantation settings
- Technology Transfer and extension systems for producers that incorporate biodiversity conservation
- Development and strengthening of program for forestry schools and universities

33. Component 3 – Support for the adoption of biodiversity-responsible plantation practices:

Under this subcomponent, SAGPyA and its counterpart institutions will undertake activities designed to identify and test biodiversity-responsible land use practices in high priority areas, or targeting threatened biodiversity, in the production landscape. Specifically, resources will be made available to support activities intended to promote changes in the production landscape in target areas, leading to maintenance or enhancing biodiversity of global importance and sustained economic development that is compatible with conservation objectives. The subcomponent will support improved community and land-holder practices through targeted interventions that revolve around plantation forestry concerns, and will seek to ameliorate threats to globally important biodiversity through environmental education and field extension. As the project will engage small-, medium- and large-scale producers, each of which has very different needs and resources, the project includes two sets of complementary approaches. For small- and medium-scale producers, a demand-driven program of grant-supported subprojects will be included, complemented by environmental education and monitoring of the biodiversity impacts of the subprojects and generating lessons-learned from the approaches taken. The objective of these subprojects is to support owners who are piloting the inclusion of biodiversity-responsible practices in production landscapes. The component will also facilitate dialog with large producers on conservation practices, standards, and certification, and provide technical assistance (though not financing) needed to promote the inclusion of biodiversity-responsible techniques.

34. Pilot activities will consist of financing a variety of interventions aimed at catalyzing or directly improving biodiversity conservation in or near the high-priority conservation areas identified in preparation, or later on during the detailed land-capability zoning exercise. For small- and medium-scale land holders, broad lines of interventions eligible for financing include biodiversity-responsible planting, silviculture and establishment of agro-forestry systems. Funding for this sub-component will be made available through competitive, cost-sharing basis to NGOs, universities, and government agencies working in collaboration with local land owners or rural communities. Key activities include:

- Grants and TA to small and medium-sized producers to provide incremental costs of, *inter alia*, establishing and developing native and mixed species plantations, implementing

biodiversity-enhancing management, establishing corridors, and agroforestry systems in forest ecosystems.

- Environmental education campaigns and outreach programs
- Dialogue with large producers to encourage them to incorporate adjustments to field practice to conserve or restore globally important habitat and threatened species.
- Fostering establishment of public and private protected areas within the plantation forestry landscape

35. Component 4 – Project Implementation, Monitoring and Evaluation: The incremental costs associated with the project implementation, as well as with setting up a system of monitoring and evaluation of outcomes, will be supported through this component. The GEF will also provide support to SAGPyA for these incremental costs. This component will also cover baseline information collection, mid-term evaluation, and final evaluation under the Monitoring and Evaluation program for the project (see also annex 3 Results Framework and Monitoring). With regard to globally significant biodiversity and benefits from the project, several components of the monitoring program included in annex 3 will support this effort and are designed to support the tracking process of the GEF at a global level. The indicators include hectares under biodiversity-responsible or mainstreamed management, increase in protected areas in the production landscape, while the demand-driven projects and best practices may look at specific globally important species or taxa to monitor biodiversity effects at a smaller scale.

Key activities include:

- Grant Administration
- Monitoring and Evaluation

36. Key indicators for the GEO include:

- New forestry policies, regulatory frameworks, and/or promotion programs incorporate biodiversity conservation and sustainable use concepts at the federal level and in at least 3 provinces, from baseline 0;
- 7 of 7 provinces have identified critical natural habitats and included them in small-scale ecological maps;
- Eco-regional planning tools are in use in 3 provinces and at the federal level, from baseline 0;
- 70,000 ha in key areas benefiting from improved plantation management practices that incorporate biodiversity-responsible practices, from baseline 0; and
- Monitoring shows amelioration of threats to and improvements in ecosystem biodiversity (habitats of globally-important biodiversity indicator species) in production landscape.

37. Key impact indicators are:

Component 1: Strengthened federal, provincial and local forestry institutions integrate and promote biodiversity conservation in forestry plantations through:

- Ecological maps for 7 provinces planning and evaluating plantation projects in selected ecosystems of global importance developed with stakeholders and adopted at Federal and Provincial levels;

- 100% of designated representatives of national forest agency, 7 provincial environmental and/or forestry agencies, and participating extension agents trained to evaluate and supervise environmental impact assessments for biodiversity;
- 5 of 7 provincial environmental and/or forestry agencies employing strengthened biodiversity regulations in environmental impact assessment (EIA);
- 3 of 7 provincial governments have new draft policies for incorporating biodiversity concerns into plantation-forestry concerns; and
- New draft federal legislation to replace law 25.080 incorporates biodiversity concerns, as do associated new drafts of regulations.

Component 2: Improved development, validation, and dissemination of practices that conserve and restore biodiversity in target areas, including:

- The Advisory Commission for Law 25,080 regularly incorporates, by EOP, biodiversity-related subjects in its agenda;
- Best practices including native seedbank, ecosystem toolkits, and economic analysis developed for plantation ecosystems;
- Best practices disseminated to 3,500 forestry-sector stakeholders through extension programs in 7 provinces, an international conference, and university-level programs on biodiversity conservation and plantations;
- Increase in biodiversity levels, no. of small- and medium-producers incorporating biodiversity conservation in plantation landscapes by end of project; and
- Seed bank networks established in order to foment increase of no. of nurseries providing native spp. From 18 to 36.

Component 3: Small, medium and large producers adopting best practices for biodiversity-responsible plantations, as evidenced by:

- At least 20,000 hectares of small and medium producers have been supported in implementing agro-forestry (Misiones) or best management practices for biodiversity conservation (Patagonia and Mesopotamia);
- Changes in levels of biodiversity awareness as surveyed in targeted subproject areas in Y02 and Y04 increases 50% over baseline;
- At least 50,000 hectares of large plantations (>1000 ha) are incorporating biodiversity-responsible practices and planning within ecoregions of global importance;
- Baseline studies and public discussions for establishment of 7 new protected areas in the productive landscape.

Component 4: Mainstreaming program is effectively managed, with strengthened institutional monitoring and evaluation capacities, as seen by:

- Project management system working efficiently, according to World Bank rules and federal law. To be measured by output indicators such as audits, disbursement reports, reports, etc; SAGPyA's monitoring system up and running, monitoring and evaluation findings incorporated into ongoing programs, and partnership arrangements exist in at least one participating province.

5. Lessons learned and reflected in the project design

38. The proposed GEF Biodiversity Conservation in Productive Forestry Landscapes Project is considered highly innovative, and at the forefront of a new field. The first international conference on Biodiversity and Conservation Biology in Plantation Forests was just held in 2005; as of yet there are few examples of projects which seek to integrate biodiversity conservation wholly into the plantation forestry sector. In fact, one of the most attractive aspects of the current proposal is the ability to pilot approaches and techniques in this new field, and to generate lessons learned which can later be applied to the forestry sector in countries throughout the world.

39. As the proposed project is considered a demonstration project on the cutting edge of its field, there are not yet lessons learned from projects with the similar objectives which can be applied to this project. However, applicable lessons have been drawn from forestry and biodiversity projects and included in the project design.

40. The design of the proposed GEF project has been based on GEF-related experience from Argentina and on information derived from other relevant GEF and IBRD projects in the region. Key projects considered include the Argentina GEF Biodiversity Conservation Project, the Chile GEF Medium-Sized Project (MSP) Valdivian Forest Zone Project: Public-Private Mechanisms for Biodiversity Conservation in Region Ten, and the IBRD Argentina Forestry Development Project. In general lessons learned from these include (a) the need to work with private producers, including small- and medium-level producers, as well as NGO sectors in productive activities in order to achieve biodiversity conservation at the landscape level; (b) minimizing or eliminating risks for small producers in the adoption of new techniques; (c) including a strong field presence in the project design and implementation, (d) building on an established organizational base; (e) including, to the maximum extent possible, local experts, in the preparation; (f) ensuring broad stakeholder involvement from public, private and non-governmental organizations; and (g) strengthening monitoring and evaluation at the project level to provide more near real-time adjustments and feedback to project execution.

41. In preparing the GEF project, full advantage has been taken of lessons learned and relationships established under a number of successful projects in Argentina and elsewhere. Among these are the recently closed Forestry Development Project, which, as the first ever forestry project financed by the Bank in Argentina, focused among other things on improving the sustainable growth of plantations. The Bank is also implementing the Native Forests and Protected Areas Project, which focuses on policy, norms, research and information. Both projects have provided useful inputs into the next phase of project development. The proposed GEF project will also draw on the Global Overlays Program, which supported best practices at the country level, and GEF experiences in conservation in other countries. The proposed GEF project will also incorporate biodiversity “overlays” into national forestry sector programs and investments supported by the Bank.

42. The World Bank’s GEF Portfolio Implementation Review for 2005 supported the need to include mainstreaming into productive landscapes. “Although the global area in official protected areas has increased in recent years, it has become increasingly clear that protected areas in and of themselves will be insufficient to conserve all of the world’s biodiversity.

Growing population, the expansion in cultivated area, and increasing natural resource use will greatly limit the possibility of strict protection in the future. Even where species are limited to a particular area that can be strictly protected, the ecological processes that support them—fire, flood regimes, migration routes of seed dispersers—require management at a broader landscape scale. Effective biodiversity conservation across all ecological regions will require greater conservation efforts beyond the boundaries of protected area networks, through mainstreaming biodiversity within production landscapes- and water bodies.”

6. Alternatives considered and reasons for rejection

43. An option considered early on during the project design phase was to fully blend the GEF project with the IBRD loan for the new Sustainable Natural Resources Management Project. These two projects are highly complementary, have been developed in close coordination, and share project teams within the Bank and SAGPyA. However, the different timelines required to prepare the GEF and the IBRD loan projects made partial blending more practical, so as not to delay either project in moving forward. This partial blending does not affect the synergy between the two projects which will be executed in concert.

44. Another alternative considered was to execute the project activities at a national scale. However, the production landscape, as it relates to forestry plantations, is largely focused in the provinces of the northeast and in Patagonia. For this reason, it was decided to focus work primarily in the provinces of Entre Rios, Misiones and Corrientes, with complementary activities in other provinces where plantation forestry has the potential to have a high level of impact on biodiversity, even though it is now operating at a smaller scale. This will allow the project to have the greatest impact in areas where plantation forestry is already underway, while steering plantation development away from sensitive areas where biodiversity could be put at risk.

45. A third option considered was to implement Component 3 of the loan (Sustainable Production) largely through tightly-focused activities with specific organizations. However, it was decided that, by using a demand-driven process to stimulate proposals from interested actors, the project could generate a higher level of ownership among stakeholders, increase cofinancing by beneficiary organizations, and generate higher levels of interest from municipal and provincial governments.

C. IMPLEMENTATION

1. Partnership arrangements (if applicable)

46. The most important partnerships that the GEF project will establish will be with its counterpart IBRD loan operation for the Sustainable Natural Resources Management Project. These projects have been jointly prepared and will be implemented in close coordination, ensuring a strong integration of activities and objectives, and leveraging far greater resources than the GEF project could access alone.

47. The proposed project will also create formal and informal partnerships with private plantation owners and land holders, both large and small. These partnerships will create synergies that will hopefully generate a multiplier effect which will greatly increase the impact of the GEF intervention, and will help ensure that project objectives are fully integrated into the plantation forestry sector.

48. The project will also establish partnerships with important research institutes, as well as relevant departments within SAGPyA, provincial governments, universities, NGOs, and private producers. These relationships will allow the project to stimulate new techniques and methodologies, promote technical assistance and extension, and effectively implement project activities while helping guarantee the future sustainability of project achievements.

2. Institutional and implementation arrangements

49. The proposed GEF will be implemented by the federal Secretariat of Agriculture, Livestock, Fisheries, and Food (SAGPyA). A six person Project Implementation Unit (PIU) will be established in the Forestry Directorate, *Dirección de Forestación* (DF) which also be closely involved in the implementation of the project to ensure that the objectives of long-term mainstreaming and policy work proceeds smoothly. The overall coordinator will be the Director of the DF. The PIU will have overall responsibility for project financial management functions; comprising budgeting, accounting and reporting including preparation of interim unaudited financial reports (IUF), and flow of funds, as well as technical matters.

50. At the field level forestry extension agents of the proposed Sustainable Natural Resources Management Project will have a key role to play in integrating biodiversity conservation into training courses for private forestry extension workers, and in liaising and in providing feedback to the administrative unit. Applied research and studies on conservation will be funded competitively using the same procedures to be used for the forestry project.

51. The provincial administrations, through their Forestry Directorates (DB), will be involved in the execution of policy and planning related activities at the provincial and local levels. They will also benefit from biodiversity training and from having their natural resources data bases strengthened with biological information generated by the GEF incremental financing. They will be expected to take the lead in tabling any environmental issue at the provincial level discussion consultation fora (forestry roundtables) supported by the forestry project. In addition, the provincial level governments will also be eligible to present proposals for the small-farmer forestry components in Misiones and biodiversity mainstreaming projects in Patagonia.

52. Non-governmental organizations at federal and regional levels may take part in components such as environmental education, outreach, biodiversity monitoring, small-farmer initiatives, and other aspects specifically related to their expertise and interest. They will also participate in provincial forestry consultation fora (roundtables) to be established under the forestry project.

53. Academic institutions will participate in activities such as monitoring and evaluation, curricular reform activities, and potentially training efforts. Both regional and national level institutions are eligible, although for specific activities that require local presence or longer-term efforts, regional universities may be preferable.

54. Monitoring and evaluation, and dissemination of results will be undertaken by the administrative unit in SAGPyA. These processes will involve independent experts and possibly academic institutions that may have long-term monitoring efforts in place to maximize benefits

and relevance of the data generated and fosters the broad dissemination of lessons-learned. The SAGPyA administrative unit members will also be the counterparts for supervision missions.

3. Monitoring and evaluation of outcomes/results

55. Component 4 of the project supports the design and implementation of a robust and low-cost electronic environmental monitoring system which will ensure that the impacts of techniques and methodologies adopted in the forestry sector are positive for biodiversity. This system, which involves a joint effort between the government, private sector, NGOs and academia, will help make sure the results achieved under this project are sustained long after the close of the project.

56. Component 4 will also draw on the resources and experience of the SAGPyA, as well as specialized programs, consultancies, and participatory processes, to monitor and evaluate project results and impacts. Institutions with specific capacity in monitoring, evaluation and systematizing information such as the SAGPyA geoprocessing office, as well as other organizations including the academic sector, research organizations, and specialized NGOs, will be incorporated to help achieve project outcomes and objectives. The results of monitoring and evaluation will be disseminated at local, national and global levels to support the goals of sustainability, and will be incorporated as necessary into the project implementation strategy. Annex 3 of this document details the project monitoring strategy, including the use of the GEF SP2 Biodiversity Mainstreaming Tracking Tool.

57. Component 3 will include the monitoring of biodiversity in agroforestry and silvopastoral ecosystems in order to measure the impacts of different management techniques on species.

4. Sustainability and Replicability

Institutional Sustainability

58. Project design aims at ensuring sustainability by mainstreaming conservation into day-to-day plantation management, so that over the long-term the conservation of biodiversity is integrated into everyday practice. The focus on commercial plantations, economic incentives, partnerships, and win-win situations as the primary means of mainstreaming seeks to create a framework for sustainability. In addition, basic legal, policy, and law enforcement issues that may cause biodiversity loss in plantation forestry will also be analyzed and addressed. Partnerships with small and large producers, federal and provincial governments, and academia will underpin mainstreaming across a wide array of actors, thus strengthening the projects for sustainability beyond the project period. The creation and dissemination of environmental information and the results of monitoring will also help guarantee sustainability by raising biodiversity concerns in society at large.

59. Capacity building and awareness are an integral part of the project's sustainability. Technical specialists, policy makers, planners, producers and communities will be included in training, extension and education activities. An environmental education campaign will reach a larger population as well. By training not only current but also future generations of producers, policy makers, and researchers, the project will secure the adoption and mainstreaming of biodiversity by the wide range of involved stakeholders long into the future.

60. Project stakeholders, including producers, government officials, and NGO technical specialists, have already expressed an interest in incorporating the information which the proposed project will produce into their planning, and in applying new techniques for the development and management of plantations. To date it has been the lack of knowledge and information, rather than willingness to apply it that has been the primary problem in the sector. This suggests that project results will be well accepted and objectives internalized by the sector, both of which are highly positive for long-term sustainability.

Financial Sustainability

61. The proposed GEF Biodiversity Conservation in Productive Forestry Landscapes Project has been developed to foster financial as well as institutional sustainability, with low recurrent costs needed after project end, and a focus on economically-viable practices. The proposed project is designed to support a number of interventions with a high up-front investment that will provide long-term benefits at low recurrent costs. The provision of tools which will support the integration of biodiversity information into the plantation sector, collection of information, and activities such as mapping and zoning represent high initial costs, yet will shape the sector for decades to come with few additional investments. Similarly, by investing in capacity building and extension during the life of the project, the needed knowledge base to support the adoption of biodiversity-responsible techniques will be guaranteed. Once developed, this knowledge can be disseminated and applied indefinitely with little additional cost. Perhaps most importantly, the project will primarily support techniques and practices which are economically viable, thus allowing producers to make decisions that are both market- and biodiversity-responsible. The recurrent costs which will occur, including the maintenance of monitoring systems and continuance of training activities and consultation fora, are not expected to be substantially higher than the costs which would have occurred without the project, and are considered to be of a level that can be absorbed by the appropriate institution. The project will seek to develop long-term mechanisms to support and sustain those activities that are not win-win situations for producers but produce benefits for biodiversity. Such mechanisms include payment for environmental services and environmental funds, among others.

Replicability

62. The GEF project is also designed to be replicable, both within and outside of Argentina. The project will work with a diverse group of stakeholders including producers of different sizes, and in a variety of ecosystems, testing techniques for incorporating biodiversity conservation into plantation forestry. The end result is intended to be the generation of best practices for the sustainable management of plantation forests, for global, regional and local benefits. Because best practices will be generated for a variety of plantation sizes and ecosystems, those identified through the project will be appropriate for replication in diverse situations in Argentina and beyond.

63. Technology transfer will aim to ensure that information on best practices and from the results of field trials will be made easily available to a wide audience. Furthermore, training packages developed for both the public sector and other stakeholders will be made available for general use and distribution of information generally will be done through an institutional website. Linkages will also be made with universities and other research institutions, so as to disseminate information and results to researchers and teachers. There is also the potential to

involve other international organizations such as FAO and CGIAR, who have already expressed their interest. These and other organizations with activities in the region would be instrumental in replicating successful practices and utilizing lessons learned. Partnerships with producers and their associations may also become portals for dissemination of best practices based on successes that come out of the proposed program.

5. Critical Risks and possible controversial aspects

64. Although the proposed project has been well designed, certain risks are inherent. The principal potential risks that have been identified for the proposed project are:

- Producers may lack enthusiasm or find it difficult to adopt low-impact production methods necessary to favor biodiversity, as they will undoubtedly increase costs and reduce returns. They may also resent regulation that impedes their land use options. Consequently, to mainstream biodiversity into productive landscapes, incentives have been included to compensate participants for losses foregone. The project team has taken care in designing, consulting, and promoting an appropriate mix of regulation and incentives. Because this mix has been discussed in detail with stakeholders, the risk should be minimized.
- Institutional weaknesses, corruption, and heavy bureaucratic procedures may deter producers from participating. Institutional development, dialogue, robust monitoring system, consultation fora, and a clearly defined project area should minimize these risks.
- The policy environment may not be conducive to conservation in plantation areas, as current regulations and legislation, and subsidy programs do not provide incentives for adopting biodiversity- and ecosystem-responsible practices in the planning and management of plantation forests. To reduce this risk, the project will analyze the present policy environment and propose alternatives to national and provincial policies and incentives related to plantations that may adversely impact biodiversity. Policy reform, however, has shown to be challenging in the past, and to improve the chances of success consultation and consensus building with stakeholders and policy makers will be undertaken prior to any new draft legislation being presented to the Federal Council of the Environment in Argentina (COFEMA)⁴ and to Congress. This risk has been carefully analyzed and it has been determined that even if modifications to the current policy environment are less than expected under the proposed project, the project could still achieve the set objectives.
- Several components of the project require federal and provincial level coordination; this has its risks because few existing and effective models of cooperation presently exist in Argentina. In order to encourage cooperation and reduce risks, both the GEF and IBRD projects will take advantage of existing stakeholder fora, including regular forestry workshops (*jornadas forestales*) and the Advisory Commission for Law 25,080, and will create new consultation mechanisms when necessary in order to foster collaboration and

⁴ COFEMA is composed of the provincial ministers of the environment and the Federal Secretary of the Environment and provides the critical link between the federal and provincial government on environmental legislation.

build consensus on approaches to ensuring the environmental sustainability of plantation development and that biodiversity is taken into consideration in plantation activities.

- Despite the fact that forestry plantations are economically viable in Argentina, and are producing increased amounts of wood for the local and international markets, their impact on biodiversity and the environment has become increasingly controversial. This debate is likely to continue for sometime and could prove to be a risk to the project. In order to mitigate the effects of this, the project will draw on established scientific methods and techniques for conservation, and ensure that the consultation process through federal and provincial forestry consultation fora is open, inclusive and transparent, to ensure that the development of the plantation sector goes hand-in-hand with internationally acceptable standards for conservation.
- In consideration of the risks above, the World Bank runs a reputational risk in the execution of the project.

Risk	Rating	Comments
Low producer acceptance of project objectives	L	Producers have already shown great interest in working with project and in incorporating information and tools produced by project into plantation planning and management.
Institutional weakness deters producers from participating	M	Project will strengthen institutions through capacity building activities, provision of tools and information, and implementation of mechanisms to create dialog with producers.
Policy environment not conducive to biodiversity conservation in plantation areas	M	Project will work to strengthen the policy environment to improve incentives for conserving biodiversity in plantation areas.
Lack of federal and provincial coordination	M	Project will seek to strengthen and improve coordination among different levels of government that impact the forestry sector.
Work in biodiversity conservation in plantations seen as controversial	L	Consultations with numerous NGOs have been positive proactive NGOs are already working in this area.
Reputational Risk	L	The project is a “green project”, and is designed to provide benefits to the environment and people of Argentina. Productive sectors must be engaged proactively if biodiversity is to be mainstreamed.
Procurement	H	Staff in the procurement unit will participate in the Basic Procurement Training delivered by the Bank, the UDI will implement the SEPA system and an Operational Manual, acceptable to the Bank, has been finalized.

IBRD project delay in effectiveness	L	The Bank has received a formal notice from the GoA for authorizing the credit for the activities to be implemented through SAGPyA (USD \$25 million), of which 4.14 million will serve as co-financing for the GEF. Component preparation is near completion and scheduled for approval in 2007. The government agrees to execute the project with or without the IBRD loan.
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6. Loan/credit conditions and covenants

65. Loan covenants:

- (i) Section II, B.3 “Standard” wording for project audits. The annual audited financial statements will be furnished to the Bank not later than six months after the end of each year.
- ii) Section II, B.2 “Standard” wording for IUFs. Semiannual IUFs will be submitted to the Bank not later than 45 days after the end of each calendar semester and will be part of the progress reports of the project.

66. Loan dated covenant

- iii) A specific budget line entry for the project will be created in the annual budget 2008 and maintained thereafter to keep track of project’s budget execution processed in the Government Integrated Financial Management System (SIDIF).

D. APPRAISAL SUMMARY

1. Economic and financial analysis

67. The proposed project is a partially blended GEF operation with a total cost of \$15.8 million. The GEF is being requested to provide grant co-financing of \$7.00 million. The remaining co-financing is provided through the IBRD loan (\$2.74 million), counterpart financing (\$1.75 million) and beneficiary co-financing of subprojects (\$3.00 million). The cost-effectiveness analysis demonstrates that the project will apply the least-cost approach to reach the goal of biodiversity conservation in Argentina, which has global environmental impact. The government will benefit from the project support through capacity strengthening, which will be cost-saving for the policy-making and technology transfer process. Cost-effectiveness analysis also indicated that the use of existing research facilities and technical expertise to carry out field trials on biodiversity is a least-cost alternative compared to supporting a new institute.

68. A financial analysis was performed to evaluate various treatments for biodiversity conservation. The analysis showed that plantation of native species would reduce income compared to the plantation of exotic species. The project will be able to provide incremental cost investment in some targeted cases, as well as reform of government policies and programs to reflect these differential situations between natives and exotics, in order to overcome this situation effectively in benefit of biodiversity. In one case analyzed, less-dense plantations turned out to have a higher income compared with the traditional model, generating improved conditions for biodiversity as well. Other treatments of set asides, wildlife cuts, and restoration or creation of natural vegetation will also have an effect of reducing income. Adequate compensation measures will be analyzed particularly in Component 2, through both sector specific and plantation specific economic analyses that would provide sufficient incentives for

the producers to adopt the treatments proposed and trigger policy and draft legal reforms addressed in Component 1.

69. For a complete Incremental Cost Analysis, please see Annex 15.

2. Technical

70. Increasing world demand for wood and fiber, economic stability and Argentina's strong comparative advantage in plantation forestry are likely to combine to favor strong growth in the sector over the next ten years. While this growth will be advantageous to the economy it also poses potential risks to some of Argentina's most important biodiversity. This is because adequate safeguards do not currently exist to ensure that critical ecosystems are not damaged, or threatened or endangered species harmed, as a result of expansion. Because 95% of Argentina's land lies outside protected areas, and because many vulnerable ecosystems are located in the path of plantation expansion, it is critical that the shortcomings which place biodiversity at risk are addressed. This project has been designed to address these issues by promoting the mainstreaming of biodiversity in plantation forestry. Sustainability will be addressed by developing a dialogue and partnerships with the private sector and by involving provincial players. It will also capitalize on complementary initiatives being fostered by a partially-blended IBRD loan operation which includes the plantation sector.

3. Fiduciary

71. An assessment of the Financial Management (FM) arrangements for the proposed project was carried out in accordance with OP.BP 10.02 and applicable policies and guidelines. It can be concluded that the Secretariat through the PIU has adequate financial management arrangements in place that meet minimum Bank requirements. A qualified staff with previous project experience will be hired to undertake the financial management functions for the project. From the financial management view the project is considered a modest risk operation. A detailed risk assessment will be provided on the FM Assessment Report (FMA)

4. Social

72. The project will not only work on relevant policy and institutional issues, but it will also co-finance subprojects with beneficiaries to integrate biodiversity-conservation management practices into small-holder plantation forests. Primary beneficiaries of the project are plantation owners and farmers, with a strong emphasis toward small- and medium-size producers. National level stakeholders include public institutions involved in the development of policy and implementation of programs in the forestry sector and biodiversity including SAGPyA and INTA, as well as NGOs, research institutions, and universities. Local stakeholders include landowners, provincial governments and their extension agencies, landowner or producer associations, universities, forestry companies and plantation managers among others. All stakeholders have been consulted throughout the preparation process, and their views incorporated into the project design. Regular consultations with all stakeholders have also been built into the project implementation strategy. Though not required, an Indigenous Peoples Participation Framework (IPPF) has been prepared (Annex 19) and will be activated should an indigenous group apply for, and be selected to implement, a subproject under Component 3 (See screening trigger in Annex 18).

5. Environment

73. Additional information can be found in Annex 10: Safeguard Policy Issues. The Recipient has prepared an environmental assessment (EA) which found that the impact of the project on the environment is expected to be overwhelmingly positive. Some risks do exist, and provision for these has been made in an environmental management plan is being prepared to define mitigating measures, should the project fall out of compliance. The EM plan is complete with budget and institutional responsibilities for implementation and monitoring.

6. Safeguard policies

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

74. The safeguard screening category of the project is “S2”. The project is classified as Category “B”, requiring an Environmental Analysis (EA) but not a full-scale Environmental Assessment study. In accordance with OP 4.01, an Environmental Analysis is being carried out. While not required, an environmental management plan is being developed for the project and will be included in the Operational Manual. Important findings and useful recommendations from the EA are integrated into project design (see Annex 10).

7. Policy Exceptions and Readiness

75. The project meets the regional criteria for readiness for implementation. The fiduciary arrangements are in place. Key project staff and consultants can be quickly mobilized upon project start up. Adequate monitoring and evaluation capacity is available. The Environmental Analysis has been disclosed in the country and is available at the Bank’s Infoshop and on relevant web sites prior to appraisal.

* *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

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

ARGENTINA

1. Located in the southeastern quadrant of South America, Argentina is a land of both great natural wealth and human capital. Following a period of rapid economic growth in the 1990s, the economic crisis at the turn of the 21st century brought into the light numerous structural weaknesses in the Argentine engine. The economic crisis was followed by several years of economic contraction, falling real incomes, political rotation and social fracturing. Nevertheless since 2003, Argentina appears to be on the path of more stable economic growth, albeit within a different framework prior to the crisis, especially with respect to forestry. This has provided an opportunity to work with Argentine institutions at a moment of economic expansion and increased political stability.

2. Historically, Argentina's economy has been based mainly on the production and export of livestock and grain products. This over-dependence on a small number of primary products has left the country vulnerable to price and supply fluctuations, and has contributed to an erratic pattern of economic growth. Recognizing the dangers of a narrowly-based economy, the government and the private sector have been seeking to diversify. One area which offers considerable potential is forestry. Biophysical conditions in certain parts of Argentina are very favorable to forest plantations, particularly in the northeast and in the Patagonia Andes. Plantation development in these areas has strong comparative advantage and considerable potential to generate both economic growth and social benefits through taxation, exports, import substitution and employment.

ENVIRONMENTAL ISSUES

3. Stretching from the mountainous forests of the Yungas through the Chaco dry forests and famous Pampas savannahs, to the remnants of Atlantic and Valdivian humid forests, ending in the southernmost subarctic plains and glaciers of Tierra del Fuego, Argentina is rich in number and types of ecosystems. Of the 18 ecoregions identified in the country, eight have been classified as among the highest priorities for conservation in the Neotropics.⁵ The high levels of biodiversity and urgent threats to the Atlantic Forest and the Valdivian Forests have led Conservation International to include these ecoregions among the 5 "hotspots" of South America, placing them among the highest global conservation priorities.

4. Apart from the forest ecosystems, Argentina also harbors extensive grassland ecosystems important for the protection of resident and migratory species of global concern. Grasslands make up almost 60% of the country, significantly higher than the 33% average for South America. The wet grasslands of Entre Rios and Corrientes are considered part of an Endemic Bird Area by Birdlife International, harboring globally threatened or range-restricted species of

⁵ Dinnerstein, E. et al. (1995). A Conservation Assessment of the Terrestrial Ecoregions of Latin America and the Caribbean. Washington, DC. WWF-World Bank.

birds. The threatened grassland birds make up 41% of endangered species of the country. Argentina is second only to Brazil in total number of threatened Neotropical grassland species.⁶

5. Argentina has one of the oldest protected areas systems in the Americas with around 5% of its territory under legal protection at a National or Provincial level. However, like most countries, the greatest percentage of its biodiversity remains outside of the protected areas system. Private landowners hold about 95% of the national territory. A portion of these areas are protecting biodiversity through a small private reserves system managed by a national NGO, which covers some 50,000 hectares of the country, while private investors have purchased over 200,000 hectares in the Corrientes wetlands and the Delta region of Argentina. It is clear that a large portion of Argentina's globally and regionally important biodiversity is found outside of the public and private protected areas system.

6. Not coincidentally, the most threatened ecosystems in Argentina are associated with the greatest levels of population and agricultural development in the country. An estimated 70% of bird species are threatened, mainly by habitat loss. There is significant overlap of productive areas under management for livestock, agriculture and forestry with ecosystems that harbor important biodiversity. For example the Humid Pampas, which lacks any national protected area, is home to various endemic animals threatened by habitat destruction and degradation stemming primarily from agriculture and grazing within the ecosystem. While less than one half of one percent of the original native pampas remains in pristine condition, it still provides habitat to over 450 species of birds, as well as endangered species of global importance, including the Pampas Deer (*Ozotocerus bezoarcticus celer*), two types of the Loica Pampeana (*Sturnella defilippi* and *Laterallus spilopterus*), the Hudsonian Godwit (*Limosa haemastica*), the Ruddy-headed goose (*Chloephaga rubidiceps*), and the Speckled Crake (*Coturnicops notata*).⁷ Measures are badly needed to mainstream conservation practices into productive activities if biodiversity is to be protected.

ARGENTINE ECOSYSTEMS IN THE PRODUCTIVE LANDSCAPE

7. The globally important ecosystems of Argentina that overlap with tree plantations include both forests and grasslands. The forest ecosystems include the Alto Paraná Atlantic Forest and Valdivian Forests while the grassland/wetland ecosystems include the Mesopotamian Grasslands, Paraná Flooded Savanna, and Patagonian Steppe.

8. Plantation forestry is primarily expanding on grassland and wetland ecosystems at present, given that current legislation does not permit the transformation of forest ecosystems for subsidized planting. Other important portions of these forest ecosystems are dedicated to conservation of biodiversity through national and provincial protected areas. The financial returns of plantation forestry do not provide an economic incentive to deforest, contrary to the case of mechanized agriculture which continues to impact fragile forest ecosystems and grasslands especially in the Chaco, Monte and Espinal ecosystems.

⁶ Wege, D. and Long, A. (1995). Key Areas for Threatened Birds of the Neotropics. Cambridge, UK. Birdlife International

⁷ World Wildlife Fund. (2001). Humid Pampas (NT0803), Wild World WWF Full Report. Accessed March 2005. worldwildlife.org/wildworld/profiles/terrestrial/nt/

9. Alto Paraná Atlantic Forest. This ecosystem is almost entirely found within the province of Misiones. It consists of tall sub-tropical semi-deciduous forests reaching up to 40 m in height. Within the ecoregion there are several types of forest ranging from the Araucaria (an evergreen tree) forests in the more montane areas in Southern Misiones to the Rosewood and Palm forests (*Aspidosperma polyneuron* and *Euterpe edulis*) along the larger rivers bordering the province. The Alto Paraná Atlantic Forest ecoregion represents little over 1 percent of Argentina's total land mass; however it harbors almost 30 percent of its vascular plants and 50 percent of its vertebrates. Among the emblematic bird species of this ecoregion are the Bare-throated Bell Bird (*Procnias nudicollis*), the critically endangered Brazilian merganser (*Mergus octosetaceus*, also found in the Cerrado), Black-Fronted Piping Guan, and Vinaceous Amazon among the birds, and Giant Otter, Tapir, and Jaguar among the mammals.

10. Argentina has the largest remaining continuous tracts of the three countries that share this ecoregion (Brazil and Paraguay are the others). The ecoregion has been used since colonial days for timber extraction. Over the past 40 years, plantation forestry has had the greatest expansion within this ecoregion where deforestation was previously permitted to establish plantations with exotic pine and native Araucaria species.

11. Mesopotamian Grasslands. These grasslands cover the western quarter of Misiones Province and large part of Corrientes and Entre Rios Provinces. They consist of a complex of wetlands and grasslands that are considered to be part of an Endemic Bird Area by BirdLife International, harboring endemic species of avifauna that are also globally threatened. Several species of *Sporophila* seedeaters are present including the Marsh Seedeater (a regional migratory species) as well as the Saffron-cowled Blackbird (*Xanthopsar flavus*) and Strange-tailed Tyrant (*Alectrurus risora*). Although important parts of the wetlands are conserved (Ibera) in this ecoregion, much of the area classified as grasslands of importance still need protection, including the Aguapey River watershed where much of the plantation forestry in Corrientes province has occurred.

12. Paraná Flooded Savanna. This ecoregion is located south of the Mesopotamian grasslands in Argentina along the middle and lower stretches of the Paraná River/Rio de la Plata. Areas have been drained and channeled for plantations of poplar and willow, used primarily for production of wood for fruit packaging.

13. This aquatic and semi-aquatic ecoregion provides habitat for diverse species of flora and fauna. Willow and ceibo trees (*Salix humboldtiana* and *Erythrina crista-galli*) are among the dominant species along the riverbanks while floating plants include the large water-lilies (*Victoria cruziana*) and water hyacinth (*Eichornia crassipes*). Fish are abundant given the nature of the habitat, with some 300 species known for the region. Endangered mammals adapted to aquatic environments such as the Marsh Deer (*Blastocerus dicotomus*), and the Neotropical River Otter (*Lontra longicaudis*) are present along with endangered birds such as the Sick-winged Nightjar (*Eleothreptus anomalus*) and Grey-and-Chestnut Seedeater (*Sporophila hypochroma*).

14. Valdivian Ecoregion. The Valdivian Ecoregion (known as the Región Andino-Patagónico in Argentina) shared by Chile and Argentina, consists of several different forest types. Their evolution influenced by topography, defined in large part by the Andes mountain range, rainfall patterns, climate, and soils. High levels of endemism make this ecoregion an key area for protecting globally important biodiversity. Included among the principal types of tree species that define specific forest types are the Alerce (*Fitzroya cupressoides*), Araucaria (*Araucaria araucana*), Cyprus (*Austrocedrus chilensis*), and several types of *Nothofagus* forests. Levels of endemism among fauna species are high. Almost 80% of amphibian species, 50% of fish and up to 30% of birds are considered endemic to this ecoregion.

15. Although there is little conversion of native forest to plantations in Patagonia in general, there is the danger to native ecosystems from invasive exotic species, increased fire hazard, and alterations in connectivity from nearby or adjacent plantations.

16. Patagonian Steppe. The Patagonian Steppe is an extensive ecoregion of grasslands and shrubs that crosses from the Atlantic Ocean to the foothills of the Andes in Southern Argentina and Chile. Although it is a windy region characterized by low rainfall (under 200 mm per annum), there is a narrow strip of steppe that has levels of rainfall around 300 mm per annum that comes into contact (ecotone) with the Valdivian forest ecosystems. It is this narrow strip of a few dozen kilometers wide, where rainfall permits plantation forestry with exotic Ponderosa and Oregon pine among other species. The ecotone is also rich in terms of biological diversity. Among threatened species of mammals are the *Ctenomys sociabilis*, an endemic rodent, and *Lagidium wolffsonhi*, a chinchilla; while birds include the critically endangered Antarctic Rail (*Rallus antarcticus*). Flora is also highly endemic and adapted to the harsh dry conditions with up to 60% endemism in the Leguminosae including two endemic *Prosopis* species and up to 30% endemism in the Compositae.

FORESTRY

17. While the greatest impact of human activity on natural ecosystems in Argentina over the past few centuries has been through agriculture and livestock grazing, the rapid expansion of plantation forestry in the northeast is adding new impacts to native and agricultural ecosystems. Argentina has approximately 34 million hectares of mainly native forest. Plantations extend to 1.2 million hectares, mostly composed of exotic tree species of pines and eucalypts. The progression of plantation forestry was initially slow in Argentina, but has been gathering momentum over the past decade. Of the 1.2 million ha of plantations, over 500,000 ha have been created in the past 12 years. Prior to the financial crisis in 1998, 102,900 ha were planted. While this dropped to about 20,000 ha per year in 2002 and 2003, it increased again to 32,700 ha per year in 2004, and indications are that 2005 plantings will be even higher. Given that lands suitable for forestry purposes are estimated at around 10 million ha, there is considerable area for the expansion of plantation forests in Argentina, the most productive of which is located in the grasslands of Corrientes and Entre Rios.

18. **Historical Framework:** The Argentine forest sector has experienced varied success throughout its history. During the mid-20th century growth was dynamic, due largely to favorable public Import Substitution Industrialization policies combined with strong internal demand. In the mid-1970s macroeconomic instability and a reduction in demand for paper and pulp lead to a

slowdown in growth. However, the Papel Misionero and Papel Prensa integrated cellulose plants were completed in late 1970s. The Alto Paraná, Celulosa Puerto Pirai, Papel de Tucumán plants were also approved during this period for a total of \$987 million, or 93% of investments approved under the industrial promotion framework. The establishment of plantations during this period also fostered the growth of several sawmills and other wood-processing facilities.

19. In the 1990s, deregulation eliminated tariff protection for the forestry sector. Profits fell, as did national production. However, foreign direct investment in the sector grew by nearly \$900 million from 1990-2000, with the strongest growth in wood industries. The 1992 *Regimen de Promoción de las Plantaciones Forestales (RPPF)* allowed large producers to receive subsidies for up to 700 ha. of plantations, and large foreign and national firms benefited from about one third of the \$140 million the government invested in new plantations. (Starting in 2000, the ceiling was lowered to benefit more small and medium producers.) Despite this program, up to 1995 plantations were being established on an *ad hoc* basis with very little support or direction from the state. The policy framework was ill-defined, research was under funded, inventory data was non existent, there was no forestry-extension service, certified seed was unavailable, the special needs of small producers were ignored, information on markets was incomplete, and scant attention was paid to environmental concerns. To help address these shortcomings, the Bank financed the Forestry Development Project between 1995 and 2005, making substantial progress in each of these areas. Despite very difficult country conditions in 2001/2, the project performed well throughout and achieved its development objectives. In parallel, the Bank also financed the Native Forest and Protected Areas project from 1996 to 2005, which had more of a conservation focus.

20. **Current Situation:** The sector as a whole is now recovering from the economic and political crises of 2002, with both tree planting and wood exports on the rise. In 2004, 32,700 ha of new plantations were established, an increase of 30% over the previous year. The provinces of Corrientes and Misiones represent about 85% of the recent expansion in plantation forests. There has also been important growth in the Entre Rios province, Patagonia (especially Neuquen and Rio Negro) and increasingly Buenos Aires province, which has close proximity to markets and ports. Santa Fe, Salta, and Jujuy provinces have also registered growth in plantations in recent years.

21. The export of wood products is also increasing, having risen to a high of US\$685 million (or 4.9 percent of all exports) in 2003, in part due to the devaluation of the peso. The sector's contribution to GDP rose to 1.7% in 2003, and 2.1% in 2004, but has since settled to about 2% in 2005. Despite their limited area and distribution, plantations account for 80 to 90 percent of domestic wood supply, and for all wood exports. Because of this growth, small and medium-sized forestry enterprises have begun investing in machinery and infrastructure again. Official figures of persons employed in the sector stand at about 400,000, but if non registered operations in the informal sector were to be included, the figure would be over 500,000.

22. There is little physical limitation to the expansion of plantation forests in the future. Experts estimate there are around 10 million ha of land suitable to support plantations. Projections show that the production of timber from plantation forests is expected to increase sharply over the coming decades. Internal demand for wood products is also expected to

increase, from 1.8 million tons of paper in 2001 to 3.1 million in 2020, and from 1.3 million m³ of timber in 2001 to 1.6 million in 2020.

23. World demand for paper products is expected to increase about 2.1 percent annually through 2020, while demand in Latin America is expected to increase about 3 percent during the same period, or the equivalent of about 12 million tons. Considering that a resource base of between 90 to 200 thousand hectares of plantations are required to provide the fiber necessary to generate one million tons of pulp, about 2 million ha of new plantations would be required to support the regional demand alone. Moreover, several international industries from Europe and North America are relocating their pulp and processing facilities in the region in order to supply products to international markets. Such facilities require fiber to supply their plants, virtually all of which will come from plantations. (In the past three years, neighboring Uruguay has attracted more than \$3.5 billion in forestry investments, including three new pulp mills and five major sawmills.)

24. Argentina is expected to respond to this opportunity and increased global demand for fiber. The country has strong comparative advantage in plantation forestry due to its very favorable growing conditions, an abundance of good quality land with low opportunity cost, large land holdings which favor economies of scale, a reliable system of land titling and good infrastructure. Despite these obvious assets, relative to its potential, plantation forestry in Argentina is still in its infancy. There are a number of barriers to growth, including the absence of an adequate institutional and policy framework, which includes environmental concerns.

25. In recognition of the growing importance and potential of the forestry sector in Argentina, the World Bank and national and provincial governments are engaged in an ongoing dialog on both plantation and native forests. Provincial governments have the responsibility for native forests and for reviewing the environmental impact of proposed plantations; the national government is responsible for the legal, economic, and regulatory framework which shapes the sector. The dialog seeks in part to address conservation issues in forest ecosystems, a subject in which the proposed project is highly relevant.

26. **Regional Plantation Resources:** Different species of trees are planted in distinct locales of Argentina according to the environmental conditions that most favor their growth. The main planting regions are Mesopotamia, Buenos Aires and the Andean Patagonia, with lesser areas of plantations being established in the Central, Delta, and Northwest regions.

27. Mesopotamia. The largest area of forest plantations in Argentina is found in the Mesopotamia region (Misiones, Corrientes and Entre Rios provinces) which provides highly favorable growing conditions due to its gentle undulating topography, sub-tropical climate and, in many areas, rich soils. More than 75 percent of existing plantations are now found in Mesopotamia. Exotics such as *Eucalyptus globulus*, *Salix spp.* And sub-tropical pines (largely *Pinus elliotti* and *Pinus taeda*) are the preferred species, due to their good performance. (Most of the plantations are in *P. taeda*, which is managed on a 15 year rotation, compared to the 20 year rotations in the U.S.). These species are mainly grown for pulping purposes, though they can also be used for light construction, crude lumber and lower quality furniture. Minor quantities of other species, including the native *Araucaria angustifolia* are also planted. While *Auracaria*

grows slower than the exotics, it has a finer wood, more suited for interior trim, furniture and veneer, as well as light construction.

28. Buenos Aires and Pampeana. The Buenos Aires region (Province of Buenos Aires) has overall excellent biophysical conditions for forestry on as much as 5 million hectares, and about 9 percent of the country's plantations are presently found here. Development of the forest sector in Buenos Aires has been relatively slow, despite its potential capacity and its close access to shipping ports. This is mainly attributed to historical preferences for cattle ranching and the lack of knowledge and interest in forestry. However, ranching and forestry are not incompatible and innovative silvopastoral systems can be envisioned, which may provide opportunities for integrating plantations into the pasture lands, diversifying farmer's investments, and reducing environmental impacts. Genetically improved varieties of *Eucalyptus globulus* which thrive in the area have been developed, which increase production by up to 8 percent for pulp and paper purposes.

29. Patagonia. The Patagonia Andes region has about 2.3 million ha of land with a moderate to good potential for forest use, and presently has about 6 percent of the plantations today. The preferred species are *Pinus ponderosa* and *Pseudotsuga menziessii* while *Pinus contorta* is planted in lesser quantities. These are much slower growing trees than the eucalypts and subtropical pines found in the Pampeana and Mesopotamia, but, in contrast, are excellent choices for saw timber needed for construction and other purposes. *P menziessii* is considered one of the best all-round construction woods in the United States and is highly valued in Argentina as well. *P ponderosa* is also a very good choice for furniture making and light construction, whereas *P contorta* is more useful for pulping and heavy construction.

30. Central. The Central region (South of Santa Fe and Cordoba, and eastern La Pampa), has about 2 percent of the plantations. Most of the planting is being carried out in the province of Cordoba, with *Pinus taeda* and *Pinus elliotti* being the primary species planted. Smaller areas of eucalypts and radiata pine are also planted, sometimes as windbreaks, or ornamentals. No estimates of land appropriate for forestry are available, but the sector is considered relatively weak in this particular region.

31. Northwest. The Northwest region (Provinces of Jujuy, Salta, and Tucuman) has a very low plantation cover (about 2 percent of plantations), mostly consisting of subtropical pines, eucalypts and a few high-value hardwoods. Recent trials with quality hardwoods in Salta, such as *Cedrela australis*, show very promising results, indicating the possibility of generating significant revenue through forestry on relatively small areas of land over reduced rotations. However, poverty rates are high in these areas, and plantation development needs to be aligned with non-commercial, agro-forestry systems needed to provide minimum subsistence levels for many of the small farmers.

32. Delta. The Delta region, near the rivers of Paraná and Uruguay, has less than 1 percent of plantations and has a fair potential for plantation forestry. The climate is subtropical and its alluvial soils are often wet and low, rendering them unsuitable for most high-value trees. *Salix spp.* And *Populus deltoides* grow best here, and make up the bulk of the plantations in the region. These trees produce light and weak wood, which has utility for pulp, packing crates, and light

construction. Despite the low value of the trees being grown there, plantations make use of areas which have little other potentially productive use and are an important source of pulp used for making newsprint for the Buenos Aires newspapers.

33. **Plantations and Biodiversity Conservation:** Plantation forestry in Argentina overlaps with several globally important ecosystems. In the northeast of the country, the Alto Paraná Atlantic Forest in Misiones and the Mesopotamian Grasslands in Corrientes and Entre Rios, and Paraná Flooded Savannas in parts of Buenos Aires Province are most affected by plantations. The Patagonian Valdivian Forest and Steppe ecosystems are the focal areas for planting in southwest Argentina. Silvicultural practices and management regimes in these plantation regions have been designed and subsidized to maximize the production of wood fiber while keeping costs low. In the pursuit of profits, examples of sustainable forest management and other approaches which encourage biodiversity conservation in the productive landscape are scarce. One NGO estimates that 40 percent of the country's most important grasslands are threatened by plantation forestry.⁸ A primary concern is that without proper planning, habitat loss because of plantation forestry could lead to increasing losses of biodiversity throughout many parts of the Argentina.

34. Plantation forests have shown good potential as the basis for succession of natural forests in degraded and fragmented landscapes. Plantations may create desirable conditions in soils, understory conditions, and other factors conducive to increasing biodiversity in impacted areas, and can provide critical ecosystem services such as watershed protection and carbon cycling. In Patagonia for example, exotic Ponderosa Pine has been used to provide shade and cover needed for the regeneration of native *Nothofagus* trees, resulting in mixed plantations along with the restoration of the native habitat. To ensure that plantation development is sustainable over the long term, conservation principles in the Argentine forestry sector need to be strengthened through the adoption of a strategy which integrates and institutionalizes conservation into plantation development, and provides the incentives to land owners follow suit. There are, however, difficulties in achieving balance and consensus among the different stakeholders (government, private sector, and civil society) to seek integration of conservation principles and landscape planning into development of the sector. Economic analysis of several alternatives for Argentina's plantations have shown that good rates of return are feasible or even better than existing models with modifications in management regimes that benefit biodiversity.

35. Without additional investments to ensure global biodiversity values are incorporated, the current situation could mean loss of native ecosystems such as grasslands, wetlands, and forests from expansion of plantation activities in areas important for conservation of biodiversity corridors, migration habitats, and reproductive grounds. To ensure the sustainable development of plantation forestry, environmental considerations will have to go hand-in-hand with production objectives. Expanding plantation forestry without covering the costs of providing global benefits will make it difficult to incorporate biodiversity conservation into the planning process.

⁸ Bilencia, D. and Minarro, F. 2004. Identificación de Áreas Valiosas de Pastizal en las Pampas y Campos de Argentina, Uruguay y Sur de Brasil. Fundación Vida Silvestre Argentina.

36. There are two basic levels at which conservation can be integrated into productive forestry – the landscape level and the stand level. Actions which serve to enhance the conservation value of plantations will key on the spatial, temporal and structural distribution of stand and landscape elements. At the landscape level, issues that need to be considered by the project are (a) the extent, location and distribution of the plantations in the overall landscape, and (b) the way that the plantations and the surrounding land cover evolve and interact over time. Such broad issues must be addressed at the planning and policy level in order to be considered by multiple land holders over large areas of land.

37. At the stand level, the project will work directly with producers to carry out activities such as (a) providing alternatives to monocultures and encouraging the use of native species, (b) encouraging thinning and the management of cutting regimes to increase the heterogeneity of the cover, (c) maintenance or development of natural areas within plantations, (d) planting, management, and harvesting techniques which promote conservation in the productive landscape, and (e) use of conventional best management practices in all silvicultural activities to reduce environmental impacts (for example, location of forest roads and log landings, and low impact harvesting and planting (site preparation) techniques, among others. Regardless of whether interventions are to be made at the landscape level or the stand level, they must be tailored to the particular ecosystem and targeted to specific biodiversity conservation objectives. With this in mind, on-site approaches must be worked out according to the local situation while taking into account the producers' objectives and situation.

38. **Incentives:** There is broad recognition that the primary threat to Argentine biodiversity is not forestry but rather agriculture. Despite this threat, actions like those proposed under the project can be extremely successful in conserving biodiversity in critical ecosystems. This is especially important given the quickly expanding forestry sector and the current system of incentives which shape it. Current economic and legal incentives do not encourage deforestation for the establishment of plantation forests, whereas deforestation for soy cultivation is currently a major problem in the Argentine Chaco. In respect to plantation development, of much greater concern is the expansion of plantations into areas of natural grassland and wetland ecosystems, where establishment costs are low, and into previously deforested areas which may have been critical corridors and are in need of restoration. Current environmental regulations included under the forestry promotion law have provisions that require, for forestry projects of over 100 hectares, the demonstration that there are no impacts to biodiversity. However, the planning tools, biodiversity information, and capacities are lacking, therefore forestry projects only minimally address biodiversity issues. Furthermore, provincial governments share responsibility for the EIA approval process and in general have a weak capacity and lack planning tools for proper oversight and decision-making regarding forestry projects.

39. Incentives such as the certification of forestry practices, which promotes socially and environmentally-responsible management, are not widespread in Argentina as compared to its Southern Cone neighbors such as Brazil and Chile. Only eight certificates for a total of 131,214 hectares of plantations are currently listed under Forestry Stewardship Council (FSC) certification,⁹ which means that little plantation area is subject to standards that can improve the situation of biodiversity, lessen impacts to the environment, and minimize social impacts to

⁹ www.fsc.org

communities. The changing corporate landscape of plantation forestry in Argentina however, is resulting in increased environmental protection thanks to the presence of Chilean forestry companies with more modern corporate environmental responsibility programs that are at a minimum improving stand management to comply with existing laws and are looking at greater levels of certification.

40. On a positive note, a National Working Group with broad representation has presented for comments the draft Standards for Management of Plantation Forests under FSC principles and criteria. Argentina is also a party to the Montreal Process on criteria and indicators for SFM. This is a basis for activities under the proposed project which allow for synergistic effects towards achieving mainstreaming of biodiversity.

41. **Environmental policy and enforcement:** In Argentina, as with many developing countries, the only environmental safeguard in place under the current forestry legislation¹⁰ is a requirement to carry out an Environmental Impact Assessment before planting on areas which exceed 100 hectares. This, however, is largely a bureaucratic requirement which falls far short of assessing the wider and longer term impact of plantation development on the environment. Biodiversity conservation is at present not a driving force in the planning or management of forest plantations throughout Argentina. Land use planning with a broad ecosystem vision has yet to take hold in at the federal and provincial level.

42. Even though EIAs are carried out in areas of over 100 ha, they do not always register the wider ecological implications of large scale planting – something which can be better achieved by having a more strategic and mainstreamed approach. Such an approach could also address the problem of the high costs associated with screening smaller areas of under 100 ha by focusing on priority areas/zones of concern rather than all areas. While certification can also help to deter bad practice, its application is still low and generally a more difficult and costly undertaking for smaller producers.

Interventions Identified

43. During project preparation, extensive studies were undertaken to examine possible techniques to promote biodiversity conservation measures in plantation forests in Argentina, as well as the economic implications and geographic applicability of such interventions. Through this process, 27 techniques were identified as being especially appropriate for the scope and objectives of this project. Rather than creating a one-size-fits-all approach, these techniques form a type of “menu” which will allow the project implementers to select the intervention, or interventions, which fit the scale, location, resources and needs of target small and large-scale producers. As other methods are tested during project implementation, this list may expand to include other newly-developed interventions. The table below illustrates various approaches

¹⁰ Current forestry promotion legislation will expire in 2009. The GoA has indicated its interest in strengthening biodiversity considerations within the context of the promotion regime. The proposed project will support and develop recommendations for ways to improve the regulatory and legal framework regarding planting. It will also contribute to the dialog on the new legislation through the roundtables, which will be developed. While the current law is reported as being less than ideal, the proposed project has been designed to work within the current framework, thus it will not impede the project from achieving its stated objectives.

identified during preparation in order to increase biodiversity conservation and the protection of fragile ecosystems in plantation landscapes.

Biodiversity Conservation Measure for Plantation Stands	Observation
Plantations of native species	Lower financial return than exotics, but increases compatibility with the natural environment and improves habitats when implemented properly.
Mixed plantations of natives and exotics	Reduced return and complex management, but increases compatibility with natural environment. Shade tolerant natives can be cultivated in understory of exotic plantations. Less susceptibility to pests.
Establishment of silvopastoral systems (est. 350-500 stems/ha)	Diversifies incomes, increases management costs and need to protect young trees from grazing /browsing
Establish buffer zones around sensitive and high conservation value areas	Buffer zones reduce the chance that plantations will impact surrounding areas.
Avoid interrupting natural corridors necessary for ecosystem function	Prior survey of planting areas is needed to ensure that natural corridors are not interrupted
Species selection	Avoids invasive species and emphasizes indigenous species whenever possible
Variation of age structure between plantation compartments/stands	Increases heterogeneity of landscape
Use precaution with chemical treatments for site preparation and pest control and select the most specific chemicals according to the need	Chemical agents are toxins which may have indirect and unintended effects on plants not the target of the treatment
Favor, in some cases, use of herbicides for site preparation rather than mechanical site preparation	Use in situations where soils may be susceptible to erosion
Establishment of set-asides to ensure native vegetation is incorporated into part of the stand.	Increases heterogeneity of production area and improved habitats and connectivity for biodiversity.

Favor the use of improved clones in 3 rd cycle of harvesting of eucalypts over cultivation of stump sprouts. Cultivate stump sprouts in areas susceptible to erosion.	Use of improved planting stock will ensure more efficient plantations, esp. in 3 rd cycle where productivity is reduced. Stump sprouts to be retained in sensitive areas where site preparation might contribute to erosion.
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Biodiversity Conservation Measures for Plantations in the Production Landscape	Observation
Provide for heterogeneity of landscape elements	Avoids landscape transformation.
Maintain essential corridors of natural vegetation within plantations	Increases heterogeneity of landscape but may be a possible fire hazard
Variation of age structure between plantation compartments/stands	Increases heterogeneity of landscape
Avoid sensitive environmental areas and high conservation areas	Protects habitats.
Leave natural vegetation patches throughout the productive system's matrix	Increases heterogeneity of landscape
Designate no planting zones in the landscape to ensure heterogeneity	Ensures heterogeneity and increases connectivity in overall landscape.
Elimination of exotics from sensitive/critical areas	Restoration of critical natural ecosystem
Avoid carpet planting of large areas, and intersperse stands with native vegetation	Avoids large-scale ecosystem transformation.
Avoid planting in riparian areas	Protects aquatic environment, prevents erosion and runoff into streams and rivers

Annex 2: Major Related Projects Financed by the Bank and/or other Agencies
ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

1. Both the Government of Argentina and the World Bank have extensive experience implementing conservation and forestry projects in the country. These projects have provided important lessons for the design and implementation of the proposed project. The proposed activities of the Biodiversity Conservation in Productive Forestry Landscapes Project are complementary to several initiatives that the GEF and other donors have in Argentina and the neighboring countries, and also builds on projects in the forestry and biodiversity sectors that provide relevant lessons-learned and other input to improve design and implementation.

2. The first IBRD loan for the forestry sector was the Forestry Development Project, which was executed successfully by SAGPyA and closed in 2006. This project generated important advances in plantation research, community agro-forestry and forestry extension. The new loan will build upon this experience by integrating environmental and social sustainability as a cross-cutting theme for sectoral strengthening in addition to economic growth.

3. The experience of the *Biodiversity Conservation Project* (GEF-IBRD) has been reviewed for the preparation of the Biodiversity Conservation in Productive Forestry Landscapes Project and several activities included seek to generate complementary approaches and links including a link between the Native Forests Database and the Planted Forests Database, to be updated under the Biodiversity Conservation in Productive Forestry Landscapes Project. This will permit better landscape, production, and biodiversity planning and monitoring at national and provincial levels.

4. The important marine and coastal zone ecosystems in Argentina were been addressed under the *Consolidation and Implementation of the Patagonia Coastal Zone Management Programme for Biodiversity Conservation* implemented with UNDP support. Core areas of the Protected Areas System of Argentina have been strengthened through the ongoing National Parks component of the *Biodiversity Conservation Project*. Wetlands biodiversity conservation is partly addressed by the medium size *Management and Conservation of Wetland Biodiversity in the Esteros del Ibera*. These projects help protect the underlying core matrix within which biodiversity is to be conserved in conjunction with the surrounding productive areas that are focus of mainstreaming and buffer-zone activities. The proposed project is complementary to these efforts in that it seeks to incorporate biodiversity into areas of more intense human activities where these global values are generally considered in a cursory manner, if at all, by the productive sectors and public planning and governance sectors.

5. This project is complementary to these efforts in that it seeks to incorporate biodiversity into areas of more intense human activities where these global values are generally considered in a cursory manner, if at all, by the productive sectors and public planning and governance sectors. The projects entitled *In-situ Conservation of Andean Crops and their Wild Relatives* and the global *Enabling Sustainable Dryland Management through Mobile Pastoral Custodianship* seek to improve sustainability of productive agricultural and livestock activities. Regionally, the

Biodiversity Conservation in Productive Forestry Landscapes Project complements these initiatives by focusing on the plantation forestry sector.

6. The mainstreaming program supported by GEF in Uruguay, *Integrated Natural Resources and Biodiversity Management*, will provide lessons in the areas of livestock production and more intensive mechanized agriculture, which are also applicable to productive sectors in Argentina. The Biodiversity Conservation in Productive Forestry Landscapes Project will also provide lessons applicable to the expansion of plantation forestry Uruguayan context.

7. The preparation team also has coordinated with both the Province of Misiones and the Spanish Cooperation Agency (AECI) regarding the *Yvy Maraey Araucaria Project* to be carried out in Misiones for the conservation of biodiversity and sustainable development. The project will also include pilot activities in carbon sequestration, small-farmer conservation and production, and municipal strengthening. The table below summarizes key related Bank project.

	Amount (\$ Million)	Financer	Project ID	Country	Status	Latest IP Rating	Latest DO Rating
Forestry Development Project	16.0	IBRD	P006040	Argentina	Closed	Satisfactory	Satisfactory
Public-Private Mechanisms for Biodiversity Conservation in the Valdivian Forest	0.75	GEF	P058299	Chile	Closed	Satisfactory	Satisfactory
Biodiversity Conservation Project	10.0	GEF	P039787	Argentina	Open	Satisfactory	Satisfactory
Integrated Natural Resources and Biodiversity Management	30.0	GEF	P070653	Uruguay	Open	Satisfactory	Satisfactory
Santiago Foothills: Mountain Ecosystem Conservation MSP	0.73	GEF	P070654	Chile	Closed	Satisfactory	Satisfactory
Native Forests and Protected Areas	19.5	IBRD	P040808	Argentina	Open	Moderately Satisfactory	Moderately Satisfactory
Paraguay Forestry Development	25.0	IBRD	P085335	Paraguay	Proposed	N/A	N/A
Biodiversity Mainstreaming and Institutional Consolidation	22.0	GEF	P094715	Brazil	Proposed	N/A	N/A

Table A2.2. Other Major Related Projects in the Project Area					
Name	Amount (US\$ Million)	Financier	Years	Start Date	Country
Araucaria/Yvy Maraey Project	0.3 M	Spanish Cooperation Agency AECI	3	2007	Argentina
Improving competitiveness of small and medium enterprise of the forest industry sector.	18.5 M Euros	European Union	4	2004	Argentina
Caburei Project – National Parks Administration strengthening.	0.6 M	Japan International Cooperation Agency	3	2004	Argentina
Esteros de Ibera Wetlands Conservation	0.9 M	GEF-UNDP	4	2002	Argentina
Patagonian Coastal Conservation	4.5 M	GEF-UNDP	6	2002	Argentina
Sustainable Tourism in Biosphere Reserves and Ramsar Sites	0.13 M	UNDP	1	2005	Argentina
In-situ conservation of Andean Crops	0.938 M	GEF-UNDP	3	2005	Argentina
Sustainable Development of Arid and Semi-arid zones of Argentina ¹¹	1.5 M	GTZ	3	X	Argentina

8. The proposed project is to be partially-blended with an IBRD loan for the Sustainable Natural Resources Management Project. Both the loan and GEF project are under preparation by the Secretariat of Agriculture, Livestock, and Fisheries (SAGPyA, for its acronym in Spanish) with the assistance of the World Bank. This offers an ideal opportunity to introduce biodiversity conservation within the institutional and productive sectors not typically associated or sensitive to these issues. The SAGPyA mandate covers the livestock, agriculture, forestry, aquaculture, and food sectors for the GoA providing many opportunities for learning and replication from the initiatives of the proposed GEF incremental investment within Bank, donor, and government supported efforts in this agency.

9. Several NGOs in the country and region have ongoing initiatives that involve mainstreaming including the grasslands programs supported by Aves Argentinas (also linked to BirdLife International's Important Bird Areas program) and Fundación Vida Silvestre Argentina. These NGOs in conjunction with partners in Paraguay, Uruguay, and Brazil, are currently preparing a Medium-sized Project for funding under the GEF entitled *Integrated Management and Conservation of Key Grasslands in Mercosur Countries of the Southern Cone*. The project will

¹¹ This project will close December 31, 2006. Current funds until the end of 2006 are \$900,000.

focus on consolidating well conserved grasslands within Important Bird Areas, with an emphasis on those regions pressured by agriculture and livestock production. The project is complementary in that it focuses on mainstreaming biodiversity in other productive sectors that overlap with the areas of plantation forestry while also looking at regional and transboundary aspects of grassland conservation. The project will seek to coordinate closely with the Grasslands MSP during its implementation, to ensure that activities such as landscape planning, best management practices, and alternative production are mutually compatible and beneficial.

10. The Social Pact and Sustainable Soy initiatives of World Wildlife Fund within the Alto Paraná Atlantic Forest ecoregion (Paraguay, Brazil, Argentina); and Fundación Habitat's work with plantation companies in Argentina and Chile. The Chilean experiences and programs in biodiversity and forestry are also relevant from the NGO (such as CIPMA) and academic perspectives (Universidad De Chile) as well as private sector initiatives.

11. Finally, the project will benefit from important ecorregional planning efforts that have been jointly advanced between non-governmental, academic, and government technical agencies such as INTA (which also has ongoing research and extension programs in forestry and biodiversity). In particular the ecorregional or biodiversity "visions" prepared for Patagonia and Alto Paraná Atlantic Forest have been of particular use in providing guidance regarding key areas for biodiversity conservation.

Annex 3: Results Framework and Monitoring

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes Results Framework

Project Development Objective	Outcome Indicators	Use of Outcome Information
<p><u>1. IBRD Project Development Objective:</u> Improve the management and conservation of natural resources, foster rural development and enhance the environmental values of natural resource management practices in Argentina.</p> <p><u>2. GEF Global Environment Objective:</u> Increased integration of biodiversity-responsible practices and policies into the plantation-forestry sector at the national level and in select provinces.</p>	<p>(To be monitored through the IBRD project.)</p> <p>New forestry policies, regulatory frameworks, and/or promotion programs incorporate biodiversity conservation and sustainable use concepts at the federal level and in at least 3 provinces, from baseline 0;</p> <p>7 of 7 provinces have identified critical natural habitats and included them in small-scale ecological maps;</p> <p>Eco-regional planning tools are in use in 3 provinces and at the federal level, from baseline 0;</p> <p>70,000 ha in key areas benefiting from improved plantation management practices that incorporate biodiversity-responsible practices, from baseline 0.</p> <p>Monitoring shows amelioration of threats to and improvements in ecosystem biodiversity (habitats of globally-important biodiversity indicator species) in production landscape</p>	<p>Project management will evaluate process at mid-term to ensure that biodiversity-responsible practices are to be included in new draft policies and frameworks. If insufficient progress is detected, appropriate modifications will be made to activities under the relevant project component in order to achieve the PDO by project end.</p> <p>The government will monitor the long-term impact of policies and regulations on biodiversity conservation in plantations to determine the need for further policy adjustments, new regulations, or further research.</p>
Intermediate Results	Results Indicators for Each	Use of Results Monitoring

One per Component	Component	
<p>Component 1: Federal, provincial, and local forestry institutions have tools, policy framework, and training necessary to foster biodiversity conservation into the forestry sector</p>	<p>Biodiversity planning maps for 7 provinces planning and evaluating plantation projects in selected ecosystems of global importance developed with stakeholders and adopted at Federal and Provincial levels</p> <p>100% of designated representatives of national forest agency, 7 provincial environmental and/or forestry agencies, and participating extension agents trained to evaluate and supervise environmental impact assessments for biodiversity.</p> <p>5 of 7 provincial environmental and/or forestry agencies employing strengthened biodiversity regulations in strategic environmental assessment (SEA) and environmental impact assessment (EIAs).</p> <p>3 of 7 provincial governments have new draft policies for incorporating biodiversity concerns into plantation-forestry concerns.</p> <p>New draft federal legislation to replace law 25.080 incorporates biodiversity concerns, as do associated new drafts of regulations.</p>	<p>Project management will evaluate progress in creating tools, frameworks, and training opportunities necessary to stimulate biodiversity mainstreaming. Should progress in any aspect be lacking, the project will reallocate resources to speed up development.</p> <p>Government officials will evaluate the long-term impact of tools, frameworks, and training developed under the project on biodiversity-responsible practices in the plantation forestry to determine priorities for national policy and budgetary allocations.</p>
<p>Component 2: Best management practices for incorporating biodiversity conservation into plantation forestry are developed, validated, and disseminated.</p>	<p>The Advisory Commission for Law 25,080 (or its successor) regularly incorporates, by EOP, biodiversity-related subjects in its agenda;</p> <p>Best practices including native seedbank, ecosystem toolkits, and economic analysis developed for plantation ecosystems.</p>	<p>Project management will evaluate progress made under this component and, if necessary, redirect project activities at mid-term to better support the development of best practices.</p> <p>The Government of Argentina and Bank project team will analyze lessons learned for replicability in other parts of</p>

	<p>Best practices disseminated to 3,500 forestry-sector stakeholders through extension programs in 7 provinces, an international conference, and university-level programs on biodiversity conservation and plantations.</p> <p>Increase in biodiversity levels, no. of small- and medium-producers incorporating biodiversity conservation in plantation landscapes by end of project.</p> <p>Seed bank networks established in order to foment increase of no. of nurseries providing native spp. From 18 to 27.</p>	<p>Argentina and in other countries.</p>
<p>Component 3: Small, medium, and large producers adopt best-practices for biodiversity-responsible plantation forestry</p>	<p>At least 20,000 hectares of small and medium producers have been supported in implementing agro-forestry (Misiones) or best management practices for biodiversity conservation (Patagonia and Mesopotamia).</p> <p>Changes in levels of biodiversity awareness as surveyed in targeted subproject areas in Y02 and Y04 increases 50% over baseline.</p> <p>At least 50,000 hectares of large plantations (>1000 ha) are incorporating biodiversity-responsible practices and planning within ecoregions of global importance.</p> <p>Baseline studies and public discussions for establishment of 7 new protected areas in the productive landscape.</p>	<p>At mid-term project management will evaluate the progress in and impact of assistance to small, medium, and large producers to determine if a shift in strategy is needed.</p> <p>The Bank team will evaluate the applicability of strategies developed under this project for other biodiversity mainstreaming and similar projects.</p> <p>The government will monitor the long-term effects of work with different-scale producers to validate strategies and techniques used and employ these lessons in other initiatives.</p>

<p>Component 4: Effectively managed mainstreaming program strengthens institutional monitoring and evaluation capacities.</p>	<p>Project management system working efficiently, according to World Bank rules and national law. To be measured by output indicators such as audits, disbursement reports, reports, etc.</p> <p>SAGPyA incorporates monitoring and evaluation efforts into ongoing programs.</p>	<p>The Government of Argentina and Bank team will continuously monitor management effectiveness in order to remedy problems detected and/ or reallocate resources as necessary.</p>
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Arrangements for results monitoring

Outcome Indicators	Baseline	Target Values					Data Collection and Reporting		
		YR1	YR2	YR3	YR4	YR5	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
Draft national forest policy, regulatory framework or promotion programs that includes plantations and biodiversity established and disseminated.	No national forest policy, regulatory framework or promotion program that includes plantations and biodiversity		25% Draft document(s) completed	50% Draft document(s) disseminated and debated	100% Final document(s) completed		Measured yearly as part of annual comprehensive project implementation monitoring report.	Draft policy document/Decreets Draft policy document Official reports on policy matters	Project Implementation Unit (administrative unit)
At least 3 provinces establish or elaborate draft forest policies regulatory framework or promotion programs with consideration to biodiversity.	No provincial forest and biodiversity policy, regulatory framework or promotion programs			1 draft document(s) completed	3 draft document(s) completed	3 draft document(s) discussed and final versions elaborated	Same	Draft policy document/Decreets or Provincial recognition Draft policy document Official reports on policy matters	SAGPyA/(administrative unit)

Ecoregional planning tools identify priority biodiversity areas in the production landscape and are recognized in the forestry promotion systems at national and provincial levels.	Biodiversity and production visions developed for Patagonia and Mesopotamia not integrated into forestry planning and management		Small-scale maps completed in 3 provinces.	Small-scale maps completed for 7 provinces and the federal government	Maps validated through workshops in 7 provinces and government	Maps adopted and in use, and results incorporated into draft resolutions, in 7 provinces and federal government	Same	GIS systems Reports on national and provincial strengthening components Maps Developed at small scale for all provinces in project National monitoring system Annual project evaluation on management at national and provincial levels Drafted resolutions or regulations with new biodiversity requirements.	SAGPyA/(administrative unit)
Increase in number of hectares under improved management for biodiversity (large producers) as determined by technology transfer program criteria.	0 hectares under improved management			10,000 ha total	25,000 ha total	50,000 ha total	Same	Reports and GIS maps Monitoring reports of pilot projects and technology transfer trials	SAGPyA/(administrative unit)
Increase in number of hectares under improved or alternative management for biodiversity (small and medium <1000 ha)	0 ha			5,000 ha total	10,000 ha total	20,000 ha total	Same	Reports and GIS maps Monitoring reports of pilot projects and technology transfer trials	SAGPyA/(administrative unit)

Monitoring shows improvement in ecosystem biodiversity (for habitats of globally-important biodiversity indicator species) and presence of indicator spp in production landscape in intervention areas	Increased connectivity of ecosystems and presence of indicator spp.	Indicator spp. Identified for monitoring	Increased connectivity within 3 critical ecosystems through corridors established or restored. Indicator spp. Monitored in 1 ecosystem.	Indicator spp. Monitored in 3 ecosystems.	Increased connectivity within 5 critical ecosystems through corridors established or restored. Indicator spp. Monitored in total 5 ecosystems	Frequency and Reports	Data Collection Instruments	Reports and GIS maps Field visits reports	SAGPyA/(administrative unit). Steering Committee.
Results Indicators for Each Component	Baseline	YR1	YR2	YR3	YR4	YR5	Responsibility for Data Collection		
Component One : Biodiversity planning and monitoring tools developed	0		2	4	7		Contractors/ Administrative Unit	GIS products, maps, and workshop reports	
Percentage of designated Direccion Forestal officials trained in biodiversity and plantations	no official trained	25%	50%	75%	100%		Administrative Unit	Annual training reports	
Percentage of designated pertinent provincial officials trained in biodiversity and plantations	No officials trained	25%	50%	75%	100%		Administrative Unit	Annual training reports	
Designated national authorities completed and applying EIA training	1 official trained	33%	66%	100%			Administrative Unit	Annual training reports	
Designated provincial authorities completed and applying SEA and EIA training	No officials trained	25%	50%	75%	100%		Administrative Unit	Annual training reports	

Participating extension agents trained and applying knowledge on best practices in field	No extension agents trained		25%	50%	100%		Same	Annual training reports	Administrative Unit
Provincial forestry offices equipped for biodiversity databases and sustainable management.	0	2	4	7			Same	Project management and procurement information systems	Administrative Unit
Draft policies, regulations and/or promotion programs developed and consulted with stakeholders	0		2	4	7		Same	Annual training reports Draft policies Official policy documents	SAGPyA/Provinces/ Administrative Unit
5 of 7 provincial environmental agencies employ stronger biodiversity criteria in Environmental Impact Assessments	0		1	3	5		Same	Draft regulations EIA reporting Official documents	SAGPyA/Provinces/ Administrative Unit
Draft federal legislation and associated regulatory framework incorporating appropriate biodiversity concerns developed and presented for promulgation and adoption	New legislation not drafted		33% (Draft legislation and regulations completed)	66% (Draft legislation and regulations consulted)	100% (Recommended legislation and regulations presented for adoption)		Same	Proposed legislation and regulations Draft legal analysis and proposals Proceeding from consultation Draft laws and regulations	SAGPyA/ Administrative Unit
Component Two : The Advisory Commission for Law 25,080 (or its successor) regularly incorporates, by EOP, biodiversity-related subjects in its agenda	Biodiversity is not a regular topic of discussion		Biodiversity is introduced as a topic in one regular meeting		Biodiversity is included as a topic in more than one regular meeting of the Advisory Commission (or successor)	Biodiversity is regularly discussed at Advisory Commission meetings	Same	Advisory Commission (or successor) agendas and minutes	SAGPyA

Economic analyses developed for plantations and biodiversity in all 7 provinces involved in project	0 analyses			2 provinces have completed economic analyses	4 provinces have completed economic analyses	6 provinces have completed economic analyses	7 provinces have completed economic analyses	Same	Final consultancy reports	Administrative Unit
Seed bank (natives) networks established in Misiones, Delta and Patagonia	No native seedbank networks established.			1 seed bank network established	2 seed banks network established	3 seed banks network established			Seedbank documents	INTA/SAGPyA/Provincial Govs/ Administrative Unit with cooperation of INASE
Toolkits developed for and disseminated for grassland, forest and wetland ecosystems (5)	0 toolkits			1 toolkit developed and disseminated to at least 500 producers	2 toolkits developed and disseminated to at least 1000 producers	5 toolkits developed and disseminated to a cumulative total of 3500 producers		Same	Development documents Final standards publication	INTA/SAGPyA/ Administrative Unit
Pilot projects for dissemination of best practices for biodiversity completed for 7 provinces.	0 projects			Projects in 1 province under implementation	Projects in 4 provinces under implementation	Projects in 7 provinces under implementation	Projects in 7 provinces completed	Same	Quarterly progress reports Annual monitoring reports Final evaluation	INTA/ Administrative Unit
Subregional international conference held in Argentina on Plantations and Biodiversity for global dissemination of lessons	No conference				1 International workshop held and results published			Same	Proceedings publication	Administrative Unit /World Forestry Congress organization
Extension programs incorporating biodiversity into forestry technical assistance developed and implemented in 7 provinces	0			Standards developed in 3 provinces	Standards developed in 7 provinces; Implementation begins in 3 provinces	Extension programs under implementation in 7 provinces		Same	Program design report Materials prepared	INTA/ Administrative Unit

Improve knowledge base for improvement of ecosystem conditions and reduction of threats to species of global importance through special treatments via pilot initiatives	No piloting of innovative treatments/approaches to biodiversity conservation in the productive landscape	2 pilots initiated in production landscape to improve ecosystem conditions and/or reduced threats through special treatments	4 pilots initiated in production landscape to improve ecosystem conditions and/or reduced threats through special treatments	5 pilots initiated in production landscape to improve ecosystem conditions and/or reduced threats through special treatments	5 pilots completed in production landscape to improve ecosystem conditions and/or reduced threats through special treatments	Same	Remote sensing Field surveys Semi-annual monitoring reports Reports from individual pilots Final project report	INTA/Universities/ Administrative Unit
Complete draft program curriculum for certificate in biodiversity and plantations. Developed and adopted in at least 1 regional school in each of Mesopotamia and Patagonia	No curricula	Program curriculum draft developed and presented	Proposed curriculum in use by 1 school	Proposed curriculum in use by 2 schools		Same	Program design reports Materials prepared	INTA/ Administrative Unit
No. of nurseries offering native tree seedlings increases by 100%	18 nurseries offering native tree seedlings in project area	At least 9 new nurseries interested in providing native spp. Are identified	3 new nurseries are providing native spp.	6 new nurseries are providing native spp.	9 new nurseries are providing native spp.	Same	Field reports	SAGPyA, provincial forestry agencies
Component Three: Technical assistance for small and medium producers in agroforestry (Mistones) or best management practices (Patagonia and Mesopotamia) benefits 20,000 ha	No technical asst. to small- and medium producers	5,000 ha have benefited from technical assistance	10,000 ha have benefited from technical assistance	15,000 ha have benefited from technical assistance	20,000 ha have benefited from technical assistance	Same	Semi-annual reports from implementing organizations/agencies/provinces Administrative Unit ecoregional specialist report Annual Administrative Unit reports Maps/GIS databases	Implementing agents/ Administrative Unit SAGPyA
Environmental education increases awareness of plantations and on biodiversity in sampled subproject areas by 50% over baseline.	Baseline awareness levels to be taken at outset of program	10% increase over baseline		50% increase over baseline		Same	Annual surveys on awareness levels in target areas	Implementing agents/ Administrative Unit

50,000 ha of large plantations (>1,000 ha) are incorporating biodiversity – responsible practices and planning within ecoregions of global importance through project	0 target interventions have been carried out with large-scale producers through project	5,000 ha are incorporating biodiversity-responsible practices	25,000 ha are incorporating biodiversity-responsible practices	40,000 ha are incorporating biodiversity-responsible practices	50,000 ha are incorporating biodiversity-responsible practices	Same	Field surveys Industry and official reporting	Implementing agents/ Administrative Unit
Baseline studies prepared and dialogue established 7 of private and public protected areas within targeted eco-regions in the plantation forestry landscape.	Productive landscape not evaluated for new protected areas.	Baseline studies completed for 1 new protected areas	Baseline studies completed for 3 new protected areas	Public discussions completed for 5 new protected areas	Public discussions completed for 7 ha of new protected areas	Same.	Baseline studies, workshop reports, negotiation documents if pertinent.	Administrative unit
Increase in locales identified for private and public protected areas for biodiversity conservation as result of improved dialogue and governance in the forestry sector.	No new areas identified in the production landscape 0 hectares Total new areas identified for protection.	2 new areas identified	2 new areas identified	5 new areas identified	7 new areas identified	Same	Reports and pertinent decrees or recognition Annual project implementation reports	SAGPyA Project Implementation Unit APN/FVSA/Forestry companies
5 Corridors restored or established in critical ecosystems or sensitive areas in the production landscape	0 Corridors restored or established in critical ecosystems or sensitive areas in the production landscape	1 Corridors restored or established	3 Corridors restored or established	4 Corridors restored or established	5 Corridors restored or established in an ecosystem in the production landscape		Remote sensing Field surveys Semi-annual monitoring reports Reports from individual pilots	Administrative unit
Component Four: SAGPyA Coordination Team is organized formally and successfully managing project	Existing coordination team in SAGPyA lacks mandate to execute project	Team fully staffed and implementing project satisfactorily 50%	Team fully staffed and implementing project satisfactorily 100%	Team fully staffed and implementing project satisfactorily	Team fully staffed and implementing project satisfactorily	Same.	World Bank supervision missions, reports, audits, etc.	Admin unit/SAGPyA
Monitoring programs in place and providing date to relevant national programs		Team fully staffed and implementing project satisfactorily 25%				Same	Annual progress reports	Admin unit/SAGPyA

Note: Baselines will be confirmed in year one.

Annex 4: Detailed Project Description

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

Background

1. Argentina harbors significant levels of biodiversity thanks to its broad range of geographic, altitudinal, and climatic regions. Over 10 percent of the 178 terrestrial ecoregions identified for Latin America and the Caribbean lie wholly or partially in Argentina (Dinnerstein, et al). Thanks to these abundant natural resources, the country has a thriving primary production sector. Agriculture (including livestock) and forestry represent 10 % and 3 % of the GDP respectively. Plantations represent 1.2 million hectares spread over the 23 provinces. Over 90% of these plantations are concentrated in the provinces of Misiones, Corrientes, Entre Rios, Buenos Aires, and the three provinces of Northern Patagonia (SAGPyA 2004 estimate).

2. Historically, expansion of the plantation area has been highly correlated to federal government support in the form of planting subsidies. However, there is growing evidence that the sector has reached a stage where market forces may now provide the primary motivation for planting. In 1992, with the beginning of subsidies, annual planting increased steadily for eight years. Planting rates in 1992 were estimated at 7,600 ha per year and annual planting continued to climb, peaking in 1998 at about 102,900 ha per year. Between 2000 and 2002, annual planting rates fell to about 20,000 ha, but increased 30 percent the next year to just over 30 thousand ha per year. The government estimates that there are between 10 and 20 million hectares of land with potential for plantation forests, in addition to 5 million hectares of pasture suitable for agroforestry alternatives. This leaves considerable room for expansion, as well as the opportunity to do so in a way that is balanced and takes into consideration the multiple values of forests and trees.

Incremental reasoning

3. Within this context, the globally important biodiversity of Argentina is at risk if not adequately planned, managed, and protected through involvement of the public and private sectors and the participation of civil society and academia. Analysis of the institutional capacities indicate a need for training, equipment and clear regulatory and planning frameworks to adequately consider biodiversity and promote it's growth in a sustainable way. Managers in the forestry sector (both private and public) must be able to understand that biodiversity needs to be considered at ecosystem and landscape level, as well as at the species level. They must therefore have adequate options to work with within this range of possible interventions.

4. Baseline analysis in Patagonia and Mesopotamia show that some critical areas for biodiversity overlap with areas of ongoing planting, therefore justifying the need for incremental investments in improved forestry practices that demonstrate viable economic alternatives or justify modifications of planting regimes within a biodiversity vision for these regions. Preservation of some areas through protected areas is also an option that should be considered when weighing how the sector should grow. Building capacities and providing planning tools will allow these decisions to be made.

5. The government of Argentina has proposed an approach that would make the forestry sector more sustainable from an economic, environmental, and social standpoint, through the GEF Biodiversity Conservation in Productive Forestry Landscapes Project. The stated Global Environment Objective is to mainstream biodiversity conservation into plantation forestry practices in order to conserve globally- and regionally-significant biodiversity in production landscapes located in critical ecosystems. This will be accomplished through the improvement of the capacities of national, provincial, and non-governmental institutions with responsibility over planted forests, as well as producers, researchers, and extension agents. Activities supported will include improved extension programs, information access, technology transfer, testing of management strategies, and improvement in managerial skills. These mainstreamed activities will be blended with investments in the plantation forestry sector made under the IBRD Sustainable Natural Resources Management Project loan. Below is a detailed description by component of the proposed project, including subcomponent costs. (For a more detailed breakdown of costs, please see Annex 5).

Component 1: Institutional Capacities Strengthened (US\$4.26 million total, including US\$1.99 Million GEF funding)

6. This component will ensure that national, provincial, and local forestry institutions are developing programs that integrate and promote biodiversity conservation in plantations. The focus of the efforts will be to build the capacities and technical skills of forestry officials, as well as individual researchers and extension agents, in areas relevant to the incorporation of biodiversity in plantation forests. In addition it will generate the legal, regulatory and policy framework necessary to mainstream biodiversity and improve the on-ground management of the forestry sector. It will promote dialog between private sector, public officials, and academia while disseminating conclusions, and facilitate access to examples of international best practices in the field of biodiversity and plantations. Strategic Environmental Impact Assessments also will be carried out in the project ecoregions to ascertain the broader impacts of forestry activities on the ecosystems. These activities will be coordinated with the parallel loan component, which will address information, policy, institutional development and coordination needs that are required to catalyze and orient the plantation forestry sector toward sustainable development. The IBRD project will also finance the execution of Strategic Environmental Assessments, the creation of Environmental Management Plans for key forestry areas, and environmental education for additional federal and provincial forestry officials.

7. The three subcomponents of the GEF project are: (i) Capacity building for biodiversity (ii) Organization and planning for biodiversity conservation and (iii) Policies and studies for biodiversity mainstreaming.

Subcomponent 1.1: Capacity building for biodiversity (US\$1.22 million GEF funding)

8. Training of public sector and other institutional players will aim to expand the understanding of biodiversity conservation, not only regarding its global environmental benefits but also in terms of its social and economic potential. Specialized in-depth training on biodiversity and ecosystem integrity and management, environmental impact assessments and strategic environmental assessments, and best practices for forest plantations and enrichment planting will be provided for senior federal and provincial officials, as well as for researchers and extension agents. Selected decision makers will also study international best practices in

incorporating biodiversity into plantations. This component will also support the acquisition of information systems designed to provide necessary tools for biodiversity-responsible planning to national and provincial authorities. The end result of the project will be a set of federal and provincial officials, as well as extension agents and researchers, with a sound understanding of the technical issues involved in incorporating biodiversity criteria into plantation forests, knowledge of national and international best practices, and the equipment necessary to make appropriate planning decisions.

9. Activities under this subcomponent include:

- Training in biodiversity mainstreaming for government officials at national and provincial levels;
- Training for researchers and extension agents;
- Provision of information systems equipment;
- Study tours of national and provincial forestry officials to observe best practices and ecoregional planning and management.

Subcomponent 1.2: Organization and planning for biodiversity conservation (US\$0.46 million GEF funding)

10. This subcomponent will support national and provincial-level dialogs involving broad sectors of civil society and private enterprise in order to create a common vision regarding the integration of biodiversity conservation into plantation forests, and will provide the tools necessary for such planning. At a provincial level, workshops with producers will be complimented by opportunities to study examples of international best-practices in settings similar to those of provincial plantations. The principal outputs will be a shared understanding of the current status of biodiversity in Argentine plantation forests, concerted plans for advancing biodiversity conservation, materials designed to disseminate conclusions and recommendations to a wider audience of technical specialists and policy makers, and tools for eco-regional and land-use planning.

11. To help provide a framework for planning plantation development at the local level, the project will undertake the preparation of detailed ecological maps through conventional mapping and GIS technology, using landscape ecology concepts. This effort will aim to identify areas vulnerable to plantation expansion and environmentally sensitive areas which, because of their ecological value, should not be subjected to planting, or that will require the incorporation of conservation measures into plantation development to ensure the long-term sustainability of nearby natural habitats.

12. The entire spatial and attribute database will be conformed to register with the SAGPyA's national plantation inventory system to create an electronic environmental monitoring system which will be updated regularly, and made available by internet. Links with other relevant inventories and databases will be established, including the new native forests inventory, available through SAyDS, and the National Parks Administration's (APN) Biodiversity Information System and spatial information on protected areas locations and classifications.

13. Monitoring is critical to ensuring that the impacts of the measures to be adopted are positive for biodiversity. The project will look at practical methodologies and critical species to determine if the measures are being implemented appropriately and improving the situation versus an initial baseline to be taken at the outset of the project. The monitoring may be carried out in conjunction with government institutions and may also involve other organizations including universities and NGOs with specific capabilities and projects. The system will be maintained at the local level throughout the project, and will be designed to ensure the long-term monitoring needed to assess changes to the ecosystem and serve as feedback to the ongoing planning and management processes.

14. Lines of action and activities under this subcomponent include:

- Organization and planning for biodiversity at national levels;
 - Linking of production instances and biodiversity at a national level;
 - Promoting regional forestry policy dialog on biodiversity;
- Strategic Environmental Impact Assessment at ecoregion level;
- Organization and planning for biodiversity at provincial and local levels;
 - Planning for biodiversity and forestry in the Alto Paraná Atlantic Forest;
 - Planning for biodiversity and forestry in Mesopotamian Grasslands;
 - Planning for biodiversity and forestry in Northern Patagonian ecosystems;
- Establishment of a monitoring system for biodiversity;
 - Integration of native forest and plantation inventories;
 - Strengthening of provincial systems for biodiversity and production monitoring.

Subcomponent 1.3: Policies and forest sector studies for biodiversity mainstreaming (US\$0.31 million GEF funding)

15. This subcomponent is designed to support establishment of the policy, legal, and economic incentive framework on forest plantations, and to devise recommendations for modifications that would further stimulate biodiversity conservation in plantations. Among the topics investigated will be national Law 25.080 (which is due to end in 2009) and specific provincial policies and legislation related to forests. The project will support work to examine potential weaknesses in the regulatory framework to improve consideration of biodiversity. Suggestions for potential improvements in plantation policy, environmental impact assessment (EIA) regulations, and tax laws and their regulations will be considered while looking for opportunities for amendments to encourage biodiversity conservation.

16. The impact of the existing incentive structure on biodiversity in plantations will also be studied. Government promotion for forest plantations and enrichment planting, economic and financial incentives for large plantations, and the existence of environmental funds all influence plantation planning and the incorporation of biodiversity-responsible practices into management techniques.

17. National and provincial policy can also be an important force for expanding plantations and private investment. In some provinces such as Neuquen and Misiones, there are subnational incentive systems that will either forward subsidies or may supplement the national subsidy system. Taxes may also be playing a role as incentives or disincentives that can be analyzed for their role and link to biodiversity conservation. The policy framework will be analyzed and

proposals prepared under the project for possible modifications needed to lead plantations in a direction compatible with biodiversity conservation.

18. Lines of action and activities under this subcomponent include:

- Evaluation and proposals for legislation;
 - Improve environmental standards in the incentive system;
 - Policy and legal reform at the provincial level;
 - Development of legal protections for globally important ecosystems;
- Analysis of the impact of legislation and incentives on biodiversity;
- Basic analysis for a sustainable forestry policy for the plantation sector;
 - Incorporation of biodiversity in national and provincial forest policy.

Component 2: Development and dissemination of biodiversity-responsible plantation practices and technology transfer (US\$2.11 million, including US\$1.09 million GEF funding)

19. This component will support the design and management practices that benefit biodiversity in native and exotic forest plantation settings, the economic analysis of different approaches, and the dissemination of best practices. The field testing of some of these practices will be piloted in the provinces while others, based on a demand-driven model will be tested in Component 3. The component will also strengthen the network of native seed banks and nurseries necessary to support native forest plantations. These incremental investments are needed since native species are at a disadvantage due to higher seedling costs (in some cases up to 10 times the cost of exotic seedlings) and need for genetic improvement of seeds for plantation settings. The project will facilitate a series of workshops designed to establish a set of standards for biodiversity conservation in the forestry sector that are agreed upon by major stakeholders, and will sponsor a major regional workshop to disseminate lessons learned and best practices. In order to multiply the reach of the project in terms of number of people trained and duration of impact, this component will also support the establishment and implementation of training programs for extension agents and of university programs in biodiversity-responsible forestry.

20. The activities implemented under this component are complementary to those funded by the partially-blended lending project. The parallel component of the loan will support applied research and technology transfer to generate a body of knowledge useful to producers, based on a “demand driven” model. The development of information on aspects such as pest management, and applied genetic research on native and exotic tree species, will be incorporated into best management practices to be extended to private sector forestry operations of all sizes. It will also promote partnerships with the private sector and provincial institutions. To get the ‘best practice’ message out, government certified private forestry extension services will be nurtured for large producers, with a similar system being promoted on a cost sharing basis for medium and small-scale producers. The aim would be to shift the fiscal burden for research and extension to the beneficiaries, that is, the private sector, with the state acting as regulator. In addition to complementary investigation and technology transfer activities, the associated IBRD project will finance environmental training for school teachers, in an effort to multiply the number of children that receive environmental education.

21. The results expected under Component 2 of this GEF project will be achieved through two subcomponents:

Subcomponent 2.1: Forest Practices for Biodiversity (US\$1.01 million GEF funding)

22. This subcomponent is designed to advance specific biodiversity-responsible techniques in plantation management with an emphasis on elements of the ecosystem which are most fragile or endangered, and disseminate lessons learned and best practices. These best practices will be integrated into the training and extension modules being supported by the project.

23. Included under this subcomponent are studies to further understand the technical dynamics related to plantations composed of native species, and economic analysis of the alternative approaches for the design and management of native plantations. The subcomponent will also support work on strategies to promote seedbanks and nurseries for native forest species, further facilitating the establishment of native plantations. To further promote ecologically-sound forestry practices, field trials with native species, including nursery and establishment trials as well as investigation of species growth and species behavior in mixed stands, will be carried out. Some promising groups of species to be assessed include: *Nothofagus spp.*, *Austrocedrus chilensis* (Patagonia, Magellanic Forests); *Tabebuia spp.*, *Cedrela spp.*, *Cordia trichotoma*, *Balfourodendron riedelianum* (Alto Paraná Atlantic Forest). Multisectoral consultations including small, medium, and large-scale producers; provincial and federal government institutions; academia and NGOs, will be held to discuss the establishment of standards for biodiversity-responsible practices in the forestry sector and to disseminate best practices drawn from studies and field trials. The work done under this subcomponent will also be disseminated, and the dialog on best practices continued, at a major international workshop linked to the World Forestry Congress to be held in Argentina in 2009. The workshop will bring together forestry experts to discuss issues related to biodiversity in plantations, thereby assisting in the replication and cross-sharing of experience at regional and global levels.

24. Lines of action and activities under this subcomponent include:

- Plantation methodology development with emphasis on biodiversity conservation;
 - Development and promotion of plantations with native forest species;
 - Strengthening of seed bank networks and native species nurseries;
- Development of standards and best practices for biodiversity in plantations;
 - Development and dissemination of standards and best practices for biodiversity;
 - Development and dissemination of management alternatives;
 - Piloting biodiversity-responsible practices and native plantations in provinces.

Subcomponent 2.2: Technology Transfer for Biodiversity (US\$80 thousand GEF funding)

25. This subcomponent will develop training programs in order to provide current agriculture and forestry extension agents with the tools they need to promote the integration of biodiversity into productive practices. As these extension agents have the greatest degree of contact with producers in the forestry and agricultural sectors, and are frequently their primary source of technical assistance and information, the promotion of biodiversity-responsible practices by these agents is likely to have far-reaching implications on the ground. Subcomponent 2.2 will also support the design and implementation of programs promoting biodiversity-responsible forestry practices in universities and technical/vocational schools in Patagonia and Mesopotamia,

the two primary forestry regions in the country. By training both extension agents and the next generation of researchers, policy-makers, and producers in techniques which promote the conservation of native biodiversity in plantation forests, this subcomponent will create a multiplier effect, reaching many times the number of people trained over the next few decades. For increased sustainability and replication at a national level, it is linked and mainstreamed into the IBRD investments in extension that will pilot and strengthen forestry extension systems.

26. Lines of action and activities under this subcomponent include:

- Development of extension program to support biodiversity conservation;
 - Preparation of Technology Transfer Program;
- Development and strengthening of program for forestry schools and universities.

Component 3: Support for adoption of biodiversity-responsible plantation forestry practices (US\$8.91 million, including US\$3.58 million GEF funding)

27. This component will support the incorporation of techniques which support biodiversity conservation into the practices of small, medium, and large producers. All producer groups generate impacts on biodiversity in plantation ecosystems, yet they require very different engagement strategies due to a highly disparate set of characteristics and needs. In all cases, in order to work with beneficiaries with the greatest degree of interest and ownership, the component will work through demand-driven subprojects proposed by the beneficiaries themselves (through executing agents within guidelines established by the project. The component also includes an extensive environmental education program for producers and other stakeholders, discussions on themes critical to biodiversity conservation in plantation ecosystems, and monitoring and evaluation in the effects of the forestry projects and silvopastoral projects on ecosystems. Support and preparatory work for the creation of protected areas, private reserves, and ecological corridors in areas with high biodiversity value that border on plantation areas will also complement these efforts in order to foment the protection of globally important biodiversity within the productive landscape.

28. The implementation of this component will entail a demand-driven model in which, provinces, local governments, academic institutions, and NGOs will compete for funding of projects that are designed to maximize biodiversity, provide economic incentives to protect and use native species, and improve biodiversity within exotic plantation settings. The demand driven model was selected to capitalize on the many diverse opportunities that exist for mainstreaming that were encountered during the preparation process. This provides the opportunity to make incremental, catalytic investments in projects that have established ties in the communities. A special set of selection criteria will be developed to achieve greatest levels of participation, co-investment, and pertinence with the goals of mainstreaming biodiversity in plantation settings. The IBRD project will provide complementary financing of extension activities for sustainable production, as well as environmental education specially targeted at small and medium producers.

29. Component 3 of the GEF project will support the following subcomponents:

Subcomponent 3.1: Pilot Projects for Mainstreaming Biodiversity in Plantation Landscapes (US\$3.28 million GEF funding)

30. Generating income from conserving biodiversity at the plantation level will require the promotion of sustainable production alternatives. This is particularly important for the small- and medium-size initiatives for which the sustainable use of certain portions of property may require precluding other uses which are more profitable in the short-term. This alternative production subcomponent seeks to support the mainstreaming process by converting biodiversity conservation initiatives into income generating opportunities for small- and medium-scale producers. (See Annex 19 for profiles and definitions of producers.) These activities would be promoted on land already in use for agriculture or forestry, and not for recently-converted land or natural ecosystems.

31. Examples of the plantation activities which may be promoted, depending on the needs and characteristics of the producers, are the planting of native species, establishment of biodiversity corridors, use of sterile clones, enrichment planting, incorporating conservation practices into plantation management (such as thinning and pruning, varying age structures in the plantation, maintaining habitats through retention of debris), reintroduction of native corridors, eradication of exotics in native stands, and use of non-timber forest products from plantations, among others. For subsistence farmers, the emphasis will be on establishing more sustainable production on their holdings in the form of agro-forestry systems. Eligible types of activities include, for example the production of yerba mate, ornamental plants, medicinal plants, honey, *stevia* sweetener, palm hearts, and grazing under forest cover. These alternatives must be beneficial from both economic and biodiversity standpoints. The designs may benefit from evaluations (to be generated in Component 2 primarily) to help boost their viability from a financial, environmental, and social point of view. To support pilot activities and other complementary initiatives, the dissemination of biodiversity values among the landowners and younger generations in the targeted ecoregions through environmental education campaigns would support the long-term changes and provide the proper backdrop for the practices to be adopted. Public awareness campaigns would also be incorporated to support the conservation of ecosystems in relation to plantations and to disseminate the conservation planning visions developed in other components of the project.

32. Following the implementation of the public awareness exercise carried out in 6 to 10 target areas (3-5 in both Patagonia and Mesopotamia) through the subcomponent, including the basic principles of conservation within productive landscapes and sustainable development, SAGPyA will be responsible for disseminating the relevant information to the public, specifying the objectives and procedures of the subcomponent. Proposals will be evaluated on a competitive basis (see below) and approved using the following general criteria; (i) degree to which the proposed activity contributes to biodiversity conservation objectives and its mainstreaming in the productive landscape, (ii) technical soundness and quality, (iii) economic/financial viability, (iv) arguments of sustainability, (v) community support for the proposals, (vi) level of co-financing (minimum of 1:1 required), (vii) capacity to successfully implement the proposed intervention(s). The sustainable production activities are designed to have positive environmental impacts and any adverse impacts would be screened out during the selection process using an environmental screening framework which is included in the project's environmental assessment. (In cases where other governmental and non-governmental programs

might be available, proposals would be required to include and show such support, to avoid duplication.)

33. Following the information dissemination campaign, the project will issue a call for proposals three times a year. Proposal submission would be open to all interested parties with legal status (*personería jurídica*) including NGOs, research institutions, consulting firms, and farmers and landholder associations, which will in turn work directly with the individual small- and medium-sized producers. Following the procedures set out in the call for proposals, proposals will be sent to the local project extension agents for an initial screening of eligibility criteria and application of the environmental screening framework included in the project's Environmental Assessment. Following this first review, the extensionist(s) will send all eligible proposals to the project implementation unit in SAGPyA. For each province SAGPyA will constitute a committee composed of PIU members, a project extensionist, a representative of the provincial forestry department, other government staff, and independent technical experts to review each proposals and select subprojects for financing. Winning proposals would thereafter be published in the press, and agreements entered into between SAGPyA and the winning bidders, or executing agent. The executing agent will receive the subproject funds in order to provide the small or medium producers with the services described in the proposal. The local extensionist(s) will provide on-the-ground oversight and monitoring of subproject implementation, with the PIU overseeing the entire program and monitoring a representative sample of subprojects.

34. The best practices developed and results of the field trials conducted under other components of the project will be monitored and an intensive review at mid-term carried out on sample areas in order to conduct feedback to implementation. This will help to ensure that the forestry techniques and practices are effective and practical under actual field conditions. Economic and social viability of the practices must also be evaluated for enhancing sustainability and ensure sustainability. This subcomponent will provide feedback to ensure local knowledge and needs are incorporated into best management practices, thus ensuring greater adoption by the local landowners and plantation operations involved in the program.

35. Lines of action and activities under this subcomponent include:

- Pilot subprojects for biodiversity conservation incentives;
- Environmental education/public awareness campaigns;
 - Implementation of education program;
 - Preparation and dissemination of material to promote native forest species;
- Monitoring of biodiversity in pilot mainstreaming projects in the primary plantation regions of Argentina.

Subcomponent 3.2: Environmental Management of Forest Production (US\$0.30 million GEF funding)

36. While small producers are extremely important for their impact on biodiversity through forestry and agroforestry activities, partnerships between large forestry corporations, producers and national/local authorities are also necessary for mainstreaming biodiversity into the plantation forestry sector. As both large individual landowners and corporate plantations have potential to impact biodiversity, both are considered and included in the project design. This subcomponent supports greater dialogue with private forestry companies and other large

stakeholders through provincial and local consultation fora (roundtables) focused on issues related to the incorporation of biodiversity in large plantations, as well as the drafting of standards for large forestry corporations. The private sector can provide both technology and financial resources for the implementation of best practices; if the public sector recognized the resulting demonstrations of corporate and social responsibility, it can lead to the quicker adoption of standards and reduce potential social conflict.

37. This subcomponent will also seek to further the dialog on forestry certification systems, and will provide technical assistance for those producers that decide to pursue certification. SAGPyA has already begun development of a manual of best practices that has served as input into the proposed Forestry Stewardship Council (FSC) standards for Argentina. The GEF will provide a needed push for dissemination and wider adoption of best practices and certification as part of mainstreaming, together with support to its participation and compliance with the provisions of the Montreal Process. Initially the standards of best practices may be voluntarily, adopted followed by certification after the practices have been “mainstreamed” throughout the forestry sector.

38. Subcomponent 3.2 will also seek to establish buffer and transition areas at the borders of large private plantations in areas with high biodiversity value. The identification of new areas where protected areas are needed, both private and public, in the context of plantation landscapes will be supported through technical studies and other activities to catalyze an increase core biodiversity areas in these regions. (The actual establishment of protected areas is not to be funded by the project. A social evaluation will be included in the scoping exercise to identify possible impacts to local populations of a new protected area.) The establishment of private reserves and promotion of tourism (both local recreational and more upscale nature tourism) as a result of ecoregional planning processes will also be included among potential alternatives for communities, companies, and individuals with interest in and capacity for investment in these ventures. The IBRD investment plans to support development of silvopastoral systems (i.e. plantations within livestock production landscapes). The GEF increment will monitor these alternatives to evaluate if there are benefits to biodiversity of these types of systems and what methods have the least impact in globally important grassland ecosystems.

39. Lines of action and activities under this subcomponent include:

- Stakeholder Roundables for biodiversity;
 - Integration of the biodiversity concept in planning process and private holdings;
- Promotion of certification to promote biodiversity conservation;
 - Analysis of certification process for plantations;
- Monitoring of biodiversity in agrosilvopastoral ecosystems;
 - Evaluation and dissemination of results for biodiversity;
- Support for the identification and catalyzing new protected areas options and buffer zones in plantation regions.

Component 4: Project Implementation, Monitoring and Evaluation (US\$0.52 million total, including US\$0.28 million GEF funding)

40. This component will administer implementation of the GEF Biodiversity Conservation in Productive Forestry Landscapes project, including financial management, procurement, and

administrative tasks, as well as technical supervision and oversight and monitoring and evaluation. Component 4 will support the project implementation team and its activities, as well as those of other parties related to implementation and monitoring. More detail on institutional arrangements, financial management, and procurement can be found in Annexes 6, 7, and 8.

41. The GEF Biodiversity Conservation in Productive Forestry Landscapes Project will share offices and a team with its IBRD counterpart project and the SAGPyA, ensuring close coordination in the implementation and monitoring of the two projects within the overall framework of the responsible line agency. This will ensure that the maximum degree of synergy is achieved, that modifications to one project can quickly be reflected in the other if needed, and sustainability of actions are transferred to the institution. It will also result in significant cost savings for both projects.

Subcomponent 4.1: Grant Administration (US\$0.21 million GEF funding)

42. This subcomponent will support the efficient and effective implementation of the project, including the administration of GEF and counterpart funds, execution of technical activities financed under the grant, and procurement of goods and services. This subcomponent will permit the hiring of a core project team (see Annex 6 for details) to execute the project. This team will also be responsible for maintaining relations with national and provincial governments, private sector organizations, and NGOs; participating in relevant national and international events; and disseminating information on the project and its achievements.

43. Included under this subcomponent are:

- Hiring of core project administration team;
- Financial administration of grant funds;
- Technical administration of project activities;
- Procurement activities.

Subcomponent 4.2: Monitoring and Evaluation (US\$70 thousand GEF funding)

44. This subcomponent will support the design and implement a program to collect baseline data, monitor the outcomes of project activities, evaluate the results, and incorporate the findings into the implementation of the project. The subcomponent will also include activities relating to the mid-term review and final evaluation of the project. The results of ongoing monitoring and evaluation will be disseminated at local, national and global levels to support the goals of sustainability.

45. Included under this subcomponent are:

- Development and implementation of a monitoring and evaluation program;
- Mid-term review and final evaluation of project.

Annex 5: Project Costs

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

1. Table 5.1 summarizes the financing for the GEF Biodiversity Conservation in Productive Forestry Landscapes Project from all sources. Table 5.2 presents a more detailed summary of the GEF financing.

Project Cost By Component and/or Activity	US\$ Million			Total
	GEF	Govt.	IBRD	
1) Institutional capacities strengthened	1.99	0.48	1.79	4.26
2) Development and dissemination of biodiversity-responsible plantation practices and technology transfer	1.09	0.27	0.75	2.11
3) Support for the adoption of biodiversity-responsible plantation forestry practices	3.58	3.73	1.60	8.91
4) Project implementation, monitoring & evaluation	0.28	0.24		0.52
Unallocated	0.06	0.02		0.08
Total Project Costs	7.00	4.74	4.14	15.88

*Government cofinancing includes both in-kind and cash cofinancing. Beneficiary cofinancing for subprojects has been included in the government cofinancing.

2. A more detailed table of costs and financing per subcomponent is included below (US\$ Million):

Components/ subcomponents	Total		GEF		IBRD		Government		Beneficiaries	
	\$	%	\$	%	\$	%	\$	%	\$	%
1. Institutional capacities strengthened	4.26	100	1.99	47	1.79	42	0.48	11		
1.1 Capacity building for biodiversity	2.53	100	1.22	48	0.95	38	0.36	14		
1.2 Organization and planning for biodiversity conservation	1.25	100	0.46	37	0.76	54	0.03	11		
1.3 Policies and forest sector studies for biodiversity mainstreaming	0.48	100	0.31	65	0.08	16	0.09	19		
2. Development and dissemination of biodiversity-responsible plantation practices and technology transfer	2.11	100	1.09	52	0.75	36	0.27	12		
2.1 Forest practices for biodiversity	1.85	100	1.01	55	0.59	32	0.25	13		
2.2 Technology transfer for biodiversity	0.26	100	0.08	31	0.16	62	0.02	7		
3. Support for the adoption of biodiversity-responsible plantation forestry practices	8.91	100	3.58	40	1.6	18	0.73	8	3.00	34
3.1 Pilot projects for mainstreaming biodiversity in plantation landscapes	8.17	100	3.28	40	1.49	18	0.40	5	3.00	37
3.2 Environmental management of forest production	0.74	100	0.30	40	0.11	15	0.33	45		
4. Project implementation, monitoring and evaluation	0.52	100	0.28	55			0.24	46		
4.1 Grant administration	0.41	100	0.21	51			0.20	49		
4.2 Monitoring and evaluation	0.11	100	0.07	64			0.04	36		
Unallocated	0.08	100	0.06	75			0.02	25		
TOTAL	15.80	100	7.00	44	4.14	26	1.74	11	3.00	19

Project Cost By Component and/or Activity	Local US \$million	Foreign US \$million	Total US \$million
1) Institutional capacities strengthened	1.295	0.537	1.832
2) Development and dissemination of biodiversity-responsible plantation practices and technology transfer	0.830	0.083	0.913
3) Support for the adoption of biodiversity-responsible plantation forestry practices	2.799	0.000	2.799
4) Project implementation, monitoring & evaluation	0.296	0.027	0.323
Total Baseline Cost	5.220	0.647	5.867
Physical Contingencies	0.082	0.003	0.085
Price Contingencies	0.983	0.065	1.047
Total Project Costs¹	6.285	0.715	7.000
Total Financing Required	6.285	0.715	7.000

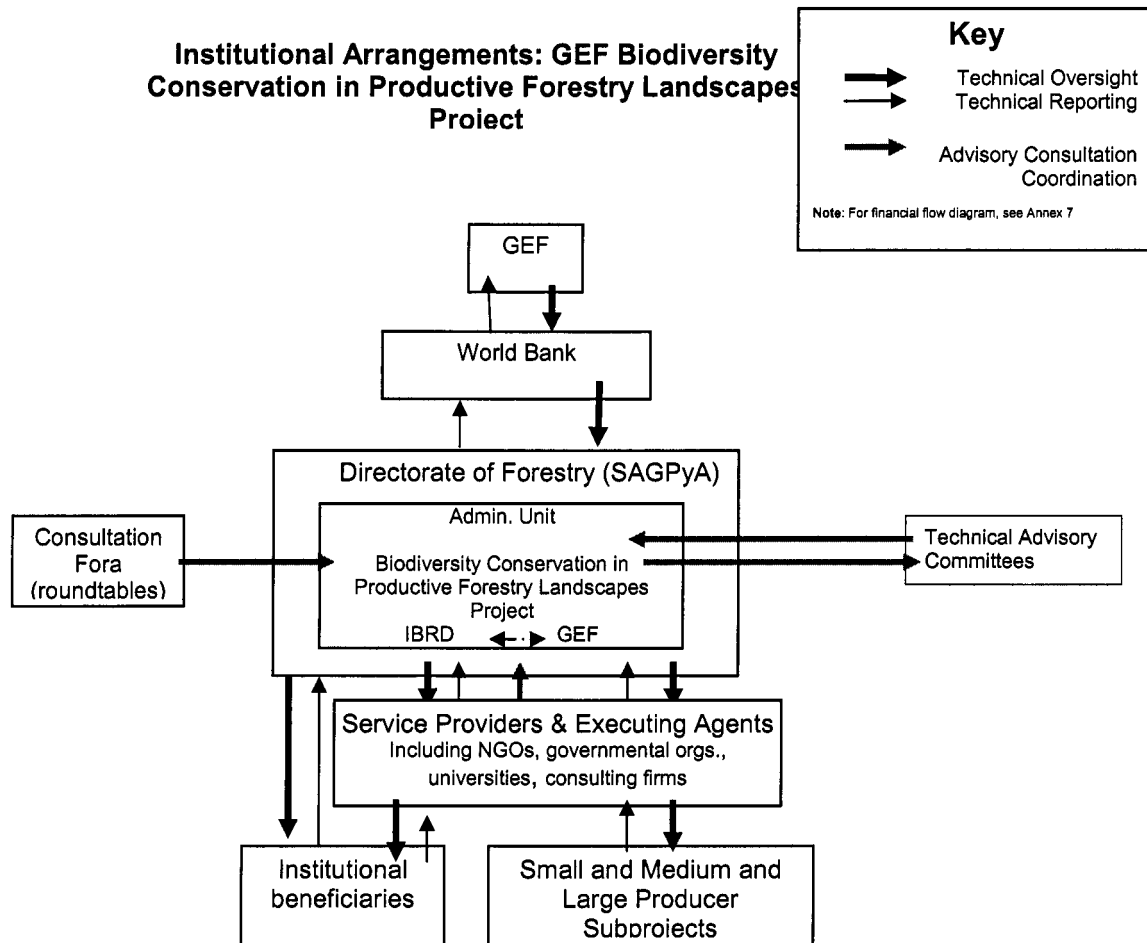
Cofinancing

3. Because it is partially-blended with this GEF project, the IBRD project was designed to include numerous environmentally-focused activities that would not normally be found in productive forestry projects. These include the execution of Strategic Environmental Assessments; completion of Environmental Management Plans for key forestry provinces; information management; environmental education for teachers, officials, and producers; and extension of technical assistance for sustainable production. These activities are considered entirely incremental; they would have not been included in the project design were it not for the relationship between the GEF and IBRD projects. These activities, which have a cost of \$4.14 million, have been included as cofinancing for the proposed GEF project.

Annex 6: Implementation Arrangements
ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

Institutional Arrangements

1. The GEF Biodiversity Conservation in Productive Forestry Landscapes Project will be financed by a \$7 million grant from the Global Environment Facility, implemented through the World Bank, to the Government of Argentina. The grant funds will be deposited directly into a special account in the *Banco de la Nación*. The national counterpart for the project is the Secretariat of Agriculture, Livestock, Fishing, and Food (*Secretaría de Agricultura, Ganadería, Pesca y Alimentos*, or SAGPyA). A graphic illustration of the institutional arrangements for the project is depicted below. (Please note that for the sake of simplicity, financial management arrangements can be found in full detail in Annex 7.)



Executing Agency

2. The GEF Biodiversity Conservation in Productive Forestry Landscapes Project will be implemented by the Secretariat of Agriculture, Livestock, Fishing, and Food (SAGPyA), which will be responsible for the technical, financial, and administrative oversight of the project as a whole. A specialized team located within the SAGPyA will be responsible for the direct implementation of project activities, as well as for financial management and procurement (see further details below).

3. For subprojects working with small and medium sized producers (under Component 3), most activities will be directly implemented by a set of specialized service providers contracted by the administrative unit.

Consultative and Advisory Bodies

4. The project will take advantage of existing consultative mechanisms, including regular forestry workshops (jornadas forestales) and the Advisory Commission for Law 25,080, and where necessary create new mechanisms, to incorporate stakeholder perspectives into the official forestry dialog. In this way a diverse set of actors involved in the plantation forestry sector are incorporated into project implementation, as well as allow a more effective dissemination of project information and results among different stakeholder groups.

5. Other governmental institutions will play an advisory role for relevant aspects of the project such as the Institute for Agricultural Technology (INTA), an important research institution with much experience in the forestry sector. Academic institutions and NGOs are expected to serve in similar consultative roles during implementation.

Technical Advisory Committee

6. The project will form a Technical Advisory Committees to advise the project on specific matters relating to project implementation, including subproject selection and monitoring and evaluation. Members will be recognized leaders in the fields of natural resource management and biodiversity conservation in each of the target regions of the project.

7. Committee members will be proposed by academic institutions, extension agencies and others involved in land and or plantation management during the first six months of the project. SAGPyA will review the proposed candidates and select those with the most appropriate profiles for the work to be on the committee.

8. One permanent committee will focus on monitoring and evaluation for project activities, and will thus provide independent perspectives in this area. The functions of this Technical Advisory Committee will be to:

- Review the semi-annual and annual reports provided by the monitoring and evaluation activity and conduct interviews with project and agency specialists involved in the various components;

- Provide feedback to the monitoring and evaluation process and make recommendations for adjustment of monitoring techniques, as may be required, in order to enable the effective use of the monitoring system to guide project implementation;
- Advise the administrative unit on the results of the monitoring assessment, and their potential impact on measures needed to promote the conservation of biodiversity in plantation forests.

9. The committee will provide feedback within one month of the receipt of the monitoring reports and conduct a formal meeting with the administrative unit to discuss their findings. A brief joint report of the evaluation containing the major issues and recommendations will be elaborated and included as an annex to the periodic progress reports submitted to the Bank.

10. Other committees will be convened as needed to address specific issues that may arise during implementation, and will be composed of recognized experts with specializations in fields related to the issue in question. Regional committees will be responsible for reviewing the subprojects selected under Component 3, thus assuring transparency in the selection process, and in the application of the screening mechanism as well as thematic relevance of sub-projects selected.

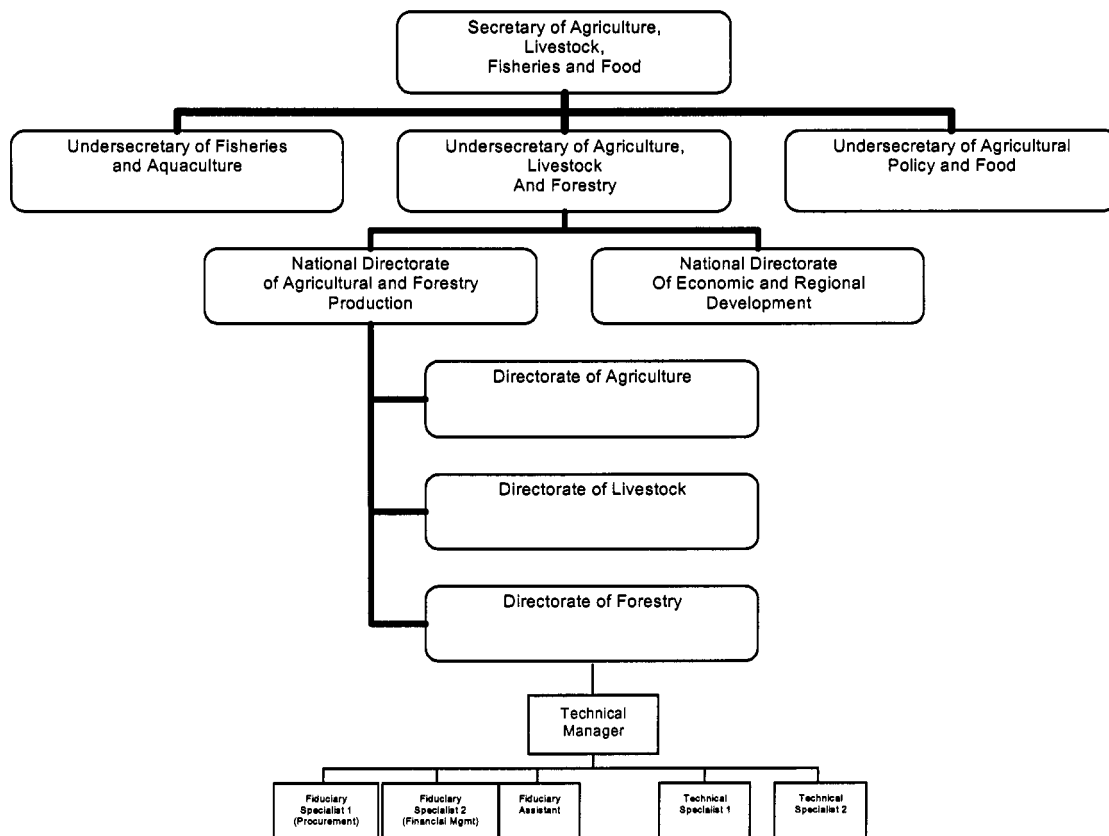
Associated Project

11. The GEF Project is partially-blended with an US\$ 113 million IBRD loan for the Sustainable Natural Resources Management Project which has a Project Development Objective to improve the management and conservation of natural resources, foster rural development and enhance the environmental values of management practices that are dependent upon Argentina's natural resources. This it would do by improving the policy framework, strengthening institutional capacity at federal and provincial levels, improving information delivery services, facilitating the involvement of small and medium-scale farmers, land owners and producers in environmentally-sustainable forms of forestry, agriculture and agro forestry, by institutionalizing environmental safeguards and incorporating best practices into activities which draw on the natural resource base, strategic planning, and by encouraging more private-sector involvement in service provision.

12. The project would also implement major efforts to secure and manage a biological-sustainable use corridor in the Chaco to extend to the frontier with Paraguay and Bolivia. The Copo National Park, already established through the GEF Project TF 028372, would serve as one of the nuclei for the corridor and provide a staging area for outreach for sustainable management and conservation activities to be implemented with provincial and federal support.

13. Project efforts would focus on (i) the rural poor, whose livelihoods depend on agriculture; (ii) medium- and small-scale producers in the forest sector, with limited access to technology needed for improving productivity; and (iii) innovative medium-scale farmers working in silvo-pastoral systems. In addition, the project would aim to bolster the technical capacity and outreach of federal and provincial organizations working in natural resource issues to provide technical, policy and regulatory leadership within the field of natural resource management.

Implementation Arrangements



14. The proposed GEF project will be implemented directly by SAGPyA's Directorate of Forestry, thereby ensuring integration of project activities into the line functions of the Secretariat.

15. The General Coordinator will be the Director of Forestry of SAGPyA and a Technical Manager will be responsible for the technical, financial, and administrative activities required to implement the activities funded under the GEF grant. Two Technical Specialists will work to integrate project activities into the line functions of the Directorate. One will focus on Institutions and Outreach (Components 1 and 2), while the other will be responsible for Productive Concerns (Component 3) including producer subprojects. The project will include an accounting and procurement specialist, and a fiduciary assistant. (See Annexes 7 and 8 regarding fiduciary control functions).

16. As needed, specialized consultancies may also be undertaken to supplement the SAGPyA technical team in the implementation of specific activities.

17. The provincial governments, through their environmental bureaus, will be involved in the execution of provincial-level activities. Non-governmental organizations of national and regional/local scope may take part in components such as environmental education, outreach, biodiversity monitoring and other aspects specifically related to their expertise and interest.

18. Specialized consultancies will be carried out for independent monitoring and evaluation of project activities, in order to guarantee the objectivity of this oversight. The Technical Manager will be responsible for assuring that the results of project monitoring are incorporated into the project strategy and that any modifications needed in this strategy are made, and in coordination with the administrative staff, will be responsible for incorporating the results of the monitoring consultancy into regular project reports. The monitoring and evaluation of project results will also draw on the resources and experience of SAGPyA institutions with specific capacity in monitoring, evaluation and systematizing information such as the SAGPyA geoprocessing office, as well as other organizations including the academic sector, research institutions, and specialized NGOs. The results of ongoing monitoring and evaluation will be disseminated at local, national and global levels to support the goals of sustainability, and will be incorporated as necessary into the project implementation strategy. Annex 3 of this document details the project monitoring strategy, including the use of the SP2 Biodiversity Mainstreaming Tracking Tool.

Component 3 subproject implementation

19. As described in Annex 4, implementation for the small- and medium-sized producers subprojects will be as follows: SAGPyA will be responsible for disseminating, via the press and other means, information on the subproject program, including objectives, guidelines, and criteria. Once this is done, a call for proposals will be issued three times a year. Organizations with legal standing (*personería jurídica*) including NGOs, academic institution, consulting firms, and farmer or producer associations will be eligible to apply for subprojects to promote biodiversity conservation among the target groups of producers. Proposals will be submitted first to the local extension agents to be funded partly by the associated IBRD project. Once an initial feasibility and environmental screening has been done, the proposals will be sent to the PIU. The PIU will convoke a panel of PIU staff, provincial forestry officials, extension agents, and subject matter experts to select proposals for financing. Agreements will be signed between SAGPyA and the winning bidders, or executing agents, who in turn will provide the small or medium producers with the services described in the proposal. The local extension agents will provide on-the-ground oversight and monitoring of subproject implementation, with the PIU overseeing the entire program and monitoring a representative sample of subprojects.

Associated Project

20. The GEF Biodiversity Conservation in Productive Forestry Landscapes Project is partially-blended with the lending Sustainable Natural Resources Management Project, financed through an IBRD loan. The two projects have been closely coordinated since their conception, and as detailed above will share the same implementation team. This will help ensure that all activities and complementary but not duplicative, and will create synergies in the shared ambits of action.

Annex 7: Financial Management and Disbursement Arrangements

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

Executive Summary and Conclusion

1. An assessment of the Financial Management (FM) arrangements for the proposed project was carried out in accordance with OP.BP 10.02 and applicable policies and guidelines.¹² It can be concluded that the Secretariat through the PIU has adequate financial management arrangements in place that meet minimum Bank requirements. A qualified staff with previous project experience will be hired to undertake the financial management functions for the project. From the financial management view the project is considered a *modest risk* operation. A detailed risk assessment will be provided on the FM Assessment Report (FMA)

Country issues

2. The Argentine CFAA indicates that overall control risk of public finances at federal level could be considered moderate. The overall Bank portfolio fiduciary risk has increased from moderate at the time of the 2004 CAS to substantial in late 2005. The Country Assistance Strategy¹³ (CAS) states that at federal level the FM portfolio risk is moderate.

3. Fiduciary Action Plan. The Argentina CAS includes a Fiduciary Action Plan (FAP) to help strengthen the operating environment for Bank projects in Argentina. The FAP basically consists of three components: raising public awareness, bolstering Bank fiduciary monitoring and increase transparency and competition practices in public procurement. Regarding FM the Plan aims at: i) improving timeliness of external audit compliance for Bank-financed operations; ii) increasing strategic focus and coverage of supervision tools assessing fiduciary risk in operations; and iii) complementary actions such as support streamlining and harmonization of fiduciary processes and reliance on country systems when these meet adequate fiduciary standards.

4. Project fiduciary measures link to the objectives of the FAP. The following measures are part of the project FM arrangements to contribute to meeting the objectives of the FAP:

- Intensive FM supervision to ensure the continuous adequacy of financial management arrangements, evaluate project internal control and update assessed risk. At least two on-site visits integrating the project team is planned for the first year.
- Use of country system. The National Government system specially designed for the execution of multilateral financed operations, which is legally required (UEPEX) will be utilized to maintain the project accounts. UEPEX is compliant with Bank requirements, provides a good ex-ante internal control framework and is in line and better integrated with the national budget execution process.
- Continuous support to AGN efforts to ensure timely audit compliance for the project. Upon audit findings, follow up on the PIU action plans to address the auditors' recommendations.

¹² Financial Management Practices in World Bank-financed Investment Operations, issued by the FM Sector Board on November 3, 2005

¹³ Argentina Country Assistance Strategy. Period 2006-2008; May 4, 2006. B. Fiduciary Assessment. Financial Management

Strengths and Weaknesses

5. Strengths: The strong points on FM are: the use of the Government tool for multilateral-financed projects (UEPEX system) to keep the accounting records of the project as well as the accounting staff experience in a previous Bank-financed project.

6. Weaknesses: Transfers to small producers, NGOs, municipalities and other entities under component 3 may pose some risk on the uses of funds for the intended purposes. Those risks will be mitigated through: 1) advances will be made after a subproject agreement is signed by the beneficiary and the PIU; and 2) a specific set of procedures agreed with the Bank to ensure adequate control of the PIU over the funds transferred to subprojects are incorporated into the Operational Manual.

Implementing Entity

7. The proposed GEF will be implemented by the federal Secretariat of Agriculture, Livestock, Fisheries, and Food (SAGPyA). A six person Project Implementation Unit (PIU) will be established in the Forestry Directorate, *Dirección de Forestación* which will also be closely involved in the implementation of the project to ensure that the objectives of long-term mainstreaming and policy work proceeds smoothly. The PIU will have overall responsibility for project financial management functions; comprising budgeting, accounting and reporting including preparation of interim unaudited financial reports (IUFAR), internal control, flow of funds and external audit process. The entity has already implemented the Forestry Development Project (P006040); Loan 3948-AR

Budgeting and Accounting

8. Budget execution in Argentina is recorded in the Federal Government integrated budget and accounting system (SIDIF, *Sistema Integrado de Información Financiera*) and subject to control over the budgetary execution process. The unit has skilled and experienced financial management staff capable of fulfilling the project needs. It is required that a separate budgetary line in the Secretariat's annual budget be set to allocate budgetary resources and keep track of the project execution specifying the sources of funds. To maintain the project accounting records the Unit will use the UEPEX system, an in-house information tool developed by the Federal Government which use is mandatory for multilateral financed operations at federal level and is considered adequate for accounting purposes. The project chart of accounts will reflect disbursement categories, project components and sources of financing. The cash basis of accounting will be used for recording the project transactions.

Internal Control and Internal Auditing

9. SAGPyA is subject to internal audit of the General Syndicate of the Nation (SIGEN) which is the Federal Government's internal audit agency under the jurisdiction of the executive branch. SIGEN supervises and coordinates the actions of Internal Audit Units (IAUs) in all federal agencies, approves their audit plans, conducts research and independent audits, systematizes the information from its own reports and those produced by the IAUs.

Funds Flow and Disbursement Arrangements

10. The following Disbursement Methods may be used under the Loan:

- Reimbursement
- Advance
- Direct Payment

11. To facilitate project implementation the Unit will operate a segregate Designated Account; (DA) (old terminology Special Account) in US dollars. As it is customary in Argentina, SAGPyA will open the Designated Account in Banco de la Nación Argentina (BNA). The administrative unit will manage the DA and will be also responsible for preparing the bank account reconciliation on a monthly basis. Funds deposited into the DA as advances will follow the Bank's disbursement operating policies and procedures described in the Legal Agreement or in the Disbursement Letter. Withdrawals from the Designated Account will be solely made for payments of eligible expenditures. As eligible expenditures arise, funds will be converted to local currency and deposited into a dedicated payment account open in BNA in pesos from which payments will be made as incurred. The proposed ceiling for advances to the DA is \$ 500,000 sufficient to cover the highest point of disbursements of the project.

12. Supporting documentation for documenting project expenditures under the advance and reimbursement methods will be:

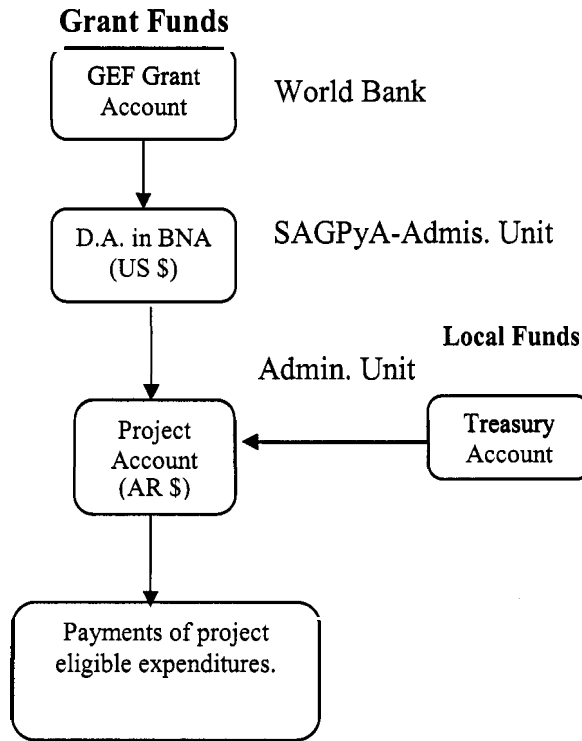
- Statements of Expenditures (SOEs) for all expenditures below the following thresholds: Payments for Goods against contracts valued at less than US\$100,000; payments for Consulting Firms against contracts valued at less than US\$100,000; payments for Individual Consultants against contracts valued at US\$50,000 or less; and payments for Subprojects (customized SOE). All consolidated SOEs documentation will be maintained by PIU for post-review and audit purposes for up to one year after the final withdrawal from the Grant account.
- Records evidencing eligible expenditures (e.g., copies of receipts, suppliers/contractors' invoices) for payments for Goods against contracts valued at US\$100,000 or more; Consulting Firms against contracts valued at US\$100,000 or more; and Individual Consultant against contracts valued at US\$50,000 or more;
- Direct Payments supporting documentation will consist of records (e.g.: copies of receipts, supplier/ contractors invoices).The minimum value for applications for direct payments and reimbursements will be US\$ 100,000.

13. Subproject funds to small producers and other beneficiaries will be disbursed as per provisions included in the sub project agreements. It is envisioned that the first installment will be disbursed upon signature of subproject agreement, and additional installments will be made on the basis of documented expenditures and or the achievement of targeted outcomes.

14. The project Operational Manual incorporates specific arrangements to ensure the adequacy of the administrative unit control over uses of funds for the subproject program under Component 3 and other project activities involving advances to other Government institutions or

non-governmental organizations (NGO). These procedures were prepared by the PIU, reviewed and agreed with the Bank during appraisal.

15. The flow chart below presents the funds flow arrangements from the GEF account to the project Designated Account and operative account.



16. The project incorporates the Bank’s new policy on eligibility for Bank financing¹⁴ since the country’s financing parameters for Argentina have been approved by the Bank Regional Vice-Presidency.

17. The proceeds of the grant would be disbursed against the following disbursement categories:

Project Cost By Category	Amounts allocated GEF	% of Expenditures to be Financed
1. Goods (except as covered by Category (4) below)	172,000	100%
2. Consultant Services (except as covered by Category (4) below)	2,175,000	100%
3. Training	1,200,000	100%
4. Goods, works, consultant and non-consultant services needed for the carry out of Biodiversity Subprojects	2,400,000	100%
5. Incremental Operating Costs	150,000	100%
6. Unallocated and Contingencies	903,000	100%
Total Project Costs	7,000,000	

¹⁴ See OP 6.00, *Bank Financing*.

18. The project will continue to access Bank’s Client Connection web page to get the Withdrawal Form from the web and to perform on a periodic basis the reconciliation between its bank account and resources received from the different sources.

Financial Reporting

19. The administrative unit will be responsible for the preparation of project financial statements in line with the Bank requirements. The UEPEX system will be used to produce the requisite financial statements following public sector accounting standards in Argentina. The public sector accounting rules are comprehensive and consistent with public international standards. Said standards are set by the Accountant General Office, *Contaduría General de la Nación* (CGN).

20. Draft formats of the annual financial statements to be prepared by the project and acceptable to the Bank are part of the Operational Manual. In addition, the administrative unit shall also prepare semiannual Interim Unaudited Financial Reports (IUFs) for monitoring and evaluation purposes that will be part of the Project progress reports, as follows:

- A financial section stating for the period and cumulatively (project life) cash receipts by sources and applications by main expenditures classification as well as beginning and ending cash balances of the project and a statement of accumulated investments by project component with a comparison between actual and planned expenditures.
- An output monitoring section that: (a) sets forth physical progress in project’s implementation, and (b) explains variances between the actual and previously forecast implementation target.

21. IUFs review will be conducted by the assigned FMS during project supervision missions.

External Auditing Arrangements

22. The annual financial statements of the project will be audited by an acceptable auditor, following terms of reference and conducted in accordance with auditing standards acceptable to the Bank as well. It is proposed that Argentina’s Supreme Audit Institution, *Auditoría General de la Nación* (AGN) be the external auditor for the GEF project. The annual audit will cover all funding and expenditures reported in the project financial statements and will be submitted to the Bank within six months after the end of the reported period. For audit purposes the fiscal year will be the calendar year. Acceptable audit reports were submitted to the Bank in previous project implemented by the SAGPyA while Bank requirements were generally complied with. Details on the audit results of previous project implemented by SAGPyA and the Forestry Directorate are presented in the full FMA report. The following chart identifies the audit reports that will be required to be submitted by the project and the due date for submission.

Audit Reports and Due Dates	
<i>Audit Report</i>	<i>Due Date</i>
1) Project Financial Statements	June 30 of each year
2) Special Opinions	June 30 of each year

<ul style="list-style-type: none"> • SOE an opinion on the eligibility of expenditures reported and the correct use of Loan funds 	
<ul style="list-style-type: none"> • Designated Account 	

Action Plan

23. Pending steps to complete the financial management assessment are included in the action plan presented in the table below.

Action	Responsible	Completion Date
1. Request a specific budgetary line in SAGPyA annual budget to Project execution.	Administrative	To be included in 2008 annual budget
2. Finalize Administrative Section of Operational Manual which include inter alia: a) Chart of accounts; b) IUFR format agreed with the Bank; c) Format of the Annual Financial Statements d) Specific Funds flow procedures for the Subprojects and advances to other institutions	Administrative	By appraisal - Completed

Supervision Plan

24. Prior administrative unit experience in implementing a Bank financed operation has been taken into consideration to define the FM supervision plan. Supervision scope will be adjusted by the assigned FMS according to the fiduciary performance and updated risk. The table below shows the FM supervision objectives, tasks and timing planned for this project.

Type	Timing	Mechanism	Objective
Visit	Twice first year. Thereafter, once a year Material observations are	Integrating project team supervision missions.	Review FM system and controls Update assigned risk Review DA Reconciliation. Uses of funds. Follow up on External Audit issues. Review IUFR information consistency SOE review as needed
Audit Review	Annually	Over the Audit Report submitted to the Bank	Review Audit Report.

Annex 8: Procurement Arrangements

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

A. General

1. Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines: Procurement Under IBRD Loans and IDA Credits" dated May 2004, and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004, and the provisions stipulated in the Legal Agreement. The various items under different expenditure categories are described in general below. For each contract to be financed by the Loan/Credit, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and the Bank in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

2. **Procurement of Works:** There will be no works procured under this project.

3. **Procurement of Goods:** Goods procured under this project would include IT equipment (computers, printers, etc), Geographical Information System software and systems. The goods will be procured using Shopping based on comparison at least of three quotations when the individual cost of the items is less than \$100,000.

4. **Procurement of services (other than consultant services):** all contracts for services not related to consultant services (logistics, organization of events, workshops, agency travel, printing services) may be procured under the same methodologies and thresholds specified for goods.

5. **Selection of Consultants:** Consulting Services under this project would include services to be provided by firms, such as: biodiversity priority mapping; evaluation on current provincial policy and law, technical assistance for review and recommendations for biodiversity plantation, evaluation and dissemination of results. Consulting Services under this project would also include specialized services to be provided by individual consultants for technical assistance for the design of program of evaluating EIA, develop linkage program at national and regional level, legal studies and develop program training. All contracts will be procured using Bank's Guidelines for the hiring of consultants. For firms, all contracts would be procured using QCBS procedures except for small contracts for assignment which may be procured using FC.

6. The short list of consultants in contracts estimated to cost less than \$500,000 equivalent, per contract, may be comprised entirely of national consultants, in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. Specialized advisory services would be provided by individual consultants selected by comparison of qualifications of at least three candidates and hired in accordance with the provisions of paragraph 5.1 to 5.3 of the Consultant Guidelines. Individual consultants may be selected sole-source with prior approval of the Bank in accordance with provisions of paragraphs 5.4 of the Consultants Guidelines.

7. **Sub-projects for Small and Medium-Sized Producers:** This component will include small value grants to help promote conservation, finance the generation of income (e.g., plantation of native species, silvicultural practices, *yerba mate*, ornamental plants, medicinal plants, honey.). All contracts would be procured by comparison of at least two quotations or proposals. For contracts estimated to cost \$50,000 equivalent or above shall be used documents acceptable to the Bank and contracts estimated to cost \$100,000 equivalent or above require prior Bank review.

8. **Training:** The Project will finance expenditures (other than those for consultants service) incurred by the Borrower and/or staff at national and regional level, as approved by the Bank on the basis of an annual plan, to finance reasonable transportation costs, per-diem and training registration fees which would be procured using the implementing agency's administrative procedures that were reviewed and found acceptable to the Bank.

9. **Operating Costs:** would be procured using the implementing agency's administrative procedures which were reviewed and found acceptable to the Bank. This includes office and administrative costs related to managing a project, travel expenses and per diem, either related to supervision activities.

10. **Thresholds for procurement methods and reviews:** the thresholds for procurement methods and prior review will be defined in the procurement plan. The following thresholds will be taken into account in the design of the procurement plan for selection of methods and for the review by the Bank.

Table A: Guidance for Thresholds for Procurement Methods and Prior Review in the Procurement Plan (US\$)

Category	Contract value (thresholds US\$)	Procurement method	Contracts subject to prior review
Goods	≤ 100,000	Shopping	First two
Consultants' services (firms)	> 100,000	QCBS	All
	< 100,000	FC	First two
		SSS	All
Consultants' services (individuals)	> 50,000 or sole source	See section V of Guidelines	All
	< 50,000	3 CVs	No

Note: QCBS = Quality- and Cost-Based Selection; FC = Fixed Cost.

B. Procurement Plan

11. The UDI developed a procurement plan which was delivered at appraisal. The plan will be available in the project's database and in SEPA website. The Procurement Plan will be updated in agreement with the Project Team annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

C. Capacity Assessment and Frequency of Procurement Supervision

12. An assessment of the capacity of the Borrower to implement procurement activities for the project has been carried out by Ana María Grofsmacht (LCOPR) on March 28, 2007. The assessment reviewed the organizational structure for implementing the Project and the coordination with the technical units that would be participating in the project implementation.

13. Even though the UDI (Implementation Unit) was created during the implementation of the Forestry Development Project (AR-3948) and the staff gained experience to manage the project, the staff who will be responsible for the procurement aspects has not experience in Bank's procedures. As a consequence, the procurement planning is slow, the procurement module of UEPEX is not entirely functional and the tracking of grants through an integrated system is yet to be defined.

14. The mitigating measures that have been agreed are the following (i) staff in the procurement unit should participate in the Basic Procurement Training delivered by the Bank, either in the country or in any neighboring country; (ii) the UDI will implement the SEPA system; and (iii) the Operational Manual, acceptable to the Bank, will be finalized prior the effective date.

15. In consideration of the issues mentioned above, the overall project procurement risk is high, and would require post-review mission twice a year. The risk may reduce during the GEF implementation as the staff in the UDI gains knowledge and experience.

D. Special Procurement Provisions

16. The following shall apply to procurement under the project:

- Foreign and local contractors, service providers, consultants and suppliers shall not be required: (a) to register; (b) or establish residence in Argentina; (c) or enter into association with other national or international bidders as a condition for submitting bids or proposals.
- The invitations to bid, bidding documents, minutes of bid opening, requests for expressions of interest and reports of award of all goods and services (including consultants' services), as the case may be, shall be published in the web page of Oficina Nacional de Contrataciones in a manner acceptable to the Bank.
- Contracts of goods and services –other than consulting services- shall not be awarded to the “most convenient” bid but to the one that has been determined to be substantially responsive and the lowest evaluated bid, provided that further the bidder is determined to be qualified to perform the contract satisfactorily.
- Inclusion of the bidder in lists published by specialized magazines will not be an acceptable criterion for determining the qualification of such bidder.
- Bank models of contracts will be used and the use of “convenios” will not be permitted.

Annex 9: Economic and Financial Analysis

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

Introduction

1. The GEF-financed Biodiversity Conservation in Productive Forestry Landscapes project's development objective is to mainstream biodiversity conservation into plantation forestry practices. This objective is also consistent with the Global Environment Objective of conserving globally and regionally significant biodiversity in production landscapes located in critical Argentine ecosystems.

2. The project's objective will be achieved through the following proposed components: (i) Institutional capacities strengthened; (ii) Development and dissemination of biodiversity-responsible plantation practices and technology transfer; (iii) Support for the adoption of biodiversity-responsible plantation forestry practices; and (iv) Project implementation, monitoring and evaluation.

3. The main products of the project will be (i) development of programs to integrate and promote biodiversity conservation in forestry plantations by federal, provincial and local forestry institutions; (ii) improved development, validation, and dissemination of practices that improve and conserve biodiversity in target areas; (iii) small, medium and large producers assisted in adopting best practices for biodiversity-responsible plantations; and (iv) effectively managed mainstreaming program with strengthened institutional monitoring and evaluation capacities.

4. The proposal is also consistent with the National Biodiversity Strategy adopted in 2003 by the Secretary of Environment and Sustainable Development (Resolution 91/03). The proposed project will assist the government to strengthen the capacity of policy making through training and technical assistance. Meanwhile support would be also provided for field trials and extension including the use of native species and various innovative production techniques favoring biodiversity conservation. Producers will be assisted with incremental costs associated with biodiversity-responsible planting including extension services for planting native species and other inputs such as native seedlings and other production inputs.

5. The present economic analysis has been prepared to evaluate the economic benefit brought about by the project in addition to the local environmental benefits and global environmental impacts achieved. Since the most of economic benefits are not measurable from a monetary perspective, the evaluation method most applicable is cost-effectiveness analysis.

6. The financial analysis will focus on native species plantation options and various technical treatments. The analysis applies the hectare-model and evaluates internal rate of return (IRR), net present value (NPV) and potential soil value (PSV).

Economic Analysis

7. In general, the economic value of biodiversity is difficult to be measured in monetary term. Evaluating biodiversity conservation from an economic standpoint may involve using

proxies for measurement and valuation including soil improvements, water quality, vegetation, and wildlife increases, among other ways to measure the cost to conserve/restore biodiversity. The project approach is to improve management and plantation techniques that would reduce potential cost to maintain and restore biodiversity, as opposed to the current trend in which biodiversity is not priority consideration in agro-forestry and plantation forestry. Baseline surveys and studies have been prepared by SAGPyA; these have been used as inputs for the present analysis.

Identify economic benefits

8. Component 1 aims to create the required capacity at federal and provincial levels of government to spearhead the mainstreaming process. It will also update the legal and policy frameworks needed to improve sustainable plantation planning and establishment, and invest in tools critical to biodiversity-responsible plantation location and design.

9. The *direct economic benefits* derived from the activities would include:

- Strengthened capacities of the government policy makers will allow greater understanding of the importance of biodiversity conservation. Policies favoring biodiversity conservation would be supported, drafted, and tied to efficient measurement mechanisms (subsidies, taxation).
- The researchers will be strengthened in their capacities by updating their awareness, knowledge, and skills in this field. As a result it is expected that additional resources will be allocated for research on biodiversity conservation, including genetic research on native species and the development of new techniques for plantation.
- The capacities of extension agents will also be strengthened since they play an important role in introducing production practices and technology to the producers. The quality of the service will be enhanced, thereby improving efficiency in production practices.

10. The *indirect economic benefits* will accrue to the producers. The producers will receive economic benefit from government policies favorable to biodiversity conservation. In addition, they will receive services through technical assistance for their production.

11. Component 2 will document and disseminate improved forestry practices that integrate conservation with production. It will support field trials and extension of biodiversity-conservation techniques to be integrated into production practices. A special focus will be placed on practices for establishing native and mixed species plantations, opening up the understory to the surrounding ecosystem, and creating set asides. Economic implications of these practices will be monitored through component 4. Native seed banks and nurseries will be supported, and field trials carried out to analyze different management approaches. Dialog on these issues will be stimulated at a series of workshops, and best practices will be disseminated at a major regional workshop.

12. The *direct economic benefits* will be the enrichment of the country's genetic resources (through the support to native seed banks) and the producers who would adopt new techniques and cultivate native species. Introduction of best practices and technology transfer will focus on least cost practices that maximize economic benefits to the producers.

13. Component 3 will work with producers directly to assist in maintaining profitability while conserving biodiversity in private plantation settings. This process will require the promotion (and acceptance) of alternative paradigms directly within the production regions. Both small- and large-scale producers will need to be involved; as each group has very different needs and resources, the project includes two sets of complementary activities. For small producers, a demand-driven program of grant supported subprojects will be included, complemented by environmental education and monitoring. The objective is being to support and compensate owners for the inclusion of biodiversity-responsible practices in production landscapes. This will be done through cost sharing and grant funding. The component will also facilitate dialog with large producers on conservation friendly practices, standards, and certification, and provide technical assistance needed to improve biodiversity-responsible techniques. The establishment of buffer and transition zones in areas of high biodiversity will also be supported.

14. The *direct economic beneficiaries* will be the forest producers, especially small producers. They will not only receive education on biodiversity conservation, which will help them understand that their plantation could benefit from conservation, but will also be eligible for resources to cover the incremental costs associated with alternative methods. In addition, potentially the pest risks may be reduced, also reducing their production costs. Certification may also improve the value of their products for export. This may be particularly important for the larger producers.

15. The *indirect economic benefit* will be accrued by the government. This grant-support pilot program would provide a model for the government to adopt, and lessons learned from the experience of success or failure of the program may benefit future initiatives, resulting in cost-saving practices.

Cost Effectiveness

16. The project is designed to assist the GoA to strengthen its biodiversity conservation strategy and program. There are always several alternatives to achieve this goal. This project has been designed to maximize the benefits with the least costs. The project would provide training to government policy makers in the responsible ministries and institutions to develop/improve strategies and programs in biodiversity conservation.

17. The project has also sought to reduce administrative costs by executing the project through IBRD-financed project coordination unit under SAGPyA. The grant administrative unit has only three technical coordinators and an administrative assistant. The incremental operation cost for administering the grant is thus minimized.

18. This same strategy applies to biodiversity information as well. Rather than creating a series of new institutions, the project will link existing centers and institutions, allowing them to share information and build synergies much more effectively, and at a much lower cost. Only where critical gaps have been identified will new organizations be created.

19. The project has also chosen to work through subprojects which test proposed solutions to identified problems. These subprojects will serve as pilots. The lessons learned through their application (funded through the project), and the successful approaches they validate, will then be able to be applied throughout Argentina at a much lower risk, making their extensive application more attractive. This approach both minimizes project costs and, in the long term, risks, while increasing impact.

Financial Analysis

20. The financial analysis uses the results of an economic analysis report carried out by the counterpart consultants (Universidad de La Plata), and a report titled “Comparative Timber Investment Return for Selected Plantations and Native Forest in South America and the Southern United States” by Cubbage et al. Both works were based on actual survey data. The former compared different treatment options in plantations, and the latter compared plantations of exotic species to plantations utilizing native species.

21. Both analyses applied a plantation model (hectare model) for financial analysis. The former used internal rate of return (IRR), net present value (NPV), and potential soil value (PSV) to evaluate the results. While the latter used IRR, NPV, land or soil expectation value (LEV, SEV), equivalent annual income (EAI), and benefit/cost ratio (BCR).

Plantation of Native Species

22. Exotic species have a comparative advantage of fast growth, and shorter rotation periods compared to those of native species. Producers therefore prefer to grow exotic species in their plantations based on the higher income they obtain. This has become a common practice in Argentina’s forest plantations. However, the planting of exotic species does not necessarily provide habitat for wildlife that native species provide in forest ecosystems.

23. The project proposes to encourage the producers to grow native species, *Araucaria*, *Nothofagus*, *Prosopis*, etc. within relevant provinces and around forest ecosystems while focusing more on encouraging improved planting and management techniques in grassland ecosystems that conserve the native habitat to the greatest extent possible. Given that plantation techniques vary by species, land quality, climate, timber markets, and capital, among other factors, results can vary.

24. From Cubbage’s analysis, the plantation of native species has disadvantages compared to the plantation of exotic species in IRR, NPV, LEV and BCR, which is not surprising. The IRR is lower than the discount rate, which in general is not viable from a production standpoint. However, the contribution to biodiversity conservation would be highly valued. The project proposes as one of its components to cover incremental costs of shifting towards growing native

species. This would provide a reference for the government to establish policies for subsidizing plantation of native species. Following is a table indicating suggested values for plantations in Argentina (adapted from Cabbage et al.).

Country	Species	Net Present Value (\$/ha)	Land Expectation Value (\$/ha)	Annual Equivalent Value (\$/ha)	Benefit: Cost Ratio	Internal Rate of Return (%)
Argentina	Pinus taeda – Misiones	1,148	1,462	117	1.73	12.9
	Pinus taeda - Corrientes	370	471	38	1.42	10.5
	E. grandis	819	1,241	99	1.77	13.8
	Aracauria a.	-169	-215	-12	0.85	7.2
	Native forest unmanaged	-97	-19	-11	-22	<0
	Native forest best mgt.	-91	-111	-9	0.47	1.7

25. Cabbage concluded that Argentina has excellent growth rates but only moderate prices. Better markets and higher prices could enhance producer returns. With fairly plentiful and cheap land in Misiones and northern Corrientes, Argentina offers attractive investment returns, especially if more wood processing capacity is added.

26. While the calculations of native species returns are preliminary, they do help explain pervasive problems in conservation of these forests. They do suggest that forest management can contribute to positive financial returns for native species, but those returns are likely to be much less than for plantations. The subsidy would also increase financial rate of return by 3-5%.

Improved forestry management

27. The production practice also could contribute to biodiversity conservation, particularly within grassland settings. The treatments and management options applied to exotic plantations can improve the results in favor of biodiversity conservation. The treatments in plantations include (i) lower density of planting; (ii) set asides; (iii) wildlife cuts; and (iv) restoration of natural vegetation or creation of natural vegetation (mosaics).

Lower density of plantation

28. The example analyzed for the treatments generating lower densities was for a plantation of *Pinus ponderosa* in northern Patagonia. The comparison between the lower density model and traditional model resulted in favor in lower density model.

Table 1 Financial Analysis between Traditional Model & Low Density Model

Model	Net Present Value (8%)	Internal Rate of Return	Potential Soil Value (8%)
Traditional Model Density of planting: 1,111 p/ha Density of establishment: 900p/ha	\$690/ha	9.14%	\$1,544/ha
Low-Density Model Density of planting: 666 p/ha Density of establishment: 536p/ha	\$922/ha	9.74%	\$1,813/ha

29. The lower density treatment would enable the plantation to leave more space for native understory vegetation and for wildlife. The result in the table above shows that the lower density is not only designed from the point of view of biodiversity conservation, but also results financially attractive.

Set asides (SA)

30. The example analyzed for set aside treatments is the plantation of *Eucalyptus grandis* in the NE of Entre Rios and SE of Corrientes provinces. The treatment applied is to leave a given percentage of land surfaces without planting. This practice will bring the plantation's economic benefit down but it will promote natural vegetation and potentially reduce pest risk generating both conservation and cost benefits.

Table 2 Result of Set Aside by Hectare (36 years cycle)

Surface	NPV (8.5%) (\$/ha)	Difference (%)	IRR (%)	PSV (8.5%) (\$/ha)	NPV (36 years) (\$)	Difference (\$)	Difference (%)
Lot 25 ha SA 0%	3,628		14.30	6,435	1,096,272		
Lot 22.5 ha SA 10%	3,277	9.67	13.68	6,033	891,197	205,075	18.71
Lot 20 ha SA 20%	3,191	12.03	13.48	5,935	771,521	324,751	29.62
Lot 17.5 ha SA 30%	3,106	14.38	13.29	5,837	657,009	439,263	40.07
Lot 15 ha SA 40%	3,020	16.74	13.10	5,739	547,660	548,612	50.04

31. The set aside treatment of keeping a part of plantation idle for maintaining biodiversity will reduce economic efficiency. The compensation however would be to increase unit output in the rest of the plantation.

32. The treatments of *wildlife cuts*, (which involves establishing a given plot in a plantation for wildlife habitat), and *restoration of natural vegetation or creation of natural vegetation mosaics*, (which take trees off in several plots within the plantation), would have similar results as the previous options in that economic efficiency would be reduced, but benefits to biodiversity conservation would be significant. Again, the treatment would not have any incentive for

producers to adopt unless an adequate compensation is provided or incremental cost is covered. Development of relevant policies to deal with the issue of increased costs for biodiversity conservation could also be reviewed within this context.

Annex 10: Safeguard Policy Issues

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

1. The safeguard screening category of the project is S2. The project is classified as Category B, requiring an Environmental Analysis but not a full-scale Environmental Assessment (EA) study. Despite this, an EA including an environmental management plan, has been completed as part of project preparations. The detailed safeguard policy studies are available in the project files. In accordance with the Bank's Information Disclosure Policy (BP 17.50), copies of the Environmental Analysis report in Spanish are available for public view at the Bank's Public Information Centers in Argentina and on relevant websites. Copies of all final documents have also been forwarded to the World Bank's InfoShop.

The sections below briefly consider each of the safeguard policies that are triggered by the project.

Environmental Assessment (OP 4.01)

2. No large-scale impacts stemming from project implementation are expected, given that the majority of project activities deal with policies, incentives, and information. However, certain limited pilot subprojects with small producers may have limited environmental impacts. A full-scale environmental assessment (EA) was carried out as part of project preparation in order to identify potential direct impacts provoked by project activities, as well as any indirect impacts. The EA indicates appropriate mitigation measures for the few potential negative impacts and recommend enhancement measures for positive impacts (see below).

Natural Habitats (OP 4.04)

3. The project will support the mainstreaming of biodiversity-responsible criteria into environmentally sustainable plantation forestry activities. No conversion of critical natural habitats will be permitted under the project. The EA for the project will ensure that proposed actions are consistent with the policy and specifically address the issue of natural habitats, and be used to guide the final project design in the use of best practices.

Pest Management (OP 4.09)

4. The EA examines the potential use of pesticides in activities financed under this project, and includes concrete guidelines for pest management, including the usage, storage, and disposal of chemicals, as well as related training activities. Emphasis is placed on integrated pest management and some limited use of pesticides may be required. Prior to any purchases of pesticides with Bank funds, SAGPyA will present the Bank with a list of these compounds for its review and no-objection.

Forests (OP 4.36)

5. This project conforms fully with OP 4.36. The only activities working with forests on the ground will focus on small and medium producers. Most subprojects are expected to focus on existing stands or on stands established under the partially-blended IBRD project (which is fully in compliance with relevant safeguards). Any establishment will be extremely small in scale, will

not convert natural habitats, and will be fully in compliance with guidelines established under 4.36. No industrial-scale commercial planting or harvesting is planned under the project. The EA specifically addresses the issue of forests, and ensure that the project is consistent with this concept.

6. An Environmental Management Plan has been prepared by the proponent for those few areas that have been noted to have potential impacts. The areas include: (i). Policy studies and proposals that may not benefit biodiversity if improperly designed and executed, or due to a deficient consultation process. (ii) Extension programs to benefit biodiversity may be poorly designed and implemented or may generate expected positive effects on biodiversity but be socially, economically, or culturally rejected. (iii) These same issues might also arise with the Pilot Projects for Mainstreaming in component 3, as well as the potential to use pesticides in the projects as mentioned previously. An Environmental Management Plan (EMP) has been prepared by SAGPyA to address these issues and the measures therein will be incorporated into the pertinent Operational Manuals for use in implementation and supervision.

7. Following is a summary of the key provisions included within the EMP of the EA document:

- Selection of locations for intervention by the project will be guided by Strategic Environmental Assessment that will guide sub-components to have maximum positive impacts for biodiversity, avoiding transformation of habitat and greatest potential for restoration of ecosystems where possible.
- Individual projects will be designed to support adoption of best practices by producers and criteria have been developed for selection of these projects to benefit biodiversity and a checklist for environmental screening of individual projects.
- Measures have been established to ensure quality of the projects, participation, ownership and inclusion of producers, local governments and organizations, and good oversight, monitoring and evaluation during implementation.
- Pesticide use is expected to be limited to the few field components of the project, however Annex 1 of the EA includes policies, measures, and guidelines in this respect. The Annex serves as the Pest Management Plan (PMP) for the project and will be included in the Operational Manual for implementation and supervision. The PMP emphasizes Integrated Pest Management, includes a list of prohibited and restricted pesticides for Argentina, and incorporates the guidelines of the Bank OP 4.09.

Policies NOT Triggered

8. It has been determined that the following Safeguard Policies have not been triggered by the proposed project:

Cultural Property (OPN 11.03)

9. The project is not expected to have any negative impact on movable or immovable objects, sites, structures, groups of structures, natural features or landscapes with archeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. The assessment carried out during project preparation indicated that it would be very unlikely that any project activity would have any conceivable impact, positive or negative, on physical

cultural resources. Nevertheless, in the unlikely event that project activities were to have such a potential impact, such activity would be immediately stopped until a protection plan in accordance with OPN11.03 could be put into place.

Indigenous Peoples (OP 4.10)

10. As the proposed project sites are not inhabited by indigenous groups, and the identified project activities have been evaluated and determined not to have any direct impact, positive or negative, on indigenous people, OP 4.10 was not triggered. However, as a matter of due diligence a social assessment has been carried out, and an Indigenous Peoples Participation Framework (IPPF) has been prepared to guide the project in the event any indigenous groups seeks to participate in the demand-driven subprojects.

Involuntary Resettlement (OP 4.12)

11. The proposed project will involve no resettlement of any kind, and will not include any involuntary economic displacement. Participation in project activities, including subprojects, is entirely voluntary. All work toward formation of new protected areas will consist only of baseline surveys and assistance to stakeholders for other preparatory work for consideration of new protected areas -- not their actual establishment.

Safety of Dams (OP 4.37)

12. The project does not involve any dams.

Projects on International Waterways (OP 7.50)

13. The project does not involve international waterways.

Projects in Disputed Areas (OP 7.60)

14. The project does not involve disputed areas.

Annex 11: Project Preparation and Supervision
ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry
Landscapes

	Planned	Actual
PCN review	8/5/2004	8/5/2004
Initial PID to PIC	8/17/2004	8/17/2004
Initial ISDS to PIC	8/17/2004	8/17/2004
Appraisal	4/16/2007	4/16/2007
Negotiations	4/26/2007	5/8/2007
Board/RVP approval	6/28/2007	
Planned date of effectiveness	8/26/2007	
Planned date of mid-term review	9/30/2010	
Planned closing date	7/31/2013	

1. Key institutions responsible for preparation of the project: **Secretariat of Agriculture, Livestock, Fisheries, and Food (SAGPyA)**: The preparation effort has been lead by the SAGPyA Project Implementation Unit headed by Ing. Mirta Larrieu with staff coordinated by Ernesto Andenmatten, supported by Ing. Gustavo Cortes and Mr. Claudio Pahn, Environmental Specialist, Mr. Mario Nanclares, Social Specialist, Ing. Francisco Gnecco and Ms. Paola Righetti, supplemented by consultants hired to prepare specific aspects of the project design.

2. Bank staff and consultants who worked on the project included:

Name	Title	Unit
Robert Ragland Davis	TTL, Senior Forestry Specialist	LCSAR
Zhong Tong	Agricultural Economist	LCSAR
George Ledec	Lead Biodiversity Specialist	LCSAR
Jorge Uquillas	Senior Social Specialist	LCSEO
Xiomara Morel	Senior Finance Officer	LOAG1
Alejandro Solanot	Financial Management Analyst	LCSFM
Ana Grofsmacht	Procurement Analyst	LCSPT
Reynaldo Pastor	Senior Counsel	LEGLA
Mariana Montiel	Senior Counsel	LEGLA
Efraim Jiménez	Lead Procurement Specialist	LCSPT
Frank Fragano	Consultant, Environment/Biodiversity	LCSAR
Richard Owen	Senior Forestry Officer	FAO
Ricardo Larrobla	Consultant, Forestry Specialist	LCSAR
Eduardo Morales	Consultant, Research/Extension	FAO
Guillermo Rodriguez	Consultant, Institutions	FAO
Christine Dragisic	Junior Professional Associate	LCSAR
Leila Diana Sarquis	Consultant	LCSAR
Gloria Dehaven	Language Program Assistant	LCSAR
Maria Emilia Sparks	Temporary	LCC7C
Karen Ravenelle-Smith	Language Program Assistant	LCSAR

Individuals Consulted and Contacted during Preparation

Patagonia Region – Biodiversity baseline participants

Person	Institution
Guillermo Amico	Centro Regional Universitario Bariloche
María Marta Azpilicueta	INTA Bariloche
Never Bonino	INTA Bariloche
Claudio Chehébar	Administración de Parques Nacionales
Miguel Christie	Sociedad Naturalista Andino-Patagónica
De María, Gabriel	Dirección General de Bosques y Parques del Chubut
Dora Grigera	CRUB
Javier Grosfeld	CRUB
Pablo Laclau	INTA Bariloche
Ernesto Maletti	APN Neuquén
Claudia Manzur	APN
Paula Marchelli	INTA Bariloche
Mónica Mermoz	APN
Valeria Ojeda	CRUB
Mario Pastorino	INTA Bariloche
Andrea Prémoli	CRUB
Javier Puntieri	CRUB
Eduardo Ramilo	APN
Adriana Rovere	CRUB
Rodrigo Roveta	DGBYP Chubut
Cintia Souto	CRUB
Ana Trejo	CRUB
Sergio Lambertucci	Fundación Bioandina
Carmen Ubeda	CRUB
Julieta Von Thungen	INTA Bariloche
Susan Walter	WCS

APN Neuquén: Dirección de Areas Protegidas del Neuquén

APN: Administración de Parques Nacionales

CRUB: Centro Regional Universitario Bariloche, Universidad Nacional del Comahue

INTA: Instituto Nacional de Tecnología Agropecuaria

SNAP: Sociedad Naturalista Andino Patagónica

WCS: Wildlife Conservation Society

Patagonia Region – Consultations and interviews

Person	Institution
Claudio Chehebar	Administracion de Parques Nacionales
Tomas Kitzberger	Laboratorio de Ecotono - Univ. Comahue
Marcelo Aizen	Laboratorio de Ecotono - Univ. Comahue
Juan Gowda	Laboratorio de Ecotono and AFOA
Javier Grosfeld	SNAP – regional NGO
Ruben Pablos	Sembrar – regional NGO
Verónica Rusch	INTA Bariloche
Alejandro Vila	INTA Bariloche – WCS
Fabio Beron	Dir. Gral. Bosques y Parques P. del Chubut
Dr. Francisco Carabelli	CIEFAP -
Marcela Godoy	CIEFAP – forest diversification
Mario Rajchenberg	CIEFAP - NTFPs
Gabriel Loguercio	CIEFAP – Climate Change
Brigitte Van den Heden	Servicio Forestal Prov. Rio Negro
Stephen Whewell	Productor privado Epuyen, Rio Negro
Arturo Kolliker Frers	Forestar Bariloche S.A.
Ivonne Orellana	CIEFAP – Biodiv. in plantations
Ing. Agr. Guillermo Melzner	SAGPyA - NEF Patagonia

Mesopotamia Region – Biodiversity baseline participants

Person	Institution
Angelina Marizza	Subsecretaría de Desarrollo, Ecología y Control Ambiental, Entre Ríos
Daniel Ligier	INTA Corrientes
Sandra Perucca.	INTA Corrientes
Héctor Ball	Parque Nacional Mburucuyá, Corrientes
Oswaldo Miguel Miño	Parque Nacional Mburucuyá, Corrientes
Paula Daniela Cano	Parque Nacional Mburucuyá, Corrientes
Tomás Villordo	Instituto Agropecuario (IAUNC), Corrientes
Néstor Schauvinhold	Instituto Agropecuario (IAUNC), Corrientes
Roque Jiménez	Instituto Agropecuario (IAUNC), Corrientes
Marcelo Rolón	Establecimiento Las Marías, Corrientes
Fernando Dallatea	Forestal Argentina
Anibal Parera	Proyecto GEF – Pastizales de MERCOSUR
Diego Varela	Conservación Argentina

Mirta Baez	Universidad Nacional de Misiones
José E. Torres	Proyecto Forestal de Desarrollo, SAGPyA
Luis Escallier	Proyecto Forestal de Desarrollo, SAGPyA
Roberto E. Stetson	Facultad de Ciencias. Exactas, Químicas y Naturales, UNAM
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Claudio Nakabayashi	Facultad de Ciencias Forestales, UNAM
Jorge A. Troche	Facultad de Ciencias Forestales, UNAM
Rosana Manuela Mendez	Facultad de Ciencias Forestales, UNAM
Magdalena R. Ibáñez	Facultad de Ciencias Forestales, UNAM
Ramón Barreto	Facultad de Ciencias Forestales, UNAM
Marlene Otto	Facultad de Ciencias Forestales, UNAM
Roberto Verón	Facultad de Ciencias Forestales, UNAM
Eugenia Carolina De los Santos	Facultad de Ciencias Forestales, UNAM
Aurelia A. Fernandez	Facultad de Ciencias Forestales, UNAM
César Luis de la Vega	Facultad de Ciencias Forestales, UNAM
Pedro O. Matinez	Facultad de Ciencias Forestales, UNAM
Iris Figueredo	Facultad de Ciencias Forestales, UNAM
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Paula Campanello	Laboratorio de Ecología Funcional, UBA
Mariana Villagra	Laboratorio de Ecología Funcional, UBA
José E. Saiz	AFOA NEA
Gustavo Zurita	Conservación Argentina
Sergio A. Casertano	Conservación Argentina
Ing. Agr. María Cristina Benitez	Dirección de Recursos Forestales Corrientes
Sr. Carlos Acuña	Dirección de Recursos Forestales Corrientes
Ing. Eduardo Lenzi	Subsecretaría de Desarrollo, Ecología y Control Ambiental, Entre Ríos

Mesopotamia Region – Consultations and interviews

Person	Institution
Dario Silva	Min,Ecol y RRNN
Oscar Gauto	FCF
Mario Ochoa	Alto Paraná
Domingo Mariano	FCF-UNAM
Lucila Diaz	FCF-UNAM
Horacio Delgadino	APSA
Delia Aguirre	Min,Ecol y RRNN
Jorge Pujato	AFOME
Rosana Mendez	FCF
E. Veron	Gruber Hnos
Patricio Mac Donagh	FCF/PTM

Jose Saiz	AFOA NEA
Nicklas Cesar	Univ.Maimonides
Pasculli Maria Luisa	SSBYF-MEYRRNN
Beatriz Eibl	FCF-UNAM
Alfredo Ugunter	Establ. Don Guillermo SRL
Daniel Duran	Selva SRL
Diego Chifarelli	UTTERMI
Raul Pezzutti	Bosques Del Plata
Cesar Cattaneo	Subsecretaria Ecologia
Miguel Angel Rinas	Direccion General De Ecologia
Juan Angel Gauto	Subsecretaria De Bosques
Paula Cicchero	Delegación Técnica Nea Parques Nacionales
Manuel Jaramillo	Fundación Vida Silvestre Argentina
Silvia Navajas	Establecimiento Santa Cecilia

Bank funds expended to date on project preparation:

1. Bank resources: n/a
2. GEF Lending Allocation: US \$95,000
3. Total: US \$95,000

Estimated Approval and Supervision costs:

1. Remaining costs to approval: US\$ 25,000
2. Estimated annual supervision cost: US\$82,500 (each year for 5 years)

Annex 12: Documents in the Project File

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

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Annex 13: Statement of Loans and Credits

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

Project ID	FY	Purpose	Original Amount in US\$ Millions					Difference between expected and actual disbursements		
			IBRD	IDA	SF	GEF	Cancel.	Undisb.	Orig.	Frm. Rev'd
P071025	2004	AR-Provincial Maternal-Child Hlth Inv Ln	135.80	0.00	0.00	0.00	0.00	135.80	3.83	0.00
P072637	2004	AR-Prov. Maternal-Child Hlth Adj PMCHSAL	750.00	0.00	0.00	0.00	0.00	150.00	50.00	0.00
P078143	2004	GEF AR Enabling Act. Conv. Climate Cha	0.00	0.00	0.00	1.14	0.00	0.93	0.27	0.00
P088153	2004	AR National Highway Asset Management	200.00	0.00	0.00	0.00	0.00	200.00	0.00	0.00
P083982	2004	AR ECONOMIC RECOVERY SUPPORT SAL	500.00	0.00	0.00	0.00	0.00	500.00	83.33	0.00
P073578	2003	Social Protect VI (AR-Jefes de Hogar)	600.00	0.00	0.00	0.00	0.00	77.55	77.55	0.00
P070374	2002	AR PROFAM LIL	5.00	0.00	0.00	0.00	0.00	3.48	3.28	2.96
P069913	2002	AR Santa Fe Provincial Reform	330.00	0.00	0.00	0.00	0.00	126.70	126.70	0.00
P049012	2001	GEF AR-Marn.Poll.Prevention	0.00	0.00	0.00	8.35	0.00	8.36	4.11	3.92
P044447	2001	AR Catamarca Provincial Reform	70.70	0.00	0.00	0.00	0.00	24.30	25.00	0.00
P064614	2001	AR- Second Secondary Education Project	56.99	0.00	0.00	0.00	0.00	23.34	-33.65	0.00
P068344	2001	AR Cordoba PRL5	303.00	0.00	0.00	0.00	0.00	75.00	75.00	0.00
P057473	2001	AR INDIGENOUS COMMUNITY DEVELOPMENT LIL	5.00	0.00	0.00	0.00	0.00	4.09	4.09	0.00
P055482	2000	AR-Pub. Hlth. Surv. & Disease Control	52.50	0.00	0.00	0.00	0.00	15.21	15.21	-23.63
P057449	1999	AR State Modernization	30.30	0.00	0.00	0.00	0.00	20.08	20.08	0.00
P006043	1999	AR RENEW.ENERGY R.MKTS	30.00	0.00	0.00	0.00	0.00	26.20	26.07	4.03
P006046	1999	AR WATER SCTR RFRM	30.00	0.00	0.00	0.00	0.00	19.07	19.07	19.07
P006058	1999	AR-Social Protection 4	90.80	0.00	0.00	0.00	0.00	16.52	16.52	-1.24
P045048	1999	GEF AR-RENEWABLE ENERGY IN RURAL MARKETS	0.00	0.00	0.00	10.00	0.00	9.58	8.80	2.17
P039787	1998	GEF AR-BIODIVERSITY CONSERVATION	0.00	0.00	0.00	10.10	0.00	7.58	6.18	1.64
P006050	1998	AR POLLUTION MGT.	18.00	0.00	0.00	0.00	12.00	0.19	12.19	6.19
P006041	1998	AR SMALL FARMER DV.	75.00	0.00	0.00	0.00	0.00	25.90	25.90	25.90
P050713	1998	AR MODEL COURT DEV.	5.00	0.00	0.00	0.00	0.00	2.05	2.05	1.50
P055935	1998	AR EL NINO EMERGENCY FLOOD PROJECT	42.00	0.00	0.00	0.00	0.00	4.88	4.88	4.35
P052590	1998	AR NAT HWY REHAB&MAINT	450.00	0.00	0.00	0.00	0.00	67.43	67.43	33.91
P006010	1997	AR PROV AG DEVT I	125.00	0.00	0.00	0.00	0.00	71.18	71.18	71.18
P005980	1997	AR PROV ROADS	300.00	0.00	0.00	0.00	0.00	88.72	88.72	82.05
P006052	1997	AR FLOOD PROTECTION	200.00	0.00	0.00	0.00	0.00	40.81	40.81	-9.68
P006059	1997	AR-Maternal & Child Hlth & Nutrition 2	100.00	0.00	0.00	0.00	0.00	13.31	13.31	0.00
P039584	1997	AR B.A.URB.TSP	200.00	0.00	0.00	0.00	0.00	62.46	62.46	26.79
P040808	1997	AR N.FOREST/PROTC	19.50	0.00	0.00	0.00	0.00	9.43	8.90	0.00
P006040	1996	AR FORESTRY/DV	16.00	0.00	0.00	0.00	0.00	3.35	3.35	3.35
P037049	1996	AR PUB.INV.STRENGTHG	16.00	0.00	0.00	0.00	5.50	2.46	7.96	1.16
P006018	1995	AR PROV DEVT II	225.00	0.00	0.00	0.00	0.00	7.11	7.11	5.90
P006060	1995	AR MUNIC DEVT II	210.00	0.00	0.00	0.00	4.08	15.26	19.34	15.26
Total:			5,191.59	0.00	0.00	29.59	21.58	1,858.33	967.03	276.78

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

FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
2000	ASF	20.00	0.00	0.00	20.50	20.00	0.00	0.00	20.50
1998	AUTCL	3.64	0.00	0.00	0.00	3.64	0.00	0.00	0.00
2002/04	Aceitera General	30.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00
1995/97/99	Acindar	24.64	0.00	0.00	0.00	24.64	0.00	0.00	0.00
1994/95	Aguas	18.82	0.00	0.00	44.63	18.82	0.00	0.00	44.63
1999	American Plast	2.90	0.00	0.00	0.00	2.90	0.00	0.00	0.00
2000	BACS	7.46	12.50	0.00	0.00	7.46	12.50	0.00	0.00
1999/04	Banco Galicia	7.50	0.00	0.00	0.00	3.75	0.00	0.00	0.00
1996	Bansud	0.38	0.00	0.00	0.00	0.38	0.00	0.00	0.00
2000	Bco Hipotecario	15.54	0.00	0.00	26.10	15.54	0.00	0.00	26.10
1996	Brahma - ARG	0.71	0.00	8.50	0.00	0.71	0.00	8.50	0.00
1997	Bunge-Ceval	5.36	0.00	5.00	0.00	5.36	0.00	5.00	0.00
1996	CAPSA	3.54	0.00	3.24	8.99	3.54	0.00	3.24	8.99
1999	CCI	0.00	5.00	0.00	0.00	0.00	5.00	0.00	0.00
1995	CEPA	3.00	0.00	0.00	1.20	3.00	0.00	0.00	1.20
2000	Cefas	5.13	0.00	1.61	0.00	5.13	0.00	1.61	0.00
1994	EDENOR	3.75	0.00	15.00	0.00	3.75	0.00	15.00	0.00
1998	F.V. S.A.	5.25	0.00	4.00	0.00	5.25	0.00	4.00	0.00
2000	FAPLAC	9.21	0.00	5.00	0.00	9.21	0.00	5.00	0.00
1996	Grunbaum	2.50	0.00	0.00	3.33	2.50	0.00	0.00	3.33
	Grupo Galicia	0.00	3.06	0.00	0.00	0.00	3.06	0.00	0.00
1998	Hospital Privado	8.49	0.00	0.00	0.00	8.49	0.00	0.00	0.00
1992	Huantraico	0.00	27.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	Jumbo Argentina	0.00	40.00	0.00	0.00	0.00	7.50	0.00	0.00
1992	Malteria Pampa	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
1997	Milkaut	0.00	5.03	0.00	0.00	0.00	3.80	0.00	0.00
1996/99	Minetti	10.64	0.00	0.00	20.56	10.64	0.00	0.00	20.56
1993/94/03	Molinos	30.00	0.00	0.00	30.00	30.00	0.00	0.00	30.00
1995	Nahuelsat	4.11	0.00	0.00	0.00	4.11	0.00	0.00	0.00
1996/99	Neuquen Basin	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00
1993	Nuevo Central	0.00	3.00	0.00	0.00	0.00	3.00	0.00	0.00
1998	Patagonia	1.76	0.00	1.00	0.00	1.76	0.00	1.00	0.00
1998	Patagonia Fund	0.00	14.97	0.00	0.00	0.00	8.00	0.00	0.00
1992	Rioplatense	3.00	0.00	0.00	1.67	3.00	0.00	0.00	1.67
1999	S.A. San Miguel	6.23	0.00	0.00	0.00	6.23	0.00	0.00	0.00
1995	SanCor	8.75	0.00	20.00	0.00	8.75	0.00	20.00	0.00
1995	Socma	6.26	0.00	0.00	15.00	6.26	0.00	0.00	15.00
1998	Suquia	0.00	0.00	10.50	0.00	0.00	0.00	10.50	0.00
1997	T6I	5.00	0.00	5.00	9.38	5.00	0.00	5.00	9.38

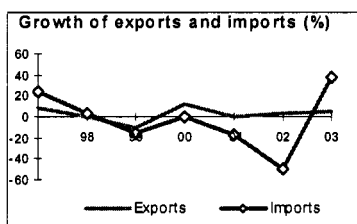
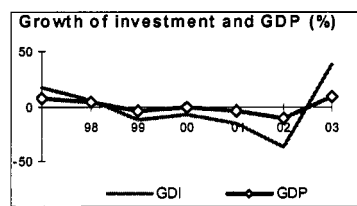
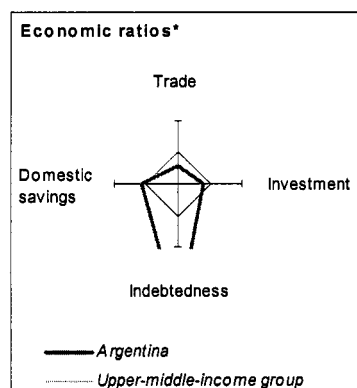
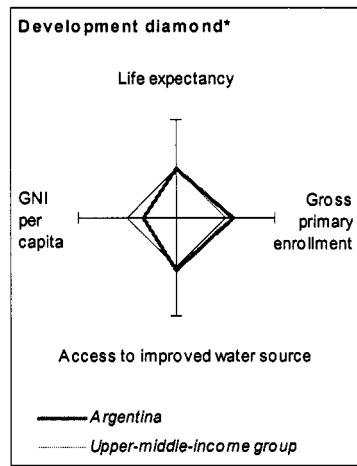
1996/97	Terminal 6	5.00	0.00	0.00	4.06	5.00	0.00	0.00	4.06
1995	Terminales Port.	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
1995/00	Tower Fund	0.00	5.00	0.00	0.00	0.00	4.13	0.00	0.00
1995	Tower Fund Mgr	0.00	0.05	0.00	0.00	0.00	0.05	0.00	0.00
1996	Transconor	20.29	0.00	17.87	157.58	20.29	0.00	17.87	157.58
2001	USAL	9.98	0.00	0.00	0.00	7.98	0.00	0.00	0.00
1997/03	Vicentin	30.00	0.00	0.00	30.00	30.00	0.00	0.00	30.00
1993	Yacylec	0.75	5.04	0.00	0.00	0.75	5.04	0.00	0.00
Total portfolio:		323.59	125.65	116.72	373.00	287.84	52.08	96.72	373.00

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic.
2004	AGD - Expansion	0.02	0.00	0.00	0.03
1999	American Plast	0.00	0.00	0.00	0.00
2000	Argentina SMMC	0.00	0.00	0.00	0.45
2004	Banco Rio TFF	0.02	0.00	0.00	0.05
2004	FIDEX	0.03	0.00	0.00	0.00
2001	Gasnor	0.02	0.00	0.00	0.02
2001	ITBA	0.01	0.00	0.00	0.00
Total pending commitment:		0.10	0.00	0.00	0.55

Annex 14: Country at a Glance

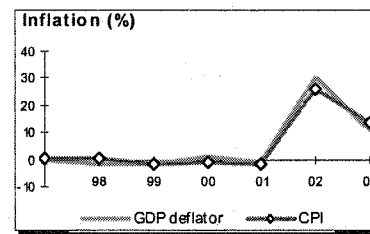
ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

	Argentina	Latin America & Carib.	Upper-middle-income		
POVERTY and SOCIAL					
2003					
Population, mid-year (millions)	38.4	534	335		
GNI per capita (Atlas method, US\$)	3,650	3,260	5,340		
GNI (Atlas method, US\$ billions)	140.1	1,741	1,788		
Average annual growth, 1997-03					
Population (%)	16	15	12		
Labor force (%)	2.2	2.1	18		
Most recent estimate (latest year available, 1997-03)					
Poverty (% of population below national poverty line)	55	..	..
Urban population (% of total population)	90	77	76		
Life expectancy at birth (years)	74	71	73		
Infant mortality (per 1,000 live births)	16	28	19		
Child malnutrition (% of children under 5)	5	..	..
Access to an improved water source (% of population)	94	86	89		
Illiteracy (% of population age 15+)	3	11	9		
Gross primary enrollment (% of school-age population)	120	129	104		
Male	120	131	104		
Female	119	126	104		
KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1983	1993	2002	2003	
GDP (US\$ billions)	104.0	236.5	102.0	129.6	
Gross domestic investment/GDP	20.9	19.1	12.0	15.1	
Exports of goods and services/GDP	9.2	6.9	27.7	25.0	
Gross domestic savings/GDP	24.2	16.7	26.9	25.9	
Gross national savings/GDP	..	15.6	21.0	20.7	
Current account balance/GDP	-8.0	-3.5	9.4	6.1	
Interest payments/GDP	6.2	15	9.8	7.4	
Total debt/GDP	44.2	30.6	144.1	113.5	
Total debt service/exports	73.3	35.9	18.4	51.3	
Present value of debt/GDP	..	..	137.0	..
Present value of debt/exports	..	..	439.2	..
	1983-93	1993-03	2002	2003	2003-07
(average annual growth)					
GDP	2.5	14	-10.9	8.8	5.2
GDP per capita	12	0.1	-12.1	7.6	4.0
STRUCTURE of the ECONOMY					
	1983	1993	2002	2003	
(% of GDP)					
Agriculture	8.7	5.5	10.7	11.0	
Industry	41.6	29.2	32.0	34.7	
Manufacturing	30.7	19.5	21.3	23.9	
Services	49.8	65.3	57.3	54.3	
Private consumption	..	69.8	60.9	62.7	
General government consumption	..	13.5	12.2	11.4	
Imports of goods and services	5.8	9.3	12.8	14.2	
	1983-93	1993-03	2002	2003	
(average annual growth)					
Agriculture	14	3.0	-2.3	6.9	
Industry	2.0	1.1	-13.8	16.5	
Manufacturing	2.1	0.5	-11.0	16.0	
Services	2.5	1.6	-9.2	4.2	
Private consumption	..	0.5	-16.0	8.8	
General government consumption	..	0.7	-5.1	1.5	
Gross domestic investment	3.7	1.3	-36.4	38.2	
Imports of goods and services	13.4	3.7	-50.1	37.6	



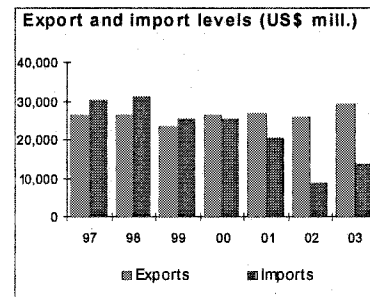
PRICES and GOVERNMENT FINANCE

	1983	1993	2002	2003
Domestic prices				
<i>(% change)</i>				
Consumer prices	343.8	10.6	25.9	13.4
Implicit GDP deflator	382.4	-15	30.6	10.7
Government finance				
<i>(% of GDP, includes current grants)</i>				
Current revenue	20.4	18.9	17.6	20.5
Current budget balance	-3.1	2.6	-0.8	13
Overall surplus/deficit	-5.7	16	-15	0.5



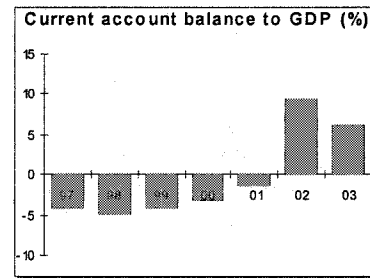
TRADE

	1983	1993	2002	2003
<i>(US\$ millions)</i>				
Total exports (fob)	..	13,269	25,709	29,376
Food	..	1,454	2,273	2,597
Meat	..	748	913	1,043
Manufactures	..	8,603	13,429	15,735
Total imports (cif)	..	16,783	8,990	13,813
Food
Fuel and energy	..	461	482	544
Capital goods	..	7,773	1,293	2,500
Export price index (1995=100)	..	100	91	99
Import price index (1995=100)	..	100	87	87
Terms of trade (1995=100)	..	100	105	113



BALANCE of PAYMENTS

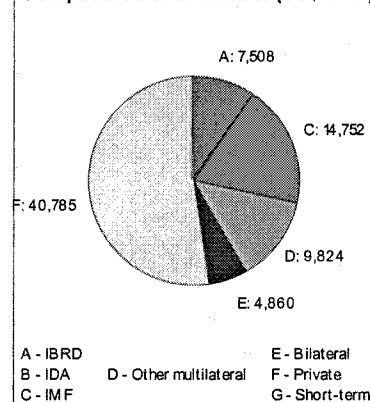
	1983	1993	2002	2003
<i>(US\$ millions)</i>				
Exports of goods and services	9,288	16,339	28,684	33,231
Imports of goods and services	5,819	22,026	13,135	18,485
Resource balance	3,469	-5,688	15,548	14,746
Net income	-5,921	-2,997	-6,498	-7,425
Net current transfers	-5,905	522	576	620
Current account balance	-8,357	-8,163	9,627	7,941
Financing items (net)	6,051	3,913	-5,111	-12,493
Changes in net reserves	2,306	4,250	-4,516	4,552
Memo:				
Reserves including gold (US\$ millions)	1,172	13,791	10,489	14,533
Conversion rate (DEC, local/US\$)	105E-6	10	3.1	2.9



EXTERNAL DEBT and RESOURCE FLOWS

	1983	1993	2002	2003
<i>(US\$ millions)</i>				
Total debt outstanding and disbursed	45,920	72,425	135,681	146,955
IBRD	533	3,739	8,513	7,508
IDA	0	0	0	0
Total debt service	6,805	5,860	5,291	17,042
IBRD	98	567	1,870	3,350
IDA	0	0	0	0
Composition of net resource flows				
Official grants	2	32	..	..
Official creditors	331	2,672	-1,850	1,277
Private creditors	1,134	4,397	-3,253	-1,883
Foreign direct investment	185	2,793	1,741	456
Portfolio equity	0	4,979	-27	150
World Bank program				
Commitments	100	1,590	250	1,850
Disbursements	70	1,507	424	1,963
Principal repayments	40	334	1,353	2,968

Composition of 2003 debt (US\$ mill.)



Annex 15: Incremental Cost Analysis

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

Introduction

1. Plantation forests are expanding quickly in Argentina, spurred by favorable conditions for growth and increasing demand for wood products. Plantation forests have the potential to serve as important habitats for globally and regionally significant biodiversity, while proper forest planning can preserve critical ecosystems and create buffer zones between productive zones and natural habitats. This is especially important in Argentina, which is home to numerous threatened or endangered species, where 8 of 18 ecoregions have been identified as among the highest priorities for conservation in the Neotropics by WWF, and which includes two Conservation International “hotspots.”

2. Unfortunately, to date efforts to mainstream biodiversity conservation into the plantation forestry sector are limited and uncoordinated at best. There are existing initiatives to stimulate dialog and conduct relevant research, but such efforts are most often disconnected and disjointed. The GEF Alternative Scenario would create cohesive national and provincial level plantation forest strategies which take into account biodiversity and ecosystem concerns, provide the tools necessary to implement such strategies, and stimulate an environment which fosters dialog and cooperation on this subject.

Baseline Scenario

3. **Scope:** Under the Baseline Scenario, the plantation forestry sector would continue to grow with little capacity by the government to plan and promote establishment of plantations in less environmentally-sensitive areas, or using biodiversity-responsible management techniques. Conservation planning will remain primarily in the realm of the environmental agencies like the APN and SADyS, with little connection to those agencies responsible for productive forestry. This conservation planning will not effectively influence the growth of the productive forestry sector, or will proceed very slowly in comparison with the planting.

4. Provincial governments would continue to play a role in evaluating the environmental impact assessments prepared forestry projects established under the current legislation, and would continue to approve the environmental impact statements with few technical tools to help in decision-making. The provincial governments would have little or no recourse in cases where plantation owners choose to plant without the government economic incentives, as there are few other regulatory tools or incentives for producers to focus on areas less critical to biodiversity or increase efficiency to reduce the impact on native ecosystems.

5. The private sector, including small, medium, and large producers, would have little incentive to incorporate biodiversity concerns and priority conservation areas into plantation planning and management beyond what is legally required. Extra costs of incorporating conservation activities beyond mitigation measures are presently not covered by government programs, nor are there incentives to find alternatives to the present regulatory process. Some

large companies are beginning to monitor biodiversity as part of corporate responsibility programs; however they lack a vision of the overall conservation landscape, as well as sectoral strategies to guide the better location and management of their plantations. Any benefits of these initiatives will be localized, lacking landscape-level impacts and consideration of core conservation areas and corridors.

6. Several NGOs and international donors would continue to support research and pilot projects related to biodiversity-responsible forestry. While these initiatives would have positive results for the level of knowledge and understanding in the country, there would continue to be little connection between the initiatives, no concerted plan for incorporating findings into national or provincial strategies, and relatively little installed capacity once individual projects end.

7. In summary, the situation under the Baseline Scenario is expected to change little over the next five years. While the loss of biodiversity may slow slightly in specific areas, on a national level, and in the most critical areas, biodiversity will continue to be threatened by unplanned and unguided expansion of forest plantations in the order of an estimated 30,000 hectares per year.

8. *Costs* (\$12.01 million): Under the baseline scenario, over the next five years, it is expected that investments related to the establishment of more biodiversity-responsible plantation planning strategies and management techniques (largely mitigation) in Argentina will be in the range of US\$12 million. This is primarily based on estimates of ongoing national and provincial government investments (in the 7 target provinces), as well as NGO, bilateral and multilateral donor projects relevant to mainstreaming and biodiversity conservation. These include the projects of the European Union, JICA, the Spanish AECI and INIA, as well as several smaller national NGOs. Estimated expenditures by large forest producers for biodiversity monitoring and associated activities are also included.

9. The Baseline Scenario more specifically in regard to each of the project's components is summarized below and in the table at the end of this section:

10. ***Component 1: Institutional Capacities Strengthened (\$0.56 million)***: Under the Baseline Scenario, investments would be limited to general capacity building of national and provincial decision-makers and stakeholders including some basic environmental training. However, specific biodiversity training would be covered only in the most cursory way, and relatively few professionals are trained. The provincial-level professionals responsible for analyzing environmental impact assessments do so with limited tools and information, and without reference to a larger strategy incorporating biodiversity concerns.

11. The National Science Research and Technology Agency (ANPCyT), through National Scientific Research and Technology Council (CONICET), provides some training for government officials, estimated at just over \$68,000 for five years. Investments by provincial governments in for professionals dedicated to analyzing environmental impact assessments are estimated at \$486,000 for five years. NGOs will spend approximately \$8,000 during this time on related activities.

12. **Component 2: Development and dissemination of biodiversity-responsible plantation practices and technology transfer (\$1.16 million):** Plantation methods that are beneficial to biodiversity or that incorporate native species will continue to have limited support and investment at national and provincial levels. Some research into biodiversity-responsible techniques that can be incorporated into plantation forests will be supported by the national government, and by several national NGOs. The ANPCyT, its Fund for Scientific Research and Technology (FONCyT), and CONICET will continue to fund research into topics such as fragmentation and the genetic composition of plantation-apt species. The Fundación Temaikén, Fundación Félix de Azara and ACEN/Proyecto Ciervo de los Pantanos are expected to continue with small-scale research on similar themes. However, as technology transfer is limited such research will continue to have little linkage to forestry operations except in the most forward thinking firms, and there is little implication for large-scale planning.

13. It is estimated that the national government agencies conducting research on subjects that could effect biodiversity conservation in plantation forests will spend \$1.16 million on such research over the next five years. NGOs will spend just over \$98,000 on research and technology transfer activities during the same time period.

14. **Component 3: Support for adoption of biodiversity-responsible plantation forestry practices (\$10.29 million):** Investments in forestry and agro-forestry production focused on native species or involving biodiversity- and ecosystem-responsible are relatively limited in Argentina, but have been growing recently and are expected to do so over the next five years. Much of the investment at the national level will come from the Secretariat of the Environment and Sustainable Development's (SADS) Social Forests Project (which focuses on themes such as seedling nurseries and reforestation) and from SAGPyA's expected assumption of the Forestry Development Program activities. The provinces will continue to provide in-kind assistance in forestry materials for small producers. National NGOs, including Fundación Vida Silvestre Argentina, the Asociación Civil Conservación Argentina, and Fundación ECOS will continue their work on subjects such as certification and planning with native species. Donors, including AECI, JICA, and the European Union are expected to continue financing projects in areas such as FSC certification and sustainable production techniques. Large private sector forestry operators will continue individual biodiversity monitoring programs as part of their progress towards FSC certification. While the overall level of investment is respectable, there is again little coordination between programs, few attempts to connect the results of research activities or monitoring with extension, and no overall coordinated strategy connecting all the interested actors with sectoral objectives.

15. It is estimated that the national government will spend \$1.23 million, largely on activities that were covered under the Forestry Development Program. The provinces are expected to fund \$ \$5.47 million in in-kind assistance for small producers over the next 5 years. Estimates of NGO expenditures on similar related activities total slightly over \$290,000, while funding for donor-supported projects could reach \$2.90 million. Large forest producers would spend approximately \$400,000 on biodiversity monitoring over the next 5 years under the Baseline Scenario.

16. ***Benefits:*** The baseline scenario would largely maintain the *status-quo* regarding benefits to native biodiversity vulnerable ecosystems in plantation forestry areas. There would continue to be isolated investments for research into biodiversity-responsible plantation methods and efforts to incorporate lower-impact practices into plantations, but these initiatives would be largely uncoordinated, not comprehensive, and lacking the necessary tools for effective large-scale planning. Some benefits for biodiversity would be seen in the plantations of the more progressive large firms, or on the land of small producers reached by a few trained extension agents or donor-funded projects, but the strategic planning necessary to ensure gains at a landscape scale, and including the most important areas and species, would be missing. The total baseline investments are estimated at \$12.01 million over the next five years.

2. Global Environmental Objectives of the GEF Alternative

The objective of the GEF Alternative is to mainstream biodiversity conservation into plantation forestry practices in order to conserve globally and regionally significant biodiversity in production landscapes located in critical ecosystems. Achieving this objective and generating global biodiversity benefits requires a comprehensive, integrated program which focuses thematically on practices that are shown to have the greatest positive impact on biodiversity and geographically on the most important areas where plantation forestry overlaps with globally important ecosystems. The current project seeks to achieve the mainstreaming of biodiversity into the plantation forestry sector in the national policy framework and on the ground in seven provinces in Northern Patagonia and Mesopotamia region, and Buenos Aires.

17. ***Scope:*** The GEF alternative will increase the capacity for and focus on biodiversity conservation in plantation forestry in Argentina beyond what is expected under the baseline scenario, and thus have a far greater impact on biodiversity and critical ecosystems in forest plantations and areas vulnerable to plantation expansion. It will strengthen institutions, policies, and stakeholders in the sectors that are focused on plantation forestry in globally important ecoregions of Argentina. Under the GEF Alternative Scenario, supported activities will increase technical capacity, provide tools needed for rational planning, support outreach and extension, and improve the framework which shapes the plantation forestry sector. This will allow the government institutions responsible for overseeing plantation forestry to better develop strategies which take into account critical ecosystems and habitats, and promote biodiversity-responsible practices. It will also enable producers, large and small, to incorporate new techniques into their planning and management practices, and to contribute to shaping the national dialog on biodiversity mainstreaming.

18. More specifically, the investments made under the GEF Alternative Scenario will support the development of capacity building, advanced education, training programs for government officials who work directly with plantation forests, researchers who generate the knowledge necessary for technological advancement, and extension agents who bring these advances to the producers. It will allow for environmental education activities designed to sensitize producers to the need for, and benefits of, conserving biodiversity and ecosystems. The investments will support the pilot testing of new techniques and management methods, and the dissemination of results. It will also facilitate the creation of protected areas and buffer zones to conserve critical

areas and species in zones with high pressure for conversion. The GEF Alternative will work to improve the legal, policy, and economic frameworks which influence the establishment and management of plantations, and work to increase the dialog on issues critical to conservation in plantation forests. By working on the national, provincial, and local scales, involving all associated actors, focusing on resolving current problems and providing new tools, and facilitating the adoption of improved practices on the ground, the GEF Alternative Scenario will have benefits far above those expected under the Baseline Scenario.

19. **Costs:** The total cost of the GEF Alternative Scenario is \$26.24 million. Of this sum, \$15.8 million are incremental costs above the baseline scenario. Only \$7 million of this amount is being requested from the GEF. The remaining funds required for the GEF Alternative Scenario will be covered by the government of Argentina and through cofinancing from the partially-blended IBRD loan. These incremental costs will allow the proposed project to secure the global benefits anticipated under the proposed project. The ratio of incremental cost to expected incremental benefits under the GEF Alternative Scenario is extremely high.

20. Following is a description of incremental costs and components in detail in addition to a summary table:

21. **Component 1: Institutional Capacities Strengthened (US\$4.77 million total, GEF US\$1.94 million):** This component of the proposed GEF alternative aims to provide capacity building for forestry sector institutions at national and subnational levels of government, as well as for researchers and extension agents. It will also review the legal, policy, and economic frameworks which influence plantation planning and establishment, and invest in tools critical to biodiversity-responsible plantation location and design. Under the partially-blended IBRD project, forestry training programs will be developed at national universities and technical schools, and satellite imagery and other forest resource information will be provided for the provinces.

22. The incremental costs related to this component of the GEF Alternative Scenario would be financed by \$1.94 million from the GEF grant, in addition to \$570,000 in cofinancing from the IBRD loan and approximately \$480,000 in government counterpart financing.

23. **Component 2: Development and dissemination of biodiversity-responsible plantation practices and technology transfer (US\$3.27 million total, GEF US\$1.09 million):** The objective of this component will document and disseminate improved forestry practices that generate greater productivity in addition to conserving biodiversity. A special focus will be placed on practices for establishing native plantations, as well as the economic implications of these practices. Native seed banks and nurseries will be supported, and field trials carried out to analyze different management approaches. Dialog on these issues will be stimulated at a series of workshops, the adoption of voluntary standards promoted, and best practices disseminated at a major regional workshop. Through IBRD cofinancing, training for national, provincial, and local level extension agents and service providers for the forestry sector will be financed in order to reach a greater number of small, medium, and large producers.

24. The incremental activities proposed under this component of the GEF Alternative Scenario would be financed by \$1.09 from the GEF, as well as just under \$650,000 from the associated IBRD lending project and slightly more than \$270,000 from the Government of Argentina.

25. ***Component 3: Support for adoption of biodiversity-responsible plantation forestry practices (US\$19.06 million total, GEF US\$3.34 million):*** Under this component of the GEF alternative, investments will focus on generating income while conserving biodiversity at the plantation level through the promotion of alternatives to current production paradigms. As both small- and large-scale producers are critical for biodiversity conservation in forest landscapes, yet have very different needs and resources, two sets of complementary activities will be implemented. A demand-driven program of subprojects for small producers, complimented by environmental education and monitoring, will support the inclusion of biodiversity-responsible practices in production landscapes. The component will also facilitate dialog with large producers on practices, standards, and certification, and provide technical assistance needed to improve biodiversity-responsible techniques. The establishment of buffer and transition zones in areas of high biodiversity will also be supported. Cofinancing from the IBRD loan will support demand-driven grant program for small producers with topics including agroforestry, native species and alternative management techniques, as well as support to researchers conducting applied research in subjects related to sustainable forestry.

26. The activities financed under the GEF Alternative Scenario, above the baseline activities, would be funded by US\$3.34 million from the GEF grant, as well as US\$1.25 million from the associated IBRD loan and nearly US\$835,000 in government co-financing and US\$3.0 million in largely in-kind beneficiary co-financing as matching financing for subproject grants.

27. ***Component 4: Project Implementation, Monitoring and Evaluation (US\$0.71 million total, GEF US\$0.57 million):*** This component will ensure the effective implementation, administration, and monitoring of the project, as well financial management, procurement, baseline information collection, mid-term evaluation, and final evaluation-related activities.

28. These activities would be financed by just over US\$565,000 in GEF funds, as well as the approximately US\$140,000 provided by the government as counterpart financing.

Benefits: The GEF Alternative Scenario incorporates the benefits of the Baseline Scenario, but will go much further in securing the conservation of globally and regionally critical biodiversity while at the same time respecting socially and economically important productive processes. The project will also help ensure that planning processes take into account endangered or key ecosystems, allowing a continuation, or even increase, in the provision of ecosystem services of incalculable value. Furthermore, by strengthening the institutions, processes, and individual capacities responsible for incorporating biodiversity and ecosystem criteria into plantation forestry planning and management, the GEF Alternative will guarantee that these additional benefits will continue to accrue far into the future. In sum, the GEF Alternative will achieve both locally and globally beneficial outcomes at a far greater scale than the Baseline Scenario would have achieved, and will help ensure that these benefits are sustainable in the long term

Incremental Costs

29. The incremental costs are those that would not have existed in the absence of the GEF Alternative and are above and beyond what was estimated under the Baseline Scenario.

30. The incremental cost, the difference in cost between the Baseline Scenario (US\$12.01 million) and the GEF Alternative (US\$27.81 million), is US\$15.80 million. In addition to global biodiversity benefits, the project will generate national and local benefits. Of the incremental expenditures (costs) of US\$15.80 million, the GEF is requested to fund only US\$7.0 million; the balance of US\$8.80 million will be funded by the IBRD investments and the national and provincial governments.

Incremental Cost Matrix

Project Components	Cost Category	Cost US\$ millions	Domestic Benefits	Global Benefits
Component 1: Institutional Capacities Strengthened	Baseline	0.56	Limited due to low levels of financing for capacity-building, institutional strengthening, or the provision of tools in order to improve the incorporation of biodiversity and ecosystem concerns into the forestry sector. Inappropriate legal and economic frameworks reduce potential benefits from sustainable forestry.	Limited due to low levels of financing for capacity-building, institutional strengthening, or the provision of tools in order to improve the incorporation of biodiversity and ecosystem concerns into the forestry sector. Inappropriate legal and economic frameworks reduce potential benefits from sustainable forestry.
	GEF Alternative	4.77	Training for national and provincial government officials, researchers, and extension agents creates a higher level of national capacity capable of focusing on biodiversity and environmental issues. Government institutions have the tools necessary to implement rational and environmentally sustainable planning strategies, and the incentive frameworks stimulate sustainable forestry practices.	Government forestry officials and extension agents who are trained in biodiversity and have been exposed to international best practices incorporate the protection of globally-significant biodiversity into forestry practices. Improved incentive frameworks, and newly-available information and tools, permits planning to take critical ecosystems in hotspots into account in plantation areas, preserving key habitat, globally important ecosystems, and ecosystem services.
	Incremental	4.21		

	Incremental (GEF)	1.94		
Component 2: Development and dissemination of biodiversity-responsible plantation practices and technology transfer	Baseline	1.16	Government-backed dialog on certification leads to some improved management practices, while research on pollinators, fragmentation, and other related themes generate knowledge which is sporadically applied by progressive producers.	Some global benefits may accrue from large producers deciding to adopt certification-quality practices, but limited support, technical knowledge, and sources of native species mean adopters will be limited to only the largest progressive operators and will have less than the maximum potential impact.
	GEF Alternative	3.27	Under the GEF Alternative, native seed banks, nurseries, and native species plantations will create sustainable local employment. Well-trained extension agents and service providers will promote cutting-edge management techniques that will help increase production yields and incomes. Dialog will establish linkages between private sector forestry operators and government institutions.	Native seed banks, nurseries, and native species plantations will establish critical native forest cover, extending or creating habitats for endangered species of regional and global significance. Extension agents and service providers will disseminate techniques designed to protect threatened species and conserve critical ecosystems. Dialog will establish the patterns and linkages necessary to ensure that these achievements are fully incorporated into sectoral practices, and voluntary standards will further stimulate the wide adoption of standards leading to the conservation of globally and regionally significant

				biodiversity.
	Incremental	2.11		
	Incremental (GEF)	1.09		
Component 3: Support for adoption of biodiversity-responsible plantation forestry practices	Baseline	10.29	Under the Baseline Scenario, investments in studies on genetics, pollinators, and hydraulic resources lead to some new knowledge which might be applied to conserving local biodiversity in plantations. However, there are few incentives to promote the application of this knowledge.	The unsystematic nature of research means impacts are likely to be limited and not target species or areas of global significance.
	GEF Alternative	19.06	Demand-driven subprojects with small producers will help increase the income earned through onsite productive activities that are compatible with conservation objectives.	The conservation of regionally and globally significant biodiversity by small and medium producers will be promoted through a demand driven program, ensuring biodiversity is conserved on a scale usually excluded from projects. Critical species and ecosystems will be conserved through the creation of transition zones and protected areas in key areas surrounding plantation zones.
	Incremental	8.77		
	Incremental (GEF)	3.34		
Component 4: Project Implementation, Monitoring and Evaluation	Baseline	0.0	N/A	N/A

	GEF Alternative	.71	This component will ensure the efficient use of resources under the project, as well as more efficient coordination with the partially blended project and other relevant initiatives.	The effective management of the project will support the achievement of the overall global environment objective and development objective of the project.
	Incremental	.71		
	Incremental (GEF)	.57		
TOTALS	Baseline	12.01	Overall, expected resources will likely allow for the maintenance of the status quo, i.e., a slow loss of biodiversity and ecosystems to unplanned or inadequately managed forestry practices which do not take into account the necessary criteria.	The significant biodiversity value of the prime forestry regions will continue to disappear, and critical habitats will be lost to plantation forests. There may be negative effects on some large-scale ecosystemic processes.
	GEF Alternative	27.81	The GEF Alternative will allow for increased human and institutional capacity, the adoption of innovative planning and management techniques, a more rational use of land, likely increased incomes for participating small-scale producers, and perhaps increased value for large-scale producers recognized for their sustainable practices.	The incorporation of appropriate techniques and knowledge into planning and management practices allows for the more effective conservation of globally significant biodiversity and key ecosystems throughout the principal plantation forestry areas in Argentina.
	Incremental	15.80		
	Incremental (GEF)	7.00		

* Note: All figures are rounded. The table does not include US\$76,000 in unallocated GEF funds, nor the associated \$19,000 in government cofinancing.

Annex 16: STAP Roster Review

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

by

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1. Assessment of the scientific and technical soundness of the project.

1. The project aims to foster a balance between economic growth and environmental protection by mainstreaming the conservation of biological diversity into forestry practices. The components of the project are largely consistent with its goal targeting on improving or developing institutional capacity as well as biodiversity-sensible plantation practices, promoting technology transfer, socialization, implementation and monitoring of such practices. The project aims also to strength and to reciprocally improve others ongoing forestry and environmentally-related projects in Argentina.

2. The project is based on a worldwide increasing demand for forest products. Argentina is expected to expand the surface under plantations, expansion that is assumed to negatively impinge upon biodiversity. Threats on biodiversity, actual or potential, of current and future forestry plantations are not explicit though, be it environmental, legal or social. Similarly, the project is unclear regarding the hierarchical level (genetic to ecosystem) and component (compositional to functional) of biodiversity menaced or altered. Therefore, the development of useful, objective and verifiable indicators is lacking despite its relevance for monitoring and proper assessment of success of an admittedly needed project.

3. An ambitious project, aims to develop research on best practices, build capacities from youngsters up to practitioners and land owners, as well as institutionalize newly generated and already available knowledge in public policies. Such activities are consistent with its aims but might be overoptimistic in a five-year period.

4. An unexplored risk is the empirical falsification on an explicit assumption regarding the reduction in deforestation rates expected as a by-product of plantation forestry, as experienced by native forests in several countries. Facing an expanding market, counting on proper land quality reachable at low alternative costs and adequate infrastructure, forestry plantations might grow even not only on deforested areas but on currently forested ones, particularly if perverse incentives pervade this productive sector. Such risk ought to be explicitly considered in the project. Further, the potential increase in the rate of habitat transformation from grasslands into plantations is ignored, and environmental, social and economic consequences apparently neglected.

5. The project might benefit from carefully considering experiences elsewhere such in Australia or Chile and projects like Accelerates, aimed to assess the vulnerability of productively-oriented ecosystems to environmental changes in support of the convention of biological diversity.

6. Lessons learned from this project have significant implications for other GEF-supported projects. Analysis, synthesis and sharing of such lessons might be an outstanding outcome from this project.

7. Response: Agreed. We clarify that the project will work at both the ecosystem and the species levels of biodiversity. Components 1 and 2 will work largely at the landscape levels to encourage broad impacts while component 3 will focus on pre-identified priority areas indicated in the maps in Annex 16. These areas have been described in detail in preparation documents, along with the location and size of the area, and include endemic, threatened and endangered species identified in each. This information will be incorporated into the Operational Manual for the project for additional clarity and has been revised in the latest version of the Brief. Due emphasis to grassland transformation is incorporated into the revised project document.

8. Mainstreaming of biodiversity conservation into plantation forestry practices is a new and growing area of concern. The first international conference on this theme “Biodiversity and Conservation Biology in Plantation Forests” sponsored by IUFRO was held in 2005. The project is on the cutting edge of this field, and there are many lessons to be learned and shared, but they are not without risks. To mitigate the risk, the project includes a robust monitoring and evaluation activity that will be carried out in conjunction with experts in the various geographic locales, to provide timely feedback to implementation and the possibility to make adjustment to approaches as the project proceeds.

9. The project includes study tours for professionals and technicians, and the recommendations for visits to Australia and Chile are well taken, and will be considered.

2. Identification of the global benefits of the project.

10. Regions suitable for forestry activities in Argentina harbor rich biological diversity, as recognized by national and international organizations. A significant fraction of such regions are privately-owned. The proposed project aims at conserving biodiversity of global and regional significance. Furthermore, and more importantly, successful completion of this project might strength the increasing links between public and private entities in conserving biodiversity in productive settings. Such initiatives are increasingly common in Latin America and successful achievements might encourage more initiatives as will depict a clear win-win scenario for both environmental protection and economic development without necessarily impinging on the profitability of forestry activities. Such benefits are clearly pinpointed and acknowledged in the project.

11. Response: Agreed.

3. Compliance with GEF objectives and relevant conventions.

12. The project complies with the GEF Operational programs related to the conservation and sustainable use of biological diversity in production landscapes, particularly those regarding forest and semi-arid ecosystems (GEF Operational Programs OP3 and OP1, respectively). On

this regard, the project also complies with the CBD, aiming to reach sustainable forest management, appealing to an innovative way for achieving biodiversity conservation in Argentina with far-ranging consequences. The reliance on the conservation of biological beyond protected areas is a complementary strategy to implement policies of GEF, particularly those related to the sustainability of protected areas as well and most directly, the enhancement of biological diversity in productive areas (GEF Strategic Priority SP 1 and SP 2, respectively). The project, by way of research and capacity building is in accordance with the generation and dissemination of best practices for addressing biological diversity issues (GEF Strategic Priority SP).

13. The ways and means to fulfill mentioned objectives are clearly indicated along the proposed project, as there are the ones to engage in other initiatives, such as the Argentinean National Biodiversity Convention.

14. Similarly, the proposed project is clearly linked to past and ongoing GEF and other agencies activities. The project also builds upon previous experiences and capacities built by these experiences, counting on them from logistic, administration and technical support.

15. Response: Agreed.

4. Project's regional context.

16. The project tackles regionally relevant issues. Forestry activities in Argentina are deployed in ecosystems shared by Brazil, Chile, Paraguay and Uruguay. Similarly, forestry is similarly relevant to the economy of several countries in Latin America. Innovative ways to reduce conflicts between forestry and biological conservation, fostering its protection beyond protected areas, relying on private-public partnership are of immediate regional relevance. Generating and adopting biodiversity-sensible forestry practices might positively impinge upon both more effective biodiversity conservation and national economies region-wide.

17. Response: Agreed.

5. Potential replicability of the project to other sites.

18. Lessons learned in this project can be immediately replicated in several countries worldwide. Forestry plantations based on exotic species are common in Latin America and elsewhere. Many of these countries also face similar challenges with Argentina, such as a protecting rich biodiversity in privately-owned lands, including productive areas. Successful experiences might encourage the private sector beyond testing areas in Argentina but elsewhere to engage in environmentally respectful practices, leading to win-win scenarios ranging from forest certification to sustaining viable population or ecological processes. Similarly, failures in this project might discourage governmental organizations and other relevant stakeholders in neighboring countries to tackle biodiversity conservation along the private sector. Such responsibility is an unavoidable risk of the project. If successful, the impact is far-reaching.

19. Similar experiences are being carried out in the region, at least some objective and activities. Therefore, close collaboration with proper stakeholders from other countries might be adequate from the inception of the proposed project in order to ensure replicability and hence, consolidation, impact and sustainability.

20. Response: Agreed. The project is on the leading edge of concerns for integrating conservation into the productive landscape. Because 95% of Argentina lies outside of protected areas, mostly in productive landscapes, its impact could be significant and produce many lessons learned. The project intends to ameliorate risks as indicated in point no. 1. It is noted that new efforts often experience unanticipated challenges, and while there is risk, the baseline scenario without intervention portends a situation where globally-important biodiversity is increasingly threatened in the production landscape.

6. Project's sustainability.

21. Sustainability is ensured by its success in effectively mainstreaming biodiversity conservation in plantation management. If achieved, best-practices are expected to be widely adopted, without further need for financial investments. Adoption of such practices might well expand beyond Argentinean plantations due to both the similar challenges faced by plantation management across the region and because a fraction of large plantations are owned by few multinational companies, holding properties region-wide. Actually, such best-practices ought to generate higher returns to plantations owners. Building capacities among stakeholders, from governmental agencies to large and small plantations owners and managers is a well taken step to ensure sustainability and replicability. Proper indicators variables are needed for objective monitoring of success.

22. Response: Agreed. The indicators have been revised for submission to GEF and, as indicated in point no. 1 are complemented by a robust monitoring and evaluation activity which draws on expertise at the priority geographic locales.

7. Degree of involvement of relevant stakeholders.

23. The project considers the participation of stakeholders along the proposed project components. Public officials, land and forestry owners and members of the academic sector are explicitly considered. Potential obstacles to participation are recognized but reliance in top-down approaches (government to civil society, technology transfer) as well as overemphasis in roundtables might discourage the private sector and the academia. Emerging public-private ways of governance to achieve environmental sustainability, particularly when dealing with private companies, might be a challenge to overcome given the top-down approach applied.

24. Response: In addition to the roundtable discussions, the project seeks to foster a high level of engagement with large industries through Component 3 which includes direct outreach to the industry. Experience shows that there will be some innovators in this population, while others will be more difficult to engage. Emphasis will be placed initially on capitalizing on the good will and intentions of innovators. During project preparation private industries participated in the dialogues and provided favorable comments for the project. At the same time, it is true,

that they might withdraw from a process that is insufficiently structured, or continue to participate in meetings or roundtables not viewed in their best interests. Study tours and training of agency professionals should help to draw on lessons learned in the few other mainstreaming efforts around the world that can be passed onto industries. In order for development to be balanced, corporate responsibility must ultimately include actions that benefit the surrounding environment and the people that live there. This project aims to foster this through the mainstreaming of biodiversity conservation into productive activities of large- as well as small- and medium-level producers.

8. Capacity building elements.

25. Capacity building, including strengthening institutional capacities is a well taken component. Emphasis in training of public sector ought to be balanced with more protracted in evidence-based decision-making to relevant stakeholders rather than relying on technology transfer and adoption. Implementation of environmental education programs is also addressed, ensuring dissemination and sustainability of the potential adoption of best practices in forest management.

26. Response: Agreed.

9. Innovativeness of the project.

27. The project builds upon growing evidence and experiences regarding the potential use of forestry plantations in biodiversity conservation. Similarly, the proposed project builds upon the tendency of large forestry companies to engage in environmentally friendly practices. Aiming to capitalize on these tendencies, the project is aims to mainstream biodiversity conservation based on best practices in forestry plantations, usually regarded as almost incompatible activities. Aiming at reaching out from governmental entities, the academia, large as well as small plantation owners, projects as this are truly innovative.

28. Response: Agreed.

10. Final comments:

29. There is a clear need to incorporate biodiversity conservation in the forestry industry. There is an excellent opportunity to generate conditions for win-win scenarios and this project aims to achieve it.

30. Response: Agreed.

Annex 17: Priority Sites and Criteria

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

1. The first level of analysis for selection of the project area involved reviewing globally important ecosystems present in Argentina from existing resources such as the World Bank-WWF priority setting exercise, Conservation International Hotspots, the WWF Database on Neotropical Ecosystems (www.worldwildlife.org/wildworld/profiles/terrestrial/nt/) and information from BirdLife International and Aves Argentinas (regarding Important Bird Areas and Endemic Bird Areas). This biodiversity information was placed within the context of the most important plantation forestry regions of Argentina. These areas with greatest planted areas have been determined through the *Inventario Nacional de Plantaciones* (National Plantations Inventory) of 2001 and its subsequent updates from the SAGPyA. This provided the initial guidance for the project preparation and prioritization of the Patagonia, Mesopotamia, and Delta ecosystems.

2. Following this exercise, the preparation team initiated a second, more refined level of ecosystem analysis to determine priority areas for project focus. This process involved geoprocessing of threatened species data, vegetation and critical habitat information, plantation data, protected areas. In addition, workshops and consultations were held in order to assist in the establishment of priority areas. These processes resulted in the preparation of maps, lists, and other tools that will assist project implementation.

3. Following is an illustrative table with the priority areas for Patagonia and reasons for their selection:

Priority Areas for Biodiversity Conservation in Productive Forestry Landscapes	Observation	Area (ha)
Lagunas de Varvarco, Volcan Domuyo, and Northern Cordillero de Viento	High endemism, and unique biodiversity associated with thermal springs	99,236
Epu-lauquen	Vulnerable species including <i>Nothofagus glauca</i> , and others	16,005
Huinganco, Canada Molina and Canada Rahueco	High endemism, and unique native stands of <i>Austrocedrus chilensis</i> , northernmost range of <i>Nothofagus antartida</i> and <i>Nothofagus dombeyii</i>	2,559
Paso del Cudio-Est. la Primavera	High endemism and unique native stands of <i>Austrocedrus chilensis</i>	4,105
Copahue-Caviahue	High endemism and unique native flora associated with thermal springs	21,682
Riscos Bayos	High endemism and unique native stands of <i>Austrocedrus chilensis</i>	919
Pino Hachado	Vulnerable species including stands of <i>Araucaria araucana</i> (IUCN vulnerable list)	9,345
Macizo de Chachil	High endemism and <i>Vultur gryphus</i> habitat	14,719

Sierras de Catan Li	Vulnerable species including stands of <i>Araucaria araucana</i> (IUCN vulnerable list)	48,938
Las Colorados	Remnant biodiversity and <i>Vultur gryphus</i> habitat	7,406
Pilolil	Unique native stands of <i>Nothofagus obliqua</i> , and <i>Araucaria araucana</i> (IUCN vulnerable list)	3,029
Quillen-Tromen	Important stand of <i>Araucaria araucana</i> (IUCN vulnerable list), habitat for <i>Hippolamus bisulcus</i> (IUCN endangered list)	52,722
Epulafquen-Paimun	Important stand of <i>Araucaria araucana</i> (IUCN vulnerable list), habitat for <i>Octoden bridgesi</i> , <i>Rhinoderma darwinnii</i> (IUCN vulnerable list) and <i>Pudu puda</i>	51,149
Curruhue	Genetic variation of population of <i>Cusquea culeou</i>	9,687
Hua-Hum, Cabaceras de los lagos Lacar y Lolog	Important stand of <i>Nothofagus obliqua</i> , habitat for <i>Hippolamus bisulcus</i> (IUCN endangered list) and <i>Rhinoderma darwinnii</i> (IUCN vulnerable list)	44,903
Cabaceras del lago Espejo	Southern limit of <i>Nothofagus nervosa</i> , two important amphibians include <i>Rhinoderma darwinnii</i> and <i>Hylorina sylvatica</i> (IUCN vulnerable list)	19,270
Paso Chacabuco Guanaco	High endemism with important native stands of <i>Austrocedrus chilensis</i>	932
Paso Chacabuco	High endemism with important native stands of <i>Austrocedrus chilensis</i>	798
Chacay	High endemism with important native stands of <i>Austrocedrus chilensis</i>	421
Cuyin Manzano	Important native stands of <i>Austrocedrus chilensis</i> , habitat for endangered species, <i>Ctenomys sociabilis</i>	34,291
Zona occidental cordillerana entre Brazo Rincon del Nahuel Huapi and northern Cabacera Steffen-Martin	Stands of <i>Fitzroya cupressoides</i> (IUCN endangered list) and <i>Pilgerodendron uviferum</i> (IUCN vulnerable list). Habitat for <i>Hippelocampus bisulcus</i> (IUCN endangered list), <i>Batrachyla antartida</i> , <i>Hylorina sylvatica</i> (both considered vulnerable nationally) and <i>Rhinoderma darwinnii</i> (IUCN vulnerable list).	193,275
La Fragua	Important habitat for <i>Vultur gryphus</i>	5,606
Pilcaniyeu Norte	Habitat for <i>Vultur gryphus</i> and <i>Lestodelphys halli</i> (nationally vulnerable)	1,835
Pilcaniyeu Sur	Important stands of <i>Austrocedrus chilensis</i> and habitat for <i>Vultur gryphus</i> and <i>Lestodelphys halli</i> (nationally vulnerable)	2,029

Challhuaco and Nirihuau	Important stands of <i>Nothofagus pumilio</i> and <i>N. antartida</i> . Habitat for <i>Atelognathus nitoi</i> (IUCN vulnerable list), <i>Hippocamelus bisulcus</i> (IUCN endangered list), and <i>Buteo ventralis</i> (nationally vulnerable).	15,375
Manso Inferior-Lago Escondido-Rio Azul	Stands of <i>Fitzroya cupressoides</i> (IUCN endangered list) and <i>Pilgerodendron uviferum</i> (IUCN vulnerable list). Habitat for <i>Hippelocampus bisulcu</i> (IUCN endangered list).	59,198
Cordon Serrucho	Stands of <i>Fitzroya cupressoides</i> (IUCN endangered list) and <i>Pilgerodendron uviferum</i> (IUCN vulnerable list), and unexpected presence of <i>Austrocedrus chilensis</i> .	428
Brazo Occidental del Lago Pueblo	Remnant stands of <i>Fitzroya cupressoides</i> (IUCN endangered list) and unique flora including <i>Persea lingue</i> and <i>Escallonia leucantha</i> and unexpected presence of <i>Austrocedrus chilensis</i> .	6,811
Laguna los Alerces - Reserva Forestal Epuyen	Stands of <i>Fitzroya cupressoides</i> (IUCN endangered list).	1,234
Lago Esperanza	Stands of <i>Fitzroya cupressoides</i> (IUCN endangered list), <i>Pilgerodendron uviferum</i> (IUCN vulnerable list), and <i>Podocarpus nubigena</i> .	5,540
Rio Tigre	Stands of <i>Fitzroya cupressoides</i> (IUCN endangered list).	9,757
Menendez, Co. Riscoso, Cordon Situacion	Stands of <i>Fitzroya cupressoides</i> (IUCN endangered list). Habitat for <i>Oncifelis guigna</i> and <i>Rhinoderma darwinii</i> (IUCN vulnerable list) and <i>Hylorina sylvatica</i> (nationally vulnerable).	139,301
Corcovado	Stands of <i>Austrocedrus chilensis</i> and <i>Pilgerodendron uviferum</i> (IUCN vulnerable list)	29,707
Vintter	Stands of <i>Pilgerodendron uviferum</i> (IUCN vulnerable list). Habitat for <i>Hippocamelus bisulcus</i> .	28,686
Lagos Fontana - La Plata	Habitat for <i>Hippocamelus bisulcus</i> .	65,445

4. Following is an illustrative table with the priority areas for Mesopotamia and reasons for their selection:

Priority Areas for Biodiversity Conservation in Productive Forestry Landscapes	Observation	Area (ha)
Ceibas	Birds, lianas and vines	45,863
Guauguaychu	Lianas and vines	11,9956
Parana Entrerriano	Palms, woody and herbaceous plants, amphibians and reptiles	16,1186
Palmares de Colon	Lianas and vines, birds	25,3631
Federación	Lianas and vines, woody plants	20,5624
Selva de Montiel	Birds, reptiles, mammals	39,685
Espinal de Mercedes	Palms Herbaceous and woody plants,	55,1350
Parana Correntino	Woody plants, amphibians, and reptiles	13,4912
Esteros de Ibera	Birds, amphibians, reptiles	25,1412
Campos de Aguapey	Birds, ferns, epiphytes, herbaceous plants	68,9311
Campos y Selvas del Rio Uruguay	Mammals, birds, lianas and vines, woody plants	15,2939
La Candelaria	Palms and woody plants, reptiles and amphibians	13,9430
Selvas de Yaboti	Birds, mammals, woody plants, epiphytes, ferns, amphibians	28,308
Bosques de Araucaria de San Pedro	Woody plants, birds, mammals, ferns, and epiphytes	37,938
Selvas de Urugua-i	Mammals, birds, amphibians	27,9254
Selvas de Iguazú	Mammals, birds, amphibians, reptiles, ferns, epiphytes, herbaceous and woody plants.	16,8504

Annex 18: Subproject Implementation Arrangements

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

Background

1. The project component, *Support for the Adoption of Biodiversity Responsible Plantation Practices* (component 3), will include support for activities intended to promote changes in the production forestry landscape in target ecosystems. The full spectrum of potential production scenarios will be incorporated in order to maximize ground-level impacts and to ensure adequate representation of all types of production models within the pilot sub-projects. The demand-driven sub-projects to be supported will seek to develop models for maintenance or enhancing biodiversity of global importance and sustained economic development in the forestry sector.

Sub-project Profiles

2. Small, medium, and large plantation settings will be included under this project component, however only small and medium producers¹⁵ will be eligible for incremental funding for on-ground investments. Large producers may be eligible for specialized technical assistance in biodiversity conservation, land-use planning, and other areas pertinent to mainstreaming through subcomponent 3.2 but would be ineligible for sub-project financing. Sub-project unit costs are expected to be on average US \$15,000 to \$20,000, and normally not exceed US \$50,000. A minimum level of 1:1 co-financing will be required, including in-kind sources. (Relevant proposals that exceed the thresholds may be considered.)

3. Three basic types of sub-projects have been included to pilot the mainstreaming activities with small and medium-sized producers. A balance of about 30 percent of the subproject funds is envisioned for each type of subproject, with approximately 5 percent of funds available for preparation costs. These activities include:

4. *A. Conservation Forestry and Production:* These activities will focus on innovative or under-utilized types of forestry activities that work with native species, reduce pressure on native forests and ecosystems, or provide alternatives to production with exotic plantation species outright and benefit biodiversity. The types of projects that may be supported include: (i) planting of native species for fuelwood and other purposes, establishment of biodiversity corridors, and for protection and restoration of degraded habitat¹⁶; (ii) enrichment of plantation forests with native species; (iii) agroforestry and silvopastoral projects that enhance or protect biodiversity; (iv) alternative production for conservation projects which may include NTFP's such as yerba mate tea, palm hearts, resins, or other types of biodiversity-friendly production.

¹⁵ Small and medium producers are considered as such based on size of their forestry activities, land holdings and income levels (see Annex 19 and Operational Manual for details on profiles).

¹⁶ Exotic species may only be used under specific conditions that may show a benefit to biodiversity or absence of viable alternatives. These conditions must be established through the EA screening process and proposal review.

5. B. *Silviculture and Conservation*: Sub-projects under this category will support enhancing the biodiversity value of existing stands of plantation forests or working to improve plantation design to thereby reduce impacts on biodiversity in plantations not yet established (within target ecosystems). Activities may include: (i) silvicultural interventions within plantations of exotic species to enhance biodiversity conservation including thinnings, enrichment with native species, and other possible treatments; (ii) Enrichment of degraded native forests (with natives) for improved production (iii) decreasing the risk of fire to native ecosystems from plantation forests; (iv) decreasing the risk of invasion or eliminating invasive plantation species within priority ecosystems; (v) planning and design of plantations to increase biodiversity in forestry projects; (vi) supporting improved techniques or changes in methods to benefit biodiversity in plantations; (vii) establishment of demonstration plots; and (viii) support for group certification of small and medium-sized producers.

6. C. *Diversification of the Production Forestry Landscape*: These types of sub-projects seek to generate landscape-scale improvements for biodiversity in areas that are highly focused on production forestry. These interventions may include: (i) establishment of the legal and technical basis for private conservation areas within plantation landscapes in target ecosystems; (ii) establishment of the legal and technical basis for public conservation areas within plantation landscapes in target ecosystems. (iii) restoration of degraded habitat with native species plantings or establishment of native vegetation to promote connectivity; (iv) technical evaluations and silvicultural practices that are linked to landscape level improvements in biodiversity such as eradication of exotic plantation species in high-value conservation areas among others.

7. As a complement to these activities, the component will support environmental education and monitoring for biodiversity effects of the activities to strengthen the impact of the outcomes.

Structure

8. The fund for conservation sub-projects to be financed will be supported by a participatory and transparent mechanism for subproject evaluation and selection. A fund Steering Committee will be composed of representatives of SNRMP, SAGPyA, NGO and producer organization representatives, and recognized national experts. The GEF Technical Manager will be the operational manager who will have the necessary professional capacity, experience and knowledge for technical and administrative decision making. He/she will be supported by the two GEF technical specialists. The GEF Technical Manager will be the active link between the fund, the advisory group, land holders, and the international community. The administrative assistant will follow up on everyday operational concerns to ensure the smooth and routine operation of the fund.

9. Proposals will generally have a ceiling of US \$50,000 for groups of producers (up to \$1800 per production unit) and \$15,000 for individual or industry proposals under the conditions of co-financing set forth in the Operational Manual. Sub-project duration may not be greater than 2 years.

Approval Process for Proposals

- a) SAGPyA through the project unit and their regional consultative groups will develop the annual call for proposals based on the project framework and the current priority issues

regarding plantations and biodiversity. The call proposals will be complemented by area workshops to disseminate the information and field questions on eligibility and thematic content.

- b) The call for proposals will consist of two rounds; the project unit would complete an initial evaluation of the proposal (through a simplified form) by checking compliance with the format and the criteria established by the project and consultative group.
- c) Interested parties, including researchers, educational institutions, NGOs, producer associations, industry, etc., will, if needed, consult with the project unit for clarification of the rules, and to obtain a positive or negative response to their preliminary proposals. The proponents may request up to \$2500 for specialized preparation costs of final proposals if duly justified in the pre-selection form. (Proponents must select consultants from the registered list of service providers to the project for the preparation assistance.)
- d) The local project extensionist will flag any proposals that include indigenous groups for attention of the Buenos Aires unit. On the basis of the evaluation, the Regional Technical Advisory Committee, would prepare and forward their written recommendation together with the proposal (including those recommended for rejection) to the GEF Technical Coordinator in Buenos Aires for further consideration and final review on technical feasibility and economic analysis as may be indicated by independent specialists or evaluation panels¹⁷ convened on an as needed basis (see pertinent section on Project Implementation Unit).
- e) An agreement would be prepared and signed between SAGPyA and the parties involved with the sub-project proposal attaches as part of the agreement. The agreement details are included in the Operational Manual of the project and would require a review of legal and financial status of the recipients. In the event that the technical proposal for an indigenous group is approved, the IPPF will be activated, prior to presentation of the award. The PIU will notify the Bank in the event this occurs via official correspondence, and the specific award to an indigenous group will be subject to the Bank's prior review and no objection regardless of amount. In addition, the award will be contingent on a SA and IPDP, also subject to the Bank's no objection while implementation supervision and monitoring will follow guidelines established in Annex 19.
- f) SAGPyA, through the project unit and the local project unit would be responsible for monitoring of sub-project activities, and make periodic payments according to the schedule stipulated in the agreement. Principal participants would submit final written

¹⁷ These individuals or panels would be responsible for evaluating the scientific quality and consistency of the sub-project proposals. The members of this panel will be appointed based on their academic and professional merit in the pertinent areas needed including; forestry, biology, wildlife management, public policy and law, among other specializations relevant to mainstreaming. Evaluations of indigenous projects will include either a sociologist or other qualified professional in the evaluation team. Professional economists – with a specialization in Natural Resource or Forest Resource Economics may also take part in the panel when pertinent. They would be responsible for examining the economics of the subproject proposals and evaluating them to determine their economic merits or contributions. This will allow for the ranking of the proposals in light of their anticipated impacts.

reports, listing achievements (especially those linked to the GEF global and overall project objectives), lessons-learned, and any departures from the agreement.

- g) SAGPyA would recruit independent financial and technical auditors¹⁸ to audit compliance and evaluate results under each agreement and make the final payment.

General criteria for small and medium-sized producer sub-project selection:

1. The contribution of the proposed sub-project to mainstream biodiversity conservation within productive forestry landscapes.
2. The conservation value of the ecosystem, species or genetic material that is targeted for conservation efforts
3. Economic and social sustainability of proposed actions
4. Capacity and experience of sub-project proponent to execute required actions under the proposal
5. Co-financing
6. Technical and scientific merit of the proposal
7. The degree of relevance of forestry in the area or community
8. The possibility to mitigate or avoid environmental impacts caused by small producers
9. The number of beneficiaries
10. The possibility to carry out the sub-projects in communities or groups
11. Feasibility and operational logic
12. Connectivity with other activities

¹⁸ The independent Monitoring and Evaluation component (or technical audit) will include an independent evaluator to assess the program's progress by means of Principles, Criteria and Minimum Requirements Accomplishment. The application of such a standard will allow for an objective evaluation of program performance annually, review the lessons-learned, as well as providing the opportunity to take corrective measures should the case arise.

Annex 19 - Social Assessment and Indigenous Peoples Planning Framework (IPPF)

ARGENTINA: Argentina GEF Biodiversity Conservation in Productive Forestry Landscapes

1. The project aims to generate global benefits through mainstreaming biodiversity conservation into forestry sector programming, public policies, extension/outreach, and the execution of subprojects with small- and medium-scale producers. Large producers needs will also be addressed through outreach and extension but they will not be eligible for sub-project co-financing. The process will involve various stakeholders, including national and provincial government agencies, universities, NGOs, and private sector. Because of the important social elements of the project, a social assessment was undertaken within the project area -- the seven provinces in the Mesopotamia (Misiones, Corrientes, Entre Ríos and the Delta area of the Buenos Aires province) and Patagonia (Neuquén, Río Negro, Chubút provinces) regions.

2. The Social Assessment is a requirement of the World Bank and relates to the safeguard policies on Indigenous Peoples (OP4.10), Involuntary Resettlement (OP 4.12), and Cultural Property (OPN 11.03). Although the project does not expect to carry out specific activities with indigenous groups, because some of the target provinces have indigenous communities, in accordance with the OP 4.10 on Indigenous Peoples, the assessment includes an Indigenous Peoples Planning Framework as a contingency. The most likely scenario for inclusion of indigenous communities would be in the subprojects, as the request for proposals will be distributed in the press and on the internet and open to all qualified groups and individuals. For this reason, the subproject procedures include a trigger to ensure that indigenous groups are recognized and their proposals flagged prior to the detailed technical review. In the event that the project should involve indigenous communities during its implementation a series of steps would be taken to ensure conformity with Bank and national policy. (See IPPF section below.)

3. With regard to the Involuntary Resettlement, the project does not include any involuntary resettlement of any kind nor include involuntary relocation. In addition, due to the very small-scale nature of the subprojects, there is no risk that the access to resources would be constrained for users either. With respect to the OPN 11.03 on Cultural Property, the project is not expected impact cultural resources either. However, in the event any project activity poses a potential risk to cultural property during implementation, the activity will be immediately suspended until a protection plan can be put in place. Routine monitoring of activities and supervision will aim to ensure compliance and any protection plan will be subject to the Bank's review and no objection.

Methodology

4. The Social Assessment: (i) identified potential project beneficiaries and their interests in this type of project; (ii) characterized the potential beneficiaries, including socio-demographic and economic parameters; (iii) identified their general needs and areas of assistance; and (iv) determined the potential social impacts of the project. The assessment included seven provinces; four in Mesopotamia – Misiones, Corrientes, Entre Ríos and the Delta area of the Buenos Aires province; and three in Patagonia – Neuquén, Río Negro, and Chubút province.

For the preparation of the IPPF, additional work was carried-out to identify and characterize the relevant indigenous groups in the general project area, as well as to examine their livelihoods, perspectives and relationship to forests and biodiversity resources.

Main Findings

5. The results of the social assessment revealed diverse perceptions concerning biodiversity and forest activity, both complex and even contradictory in some cases. However, the overall finding is that because of the economic importance of forestry in the target areas, stakeholders have a positive attitude toward the sector. Likewise, the social assessment did not identify any controversial social aspects that may emerge as a result of the project activities. At the same time, most of these stakeholders have historically viewed forestry from a utilitarian perspective and the project will need to work hard to build a new sense of awareness in respect to environmental and biodiversity issues.

6. In general, the project is expected to deliver positive social impacts by: (a) helping to increase local incomes through the sustainable use of soil resources and forest management and providing financial resources for such activities at local levels; (b) enhancing ecosystem stability with local populations by supporting activities which will protect biodiversity, promote cultural awareness of biodiversity benefits and enhance local food security; and (c) promoting roundtable and participatory process as negotiation instruments that should contribute to reduce social conflicts.

7. The following describes the important aspects that are emphasized in the SA in order to support project activities.

Participatory mechanism. The project will have a consistent participation mechanism to foster the independent and full participation of stakeholders. Likewise, the project will seek to bolster consensus building processes among stakeholders, ensure the fair representation of different groups (government officials, technical professionals, producers, and politicians, among others) to solve any conflict to assure that options and interests of more vulnerable groups (small producers, indigenous peoples) will be taken into account and not to be harmed. Given the diversity of environmental, economic and social situations across the project area, the participatory process may be carried out at the watershed level.

Selection of target area. The results of the SA suggest that the project consider inclusion of areas that are both socially and environmentally sensitive, areas with environmental conflicts, or areas with high rates of unsustainable logging. The selection process should entail vigorous field work in order to: (i) understand “in situ” the perception of local social actors; and (ii) enhance the information collection on the sectors related to forest production and products to learn about the workers in the forest sector, rural population, indigenous communities, and forest industries, among others. It is also imperative for the project to maintain regular contact with communities to establish a connection between the project and social actors.

Communication strategy. The communication strategy should promote a good understanding of biodiversity values in culturally and socially appropriate ways. The strategy should also take into account the perception of industry and other stakeholders as well, in order to be effective.

Social and economic setting in the project area

8. The Mesopotamia ecoregion stretches over 88.886 square kilometers, which represents 3.1% of national territories. Its population growth is higher than national average as well as its population density. Although the large-scale agricultural production and mechanization have promoted emigration to urban areas, there are still significantly high ratio of rural dwellers (23,1%) in the region. As for the composition of the population by age groups, compared to the national average, all three provinces of the region have higher ratio of children (0-14 years of age), and lower ratio of working age population (15-64 years of age).

9. The Patagonia region extends over 521.777 square kilometers, representing 18% of the national territory with 1.5 million habitants (2001), which corresponds to 4,5% of the national total population. The region has become increasingly urban (80% of residents in urban areas). The population growth is higher than that of the national average with the exception of Río Negro, though the age group composition is similar to the national pattern than to that of the Mesopotamia region.

10. Agriculture, forestry, and to lesser extent, tourism are important to the regional economies and particularly among the project's potential beneficiaries. Rural populations depend on natural resources for their welfare and this dependency shapes their perceptions and attitudes greatly. For example, people in Patagonia generally place a high value on the esthetic qualities of the natural landscape, particularly forests, while grasslands (steppe) have a much lower value. This is because of the increasing importance of tourism in Patagonia, which is a major source of income in the region.

11. The SA identified that a utilitarian, short-time, fragmentary and individualistic vision and approach to the environment prevails among the local stakeholders. Traditionally forests comprise a part of the natural resources that is subject to human use in order to meet the immediate survival needs. Therefore, promoting broader and long-term strategies of forestry that may include restriction on the exploitation or change in management pose important challenges. Introduction of new approaches to natural resource management is a challenging issue for the small producers, who tend to become more sensitive to the intervention if and when large forest/wood firms are permitted to exploit resources, while smallholders are subject to more restrictions.

12. Poverty is prevalent and severe in all of the project area. Although poverty rates in the project area (excluding Río Negro) are lower than national average, the results measured by Unmet Basic Needs show the persistence of poverty in the region. Moreover, the economic crisis started in the first semester of the year 2001 further exacerbated poverty on a national scale, from which the country is now slowly recovering.

(Table 1.) Unmet Basic Needs Index at household level and individuals by province in Mesopotamia and Patagonia Regions and National Average. Year 1991 and 2001

	Household with UBN (1991)	Household with UBN (2001)	Population with UBN (1991)	Population with UBN (2001)
National Average	16.5	14.3	19.9	17.7
Mesopotamia Region				
Misiones	30.0	23.5	33.6	27.1
Corrientes	26.9	24.0	31.4	28.5
Entre Ríos	17.2	14.7	20.6	17.6
Patagonia Region				
Neuquén	19.1	15.5	21.4	17.0
Chubút	19.4	13.4	21.9	15.5
Río Negro	20.7	16.1	23.2	17.9

Source: Elaboration based on INDEC.

13. The poverty rate is also noticeably higher among the households with indigenous members, compared to those without. The loss of their traditional space, under-nutrition, and diseases coupled with poor sanitary condition imposes additional hardships on these groups.

(Table 2.) Unmet Basic Needs Index by province in Mesopotamia and Patagonia Regions

	Households with indigenous persons	Households with no indigenous persons
Mesopotamia Region		
Misiones	38,0%	22,9%
Corrientes	27,4%	23,5%
Entre Ríos	16,5%	14,5%
Patagonia Region		
Neuquén	26,2%	14,4%
Chubút	23,7%	12,2%
Río Negro	23,6%	15,4%

Source: Complementary Survey of Indigenous Peoples carried out by INDEC (2004)

14. Access to land is one of the most crucial structural problems for small farmers in Argentina. Concentration of land in large estates, the absence of adequate legislation or enforcement of laws, and corruption and political bias are among the principal causes which perpetuate land tenure problems. Land tenure problems are pervasive, even where agricultural activities are carried out. The lack of national laws applicable to natural resources makes it hard to regulate the land use.

Profile of subproject beneficiaries (small producers and farmers)

15. SAGPyA has defined small farmers as those who: (i) have an income less than two minimum rural salaries per month; (ii) total capital, excluding land, less than AR\$20,000; (iii) legal title or authorized permission for land occupancy by the provincial authorities; (iv) potential and motivation to improve economic welfare; (v) land-use plan approved by the project; and (vi) land holding located in the target area.

16. Outside the Pampa, small farmers comprise more than 40 percent of properties. Regionally the highest concentration of small farmers is found in the Northeast (NEA) and Northwest (NOA) where they are responsible for 40 percent and 20 percent, respectively, of the cropped area. Within the holdings, plantation resources for small farmers do not exceed 50 ha.

17. The average small-farmer property and income size is highly variable, but there are regional trends. The average size of a small farm is 3-5 ha in Salta, 10-100 ha in the Chaco, 12-25 ha in Misiones, and over 100 ha in Patagonia. Some of the main agricultural activities of small farmers by region are: (i) cotton, tobacco, yerba mate, cassava, horticulture and cattle in the NEA region; (ii) sugar cane, tobacco, cotton, sheep, goats, and Andean camelids in the NOA region; (iii) fruits and goats in the Salta region, and (iv) dairy cattle, goats and cereals in the central region.

Indigenous Peoples Planning Framework (IPPF)

18. Although the project does not expect specific activities to be carried out with indigenous groups, there are indigenous communities in some of the target provinces. Therefore, in accordance with the Operational Policy 4.10 of the World Bank, the IPPF has been developed. The IPPF will be activated should an indigenous group apply for, and be selected to implement a subproject under component 3.

19. Procedures for subproject selection, implementation and monitoring and evaluation include steps to ensure compliance with safeguard OP 4.10, as follows:

Step 1 – Institutional Arrangements – Screening

(i) Identification and detection: The field extension agents would complete an initial evaluation of the subproject proposals received and flag any proposals that include indigenous groups for attention of the Buenos Aires unit.

(ii) Technical approval of proposal: Subproject proposals received from indigenous peoples will be reviewed for technical and operational criteria using the same criteria applied to all other candidate proposals. In the event that the technical proposal for an indigenous group is approved, the IPPF will be activated – no award will be made until all steps of the IPPF/IPP have been complied with. The PIU will notify the Bank in the event that a technically approved subproject includes indigenous people via official correspondence. Subprojects that are not technically approved but include indigenous people are not subject to the Bank's review. However, the annual implementation report should include a notation regarding any rejected proposals that include indigenous peoples and the reason for their rejection.

Step 2 – Social Assessment:

Technically approved proposals for indigenous groups indicate the need for a social assessment for the subproject's proposed beneficiaries to be carried out by SAGPyA. The

assessment will include a free, prior, and informed consultation with the proposed recipient to identify their views and ascertain community support for the proposed subproject. Consultation methods appropriate to the social and cultural values of the communities and their local conditions will be utilized. On the basis of the social assessment and consultation, SAGPyA will prepare the SA report. The consultation will provide the communities with all relevant information about the project (including an assessment of potential adverse effects of the subproject.)

The SA should also include recommendations (as needed) for capacity building, environmental education and extension work that may also be financed by the project, in order to foster the long-term sustainability of the subproject activities.

The Bank will review the SA and the results of the consultation carried out by the borrower in order to assess the extent to which the Indigenous Peoples' communities have provided their broad support to the subproject. SAGPyA will include in their report any indication for possible adjustments to the subproject proposal based on the assessment. On the basis of the Bank's review, an objection or no objection will be issued to the grant recipient on whether or not to proceed with the subproject development. An objection will be issued if the Bank is unable to ascertain that adequate community support exists for a proposed subproject. SAGPyA will inform the project proposer that it has declined the proposal and the reason for doing so.

Step 3 – Indigenous Peoples Plan (IPP)

On the basis of the social assessment and in consultation with the affected Indigenous Peoples' communities, SAGPyA will prepare an Indigenous Peoples Plan (IPP) that sets out the measures through which they will ensure that (a) Indigenous Peoples affected by the project receive culturally appropriate social and economic benefits; and (b) when potential adverse effects on Indigenous Peoples are identified, those adverse effects are avoided, minimized, mitigated, or compensated for. The IPP is prepared in a flexible and pragmatic manner and its level of detail may vary depending on the specific subproject and the nature of effects to be addressed. SAGPyA will integrate the IPP into the Operational Manual. The amendment to the Operational Manual is subject to the Bank's no objection.

The IPP should also include recommendations (as needed) for capacity building, environmental education and extension work that may also be financed by the project, in order to foster the long-term sustainability of the subproject activities and community development.

Step 4 – Institutional arrangements for clearance of subprojects

Based on the recommendations of the cleared SA and the Bank's no objection to the IPP, SAGPyA may need to make adjustments to the subproject proposal. In the event that adjustments are indicated, a consultation with the subproject proposer will be undertaken to negotiate changes. Adjustments to subprojects will be made in concert with GEF

project technical and social experts as well as representatives of the community. Subprojects which have been adjusted for socio-cultural reasons will not be subject to clearance by the technical committee, providing the process involving technical and social experts is followed, and the adjustments have been made in concert with the community and GEF project technical experts.

Step 5 – Award of subprojects involving Indigenous Groups

All technically approved sub-projects involving indigenous communities will be subject to the Bank's no objection to ensure compliance with Safeguard OP 4.10. Depending on the evolution of the process, the request for no objection may be submitted in a package containing (i) the approved version of the sub-project proposal, (ii) SA, and (iii) IPP. Once SAGPyA has received the no objection, only then may the award be made.

Step 6 – Institutional arrangements for monitoring sub-projects

In the event the subproject includes an indigenous group, the grant recipient's monitoring and supervision will include a sociologist or other qualified professional. Visits to project sites for indigenous peoples will be made at least every 4 months for the first year, and once or twice a year thereafter. Results of the visit, including recommendations, will be presented in an annex to the recipient's annual project implementation reports. During the site visits, the team will conduct a consultation using culturally appropriate means in order to ascertain and address grievances. In the event a grievance cannot be resolved during the visit, it will be elevated to the project unit in Buenos Aires for review and resolution. Any grievances resolved or unresolved will be included in the recipient's annual implementation report. Serious grievances will be reported to the Bank immediately.

Step 5 – Disclosure

SAGPyA will make the IPP and IPPF available publicly, both in their offices in Buenos Aires and in the offices of the extension agents.

Maps

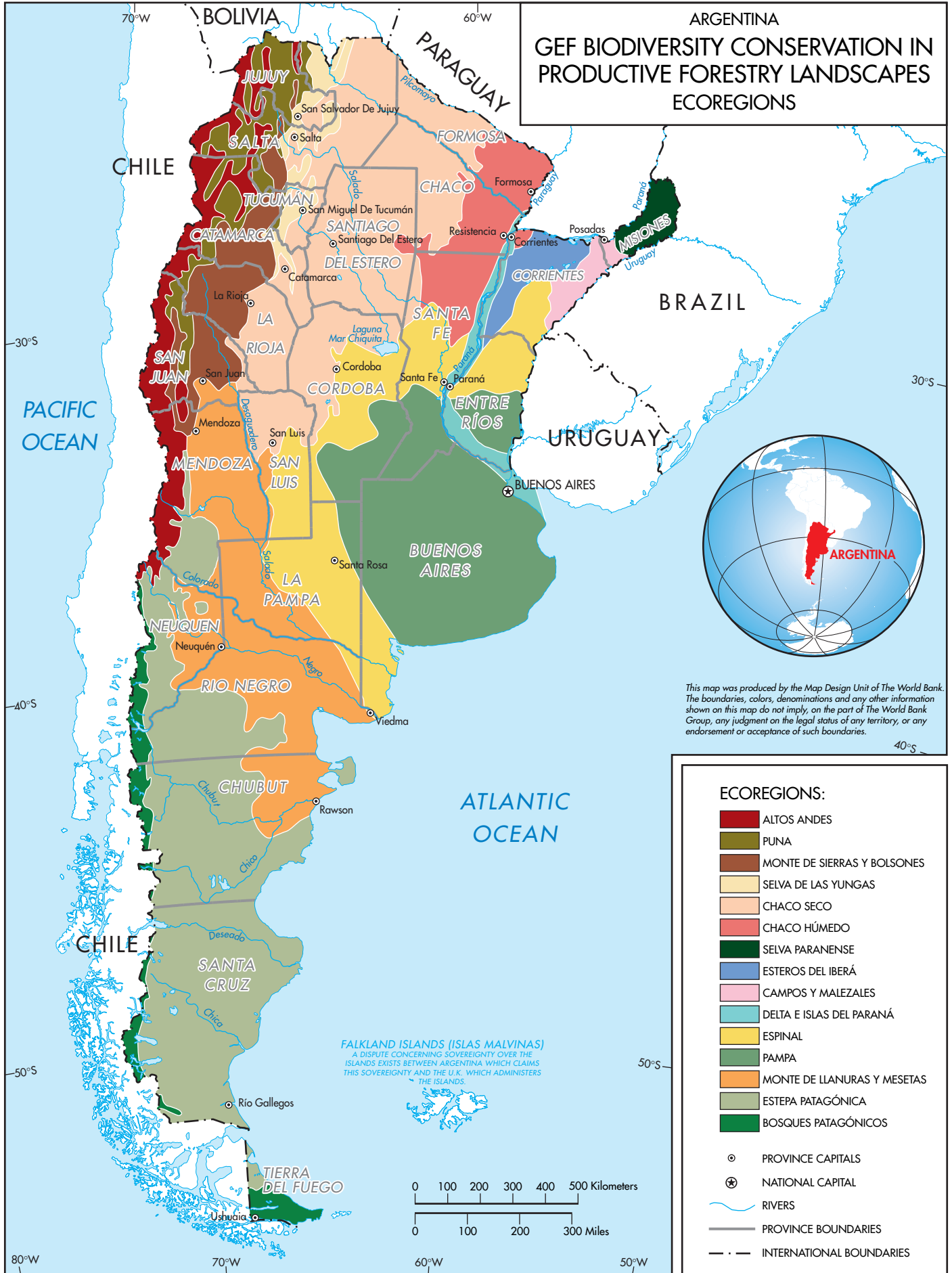
IBRD: 35530

IBRD: 35535

Priority Areas for Conservation, Mesopotamia

Priority Areas for Conservation, Patagonia

ARGENTINA GEF BIODIVERSITY CONSERVATION IN PRODUCTIVE FORESTRY LANDSCAPES ECOREGIONS



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ECOREGIONS:

- ALTOS ANDES
- PUNA
- MONTE DE SIERRAS Y BOLSONES
- SELVA DE LAS YUNGAS
- CHACO SECO
- CHACO HÚMEDO
- SELVA PARANENSE
- ESTEROS DEL IBERÁ
- CAMPOS Y MALEZALES
- DELTA E ISLAS DEL PARANÁ
- ESPINAL
- PAMPA
- MONTE DE LLANURAS Y MESETAS
- ESTEPA PATAGÓNICA
- BOSQUES PATAGÓNICOS

- PROVINCE CAPITALS
- *
 NATIONAL CAPITAL
- RIVERS
- PROVINCE BOUNDARIES
- INTERNATIONAL BOUNDARIES

