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The World Bank

Report No: ICR00003840

IMPLEMENTATION COMPLETION AND RESULTS REPORT  
(IBRD-75200/TF-90118)

ON A

LOAN IN THE AMOUNT OF US\$ 60.0 MILLION

FOR A

SUSTAINABLE NATURAL RESOURCES MANAGEMENT PROJECT

AND A

GLOBAL ENVIRONMENT FACILITY GRANT  
IN THE AMOUNT OF US\$ 7.0 MILLION

FOR A

BIODIVERSITY CONSERVATION IN PRODUCTIVE FORESTRY LANDSCAPES  
PROJECT

TO THE

ARGENTINE REPUBLIC

March 29, 2017

Environment and Natural Resources Global Practice  
Latin America and the Caribbean Region

## CURRENCY EQUIVALENTS

Exchange Rate Effective: December 13, 2016

Currency Unit = Argentine Pesos

Pesos 1.00 = US\$0.07

US\$ 1.00 = 15.07 Pesos

## FISCAL YEAR

January 1 – December 31

## ABBREVIATIONS AND ACRONYMS

APN	National Parks Administration (Administración de Parques Nacionales)
CERTFOAR	Argentine National Forest Certification System (Sistema Nacional de Certificación Forestal Argentino)
DAS	Sustainable Development Activities
DPF	Forestry Production Directorate of the Ministry of Agriculture (Dirección de Producción Forestal)
ESMF	Environmental and Social Management Framework
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
GEF	Global Environment Facility
GEO	Global Environmental Objective
GOA	Government of Argentina
IADB	Inter-American Development Bank
IBRD	International Bank for Reconstruction and Development
INTA	National Institute for Agricultural Technology
IP	Indigenous Peoples
IPPF	Indigenous Peoples Planning Framework
MAGyP	Ministry of Agriculture, Livestock and Fishing (Ministerio de Agricultura, Ganadería y Pesca; recently renamed Ministry of Agroindustry)
NFC	Native Forests and Communities Project
NGO	Non-governmental Organization
OP	Operational Policy
PA	Protected Area
PAD	Project Appraisal Document
PDO	Project Development Objective
PEFC	Program for Endorsement of Certification Standards
PES	Payment for Environmental Services
PIA	Applied Research Project (Proyecto de Investigación Aplicada)
REDD	Reduced Emissions from Deforestation and Degradation
SACVEFOR	System for Administration, Control, and Forest Verification
SAGPyA	Secretariat of Agriculture, Livestock, Fisheries, and Nutrition (Secretaría de Agricultura, Ganadería, Pesca y Alimentación)
SAyDS	Secretariat of the Environment and Sustainable Development (Secretaría de Ambiente y Desarrollo Sustentable)

SEA	Strategic Environmental Assessment
SFM	Sustainable Forest Management
SFPC	Forest Production and Conservation Subprojects (Subproyectos Forestales de Producción y Conservación)
SIFAP	Federal Protected Areas System (Sistema Federal de Areas Protegidas)
SNAP	National Protected Areas System (Sistema Nacional de Areas Protegidas)
SNRM	Sustainable Natural Resources Management Project
UCAR	Unit for Rural Change (Unidad Para el Cambio Rural)

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**ARGENTINA**  
**Sustainable Natural Resource Management Project**

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MAP

## A. Basic Information

Country:	Argentina	Project Name:	AR Sustainable Natural Resources Management (IBRD),  AR Biodiversity Conservation in Productive Forestry Landscapes (GEF)
Project ID:	P100806, P094425	L/C/TF Number(s):	IBRD Ln 7520 GEF TF 90118
ICR Date:	03/29/2017	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	Argentine Republic
Original Total Commitment:	USD 60.00M, USD 7.00M	Disbursed Amount:	USD 49.63M, USD 6.74M
Environmental Category: B		Focal Area: B	
Implementing Agencies: Administración de Parques Nacionales Ministerio de Agricultura, Ganadería y Pesca Secretaria de Ambiente y Desarrollo Sustentable			
Cofinanciers and Other External Partners: none			

## B. Key Dates

AR Sustainable Natural Resources Management - P100806				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	04/13/2007	Effectiveness:	03/20/2009	03/20/2009
Appraisal:	11/26/2007	Restructuring(s):		See table H
Approval:	03/18/2008	Mid-term Review:	07/15/2012	04/23/2012
		Closing:	03/31/2014	03/15/2016

AR Biodiversity Conservation in Productive Forestry Landscapes - P094425				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	08/05/2004	Effectiveness:	12/18/2008	12/18/2008
Appraisal:	04/16/2007	Restructuring(s):		See table H
Approval:	06/28/2007	Mid-term Review:	11/30/2011	
		Closing:	08/31/2013	02/29/2016

## C. Ratings Summary

C.1 Performance Rating by ICR	
Outcomes	Moderately Unsatisfactory
GEO Outcomes	Moderately Unsatisfactory
Risk to Development Outcome	Moderate
Risk to GEO Outcome	Moderate
Bank Performance	Moderately Unsatisfactory
Borrower Performance	Moderately Unsatisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)			
Bank	Ratings	Borrower	Ratings
Quality at Entry	Moderately Unsatisfactory	Government:	Moderately Satisfactory
Quality of Supervision:	Moderately Satisfactory	Implementing Agency/Agencies:	Moderately Unsatisfactory
Overall Bank Performance	Moderately Unsatisfactory	Overall Borrower Performance	Moderately Unsatisfactory

C.3 Quality at Entry and Implementation Performance Indicators			
AR Sustainable Natural Resources Management (formerly Sustainable Forestry Development) - P100806			
Implementation Performance	Indicators	QAG Assessments (if any)	Rating:
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA)	None
Problem Project at any time (Yes/No):	Yes	Quality of Supervision (QSA)	None
DO rating before Closing/Inactive status	Moderately Unsatisfactory		

Biodiversity Conservation in Productive Forestry Landscapes - P094425			
Implementation Performance	Indicators	QAG Assessments (if any)	Rating:
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA)	None
Problem Project at any time (Yes/No):	Yes	Quality of Supervision (QSA)	None
GEO rating before Closing/Inactive Status	Moderately Unsatisfactory		

#### D. Sector and Theme Codes

AR Sustainable Natural Resources Management (formerly Sustainable Forestry Development) - P100806		
	Original	Actual
<b>Sector Code (as % of total Bank financing)</b>		
Central Government (Central Agencies)	31	31
Forestry	27	27
Other Agriculture, Fishing and Forestry	42	42

<b>Theme Code (as % of total Bank financing)</b>		
Biodiversity	25	25
Environmental policies and institutions	24	24
Other environment and natural resources management	13	13
Other rural development	25	25
Participation and civic engagement	13	13

Biodiversity Conservation in Productive Forestry Landscapes - P094425		
	Original	Actual
<b>Sector Code (as % of total Bank financing)</b>		
Agricultural Extension, Research, and Other Support Activities	5	5
Central Government (Central Agencies)	30	30
Forestry	50	50
Other Agriculture, Fishing and Forestry	10	10
Sub-National Government	5	5

<b>Theme Code (as % of total Bank financing)</b>		
Biodiversity	33	33
Environmental policies and institutions	17	17
Other environment and natural resources management	17	17
Other rural development	17	17
Rural policies and institutions	16	16

## E. Bank Staff

AR Sustainable Natural Resources Management (formerly Sustainable Forestry Development) - P100806		
Positions	At ICR	At Approval
Vice President:	Jorge Familiar	Pamela Cox
Country Director:	Jesko S. Hentschel	Pedro Alba
Practice Manager/Manager:	Raul Ivan Alfaro-Pelico	Ethel Sennhauser
Project Team Leader:	Peter Jipp	Robert Ragland Davis
ICR Team Leader:	Peter Jipp	
ICR Primary Author:	Francis V. Fragano	

Biodiversity Conservation in Productive Forestry Landscapes - P094425		
Positions	At ICR	At Approval
Vice President:	Jorge Familiar	Pamela Cox
Country Director:	Jesko S. Hentschel	Axel van Trotsenburg
Practice Manager/Manager:	Raul Ivan Alfaro-Pelico	Ethel Sennhauser
Project Team Leader:	Peter Jipp	Robert Ragland Davis
ICR Team Leader:	Peter Jipp	
ICR Primary Author:	Francis V. Fragano	

## F. Results Framework Analysis

### Project Development Objectives (from Project Appraisal Document)

Improve the sustainable and efficient management of forest resources, conserve biodiversity in protected areas and forest landscapes, and integrate small producers into forestry development and conservation. The PDO was not revised.

### Global Environment Objectives (from Project Appraisal Document)

The Global Environment Objective (GEO) is to increase integration of biodiversity-responsible practices and policies into the plantation-forestry sector at the national level and in select provinces. The wording in the Grant Agreement is slightly different and stated as: "The objective of the Project is to increase integration of biodiversity-responsible practices and policies into the plantation forestry sector at the Recipient and provincial levels". The GEO was not revised.



## (a) PDO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
<b>Indicator 1 :</b>	Direct project beneficiaries (Core)			
Value (quantitative or Qualitative)	0		15,440	17,192
Date achieved	04/18/2008		1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (111%</b> of revised target reached). 2014 restructuring (Annex 9) set a numerical target of 15,440 beneficiaries based on distinct groups identified in the PAD under arrangements for results monitoring.			
<b>Indicator 2 :</b>	Female beneficiaries (Core Supplement)			
Value (quantitative or Qualitative)	0		NA	NA
Date achieved	04/18/2008		1/16/2014	03/14/2016
Comments (incl. % achievement)	No specific numeric target was set in the PAD and the 2014 restructuring paper did not include intermediate or final targets. The percentage of female beneficiaries varied widely between project components and activities. There was insufficient data presented in the Implementing Agency closing reports to generate an overall estimate for this indicator. (see also para 59)			
<b>Indicator 3 :</b>	Strategic Environmental Assessments, guidelines and strategies for the sustainable use and conservation of forests available and in use			
Value (quantitative or Qualitative)	0		Strategic Env. Assessments, guidelines and strategies for sustainable use and conservation of forests available and in use	3 Strategic Environmental Assessments and monitoring programs for Mesopotamia, Delta, and Patagonia were prepared covering 2 ecoregions and a total of 8 Provinces
Date achieved	04/18/2008		1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved. (100%)</b> The Strategic Environmental Assessments (SEAs) provide publically available information to consider optimal plantation areas and are linked to the provincial land use plans developed through the Native Forests Law. An example of the data available for the biodiversity-rich NOA (northwestern) region can be viewed at: <a href="http://plantacionesforestalesnoa.ucar.gov.ar">http://plantacionesforestalesnoa.ucar.gov.ar</a>			
<b>Indicator 4 :</b>	Reforms in forest policy, legislation or other regulations supported			
Value (quantitative or Qualitative)	No		Yes	Yes

Date achieved	04/18/2008		1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved.</b> No specific target was set in the PAD and targets were added in the 2014 Restructuring. Key results include: a) GoA decision (Sept 2014) to remove restrictions requiring formal tenure to access Forest Fund resources generating opportunity to increase the share of resources flowing to poor people (particularly indigenous and <i>campesino</i> ) who were previously excluded due to their unclear tenure status and b) National Parks adopts policy supporting inclusion of indigenous communities in National Park management planning.			
<b>Indicator 5 :</b>	Government institutions provided with capacity building support to improve management of forest resources (Core)			
Value (quantitative or Qualitative)	0		DPF, 20 provincial administrations, 7 provincial forestry units	DPF, 20 provincial administrations, 7 provincial forestry units; 28 total
Date achieved	04/18/2008	04/18/2008	1/16/2014	03/15/2016
Comments (incl. % achievement)	<b>Achieved (100%</b> of revised target). No specific target was set in the PAD and numeric targets were added in the 2014 Restructuring. Training, equipment, and specialized policy related technical assistance were provided as part of the capacity building at federal and provincial levels. Forest industry in Misiones province was provided assistance to increase efficiency and use of industry by-products and waste in addition to energy efficiency in drying systems for yerba mate. This has a measureable impact on both costs of fuel and climate related impacts.			
<b>Indicator 6 :</b>	Forest area brought under management plans (Hectare, Core)			
Value (quantitative or Qualitative)			378,715	Total approved 412,569 Ha
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (109%)</b> Revised target set in 2014 restructuring. 80,294 Ha UCAR approved and under implementation 332,275 Ha APN approved out of a total 405,808 Ha APN planned; Overall Five park plans were approved (Cardones, Campo de los Alisos, Pilcomayo, Perito Moreno and Baritú); Additionally, Sierra de las Quijadas management plan was completed but has not yet been approved.			
<b>Indicator 7 :</b>	Regional office for the Chaco established and operating			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved	04/18/2008		1/16/2014	03/15/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> No specific numeric target was set in the PAD and targets were added in the 2014 Restructuring. The Chaco Node is fully operational following strengthening of its provincial partners in the Chaco. This Node provides the platform for the SACVEFOR timber control system and dialogue between provinces regarding log-tracking and enforcement.			

**(b) GEO Indicator(s)**

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
<b>Indicator 1 :</b>	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			
Value (quantitative or Qualitative)	0	3		4 of 7 project provinces developed and consulted draft policies and regulations.
Date achieved	04/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved (133%).</b> The proposed policies and regulations reflected conservation priorities identified in the SEAs and were linked to implementation of the Forest Law which requires identification and protection of high value natural forest areas.			
<b>Indicator 2 :</b>	7 of 7 provinces have identified critical natural habitats and included them in small-scale ecological maps			
Value (quantitative or Qualitative)	0	7		All 7 provinces have identified critical natural habitats and included them in small-scale ecological maps
Date achieved	03/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> Identification of critical habitat at provincial level is linked to implementation of the Forest Law which requires identification and protection of high value natural forest areas.			
<b>Indicator 3 :</b>	Eco-regional planning tools are in use in 3 provinces and at the federal level			
Value (quantitative or Qualitative)	0	3 provinces and at federal level		Patagonia and Interior Atlantic Forest (Mesopotamia) regions covering 8 provinces
Date achieved	03/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> SEA's including biodiversity monitoring plans were prepared for three ecoregions - Patagonia and Interior Atlantic Forest regions were financed by GEF and the Chaco Ecoregion was financed by IBRD (P100806).			
<b>Indicator 4 :</b>	70,000 ha in key areas benefiting from improved plantation management practices that incorporate biodiversity-responsible practices			
Value (quantitative or Qualitative)	0	70,000		153,000

Date achieved	03/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved (200%).</b> 135,000 ha of large plantations; and 18,000 ha of agroforestry small and medium planted areas			
<b>Indicator 5 :</b>	Monitoring shows amelioration of threats to and improvements in ecosystem biodiversity (habitats of globally-important biodiversity indicator species) in production landscape			
Value (quantitative or Qualitative)	0	NA		0
Date achieved	03/18/2009			02/29/2016
Comments (incl. % achievement)	<b>Not Achieved.</b> SEAs including biodiversity monitoring plans were prepared for two ecoregions but provincial adoption and field implementation of monitoring was limited during project implementation.			

**(c) Intermediate Outcome Indicator(s) – P100806**

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
<b>Indicator 1 :</b>	<b>Component 1 - Regional participatory workshops developed</b>			
Value (quantitative or Qualitative)	0		11	11
Date achieved	04/18/2008		1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> Consultations were an essential input to the preparation of the Forests and Community Project (P132846) and to the related social and environmental safeguards assessments which were prepared under Component 1. The Board approved the P132846 on April 7, 2015. No specific numeric target for the number of workshops was set in the PAD. All planned sub-national participatory workshops were held. These were documented in the Social Assessment as part of preparation of the follow-on project.			
<b>Indicator 2 :</b>	<b>Component 1 - Environmental and social assessment (including IPP) for the follow-on project prepared</b>			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved	04/18/2008		1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> No specific numeric target was set in the PAD. Original PAD split this into two separate indicators one for Environment and one for Social Assessment. Note this was reported as 80% delivered at component closure (December 2014) however by the date of project closure it reached 100%.			
<b>Indicator 3 :</b>	<b>Component 1 - Operational manual for project prepared.</b>			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved			1/16/2014	03/14/2016

Comments (incl. % achievement)	<b>Achieved (100%).</b>			
<b>Indicator 4 :</b>	<b>Component 1 - Strategy for sustainable management of the Chaco Forests prepared</b>			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> Regional Strategy for Sustainable Management of Native Forests in the Chaco EcoRegion ( <i>Estrategia regional de manejo sostenible de los bosques nativos para el Parque Chaqueño</i> ) provided key technical inputs to the development of the follow-on operation Forests and Community (P132846).			
<b>Indicator 5 :</b>	<b>Component 1 - Timber control system developed and installed in Parque Chaqueño Ecoregion</b>			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved			1/16/2014	03/15/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> SACVEFOR (for its Spanish acronym) was developed and installed in the Ecoregion during the project period and SACVEFOR expansion is financed under P132846.			
<b>Indicator 6 :</b>	<b>Component 1 - Palo Santo survey completed</b>			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> Survey carried out by PROYUNGAS Foundation in Chaco and Salta Provinces to inform protection of this species.			
<b>Indicator 7 :</b>	<b>Component 1 - Regional forestry monitoring nodes installed and operating</b>			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> Chaco node established and functioning in support of field based activities of Component 1 including SACVEFOR (Timber control system).			
<b>Indicator 8 :</b>	<b>Component 1 - Sustainable production models reviewed and best practices manuals prepared for SFM in 7 native forest ecosystems</b>			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> The production model and best practice manuals were separate indicators at approval.			
<b>Indicator 9 :</b>	<b>Component 1 - Economic incentive system for sustainable forest management</b>			

	assessed			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> Revised to acknowledge that GoA had already passed the forest law and created the Forest Fund. Analysis led to the removal of the requirement of formal title allowing those with informal title to access funds.			
<b>Indicator 10 :</b>	<b>Component 2 - Studies to support policy formulation completed</b>			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> No specific numeric target was set in the PAD and targets were set in the 2014 Restructuring. Please see list in client's component 1 completion report (pg 34-41).			
<b>Indicator 11 :</b>	<b>Component 2 - Information System installed</b>			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved	04/18/2008		1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> Information systems (computer hardware and software) reviewed and upgraded in DPF and at provincial level to strengthen federal and provincial administration of plantations and agro forestry. For example, a forest information system was developed for the Rio Negro Province in Patagonia to improve oversight and management of forest plantation related activities of the Provincial Forest Directorate.			
<b>Indicator 12 :</b>	<b>Component 2 - National, Regional and Provincial dialogues created and/or strengthened</b>			
Value (quantitative or Qualitative)	0		1 federal and 5 provincial	11 total
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (183% of revised targets).</b> National (1), Regional (2), and Provincial (8) dialogues regarding the impacts of the productive sector on the environment and the need to mainstream biodiversity conservation in production systems.			
<b>Indicator 13 :</b>	<b>Component 2 - Proposal for forestry provincial strategies developed</b>			
Value (quantitative or Qualitative)	0		6	3
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Partially Achieved (50% of revised target).</b> No specific target was set in the PAD and numeric target was set in the 2014 Restructuring. Rio Negro, Chubut and Tucumán Forest Directorates prepared proposals to strengthen their technical approach to maintaining biodiversity in planted forests.			
<b>Indicator 14 :</b>	<b>Component 2 - Strategic Environmental Assessment for NOA (Northeast) and Chaco regions developed</b>			
Value	0		7	6

(quantitative or Qualitative)				
Date achieved	03/20/2009		1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Partially Achieved (86%</b> of revised targets). No specific numeric target was set in the PAD and targets were set in the 2014 Restructuring. SEA's including biodiversity monitoring plans were prepared for three ecoregions - Patagonia and Interior Atlantic Forest regions were financed by GEF (P094425) and the Chaco/NOA Ecoregion was financed by IBRD (P100806). Covering 6 of 7 provinces (Salta, Santiago del Estero, Chaco, Jujuy, and Tucuman but excluding Formosa).			
<b>Indicator 15 :</b>	<b>Component 2 - Private service providers trained by regional forestry staff</b>			
Value (quantitative or Qualitative)	0		1,590	1,206
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Partially Achieved (79%</b> of revised targets). No specific target was set in the PAD and numeric target was set in the 2014 Restructuring.			
<b>Indicator 16 :</b>	<b>Component 2 - Applied research projects developed (Number)</b>			
Value (quantitative or Qualitative)	0		115	112
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (97%</b> of revised target). No specific numeric target was set in the PAD. The numerical target does not capture the breadth and depth of this work. (See also Annex 2 where details of the applied research program are provided).			
<b>Indicator 17 :</b>	<b>Component 2 - Producers received extension services from regional DPF staff</b>			
Value (quantitative or Qualitative)	0		2000	1,933
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (97%</b> of revised targets). No specific numeric target was set in the PAD and targets were set in the 2014 Restructuring.			
<b>Indicator 18 :</b>	<b>Component 2 - Small - Medium producers assisted for production forestry and forest conservation subprojects</b>			
Value (quantitative or Qualitative)	0		1,500	73 Forest Production and Conservation Subprojects (SFPCs) implemented in 13 provinces assisting 1,483 small producers
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (99%</b> of revised target). No specific numeric target was set in the PAD and targets were set in the 2014 Restructuring. In addition to the IBRD			

achievement)	financed SFPCs an additional 444 SFPC beneficiaries were funded under GEF and two Pilot Projects initiated in April 2015 benefit a total of 126 beneficiaries			
<b>Indicator 19 :</b>	<b>Component 2 - Monitoring and evaluation program developed and functioning</b>			
Value (quantitative or Qualitative)	0		100	100
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%</b> of revised targets). No specific numeric target was set in the PAD and targets were set in the 2014 Restructuring.			
<b>Indicator 20 :</b>	<b>Component 3 - Essential infrastructure for strengthening natural parks management finished</b>			
Value (quantitative or Qualitative)	0		50	49 Designed; 23 Completed; 26 Under Construction
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Partially Achieved (46%</b> of revised targets) No specific target was set in the PAD and numeric targets were set in the 2014 Restructuring. After delays during implementation, APN is completing remaining 26 items with their own resources; APN affirms 98% completion within 12 months of project closure.			
<b>Indicator 21 :</b>	<b>Component 3 - Management plans prepared and approved</b>			
Value (quantitative or Qualitative)	0		5	6 Prepared 5 Approved
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%</b> of revised targets). No specific target was set in the PAD and numeric targets were added in the 2014 Restructuring. 1 additional plan is in process of approval (PN Sierra de las Quijadas). Updated planning guidelines now require Indigenous Community participation in preparation of all Park management plans.			
<b>Indicator 22 :</b>	<b>Component 3 - Subprojects on sustainable activities (DAS) implemented</b>			
Value (quantitative or Qualitative)	0		74	92
Date achieved	02/20/2009		1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (124%</b> of revised target). No specific numeric target was set in the PAD. With extension of implementation period the project achieved the revised target. Ninety-two DAS projects were implemented including 25 with IP communities benefitting a total of 10,724 beneficiaries in 10 PAs. Projects focused on sustainable production models that aimed to improve the compatibility of income generation and ensure food-security with the ecosystem conservation objectives of the nearby parks. An additional 564 beneficiaries were reached with conservation focused technical assistance.			
<b>Indicator 23 :</b>	<b>Component 3 - Project webpage active, updated and linked with APNs webpage</b>			
Value (quantitative or Qualitative)	0		100%	100%



Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%)</b> No specific numeric target was set in the PAD. This was included as a procurement related covenant in the PAD (pg. 94).			
<b>Indicator 24 :</b>	<b>Component 3 - Informatics System designed and functioning</b>			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> No specific numeric target was set in the PAD. APN adopted the GOA official informatics system and all administrative documentation began electronic processing in 2011 following a training program. This has resulted in reduced processing times for administrative processes.			
<b>Indicator 25 :</b>	<b>Component 3 - Landscape management plans (Chaco region) developed</b>			
Value (quantitative or Qualitative)	0		2	2
Date achieved			1/16/2014	03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> No specific numeric target was set in the PAD. ISR continued to use percentage after restructuring.			
<b>Indicator 26 :</b>	<b>Component 3 - Strategic plan for the Chaco corridor</b>			
Value (quantitative or Qualitative)	0		100%	100%
Date achieved				03/14/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> Follow-on GEF financed operation Rural Corridors and Biodiversity Project (P114294) supports biodiversity corridors in the Chaco ecoregion. Forest and community Project (P132846) also operates in the same region and implementation is coordinated between APN and SAYDS. Both agencies are now under the Ministry of Environment facilitating collaboration.			

**(d) Intermediate Outcome Indicator(s) – P094425**

<b>Indicator 1 :</b>	<b>Component 1 - 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</b>			
Value (quantitative or Qualitative)	0	7		8 provinces included in 2 Ecoregional SEAs.
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Partially Achieved (90%).</b> Rather than a provincial approach, an ecoregional approach was adopted and SEAs including biodiversity monitoring plans were prepared for two ecoregions 1) Patagonia (covering Nequen, Rio Negro, Chibut, Santa Cruz and Tierra del Fuego Provinces) and 2) Mesopotamia (covering Misiones, Corrientes, and Entre Rios Provinces) including a total of 8 provinces. A third SEA was prepared in the north-western Chaco ecoregion with funds from the IBRD component (covering 4 additional provinces including Salta, Santiago			

	del Estero, Chaco, Formosa and Tucuman). The SEAs are of good technical quality and were endorsed at national and provincial levels, however public consultation and dissemination were limited thus limiting achievement of this indicator to 90%.			
<b>Indicator 2 :</b>	<b>Component 1</b> - 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			
Value (quantitative or Qualitative)	0	100%		600 individuals trained
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Partially Achieved. (80%)</b> Over 600 national and provincial officials and extension agents were trained in five participating universities and one regional forestry school with 215 faculty members covering topics related to the conservation of biodiversity and ecosystem processes in forest plantations. A total of 11 courses were offered both in Buenos Aires and at the participating universities. The client reports no training was provided at national level for applying EIA. EIA requirements and legislation are a provincial responsibility in Argentina so national training in EIA application was not implemented.			
<b>Indicator 3 :</b>	<b>Component 1</b> - 5 of 7 provincial environmental and/or forestry agencies employing strengthened biodiversity regulations in strategic environmental assessment (SEA) and environmental impact assessment (EIAs).			
Value (quantitative or Qualitative)	0	5		1
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Not Achieved (20%)</b> SEAs and their biodiversity monitoring plans incorporated environmental impact assessment, however strengthened EIA requirements are only applied in 1 province to date. Lag is due to pending approval of revised regulatory frameworks in remaining provinces.			
<b>Indicator 4 :</b>	<b>Component 1</b> - 3 of 7 provincial governments have new draft policies for incorporating biodiversity concerns into plantation forestry.			
Value (quantitative or Qualitative)	0	3		4
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved (133%)</b> Four of seven provinces developed and consulted draft policies and regulations. While draft policies and regulatory frameworks were developed at provincial level, the recipient completion report indicates only 1 province is applying the draft policies at present. Lag is due to pending approval of revised regulatory frameworks in remaining provinces.			
<b>Indicator 5 :</b>	<b>Component 1</b> - New draft federal legislation to replace law 25.080 incorporates biodiversity concerns, as do associated new drafts of regulations.			
Value (quantitative or Qualitative)	0	100%		100%

Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved. (100%)</b> Laws 26.432 (extension of Law 25.080) and No. 26.331 and associated regulations provide technical recommendations by Phytogeographic region incorporating appropriate diversity concerns.			
<b>Indicator 6 :</b>	<b>Component 2 -</b> The Advisory Commission for Law 25.080 (or its successor) regularly incorporates, by EOP, biodiversity-related subjects in its agenda;			
Value (quantitative or Qualitative)	Biodiversity is not a regular topic of discussion	Biodiversity is regularly discussed.		Biodiversity is not a regular topic of discussion
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Not achieved. (0%)</b> Biodiversity concerns are raised periodically not regularly in the Advisory Commission's agenda.			
<b>Indicator 7 :</b>	<b>Component 2 -</b> Best practices including native seedbank, ecosystem toolkits, and economic analysis developed for plantation ecosystems.			
Value (quantitative or Qualitative)	0	3 native seedbanks 5 ecosys-toolkits 7 provincial economic analyses		0 native seedbanks; 3 ecosys-toolkits; 8 provincial economic analyses for three regions
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Partially Achieved (70%).</b> No seedbanks were created however availability of native species seedlings increased through expanded number of nurseries stocking native species (see indicator 10 below). Three toolkits were prepared to guide biodiversity conservation and sustainable management of grasslands, wetlands and native forests. Rather than a provincial approach, an ecoregional approach was adopted for the SEA and related economic analysis including two ecoregions Patagonia and Mesopotamia covering a total of 8 provinces.			
<b>Indicator 8 :</b>	<b>Component 2 -</b> 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.			
Value (quantitative or Qualitative)	0			International conference proceeding published; Practices disseminated to an estimated 3,500 beneficiaries but not mainstreamed; 5 university level programs prepared and delivered
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved (100%)</b> Best practices disseminated to rural poor; medium and small-scale producers in the forest sector; national and provincial natural resources personnel, and Indigenous Peoples totaling an estimated 3,500 beneficiaries composed of 600 trained professionals; 564 families of small and medium			

	<p>producers (x 3.5 members per family); 444 families supported under the Forest Production and Conservation subprojects (x 3.5 members per family).</p> <ul style="list-style-type: none"> <li>- International conference on plantations and biodiversity was held in Argentina as planned. Proceedings were published.</li> <li>- Extension programs incorporating biodiversity into forestry technical assistance were developed and implemented in 13 provinces through subproject implementation but mainstreaming into provincial extensions programs is pending approval of provincial regulatory frameworks (see also Annex 10 indicator 2.7).</li> <li>- International Conference to share experience at sub-regional level held in 2010.</li> </ul>			
<b>Indicator 9 :</b>	<b>Component 2</b> - Increase in biodiversity levels, no. of small- and medium producers incorporating biodiversity conservation in plantation landscapes by end of project.			
Value (quantitative or Qualitative)	0	7 new areas identified		
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Partially Achieved. (60%).</b> 19 Forest conservation and protection subprojects were approved and implemented on private lands. 18 in the province of Misiones and 1 in Rio Negro. The most frequent objectives were related to the conservation and protection of water sources, restoration and enrichment with native species and conservation of forest remnants. Changes in biodiversity levels were not measured so conservation impacts are uncertain, lowering the estimate of achievement from 100% to 60%.			
<b>Indicator 10 :</b>	<b>Component 2</b> – Seed bank networks established in order to foment increase of no. of nurseries providing native spp. From 18 to 27			
Value (quantitative or Qualitative)	18 nurseries are providing native spp.	9 new nurseries are providing native spp. (27 nurseries in total)		34 new nurseries are providing native spp. (52 nurseries in total)
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved. (378%;</b> increase of 34 new nurseries against a target of 9) Significant number of nurseries including in Buenos Aires and Patagonia provinces developed for native species propagation (achievement of the target was possible without establishment of seed bank networks).			
<b>Indicator 11 :</b>	<b>Component 3</b> - 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).			
Value (quantitative or Qualitative)	0	20,000		18,000 has
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Partially Achieved (90%).</b> Complete list included in recipient's completion report.			
<b>Indicator 12 :</b>	<b>Component 3</b> - Changes in levels of biodiversity awareness as surveyed in targeted subproject areas in Y02 and Y04 increases 50% over baseline.			
Value	0			20% over baseline

(quantitative or Qualitative)				
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Not achieved.</b> Many training events were held and academic study opportunities provided but lack of baseline data makes measurement difficult. Recipient's completion report indicates a 20 % increase. Data on participant evaluations of training are presented in the recipient's completion report.			
<b>Indicator 13 :</b>	<b>Component 3 -</b> At least 50,000 hectares of large plantations (>1,000 ha) are incorporating biodiversity responsible practices and planning within ecoregions of global importance.			
Value (quantitative or Qualitative)	0	50,000		135,000
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved (270%)</b> Recipient's closure report indicates 135,000 ha achieved (see pg. 23).			
<b>Indicator 14 :</b>	<b>Component 3 -</b> Baseline studies and public discussions for establishment of 7 new protected areas in the productive landscape.			
Value (quantitative or Qualitative)	0			0
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Not achieved. (0%)</b> Baseline studies to measure impacts were not carried out and therefore impacts are not measurable.			

### G. Ratings of Project (P100806 and P094425) Performance in ISRs

-						
No.	Date ISR Archived	DO	GEO	IP	Actual Disbursements (USD millions)	
					Project 1	Project 2
1	06/11/2008	S		S	0.00	0.00
2	12/21/2008	S	S	S	0.00	0.00
3	05/16/2009	S	S	S	0.60	0.00
4	12/22/2009	MS	MU	MS	1.15	0.00
5	06/29/2010	MU	MU	MU	3.76	0.35
6	03/05/2011	MU	MU	MU	5.48	0.35
7	06/28/2011	MS	MU	MS	6.61	0.35

8	03/28/2012	MS	MS	MS	13.95	0.56
9	11/13/2012	MS	MS	MS	21.29	1.13
10	06/05/2013	MS	MS	MS	24.43	1.73
11	12/17/2013	MS	MS	MS	28.34	2.10
12	06/06/2014	MS	MS	MS	31.88	2.64
13	11/25/2014	MS	MS	MS	34.23	3.20
14	06/29/2015	MS	MS	MS	41.86	5.17
15	01/25/2016	MS	MS	MS	49.27	5.76
16	03/15/2016	MU	MU	MS	49.87	6.51

## H. Restructuring<sup>1</sup>

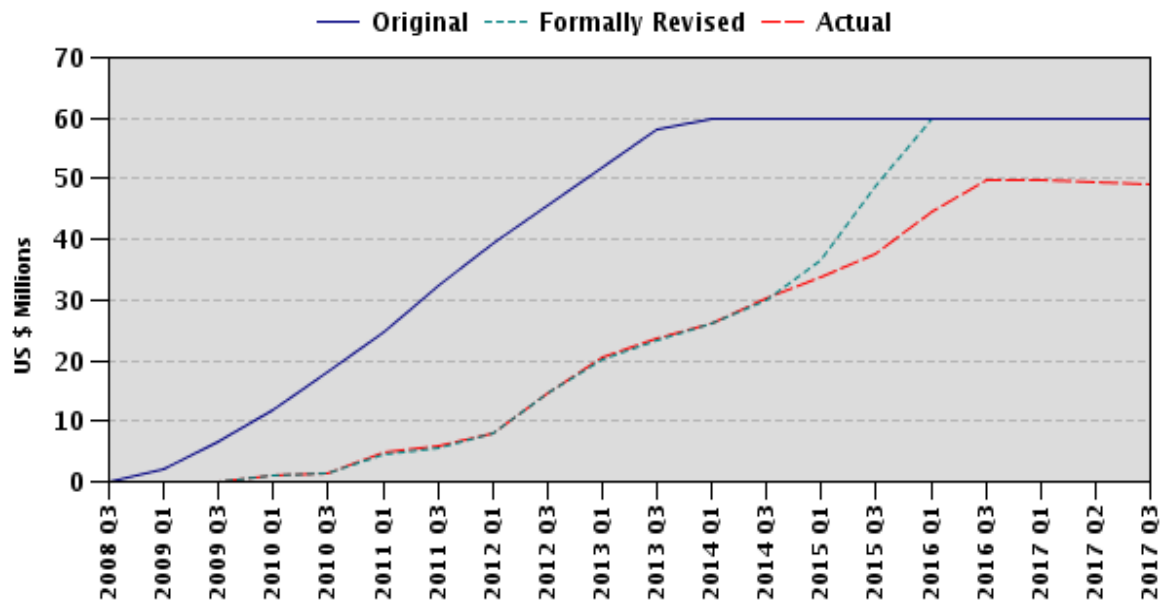
Restructuring Date(s)	Board Approved		ISR Ratings at Restructuring			Amount Disbursed at Restructuring in USD millions		Reason for Restructuring & Key Changes Made
	PDO Change	GEO Change	DO	GEO	IP	P100806	P094425	
05/12/2010 (P094425)			MU	MU	MU		0.35	Grant amendment on Cooperating Agency Agreements
06/27/2013 (P100806)			MS	MS	MS	24.43		Reallocation of funds
08/22/2013 (P094425)			MS	MS	MS		1.73	Reallocation of loan proceeds and first extension of 18 months
01/21/2014 (P100806)			MS	MS	MS	29.53		First closing date extension and reallocation of funds with simplified results framework.
02/25/2015 (P094425)			MS	MS	MS		3.20	Second extension of closing date
08/13/2015 (P100806)			MS	MS	MS	43.22		Second Closing Date Extension of 5.5 Months

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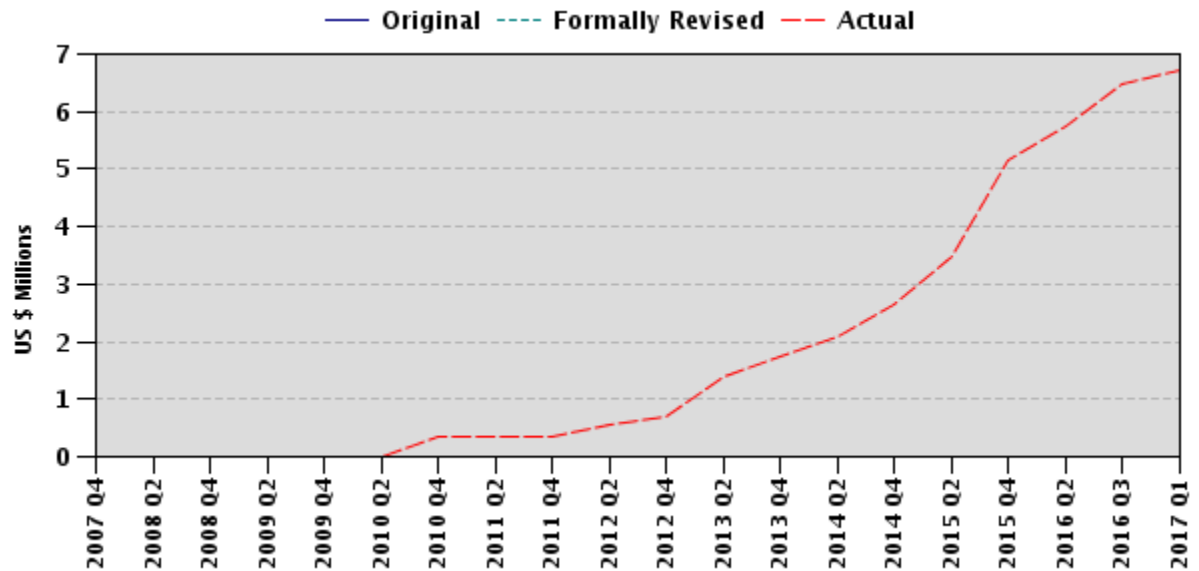
<sup>1</sup> Amounts disbursed are presented separately for each project (P094425 and P100806) at the time the restructuring occurred.

## I. Disbursement Profile

P100806



P094425



## **1. Project Context, Development and Global Environment Objectives Design**

### **1.1 Context at Appraisal**

1. At the time of appraisal, economic conditions fostered a resurgence in natural resource use contributing significantly to a high level of growth in Argentina. The forestry sector reversed a 10-year trade imbalance in 2004, agriculture grew by 25% in 2005, and tourism was 20% higher than pre-crisis levels. While such growth was positive, these activities placed and continue to place considerable strain on soils, forests, water resources, and natural habitats. At the time the World Bank co-sponsored publication of: *Argentina: State of the Environment 2005* documenting the most important trends including increased deforestation and resulting biodiversity loss; erosion and water contamination from intensive agriculture and grazing; and depletion of fisheries in Patagonia, among others. Around 20% of Argentina's land suffered from degradation and deforestation with these losses growing by an estimated 200 thousand hectares per year. This was twice the average rate in Latin America at the time.

2. The Forest Law of 2007 established incentive payments for sustainable use and conservation of native forests but required incremental support to key agencies at national and provincial levels to implement and enforce. Simultaneously plantation forests were recognized as a potentially sustainable source of wood but with potential to impact biodiversity if not properly planned and executed. National park areas comprised only 1.3% of the country with several ecosystems underrepresented within Argentina's National Protected Areas System (SNAP).

3. The national-level Secretariats of Agriculture (SAGPyA), Environment (SAyDS), and Tourism (which included the National Parks Administration, or APN) all had been supported with previous World Bank operations. At the time of appraisal all parties agreed on an approach that sought to bring together 3 key agencies involved in forest management to improve national policy coordination and enhance capacity at the level of provincial and local governments for resource management and enforcement, recognizing the federal structure of the country.

### **1.2 Original Project Development Objectives (PDO) and Key Indicators (as approved)**

4. The PDO (IBRD; P100806) included in the Loan Agreement is to: Improve the sustainable and efficient management of forest resources, conserve biodiversity in protected areas and forest landscapes, and integrate small producers into forestry development and conservation. The PAD and Loan Agreement PDO text are identical.

5. Key indicators for the PDO were as follows in the PAD: (a) Policies, regulatory frameworks, and promotion programs in place for conservation, tree planting and sustainable forest management (SFM); (b) The national parks system and surrounding communities are benefiting from improved management capacity and increased tourism; (c) Chaco regional office functioning, priority areas identified and information generated supportive of feasible SFM models and plantation forestry; (d) National and provincial



governments increase budgets and programs dedicated to SFM, tree planting and conservation.

### **1.3 Original Global Environment Objectives (GEO) and Key Indicators (as approved)**

6. The Global Environment Objective (GEO; P094425) as stated in the Grant Agreement is to increase integration of biodiversity-responsible practices and policies into the plantation forestry sector at the Recipient and provincial levels. The wording in the PAD is slightly different: The project's GEO is to increase integration of biodiversity-responsible practices and policies into the plantation-forestry sector *at the national level and in select provinces*.

7. Key indicators and targets for the GEO included: (a) 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; Monitoring shows amelioration of threats to and improvements in ecosystem biodiversity (habitats of globally-important biodiversity indicator species) in production landscape.

### **1.4 Revised PDO (as approved by original approving authority) and Key Indicators, and reasons/justification**

8. PDO was not revised. See annex for revised restructuring indicator table. The original PAD had included not only outcome and key component indicators but also many detailed implementation tracking/output indicators that proved unwieldy and were revised to 33 in the restructuring of 2014 of the SNRM. Select indicators from the original table in the PAD were included for each component.

### **1.5 Revised GEO (as approved by original approving authority) and Key Indicators, and reasons/justification**

9. The GEO was not revised nor were the indicators for GEF financed Biodiversity Conservation in Productive Forestry Landscapes Project.

### **1.6 Main Beneficiaries.**

10. The main beneficiaries of the SNRM (IBRD) Project included Indigenous Peoples and small-farmer communities; cooperatives and organizations; provincial and federal authorities; NGOs and academic institutions; and private sector producers in the forest sector. The GEF Project focused on the rural poor; medium and small-scale producers in the forest sector; national and provincial natural resources personnel, and Indigenous Peoples.

### **1.7 Original Components (as approved)**

11. **Component 1- Native Forests and Biodiversity (Executing agency: SAYDS) (Total Cost US\$4.75 Million, IBRD Cost US\$3.77 Million):** This component supports the PDO outcome to improve the sustainable and efficient management of forest resources through: (i) critical areas of native forests most in need of protection identified; (ii) institutional, policy and planning frameworks at federal and provincial levels established and supportive of private investments in sustainable forest management and conservation; (iii) management of private and public native forests integrated into broader conservation initiatives such as biological corridors, watershed management programs and climate change operations; (iv) participation of small holders in sustainable forest management initiatives facilitated; (v) compliance and verification mechanisms strengthened; (vi) public awareness increased regarding the need to manage and conserve native forests; and (vii) provincial administrations taking the lead in promoting sustainable NRM.

12. **Component 2, Sustainable Plantation Forestry (Executing. agency: SAGPyA and INTA) (Total Cost US\$31.85 Million, IBRD Cost US\$26.49 Million):** This component supports the PDO outcome to conserve biodiversity in forest landscapes and integrate small producers into forestry development and conservation through: (i) institutional and policy frameworks established and conducive to sustainable and shared growth in the sector; (ii) regional environmental strategies and education campaigns in place; (iii) plantation and agro forestry productivity raised through efficiency gains in the generation, analysis and transfer of strategically important information; (iv) smallholders and small producers effectively integrated into the plantation and agro forestry production cycle and sustainable practices being adopted by plantation owners; and (v) provincial administrations taking the lead in promoting sustainable plantation forestry

13. **Component 3 - Protected Areas and Conservation Corridors (Executing agency APN) (Total Cost US\$35.05 Million, IBRD Cost US\$29.59 Million):** This component supports the PDO outcome to conserve biodiversity in protected areas and integrate small producers into conservation through: (i) strengthened capacity of APN to promote and manage increased tourism in the SNAP; (ii) increased technical and scientific support capacities for effective in-situ biodiversity conservation; (iii) increased participation of local communities in protected areas (PA) management; and (iv) strategy prepared for the Argentine Gran Chaco Biological Corridor.

14. The GEF financing was blended only with Component 2 of SNRM and had four components that were focused on mainstreaming biodiversity into programs, policies, and extension at national and provincial levels in the main plantation forestry regions. This semi-blended component supports the PDO outcome to conserve biodiversity in forest landscapes and integrate small producers into forestry development and conservation through the GEF financed components that included:

15. **Component 1 - Institutional capacities strengthened:** The component aimed to create the required capacity at federal and provincial levels of government within environmental and forestry agencies to spearhead the biodiversity mainstreaming process.

16. **Component 2 - Development and dissemination of biodiversity-responsible**

**plantation practices and technology transfer:** The component was to document and disseminate improved forestry practices that integrate conservation with production. Key activities included: (i) Development of standards and best practices for biodiversity in plantation settings, (ii) technology Transfer and extension systems for producers that incorporate biodiversity conservation, (iii) development and strengthening of program for forestry schools and universities among other activities.

17. **Component 3 - Support for the adoption of biodiversity-responsible plantation practices:** Under this subcomponent, SAGPyA and its counterpart institutions would undertake activities designed to identify and test biodiversity-responsible land use practices in high priority areas, or target threatened biodiversity, in the production landscape.

18. **Component 4 - Project Implementation, Monitoring and Evaluation:** The component covered incremental costs associated with the project implementation and monitoring and evaluation of outcomes.

### **1.8 Revised Components**

19. There were no revisions to components.

### **1.9 Other significant changes**

20. No major changes in scope and scale to the project were made. Restructuring of the projects were made to extend the project Closing Date to allow more time for completion of the established outputs and to reallocate resources between line items.

21. **The IBRD-funded project (Loan 7520-AR)** was restructured three times. A first restructuring to reallocate funds occurred in June 2013. The first Closing Date extension of 12 months to September 20, 2015 was granted in January 2014, particularly for components 2 and 3 due to the initial delays in implementation. At the same time, a reallocation to transfer funds from the unallocated category to cover activities included in the original project design and a revision and update of the project Results Framework was approved. In August 2015, a second extension of five and a half months to March 15, 2016 was granted to allow time to complete (i) income generating activities in local communities in and around the National Parks, and (ii) civil works to support operations and tourism in National Parks. No reallocation of funds was required.

22. **The GEF-funded project (TF090118)** blended with the IBRD project was restructured three times. The first amendment in May 2010 included a provision for hiring an international administration agent, and amending category 2 in the disbursement table. The second restructuring consisted of a first Closing Date extension of 18 months to February 28, 2015 that was granted in August 2013 to make up for the initial delays for Grant effectiveness, and to complete the project objectives. In February 2015, a second extension of 12 months was granted to undertake additional activities including creation of an environmental economics unit within APN, expand the ongoing applied research program, and provide additional time to fulfill project objectives. This second extension from February 28, 2015 to February 29, 2016 resulted in a total extension period of 30 months.

## 2. Key Factors Affecting Implementation and Outcomes

### 2.1 Project Preparation, Design and Quality at Entry

23. **Soundness of the background analysis.** The project PDO and GEO responded to the need to mainstream conservation and sustainable management in both natural and planted forests. The country is heavily dependent on its natural resources for export income and consumption, representing almost 17% of GDP. The appraisal coincided also with a boom in commodity exports that has supported a significant deforestation wave (especially in northwestern Argentina) clearing forests for agricultural and livestock production that continues (somewhat more abated) to this day. In addition, these resources provided income from an important non-consumptive source which is tourism that represents almost 10% of GDP and over a million jobs for the country.

24. **Assessment of the project design:** The project design included three pillars: 1) strengthening protected areas with a focus on community development, sustainable production, and tourism in addition to biodiversity conservation, 2) supporting the plantation forestry sector to increase environmental sustainability and adaptation to ecosystem characteristics, reducing impacts of production, increasing integration of small producers into forest production, and knowledge on native species production, and 3) supporting development of a national forest management system to strengthen planning, incentives, and enforcement systems for managing the large, but threatened, native forests of the country.

25. The preparation considered both national and other GEF projects in the Southern Cone, particularly those with a focus on conservation and SNRM. The Bank's long-term engagement began with a sectoral review in 1992<sup>2</sup>. The native forest component (Component 1) built upon the Native Forests and Protected Areas project<sup>3</sup> that successfully invested in native forest inventories as well as federal and provincial institutional and research capacities and supported drafting legislation to provide payments for protection of native forests with funds from an agricultural commodities export tax (Native Forests Law 2007). The design also supported plans to modernize the National Parks system (SNAP) and finance crucial civil works that support park tourism.

26. The Forestry Development Project was approved around the same time as the Native Forests project in 1995 and supported the establishment of extension systems for small-producers and basic forest sector research adapted to national conditions. The operation provided the platform in the plantation forestry sector for component 2 of the SNRM project and the GEF blended grant.

27. **Lessons learned and incorporated:** Lessons incorporated into the SNRM project included considering that management and planning decisions lie with the provincial authorities. The absence of a shared vision regarding native forests at federal and provincial levels was considered in the design including strong support to build the capacity of

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<sup>2</sup> Report No. 11833-AR, dated April 26, 1993

<sup>3</sup> Ln. 4085-AR approved in 1996

provincial forest agencies. Engagement in protected areas incorporated lessons to ensure the participation of both field personnel and local stakeholders in the development of infrastructure.

28. Lessons considered in the GEF project were in part based on the predecessor plantation forest sector loan and work done in Chile on mainstreaming biodiversity. These included working closely with private producers, including small- and medium-level producers, as well as NGO sectors in productive activities; building on an established organizational base; and ensuring broad stakeholder involvement from public, private and nongovernmental organizations among others.

29. **Risks:** The risks were relatively well identified at appraisal with no high risks noted. The SNRM project risks identified included the potential difficulty in confronting a governance issue such as deforestation in a federal system. Fiduciary risk was primarily related to the number of implementing agencies (4 including INTA) involved, though all had experience with Bank procedures. Issues of potential land tenure conflicts with Indigenous Peoples and controversies related to planting exotic species were moderately rated in terms of risk. Strong participatory processes including free-prior informed consultation regarding parks management planning were included in project design and the Indigenous Peoples Planning Framework (IPPF) was prepared. Environmental safeguards measures were included in the Environmental and Social Management Framework (ESMF) regarding plantation sub-projects as well as the GEF activities for improving planning at a landscape level.

## **2.2 Implementation**

30. In general, project implementation was affected by long delays in the initial years due primarily to reorganization of the implementing agencies involving multiple changes of high-level staff that impacted execution of the Project to varying degrees. The Project started implementation almost 18 months after effectiveness.

31. **Implementation of Component 1:** Despite the factors mentioned above, implementation of this component partly achieved its intended outcomes because it remained linked to its original institution and persisted through the restructuring. Key project personnel remained from the time of preparation through implementation which also facilitated achievement of outputs and permitted it to expand the scope of some of the activities that it took on including support for implementation of the Forest Law (2007).

32. **Implementation of Component 2:** The Forest Production Directorate responsible for the Project under the Ministry of Agriculture underwent multiple changes and staff turnover. It lacked a Director for an extended period slowing the startup of the Project. In 2009 the Secretariat of Agriculture, Fisheries and Livestock was restructured and became the Ministry of Agriculture, Livestock and Fisheries, and in December 2015 it was reorganized again as the Ministry of Agro-industry. The Rural Change Unit (UCAR) was established in 2009 with a mandate to manage and administer all Ministry of Agriculture projects. Technical implementation was delegated to a specific Project Implementation Unit within UCAR. This new structure and the stability of the staff responsible for the Project allowed for implementation to be complete despite substantial delays.

33. **Implementation of component 3:** Implementation was delayed by institutional changes in APN accompanied by leadership changes at both the institutional and project level, and changes in the selection criteria for the civil works originally proposed by the Project. In June 2010, APN was incorporated into the Ministry of Tourism, which also created delays in the management and approval of subprojects, particularly the costliest works, due to the institution's approval thresholds. The lack of cadastral registry for some properties transferred to APN by municipalities resulted in postponement of civil works in three PA's. This had been incorrectly flagged as low risk at appraisal. The remote location of the parks discouraged potential bidders for civil works and weather events also affected their timely completion in certain areas.

## **2.3 Monitoring and Evaluation (M&E) Design, Implementation and Utilization**

34. **M&E Design:** The project had an overly ambitious PDO and prepared an exhaustive list of monitoring and evaluation indicators that covered PDO/GEO, components and outputs. The SNRM (P100806) PAD included four PDO indicators while the GEF (P094425) PAD included five GEO indicators. Detailed tables including a total of 136 indicators for SNRM were included in the PAD and in the ISRs after mid-term. Additional SNRM indicators from the PAD (arrangements for results monitoring) are included in annex 10. A total of 21 GEO and intermediate results indicators were monitored and included in the ISRs.

35. **M&E Implementation:** Indicators for both SNRM and GEF were reported on by the implementing agencies throughout implementation and included in ISRs. In the January 2014 SNRM restructuring, the indicators were reduced to 33 to facilitate implementation monitoring (see annex 9). The GEF project maintained the original indicators and targets. Several restructured indicators did not have implementation cumulative targets or had yes/no end targets.

36. **M&E Utilization:** The project monitoring covered one investment operation (with three implementing agencies), one grant based operation and one preparation process. To cover this set of activities the originally selected PAD indicators were too numerous and were not used efficiently to track progress during implementation. An opportunity was missed to review and revise the infrastructure results indicator under component 3 despite serious and repeated slippages in infrastructure completion late in the project cycle. Similarly, with multiple implementing agencies, the indicators used to monitor project management were not fully effective in identifying weak performance.

## **2.4 Safeguard and Fiduciary Compliance**

37. **Financial Management (FM):** Financial Management supervision reports for the Project show that UCAR's and APN's FM units were well-staffed with experienced specialists, rapidly established strong internal controls and record-keeping, and showed good follow-up regarding Bank recommendations and agreed action plans. Ratings were consistently Moderately Satisfactory and risk was initially rated Moderate. The final FM rating was Moderately Satisfactory.

38. The Loan closed with a balance of US\$10,563,174.14 of un-executed funds which have been cancelled. Also, APN re-documented and returned to the Bank US\$503,175 corresponding to non-executed funds. The GEF Grant closed with a balance of US\$263,974. Audit reports were uniformly Unqualified, with no internal control or accountability issues.

39. **Procurement:** The Project struggled after effectiveness to accelerate execution due to significant modification to institutional arrangements within the Ministry of Agriculture and APN. Procurement teams were appropriately staffed. The Procurement Plan was regularly updated and the units produced timely and reliable information. Procurement processes for works in PAs and consultants were long and delayed. Remote and inaccessible PAs made it difficult to obtain bid offers and repetitive bidding processes were required. In some cases, contractors abandoned ongoing works and contracts were cancelled. Selection of consultants took a lot of time because no suitable candidates were found, and in some instances the evaluation process of consulting firms within the implementing agencies was slow. Procurement ratings were mostly MS. However, during the last two years of implementation it was downgraded to MU because of the pending bidding processes.

40. **Environmental Safeguards:** The SNRM and GEF projects triggered Operational Policies (OP) 4.01 Environmental Assessment, OP 4.04 Natural Habitats, OP 4.36 Forests, OP 4.09 Pest Management, and OP 4.11 Physical Cultural Resources. Two environmental and social management frameworks (ESMF) were prepared for components 2 and 3. Safeguards were systematically supervised by the Bank during implementation with a dedicated specialist for both operations. The frameworks included primarily measures for managing impacts of small/medium-scale plantation activities and PA civil works investments. Ratings for all environmental safeguards were satisfactory throughout implementation.

41. **Social Safeguards:** The SNRM Project triggered OP 4.12 on Involuntary Resettlement and OP 4.10, Indigenous Peoples policies. The World Bank systematically supervised both OP 4.10 and 4.12 related issues under the project components throughout implementation. Ratings for the two safeguards were Satisfactory throughout implementation.

42. No resettlement or land acquisition was expected or occurred however a Process Framework was prepared. Management measures during implementation followed a process of consultation and agreement with stakeholders on gradual changes to production seeking to maintain or increase income and food security as well as reduce pressures on the local ecosystem. Two IPPF's were prepared, one each for component 2 and 3. Sub-projects under component 2 involved IP groups including the Mbya-Guaraní, Wichi, Quomle'ec, and Mapuche communities. UCAR and APN applied protocols for engagement and participation of IP's including provisions for free prior informed consultations leading to broad community support for the sub-projects supported. Proposal formats required the signature of all community members (confirming broad support) and an evaluation of the socioeconomic and productive characteristics and impacts as required by the IPPF.

## 2.5 Post-completion Operation/Next Phase

43. **Component 1 - Native Forests:** The preparation activities carried-out with the support of component 1 resulted in the approval by the World Bank of a US\$59M loan for the Forests and Community project which clearly demonstrates Argentina's ongoing commitment to invest in sustainable natural resources management. The new project focuses in the Gran Chaco ecoregion where high rates of poverty and deforestation are concentrated. The new loan promotes sustainable production and forest management and helps implement the Forests Law through investments in governance and payments for environmental services, and improves forest monitoring throughout the country.

44. **Component 2 - Plantations and Biodiversity:** The institutional strengthening provided for in the project continues to support the implementation of the forestry plantations program with increased capacities for environmental management of impacts with an integrated environmental unit within the MAG. A US\$74.8M project including US\$60M from the Inter-American Development Bank was approved in 2013 for the Forest Sustainability and Competitiveness Program (AR-L1067). The project provides continuity in the strengthening of the sector with a focus on the northern region of Argentina, and the valleys of Cuyo and Patagonia where the largest areas of plantations and related industries are located.

45. **Component 3 - Protected Areas:** A GEF-funded US\$6.3M Rural Corridors and Biodiversity Project supported by the World Bank was approved in 2015 and is currently under implementation. This project is supporting many core areas in northwest Argentina in the threatened Chaco ecosystem and several other new PAs in critical habitats throughout the country. The project will also strengthen the sub-national levels of PAs and the provincial authorities. This component ended with a shortfall in implementation of several construction projects. APN has continued the works that were not completed with its own resources and several are now advanced.

## 3. Assessment of Outcomes

### 3.1 Relevance of Objectives, Design and Implementation

46. **Relevance of Objectives:** High. The project remains highly relevant in its objectives, both with national level priorities as well as in its consistency with international commitments under various environmental and social conventions. The World Bank current Country Program Strategy (CPS) for Argentina (2015-2018) has three main themes including "Reducing Environmental Risks and Safeguarding Natural Resources". A specific results area includes: "Improving natural forest cover in the Chaco Eco Region". The project, its outcomes and outputs have supported the overall strategy theme and specific results areas.

47. The project also continues to remain relevant in the context of the different international conventions that Argentina has ratified including the Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC), the UN Convention to Combat Desertification, and the Montreal Process



(focused on indicators and criteria for sustainable management of tropical and boreal forests). Argentina's fifth national report to the CBD convention in 2015 highlighted the Native Forests Law of 2007 supported by the project as a key tool in the fight against deforestation and loss of biodiversity.

48. **Relevance of Design: Modest.** In terms of design, the SNRM and GEF with its components and activities on native forests and biodiversity and sustainable plantation forestry supported the objective of improving the sustainable and efficient management of forest resources. The specific activities to support reforms and policy, preparing of strategies and management planning, advanced the necessary policy and institutional changes and training necessary at the national and provincial levels, knowledge regarding sustainable management of resources, and investments in civil works and new relationships with small, medium and large producers to achieve the PDO objectives in the forestry and conservation sectors that are key parts of the landscape and economy in Argentina.

49. Implementation and monitoring were adjusted through restructuring given the changing institutional and economic environment prevailing during the project period and to streamline the results framework. Measures were taken to improve the targeting and extend the period of implementation to achieve and exceed some of the targets however the protected areas component did not respond to the implementation measures as effectively and ultimately did not fully disburse or achieve its physical infrastructure targets.

### **3.2 Achievement of Project Development Objectives and Global Environment Objectives - Modest.**

50. The PDO of the SNRM project was to improve the sustainable and efficient management of forest resources, conserve biodiversity in protected areas and forest landscapes, and integrate small producers into forestry development and conservation. The PDO has six distinct sub objectives:

51. **Sub objective 1 -Sustainable management of forest resources and Sub objective 2 - Efficient management of forest resources: Substantial.** Results achieved include: 3 Strategic Environmental Assessments and monitoring programs for Mesopotamia, Delta, and Patagonia were prepared covering 2 ecoregions and a total of 8 Provinces. A strategy for sustainable management of the Chaco Forests was also prepared. A GoA decision in Sept 2014 removed restrictions requiring formal tenure to access Forest. The strengthening of the MAGyP Directorate of Forest Production (DPF) resulted in some key reforms to the national forest plantation subsidy regulations with a preliminary document to establish a national forest policy including generating opportunity to increase the share of Forest Fund resources flowing to poor people (particularly indigenous and campesinos) who were previously excluded due to their unclear tenure status.. The National Parks adopted a policy supporting inclusion of indigenous communities in National Park management planning. 28 government institutions were provided with capacity building to improve management of forest resources with 412,569 Ha brought under management plans.

52. **Sub objective 3 - Conserve biodiversity in protected areas and Sub objective 4 - Conserve biodiversity in forest landscapes: Modest.** Results achieved include: SEAs including biodiversity monitoring plans incorporating environmental impact assessment (EIA) were prepared for two ecoregions 1) Patagonia (covering Neuquén, Río Negro, Chubut, Santa Cruz and Tierra del Fuego Provinces) and 2) Mesopotamia (covering Misiones, Corrientes, and Entre Ríos Provinces) including a total of 8 provinces, however strengthened EIA requirements and the draft policies for incorporating biodiversity concerns into plantation forestry are only applied in 1 province to date. Biodiversity is also not a regular topic of discussion in the Advisory Commission for Law's agenda. Under Component 3 a total of ninety-two sustainable development activities (DAS) were implemented in and adjacent to Protected Areas including 25 with indigenous communities benefitting over 10 thousand people from the most impoverished social sectors. The most frequent objectives were related to the conservation and protection of water sources, restoration and enrichment with native species and conservation of forest remnants. Projects focused on sustainable production models that aimed to improve the compatibility of income generation and ensure food-security with the ecosystem conservation objectives of the nearby parks. Six national parks established new management plans through participatory processes. Works for basic park protection were completed in six parks while three more were advanced and under construction when the project ended, totaling at least 9 of the 11 parks receiving some infrastructure investments under the project. However, changes in biodiversity were not measured so impacts are uncertain, lowering achievement. Also, baseline studies and public discussions for establishment of 7 new protected areas in the productive landscape were not carried out as planned.

53. **Sub objective 5 - Integrate small producers into forestry development and Sub objective 6 - Integrate small producers into conservation: Modest.** A national forest certification standard (CERTFOAR) with international recognition supported by the project has achieved over 44 thousand hectares under certification and 135,000 hectares under improved management for biodiversity thus advancing sustainable biodiversity-friendly models for small and medium forest sector producers. At least 18,000 hectares of small and medium producers have been supported in implementing agro-forestry (Misiones) or best management practices for biodiversity conservation (Patagonia and Mesopotamia). Under Component 2 a total of 73 Forest Conservation and Protection Subprojects (SFPCs) were approved and implemented across 13 Provinces involving 440 small producers.

54. Overall, the targets at PDO and GEO-level were achieved to a modest degree<sup>4</sup>. But the project encountered constraints in developing coordination among participating agencies. Strategic Environmental Assessments, including biodiversity monitoring plans, were prepared for two ecoregions but provincial adoption and field implementation of

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<sup>4</sup> Under P100806 the project achieved or exceeded 5 of 6 of the restructured PDO targets and 22 of 26 intermediate results indicators. Under P094425 the project achieved 4 of 5 GEO targets and 8 of 14 intermediate results. A small number of results indicators were exceeded by a substantial margin.

monitoring was limited at the time of Project closure. While many indicators were met, the overarching goal of unifying and coordinating Government of Argentina's approach in the forest sector across protection, production, and conservation agencies remains a work in progress. Although project achievements were modest the investments helped set the stage for a sustained effort to broaden participation of forest dependent communities and increase access to funding through a system of payments for environmental services under the National Forest Law. In the relatively short period of project implementation it is not possible to see impacts at the landscape level however each component has contributed to improving SNRM in Argentina consistent with the objectives and benefits can be expected to accrue over time. Component level outputs are detailed in Annex 2.

### 3.3 Efficiency: Substantial

55. **The cost benefit analysis shows that the project is generating robust economic returns even under conservative assumptions throughout different scenarios.** This analysis compares the actual costs with economic benefits from improved forest management on 306,680 ha forest land for the first 15 years, both discounted to 2009 (the year of the first disbursement). Benefits were generated from both direct (productivity gains) and indirect sources (climate, carbon, watershed, existence values). Benefits of improved forest management are estimated to increase by 10% compared to poorly managed forest (see also Annex 3).

56. **The Net Present Value is estimated to be US\$93 million, and the Benefit Cost Ratio is 3.25.** To verify the result's robustness different discount rates (5%, 10%, and 20%) are applied and a reduction of the economic benefits by 20% and 50% in subsequent analysis is used. The benefits are more than two times larger than the costs in the majority of scenarios and costs are outweighing the benefits only in one very pessimistic scenario. Yet, in reality the project benefits might be greater, as this analysis disregards benefits from new policies, monitoring tools, capacity building or guidelines which are likely to result in additional benefits and to trigger further positive developments in the area of sustainable resource management in the future, thereby enhancing the conservation of biodiversity in Argentina.

Table 1: Results of cost benefit analysis between 2008 and 2023

	<b>Baseline</b>		<b>Baseline (-20%)</b>		<b>Baseline (-50%)</b>	
	NPV	BC-Ratio	NPV	BC-Ratio	NPV	BC-Ratio
<b>Discount Rate 5%</b>	93,710,341	3.25	66,647,098	2.60	12,520,612	1.30
<b>Discount Rate 10%</b>	57,248,419	2.82	39,519,604	2.26	4,061,974	1.13
<b>Discount Rate 20%</b>	25,113,449	2.33	16,301,494	1.86	-1,322,416	0.93

NPV = Net Present value; BC-Ratio = Benefit Cost Ratio

### 3.4 Justification of Overall Outcome and Global Environment Outcome Rating

ICR Performance Ratings based on the preceding analysis:

PDO Outcome – Moderately Unsatisfactory

GEO Outcome – Moderately Unsatisfactory

57. The relevance of objectives remains **high** with **modest** relevance of design, and efficiency is **substantial**. However, efficacy is rated **modest** as the project **modestly** achieved the intended outcomes with shortcomings particularly in the conservation of biodiversity and protected areas objectives, compounded by 17% of the IBRD loan funds not disbursed (US\$10.37M) by the end of the extended project closing date, hence the **overall MU** rating for both PDO and GEO outcomes. The MAGyP component of the project did achieve some substantial gains at the Federal level however at the Provincial level, where the bulk of natural resources management decisions are made, the mainstreaming of biodiversity policies and training had more limited advance and uptake.

### 3.5 Overarching Themes, Other Outcomes and Impacts

#### (a) Poverty Impacts, Gender Aspects, and Social Development

58. Almost 30 percent of the DAS sub-projects implemented by APN had IP communities as partners. These are the poorest social sector in the country and the regions of focus are also notable for their high levels of poverty among small-holder communities which were also targeted. Over 10 thousand people were directly or indirectly supported in sustainable production and infrastructure for improved management of natural resources. Basic water management infrastructure in very dry ecosystems such as the Chaco and western desert region also are expected to improve quality of life and production with reduced impacts on the resource.

59. In terms of gender there are several unquantified impacts related to productive activities such as improved firewood use and water management that can be expected to reduce women's workload and improve incomes for families. Participation of women in the different programs was broadly supported but not regularly reported by the implementing agencies. During ICR preparation we requested and received gender breakdown for a few activities from UCAR and APN. Building on these measures we calculate an estimate of the total number of women beneficiaries by combining total beneficiaries from all components and applying a 30% participation rate yielding an estimate of 5,158 total women beneficiaries.

Beneficiaries	Women Beneficiaries	Agency	Funding	Program
1,483	445	UCAR	IBRD	SFPC
126	38	UCAR	IBRD	Pilot projects
1,206	362	UCAR	IBRD	Private service providers trained
112	34	UCAR	IBRD	Applied research projects
1,933	580	UCAR	IBRD	Extension service recipients
444	133	UCAR	GEF	SFPC
600	180	UCAR	GEF	Trained Professionals
10,724	3,217	APN	IBRD	DAS
564	169	APN	IBRD	TA
17,192	5,158	Total		

## **(b) Institutional Change/Strengthening**

60. Ministry of Agriculture: The DPF now called the Undersecretariat for Forest Industry Development, has a modern institutional structure that includes sustainability as a key focus within a Ministry that is dedicated to production. Capacity was also expanded to the provincial level including not only public sector forestry personnel but also to public universities that have a significant role in providing qualified technical human resources to the productive forestry sector tailored to the different ecoregional and growing conditions of Argentina.

61. The APN was already a highly-qualified institution at appraisal, however the areas of social outreach and sustainable development were consolidated during the implementation of the project to support the new approach to the buffer-zones of the parks system. Internal management systems were provided to ensure a more expedient processing of paperwork within its administration to overcome some of the limitations faced during the project.

62. The smallest component, component 1, had a significant role in structuring the Ministry of Environment to allow it to implement the National Program for Protection of Native Forests established by the Native Forest Law. A Chaco regional “node” was strengthened that brings together the 12 provinces of the Chaco. Four other forest nodes were created in other ecosystems and equipped. These nodes have a primary function of monitoring the evolution of forest cover, linked to a system for tracking management plans and wood transport that sets the platform for an ecosystem-wide program of enforcement of management plans and legal wood in the country.

## **(c) Other Unintended Outcomes and Impacts (positive or negative)**

63. Two of the agencies involved in the project have converged institutionally with the Secretariat of Environment having been transformed into a Ministry integrating both the Native Forests Directorship and APN (formerly under Tourism). Today they work closely in the different ecoregions where they overlap, especially the Gran Chaco ecosystem where the APN-DAS and Native Forests and Communities sub-projects are coordinated to take advantage of relative locations of personnel and optimize targeting and support for small-holder sustainable production activities.

## **4. Assessment of Risk to Development Outcome and Global Environment: Moderate**

64. The sustainable management of natural resources is a long-term, multi-sector process for which this project has laid significant groundwork at the institutional and field level. The risk of the development outcome is considered moderate because the country overall has a relatively high level of governance and institutions that allows a longer-term outlook on the management of its natural resources. The successive governments over the life of the project and presently have shown willingness to dedicate its resources both from the operating budget and with support from international financial institutions, for investments in sustainable management. It also recognizes tourism, a non-consumptive use

of natural resources, as a driving force for the economy including its potential for quality job creation. The government has reaffirmed its interest and priority in the tourism sector which to a great degree is supported by its national and provincial parks system along with the cultural interest provided by its many regional contexts.

65. After many years of stagnation, the plantation forest sector is shown renewed attention by the government. New IADB investments focus on a stronger plantation and industrial sector that should also increase the interest in certification through the CERTFOAR program supported by the project. The payment for environmental services program under the Native Forests Law has been approved by all provinces except Buenos Aires (a mostly grasslands province) and has provided between around US\$20M (AR\$246-300M) per year at current exchange rates for the last seven years. APN has also increased its capacity as its investments in the SNAP has grown through new park guards that were incorporated to the system. Despite these efforts, deforestation rates continue to be greater than desirable. The country however, has moved away from an unplanned and somewhat unregulated situation to one that is based on territorial planning that prioritizes the most critical core areas for protection, considers corridors for maintenance of biological connectivity and climate resilience, and provides a basis for payment for environmental services programs.

## **5. Assessment of Bank and Borrower Performance**

### **5.1 Bank Performance**

#### **(a) Bank Performance in Ensuring Quality at Entry: Moderately Unsatisfactory**

66. The Bank supported a substantial effort by three different government agencies to prepare the project. It also provided technical assistance to prepare assessments and reports that ensured a good analytical basis for the design and appraisal. These efforts included substantial input from FAO as a technical partner in the preparation process. In all, some 29 Bank and FAO staff and consultants supported the eight-month preparation process in Argentina with the three counterpart agencies. Nevertheless, the rating of MU is justified by the fact that the initial risk assessment was inadequate and institutional restructuring led to an 18-month lag in implementation. Difficulties in finding contractors for activities in remote PAs was also a well-known issue which was not factored into implementation. The indicators established were not consistently used in the original PAD document while there were too many project implementation monitoring indicators that made changes and tracking difficult during implementation.

67. The preparation was informed by the several World Bank and GEF program investments for biodiversity over the years prior to the project as noted in the PAD. It took a substantial risk in bringing together what was essentially three investment operations and one preparation process to try and generate synergies in the SNRM sector. While this generated somewhat more complexity, it has generated important ties between the different institutions involved.

68. The Bank also tried to link other investments with the aim to generate synergy in terms of landscape impacts. It coordinated the SNRM closely with a project in the Gran

Chaco supporting the Norte Grande roads project. This project invested in upgrading and maintenance of roads in northern Argentina including one critical road near several protected areas and IP community territories, Ruta 3. The Bank supported the preparation of strategic environmental assessment of the road segment and an in-depth consultative process during preparation to ensure that the social impacts were mitigated and also included special consideration for fauna to avoid road kills among other measures.

**(b) Quality of Supervision: Moderately Satisfactory**

69. The Bank dedicated substantial resources to supervision with 15 missions that included environmental and social supervision on the teams as well as financial and procurement specialist support. ISR's were timely and aide memoires reflected the key issues flagged during implementation.

70. The SNRM and GEF project were restructured to provide extensions of the time for project implementation that were needed given the institutional changes in all the implementing agencies and to re-allocate funds. It is not clear that the re-allocation of resources was optimal and that APN would have been able to take advantage of the resources provided in time for closure. An allocation to a better-performing component or cancellation might have been considered. The project was also restructured to correct a significant design flaw reflected in the exhaustive list of results indicators (numbering 136; reduced to 33 following a restructuring in 2014).

**(c) Justification of Rating for Overall Bank Performance: Moderately Unsatisfactory**

71. The IBRD-funded SNRM was left with a US\$10M undisbursed balance and this is in the process of being returned to the Bank. The Bank requested sometime before project closure, that a plan be prepared regarding the remaining funds to ensure a smooth end however it was not escalated until the last ISR. In terms of processing times, there is mention by the client in the mid-term aide memoire requesting the Bank to speed up provision of no-objections under component 2. Additionally, shortcomings are noted regarding agreeing with the client on the Results Framework indicators and targets, hence some differences in the number of indicators reported by the client and in the ISR.

72. Nevertheless, the Bank maintained the project under close supervision during the entire project implementation and provided support to the client in a timely manner on technical and fiduciary issues. It also sought to facilitate some coordination with other investment lending operations. The missions during implementation were accompanied also by the FAO technical specialists for specialized client support.

**5.2 Borrower Performance**

**(a) Government Performance: Moderately Satisfactory**

73. The government overall provided favorable conditions for implementation and sought to advance the project objectives even within a changing institutional context. The country also went through economic difficulties during this time complicating procurement

and slowing disbursement in part due to inflation. Effectiveness was delayed and changes in key personnel affected the continuity of processes at several junctures.

**(b) Implementing Agency or Agencies Performance: Moderately Unsatisfactory**

74. All three implementing agencies performed relatively poorly with serious delays in the early stages of implementation. Subsequently, their performance improved with a gradual buildup in achievement of the targets. The agencies were all committed to achieving the targets set in the original design. The one agency (APN, Component 2) that did not fully disburse, has secured national resources to finalize the civil works that were not achieved before project closure. APN also achieved substantial long-term changes in their conservation programs most notably in formalizing and expanding their engagements with neighboring communities.

75. The Ministry of Environment (Component 1) successfully prepared the follow-on loan and piloted several platforms implement the new funding and to advance native forest conservation in the Chaco Ecoregion. The component which was initially expected to complete within the first 18 months of project implementation eventually met its targets in terms of technical preparation work and established an important dialogue and consultations with provinces and stakeholders which is a significant task in a federal system.

76. The UCAR (component 2) activities suffered an initial lag of around 18 months given the changes that created the ministry and the transfer of the projects to a central implementation unit, UCAR. Following these initial delays however, the implementation proceeded with a sustained level of disbursements until the end of the project. The MAG-UCAR team worked with the Bank Task Team to advance issues related to both the technical and fiduciary aspects of the project. MAGyP also provided significant counterpart funding to both component 2 and the blended GEF operation.

**(c) Justification of Rating for Overall Borrower Performance: Moderately Unsatisfactory**

77. The three different components were well prepared by the client but were implemented with delays requiring two extensions of the closing date. No major changes were required to the PDO or GEO and only minor adjustments were made in the institutional structure, activities, and outputs although the Results Framework was substantially revised and simplified. The institutional changes in both the MAGyP and Ministry of Environment (for APN) caused delays at startup but were quickly overcome in the case of MAGyP. Moderate shortcomings resulted from both the institutional changes in APN, and challenges of weather and contracting works in remote locations. These issues are offset substantially by the significant outcomes from the change in protected areas management model that integrated communities, especially Indigenous Peoples and finishing the planned works with its own budget resources.

**6. Lessons Learned**



78. **Interinstitutional synergies are important for SNRM but challenging:** The project made significant efforts to bring together three different institutions at a federal level to try and coordinate policies and programs with landscape-scale implications. Each agency has its own mandate and coordination is difficult but a project with a multi-year shared implementation period generates long-term ties to each other that, at a minimum, ensures institutions are aware of each other's actions. In this case, the coordination has carried-over following closure with the ongoing coordination of field programs between APN and Native Forests to expand their reach and increase efficiency in reaching beneficiaries. Albeit this is under the same Ministry umbrella but each unit has significant autonomy.

79. **Long-term commitment is needed for SNRM and landscape approaches:** The groundwork to retool institutions traditionally geared to primary production efficiency and growth such as the Ministry of Agriculture towards a more sustainable model can take time and commitment from the Bank and the government. In the case of Argentina, the successive investments built from the early forest sector studies in 1996 followed by two lending operations in succession has resulted in the institutions with trained personnel, procedures and processes.

80. **Protected areas infrastructure construction can be a significant hurdle:** Park infrastructure works take a significant amount of time and logistics because of their generally remote locations and characteristics. More complicated works should be flagged at design and if possible front-loaded to ensure the quickest advance on these upon effectiveness if possible. Procurement may be hampered by the lack of a required number of bidders and those that do bid may not accurately consider the local conditions and costs which can ultimately cause them to underperform.

81. **Sustainable forestry:** Projects implemented in areas with little sustainable forestry tradition such as the Chaco tend to have a more “extractive” outlook, seeing the forests as sources of wood primarily especially firewood and other low-added value objectives. Profitability needs to be clear prior to promoting the activities and stakeholders should understand the time for return on investment to ensure that there are no false expectations created regarding long-term commitments that forestry investments and sustainable management generally require.

82. **Protected areas and livelihoods projects:** Underlying conflicts or unmet demands by inhabitants around protected areas can impede advancement of activities that are meant to improve the beneficiaries' livelihoods and development. Extensive dialogue may be needed and solutions may be beyond direct control of the implementing agency so good upstream social assessment should be able to flag the issues and strategies needed and adapted as the situation evolves during implementation. This is especially important in the case of Indigenous Peoples where free-prior informed consultation or consent is required.

83. **Restructuring needs to be considered realistically and resource allocations distributed where best able to produce impacts within project timelines:** While the several restructurings provided considered institutional changes and budgetary hurdles, they did not strategically consider the difficulties that have been common in protected areas

infrastructure development. Remaining resources should have been allocated to more agile parts of the program that had requested and could have utilized them in worthwhile programs to advance the PDO. The restructuring process was used to correct a significant design flaw reflected in the exhaustive list of results indicators (numbering 136; reduced to 33 following a restructuring in 2014).

## **7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners**

### **(a) Borrower/implementing agencies**

84. See annex 7.

### **(b) Cofinanciers**

85. There were no cofinanciers in the project.

### **(c) Other partners and stakeholders**

83. None.

## Annex 1. Project Costs and Financing

AR Sustainable Natural Resources Management (formerly Sustainable Forestry Development) - P100806			
Components	Appraisal Estimate (USD millions)	Actual (USD millions)	Percentage of Appraisal
1. Native Forests and Biodiversity (Technical Assistance)	<b>4.37</b>	<b>4.71</b>	<b>108%</b>
1.1 Formulation of a Native Forests and Biodiversity Project	1.44	2.52	175%
1.2 Pilot Activities, Studies and Outreach	2.93	2.19	75%
2. Sustainable Plantation Forestry	<b>28.45</b>	<b>58.62</b>	<b>206%</b>
2.1 Institutional and Policy Development	7.36	12.54	170%
2.2 Research, Technology Transfer (TT) and Extension	10.47	14.94	143%
2.3 Assistance to Small and Medium Scale Sustainable Forestry	9.04	29.28	324%
2.4 Project Administration, Monitoring and Evaluation	1.58	1.86	118%
3. Protected Areas and Conservation Corridors	<b>27.03</b>	<b>20.31</b>	<b>75%</b>
3.1 Strengthening Management of Protected Areas	24.88	17.01	68%
3.2 Institutional Strengthening for Improved Outreach and Management	0.48	0.04	8%
3.3 Consolidation of the Gran Chaco Conservation Corridors	0.26	0.16	62%
3.4 Project Administration, Monitoring and Evaluation	1.41	3.10	220%
<b>Baseline Costs</b>	<b>59.85</b>	<b>83.64</b>	<b>140%</b>
Physical Contingencies	1.97	0.00	0%
Price Contingencies	9.83	0.00	0%
Front-end fee IBRD	0.15	0.15	100%
<b>TOTAL PROJECT COST</b>	<b>71.80</b>	<b>83.79</b>	<b>117%</b>

P094425 - Biodiversity Conservation in Productive Forestry Landscapes			
Components	Appraisal Estimate (USD millions)	Actual (USD millions)	Percentage of Appraisal
1. Institutional capacities strengthened	4.21	3.22	76%
2. Development and dissemination of biodiversity-responsible plantation practices and technology transfer	2.11	3.19	151%
3. Support for the adoption of biodiversity-responsible plantation forestry practices	8.77	12.13	138%
4. Project implementation, monitoring & evaluation	0.71	1.08	152%
<b>Baseline Cost</b>	<b>15.70</b>	<b>19.62</b>	<b>124%</b>
Physical Contingencies	0.10	0.00	
Price Contingencies	0.00	0.00	
<b>TOTAL PROJECT COST</b>	<b>15.80</b>	<b>19.62</b>	<b>124%</b>

P100806 - AR Sustainable Natural Resources Management (formerly Sustainable Forestry Development)				
Source of Funds	Type of Financing	Appraisal Estimate (USD millions)	Actual (USD millions)	Percentage of Appraisal
Borrower (including beneficiaries)		11.80	34.36	291%
International Bank for Reconstruction and Development		60.00	49.43	82%

P094425 - Biodiversity Conservation in Productive Forestry Landscapes				
Source of Funds	Type of Financing	Appraisal Estimate (USD millions)	Actual (USD millions)	Percentage of Appraisal
Borrower (including beneficiaries)		4.74	12.89	272%
GLOBAL ENVIRONMENT - Associated IBRD Fund		4.14	0.00	0%
Global Environment Facility (GEF)		7.00	6.73	96%

## **Annex 2. Outputs by Component**

### **Summary**

With support from both IBRD and GEF, sustainable and efficient management of forest resources has advanced through the specific procedures developed for implementation of the Native Forests Law, a national PES program provides over US\$20M per year of incentives for SFM but also supports long-term Land Use Plans required by the law for all the Chaco ecoregion forests at a provincial level. APN strengthened planning and oversight in key core areas and increased visitation in 7 of the 12 parks despite domestic economic difficulties. Project financed parks increased personnel by 20.4% and benefitted from civil works which support protection in 7 parks (5 more under construction using national funds) and 6 new management plans were prepared to guide the future of these parks. APN also mainstreamed a new model of conservation planning that integrates small producers into PA and surrounding landscape management improving conservation outcomes. MAGyP has integrated environmental concerns including biodiversity conservation into its plantation forestry sector and ongoing plantation subsidy programs advancing both the PDO and GEO of the project however strengthened EIA requirements and the draft policies for incorporating biodiversity concerns into plantation forestry have only been applied in 1 province to date. Additionally, a national forest certification standard ([CERTFOAR](#)) with international recognition supported by the project has achieved over 44 thousand hectares under certification and 135 thousand hectares under improved management for biodiversity thus advancing sustainable biodiversity-friendly models for small and medium forest sector producers.

### **A. Sustainable Natural Resources Management (P100806; IBRD)**

#### **Component 1. Native Forests and Biodiversity (Executing agency: SAyDS) (Total Cost US\$4.71 Million).**

All the component 1 key activities as outlined in the PAD were advanced and successfully resulted in an investment loan of US\$58.76M to support the sustainable forest management in Argentina. This is a substantial commitment by the GOA to sustainable land management including governance issues and planning as well as developing economically viable models of forest management at small and medium scale.

Component one has two basic sub-components; one for supporting a preparation unit including the technical basis to implement a loan for the native forests sector and the other to pilot some basic best management practices in this sector. Key activities included:

- (a) The formulation of detailed proposals for the follow-on investment for sustainable management and conservation of native forest eco-systems;

- (b) Participatory development of federal and regional strategies for the management and conservation of native forests;
- (c) Establishment of a Chaco Ecoregion Forestry Unit of S AyDS to pilot regional studies, oversight and promotion of sustainable forestry;
- (d) Studies to identify the potential and delivery mechanisms for Payments for Environmental Services (PES), together with the institutional arrangements needed to provide incentives for SFM;
- (e) Studies to identify viable models for managing native forest and for monitoring the movement of forest produce;
- (f) Training and information systems for provincial government forestry and environmental agencies regarding SFM; and
- (g) Funds to support provincial initiatives which are supportive of project objectives

Following are the key outputs from the implementation.

**Subcomponent 1.1: Formulation of a Native Forests and Biodiversity Project (Total Cost US\$1.65 Million).**

The formulation of the detailed proposal was advanced early in project implementation and allowed the approval of the IBRD loan based on this preparation in April 2015 for US\$61.06M total project cost.

**Outputs**

- The formulation of the project included the detailed studies on the technical, environmental, social, and financial management, procurement, and economic aspects of the proposed operation.
- Policy and institutional studies included a review of relevant provincial and national legislation aimed at developing a national policy for native forest conservation and use,
- An institutional strengthening strategy for national and provincial forest related institutions
- A review of protected areas in the Chaco ecoregion, and development of a forestry related capacity-building strategy.
- SFM related studies included a review of existing field experiences,
- The preparation was accompanied by regional workshops and consultations in the case of the environmental and social documents.
- Technical preparation included several different analytical consultancies to support the overall program and specific investment project preparation. These included Chaco focal studies originally intended to consider and establish the basis for a regional Chaco office for the Ministry however it was decided during implementation to focus on strengthening the groundwork established with the previous project in the so-called “nodo forestal”. This unit was created originally to focus on the technical and experimental aspects of forest management in the Chaco. The role of this office was subsequently expanded to encompass other types of outreach and support for sustainable management.

- Review of existing SFM demonstration plots and development of a proposal as well as establishment of new demonstration plots.
- Development of the criteria and indicators for sustainable management of native forests
- Design of a manual of best forestry practices for native forests of Argentina
- Develop the technical specifications and procedures for voluntary certification of native forest and its products. This included design of a new Manual for Certification of Native Forests of Argentina and the basis for the establishment of a seal of approval or certification system called “Argentina Native Forests”.
- Development of technical specification and procedures for valuation of environmental services provided by native forests of Argentina
- Review and proposal of participatory models for SFM with communities within native forest ecoregions.
- Studies on Extension, Technology Transfer and Outreach
- Review of extension strategies and results of demonstration plots for management of native forests. Potential for promotion of private extension services as part of a National Forest Plan and audit mechanisms for its implementation
- Capacity building of private and public forestry professionals and technicians for certification of SFM in native forests. Creation of a National Registry of Private Extension Agents Certified in SFM in Native Forests
- Preparation of a proposal to establish links with the Ministry of Education and provincial education ministries to introduce native forest related curriculum in formal and informal education programs
- Development of a proposal for a National Dissemination Plan to increase understanding of the importance of native forests and its biodiversity in support of human sustainable development.
- Review of land tenure and title in native forest regions of the Gran Chaco.
- Review of issues for indigenous peoples and small-producers in relation to their dependence and use of native forests and proposals to overcome them.

**Subcomponent 1.2: Pilot Activities, Studies and Outreach (Total Cost US\$3.10 Million).**

**Outputs:**

- Specialized studies to identify priority native forests regions of the Gran Chaco ecosystem.
- Strengthening provincial institutional capacities (20 provinces) to implement the National Native Forest Protection Program (PNPBN)
- Preparation of manuals on best forestry practices and sustainable production models for native forests of Argentina
- Establishment of regional “nodos” in Patagonian Andes, Monte and Espinal, Misiones Interior Atlantic Forests and Selva Tucumano-Boliviano ecosystems
- Design of a log-tracking system for the Chaco provinces (SAGVEFOR)
- Studies on issues of forest conversion and wood processing, procedural and

- operational manuals for implementation of the SAGVEFOR system
- Participatory meeting for outreach and consultation in September 2009 (San Miguel, Argentina) and April 2012 on the priorities for the new Forests and Communities project design
- Dissemination and information campaign for the project and the future provincial initiatives to the public and sector stakeholders
- Inventory of the Palo Santo (*Bulnesia sarmentoi*) tree species in the provinces of Salta, Chaco, and Formosa. The species is included in CITES Appendix 2
- A proposal was prepared for the second national forest inventory

**Component 2: Sustainable Plantation Forest (Executing Agency: Ministry of Agroindustry) (Total Cost US\$31.85 Million, IBRD Cost US\$26.49 Million).**

Component 2 was blended with the GEF financed Biodiversity in Plantation Forestry Landscapes operation. The blending led to greater mainstreaming of the environmental objectives of the GEF-funded project. Both had a similar vision of improving capacities, generating knowledge of sustainable practices, and support to producers with the difference that the GEF funding had a more in-depth focus on mainstreaming biodiversity. Component 2 investments expanded the focus beyond the most sensitive ecosystems into other ecosystems that were important nationally but not necessarily from a global biodiversity standpoint.

The component was fully disbursed by end-of-project and resulted in both institutional impacts at the federal and provincial level and production level impacts by strengthening the extension systems and knowledge available that is adapted to national conditions, focused on key production challenges and sustainability. Out of 23 component indicators only three were under their target. The strengthening of the MAGyP Directorate of Forest Production resulted in some key reforms to the national forest plantation subsidy regulations with a preliminary document to establish a national forest policy. The basic institutional infrastructure for support to the sector at sub-national levels was also notable to generate ecoregional-specific knowledge and capacity regarding forest production. Small and medium producers were supported in sustainable forestry through 73 group sub-projects selected from a larger pool based on a demand-driven model. Counterpart funding levels substantially exceeded those anticipated at approval.

**Subcomponent 2.1: Institutional and Policy Development (Total Cost US\$8.51 million)**

At the initial stage of implementation, two laws were enacted, Law 26.432 and Law 26.331. Therefore, the activities foreseen in the PAD in relation to the revision of the legal framework were reoriented towards studies that allowed the improvement of the application of the stipulations of the new laws.

**Outputs**

- At the end of 2011, a preliminary document containing guidelines for a national



forest policy.

- Throughout 2012, consultancies were carried out to review the Law.
- In the same year, the Rio Negro, Chubut and Tucumán Forest Directorates prepared their diagnoses and proposals to strengthen their technical areas, and progress was made with the improvement and updating of the physical infrastructure of the Forest Production Directorate (DPF)
- At the same time, training/courses and workshops were promoted for technical staff, and DPF officials. This activity has been continued over the life of the project.
- In 2013, a productive, economic and environmental study of the potential for harnessing the post-harvest biomass of cultivated forests and residues from the forest industries in Misiones was carried out, a key tool for decision-making in the province. To substitute wood from native forests for the post-harvest residues of plantations and forest industries.
- Other relevant studies were: (i) a consultancy to support the Strengthening of the Industrial Forestry Board of Santiago del Estero (MeFISE); (ii) the implementation of a Strategic Environmental Assessment (SEA) and the Design of the Biodiversity Monitoring Program; (iii) technical assistance to develop and implement a Forest Information System for the Rio Negro Province Forestry Department.
- Computer and laboratory equipment were procured for five forestry faculties, and nursery equipment, tools for pruning, computer and laboratory equipment for various Directorates, agencies, research institutes, and nurseries in the Provinces of Jujuy, Formosa, Buenos Aires, Chaco, Corrientes, Tucumán, Chubut, Neuquén and Rio Negro.
- In 2014, the following consultancies were carried out: (i) Strategic Environmental Assessment for the NOA region. The EAE compiles the existing information in three great aspects 1) Legislation, 2) Forest Aptitude, 3) Biodiversity. These three aspects are appropriately combined to map potentials and risks to forest development in relation to biodiversity conservation taking into account the presence of endemic and endangered species and other ecosystemic attributes; (ii) technical assistance for the analysis of the most relevant contributions to the development of the sector generated by the implementation of the promotion regime instituted by Law 25.080; (iii) technical assistance for the establishment and operation of the Bariloche Forestry and Timber Commission.
- Construction, refurbishment and modernization of greenhouses and sunshades began in 22 public nurseries in the 9 provinces.
- In 2015, the last year of implementation, equipment was procured for the modernization of the laboratory of wood industries of the Faculty of Natural Resources of the National University of Formosa. Likewise, equipment was acquired for the San Pedro de Jujuy Pilot Project, the National Universities of Santiago del Estero, Misiones and Universidad Católica de Santiago del Estero, the Forest Production Department of MAGyP and the Corrientes and Formosa Forest Directorates.
- The process of construction of infrastructure in the INBIES Forestry Nursery in Esquel (Chubut) was canceled. The reasons were the extensive period for the

procurement process that prevented works to be completed in the remaining implementation period.

- Consultancies were carried out for the design and programming of a comprehensive data loading and processing system for management of forest plantations, and technical assistance for the establishment and operation of the Bariloche Forestry and Timber Commission with the objective of expanding and consolidating inter-agency relations of this Commission.
- The following activities were carried out: (i) International symposium on biofuels (August 2011, Misiones); (ii) support for the organization of a workshop on Strategies for Genetic Improvement of Forest Species (May 2015, INTA de Montecarlo, Misiones); (iii) a course on design of strategies and contents of training based on labor competencies, (March 2015, City of Buenos Aires), for technical staff of the DPF of the MAGyP; (iii) the VIII Latin American Agroforestry Congress and III National Congress of Silvopastoral Systems, (May 2015, Puerto Iguazú, Misiones); and (iv) First Meeting Topwood (Tools for Phenotyping Wood), (May 2015, Tandil, Buenos Aires)

## **Subcomponent 2.2: Research, Technology Transfer (TT) and Extension (Total Cost US\$11.19 million).**

### **Outputs:**

#### **Applied Research Projects (PIA)**

- Between May and August 2010, a broad consultation was held with interested parties in the forestry sector (research institutions, forest directorates, Forest Production Directorate, producers) in all regions of the country to define the priority lines by region for the call for proposal of PIA.
- The first call was made between August 9 and October 18 of the same year. 121 proposals were received, of which two were discarded. And 52 were approved.
- The calls for proposals established general priority lines (applicable to all regions) and specific lines for each province. Among the general lines are (i) forestry and management; (ii) sustainability; (iii) forest protection; (iv) bioenergy; (v) climate change; (vi) silvopastoral systems; and (vii) industrialization of wood.
- A second call for proposals was made in March 2012 with the same characteristics as the first. 87 proposals were received and 44 approved.
- In June 2012, the First Conference on Dissemination of Results of Applied Research Projects was organized in Buenos Aires. Around 120 people participated in this meeting, mostly academic (researchers, teachers and forestry students).
- In March 2015, a workshop for presentation of progress and results of ten research projects was held in the Castelar Complex of INTA. In June, the workshops on Technology Transfer and Results 2015 took place in Montecarlo and El Dorado (Misiones); in July in Concordia, in August in Corrientes and Tigre, and in September in San Martín de los Andes.

### Research Projects Applied to Forest Health in Crop Forests

- In July 2010, a workshop was held to identify needs and prioritize issues for the development of forest health research, inviting all relevant stakeholders at the national and provincial levels, including the private sector. Based on the results of the workshop, the objective and structure of the call was established, defining two types of projects: 1) SaFo Type I, intended to address transversal studies on current health problems relevant to forest production in one or more of the three types of main forest crops in Argentina (pines, salicáceas and eucalyptus), and 2) SaFo Type II, seed type projects intended for studies on general topics of forest health, focusing on novel issues, current or potential problems and acting as triggers for further research proposals.
- A first call was made between October 17 and November 21, 2010, with 4 final proposals being selected Type I and 5 proposals Type II.
- In addition, the Argentine Forestry Health Congress was created to promote scientific exchange and dissemination of the theme. The 1st Argentine Forestry Health Congress (JASaFo) was organized by INTA Bariloche, in August 2013. In September 2014 the II JASaFo were held in Montecarlo (Misiones).

### Silvopastoral modules

- In September 2010, a workshop took place on silvopastoral related issues in the different regions and institutions working in the field, in order to define the objectives and modality of the research projects. Priority regions, vacancy areas and project structure were defined during the workshop.
- The first call for proposals was held between September 5 and October 3, 2011. Six proposals were presented, and 3 approved. It should be noted that at that time there were no proposals for the Chaco region, and another call for proposals was made later to cover the region. Only one proposal was received and approved.

### Training and extension

- Regional diagnoses and characterization were carried out in 2012 to identify the priority themes of extension activities.
- Systematization of Experiences: Conceptual and methodological considerations for the systematization of forest development experiences, (Mendoza, 24-26 April 2013).
- A course on Evaluation of Forest Projects, (Buenos Aires, May 8 to 10, 2013).
- Training program for 40 technicians of the Undersecretariat of Family Agriculture of the province of Misiones, to incorporate the forestry activity to its extension tasks.
- In 2014, the project continued to support the extension and training activities provided to the Regional Technicians of the Forest Production Directorate.
- In the same year, with the support of INTA, the IBRD 7520 forestry project and the Forest Sustainability and Competitiveness Program IDB 2853, a pilot program for monitoring the wasp *sirex noctilio* in six regional headquarters of SENASA was implemented.
- In 2015, 5 special projects related to applied research started.
- A consultancy to evaluate the final reports of research projects was carried out.

**Subcomponent 2.3: Assistance to Small and Medium Scale Sustainable Forestry  
(Total Cost US\$10.19 Million)**

**Outputs:**

- In 2012, 122 Forest Production and Conservation Subprojects (SFPC) were evaluated, of which 73 were approved and financed by Component 2 (others were financed by GEF Project P090118), and began implementation in 2013. The beneficiary population total is 1,483 producers in the provinces of Buenos Aires, Chaco, Chubut, Corrientes, Entre Ríos, Formosa, Jujuy, Misiones, Neuquén, Río Negro, Salta, Santiago del Estero and Tucumán.
- Between April and June of 2015, two Pilot Projects began with a total of 126 beneficiaries.
- In the last year of implementation, monitoring visits were made to the 73 SFPC subprojects to verify the degree of progress made.
- A workshop on "Evaluation of the Monitoring of Production Forestry Subprojects" was held with the participation of private consultants who participated in the monitoring, technical staff from UCAR and regional technicians from the Forest Production Directorate (DPF) of the MAGyP.

**Subcomponent 2.4: Project Administration, Monitoring and Evaluation (Total Cost US\$1.96 Million).**

**Outputs:**

- Follow-up trips to the Provinces, technical audits of research and extension activities were carried out in 2012 and 2013, and a protocol for monitoring and monitoring visits to projects was developed to verify compliance with environmental safeguards.
- In 2013, monitoring visits were made to 13 applied research projects (PIAs) in Corrientes, Misiones and Chubut.
- In 2014, monitoring visits were made to applied research projects in the provinces of Formosa and Entre Ríos.
- In June 2015, two individual consultancies were contracted to prepare the Project Completion Report. In addition, 11 monitoring visits were carried out to research projects in different provinces: 9 Applied Research Projects, 1 Forest Health Project and the Demonstrative Silvopastoral Module of the Chaco region.

**Component 3. Protected Areas and Conservation Corridors (Executing Agency: APN) (Total Cost US\$35.05 Million).**

This component contributed to the PDO through SNRM and conservation of biodiversity. The component investments advanced significantly the change in vision of the parks system towards a more integrated landscape approach to conservation that includes corridors and people. The sustainable development activities and preparation of the conservation corridors strategy for the Gran Chaco was fully aligned with the strategic

long-term outlook of the other components that also sought to confront the deforestation wave in this ecosystem. The component resulted in significant investments in dry ecoregion protected areas and a subsequent and complementary project funded with GEF resources to conserve the Gran Chaco conservation corridors and core protected areas including new national and sub-national parks.

A key input to the expanded vision of APN in conservation has been the sustainable development activities (DAS). Ninety-two projects were implemented including 25 with IP communities benefitting over 10 thousand people from the most impoverished social sectors. Projects focused on sustainable production models that aimed to improve the compatibility of income generation and ensure food-security with the ecosystem conservation objectives of the nearby parks. Six national parks established new management plans through participatory processes and the remaining ones are being advanced by another project currently. APN also completed works for basic park protection in six parks while three more were advanced and under construction when the project ended, totaling at least 9 of the 11 parks receiving some infrastructure investments under the project. The implementation was also accompanied by two other IADB loans focused on tourism that have been investing concurrently since 2005 until the present. These projects in addition to the resources of the GOA are expected to allow many of the remaining planned project investments (infrastructure and planning) to be finalized.

### **Subcomponent 3.1: Strengthened Management of Protected Areas (Total Cost US\$32.40 Million).**

#### **Outputs**

##### **Protected Areas Infrastructure**

- Guard posts and main stations in: Campos de los Alisos NP; Los Cardones NP; Perito Moreno NP, and Sierra de las Quijadas NP
- Start of construction in Bosques Petrificados NP (86% advanced)
- Baritu, Talampaya, and Tierra del Fuego NP began construction towards the end of the project
- Campos del Tuyu and Calilegua NP infrastructure designed
- Visitors centers in Calilegua, Talampaya, and Sierra de las Quijadas including walkways, viewing areas, and accessible ramps

##### **Park Management Plans**

- Management plans prepared and approved by the DNCAP of APN for six national parks: Los Cardones NP, Campo de de los Alisos NP, Baritú NP, El Nogalar de los Toldos National Reserve, Río Pilcomayo NP, and Perito Moreno NP
- Sierra de las Quijadas NP held a participatory workshop to establish and update criteria to be included in a new management plan
- A study was prepared of the energy needs for the national parks system

##### **Sustainable Development Activities (DAS)**

- 25 DAS projects with Indigenous Communities including Diaguitas, Kollas,

- Huarpes, Mba-Guaraní and Guaraní communities
- 92 sub-projects supported benefiting over 10 thousand people directly and indirectly
- These included 32 sustainable production models that provided water systems for improved irrigation and home use, natural pasture planting, changes in animal production among others.
- Five sub-projects were oriented to improving agricultural production and cheese production and four focused on improved land management
- Thirteen sub-projects were focused on tourism services and included investments in infrastructure, guide services, tour route development and printed material production
- Eight sub-projects supported handicraft production
- Thirteen sub-projects were focused on documenting and recovery of indigenous culture including language
- Thirteen sub-projects were focused on environmental education and five on alternative and renewable energy
- Four sub-projects in Cardones NP and El Cardon improved water use for production and household use. This is a limited resource in this dry ecosystem and improved the lives of 21 families.

**Subcomponent 3.2: Institutional Strengthening for Improved Outreach and Management (Total Cost US\$0.57 Million).**

Outputs

- COMDOC electronic documentation system implemented in APN and personnel trained in its use for more efficient management of documentation and administrative processes.
- Dedicated webpage for the project developed and all procurement and project-related materials posted.
- Participation in the international tourism fair in Buenos Aires
- Printed materials prepared and distributed for Pilcomayo and Campos del Tuyu National Parks

**Subcomponent 3.3: Consolidation of the Gran Chaco Conservation Corridor (Total Cost US\$0.30 Million).**

The principal output of this component was a final proposal for the GEF-funded *Rural Corridors and Biodiversity* project focused on the Gran Chaco ecosystem in Argentina.

Outputs

- Gap analysis and priority areas for the Gran Chaco prepared
- Advanced on the establishment of an Impenetrable Forest Indigenous Reserve (*Reserva Indígena Interétnica del Impenetrable*)
- Activities supported to advance another IP reserve called the Reserva de los Tres Pueblos

- Diagnostic of provincial legislation reforms required for establishment of new protected areas in the Gran Chaco
- Cordoba workshops to extend the Chaco corridor to that province

## **B. Biodiversity Conservation in Productive Forestry Landscapes (P094425; GEF)**

The 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. The mainstreamed activities are blended with investments in the plantation forestry sector made under the IBRD Sustainable Natural Resources Management Project loan. The Project has four components:

### **Component 1: Institutional Capacities Strengthened (US\$4.21 million total, including US\$1.94 Million GEF funding)**

There are three subcomponents: (i) Capacity building for biodiversity (ii) Organization and planning for biodiversity conservation and (iii) Policies and studies for biodiversity mainstreaming.

Outputs:

- Support for the creation and strengthening of the Environmental Area of the Forest Production Directorate (DPF) of the MAGyP. From the beginning of project implementation, this need was identified. A consultancy was carried out until December 2015 to provide technical support for incorporating environmental criteria and working methodologies in the management of the DPF, and thus allowing an effective implementation of the existing policy instruments and the development of new strategies, plans and projects.
- Also during implementation, funding was provided for the participation of members of the environmental unit in forums, seminars and workshops related to sustainable forest management and other related topics. The technical staff of the environmental unit were required to provide support for the follow-up and dissemination of the process of preparation of Manuals of Good Practices, Strategic Environmental Assessments and Biodiversity Monitoring Programs coordinated by the IBRD and GEF Projects.
- DPF in coordination with the SAyDS Forestry Department, four technical discussion workshops were held in the regions of the Paranaense Forest, Chaqueño Park, the Tucumano-Bolivian Jungle and Patagonian Andean Forest, to strengthen the lines of support and to avoid overlapping of actions. As result of these workshops, the booklets titled "New scenario for forest promotion and management of native forests" were published, with two different versions, one addressed to enforcement authorities and the second to landowners of native forests and to professionals in charge of plans to communicate the procedures agreed by DPF and the Forest Department of SAyDS regarding the processing of new projects within the framework of Laws N ° 26.432 (extension of law 25.080) and Law No. 26.331

- and provide technical recommendations by phyto-geographic region for the realization of this activity.
- Other publications funded by the GEF Project:
    - (i) Argentina: Forest Plantations and Sustainable Management. The purpose of this publication is to disseminate the main aspects of forest plantations in Argentina. It also provides up-to-date quality information that allows analyzing trends in the sector for decision-making and for evaluating the progress made in meeting the proposed objectives at the level of development and sustainable management of forest plantations.
    - (ii) "Second National Report to the Montreal Process", prepared by the Inter-institutional Technical Team composed of members of the Forest Production Directorate of the Ministry of Agroindustry and the Forest Department of the Secretariat of Environment and Sustainable Development (SAyDS) with the support of a consultant hired by the Project to assist the DPF to carry out the technical coordination with other agencies involved (INTA, Secretariat of Environment and Sustainable Development and Administration of National Parks) in the preparation of the Report.
  - Support for the training and improvement of human resources: more than 600 trained personnel and national and provincial technicians of the former Directorate of Forestry Production of the MAGyP and provincial agencies involved in cultivated forests, and teachers / researchers from national universities and other entities.
  - Some of the training activities funded by the Project are listed below. A complete list of training activities is included in ANNEX II of the Borrower's ICR.
    - (i) Training and extension program in the prevention and control of plantation fires: six courses were held in the provinces of Entre Ríos, Corrientes and Misiones.
    - (ii) Course of Domestication of native forest species, at the National University of Santiago del Estero.
    - (iii) II Conference to the field of native species plantations of Patagonia in San Carlos de Bariloche and San Martin de los Andes.
    - (iv) Argentine Congress of Remote Sensing. The environment and its changes: a challenge for spatial information, in Córdoba.
    - (v) Course "Preventive forestry in forest plantations, fuel management", in Necochea, Buenos Aires province
    - (vi) Course "Analysis of trends in Forest Systems using Geographic Information Systems", held in Cordoba.
    - (vii) III Seminar - Workshop on Conservation of Biodiversity in Forestry Facilities: was held in the city of Ituzaingó, Corrientes.
    - (viii) Workshop on exotic forest species in Patagonia: it was developed in facilities of the EEA INTA Bariloche.
    - (ix) Course on Biodiversity Assessment and Monitoring Techniques: held at the Faculty of Forestry Sciences of the National University of Misiones.
    - (x) 1st Conference "Certification Systems for Forests in Argentina": held in the conference hall of the Professional Council of Engineering and Architecture, in the capital city of Santiago del Estero.



- (xi) Training course for forestry auditors in the Faculty of Agrarian and Forestry Sciences of the National University of La Plata, within the framework of the Program for the training of auditors of forestry management carried out with National Universities.
  - (xii) Course and a symposium on "Ecological restoration: theory, techniques and applications in forest ecosystems", held at the Faculty of Forestry Sciences of the National University of Misiones (UNaM).
  - (xiii) Training session on enrichment of native forest with species of high commercial value: a Forest Training Conference was held in Potrero de las Tablas, Lules, Tucumán.
  - (xiv) Workshop on "Establishment of Algarrobo Blanco plantations" at the Chaco Formosa Regional Center of the National Agricultural Technological Institute (INTA), in the city of Resistencia.
  - (xv) Workshop "Potential use of wastewater for irrigation in plantations.
  - (xvi) Workshop on the Propagation of Native Plants, within the framework of four projects funded by the Forestry Projects of the Unit for Rural Change (UCAR) in the Faculty of Forestry Sciences of the National University of Misiones.
  - (xvii) Workshop with representatives of the National Council for Scientific and Technological Research (CONICET), where the creation of Environmental Observatories for the monitoring of biodiversity in forest productive landscapes was discussed.
  - (xviii) II Symposium "Ecological restoration in agricultural and forestry systems".
  - (xix) Course "Dynamics of vegetation in forest ecosystems: disturbance, climate and anthropic impact", at the Faculty of Forestry Sciences of the National University of Misiones.
- The component also financed the assistance of technicians from the provinces of Entre Ríos, Corrientes and Misiones to the Training and Extension Program in prevention and control of forest fires in 2011, with more than 220 participants in 5 courses in different locations.
  - In addition, two technical tours were conducted: the first one to Misiones in November 2010, two technical staff from each of the 9 DBs and the DPF from the following provinces: Buenos Aires, Misiones, Mendoza, Salta, Jujuy, Entre Ríos, Neuquén, Río Negro and Chubut. Several experiences of sustainable management and biodiversity were visited in establishments of small producers and companies of the province of Misiones.
  - Another objective of Misiones tour was to make public the activities of the Misiones and Corrientes Norte Forest Productive Agglomerate (APF), which is a Foundation formed by several public and private institutions related to the forestry sector in the province of Misiones and Corrientes Norte. The objective of this foundation is to increase the competitiveness of SMEs for industrial forestry, generating synergies between the public and private sectors of the value chain in order to achieve a dynamic of technological innovation integrating socially and environmentally sustainable productive development. The second tour was carried out in April 2012 along the Patagonian Region (provinces of Chubut, Río Negro

- and Neuquén), which included 39 people, including authorities, specialists and technicians from the provinces of Chaco, Chubut, Córdoba, Corrientes, Entre Ríos, Formosa, Jujuy, Mendoza, Misiones, Neuquén, Río Negro, Salta, Santiago del Estero and Tucumán, members of the DPF and UDI, aimed at showing diverse management experiences in plantations for biodiversity conservation, plantations with native species, and to promote the exchange of ideas and experiences between technical staff and officials of national and provincial forest agencies.
- In 2013, the Argentine CERFOAR forest certification system was assessed for endorsement by PEFC (Programme for the Endorsement of Forest Certification), and this assessment was financed. The approval was received in July 2014 and it is of crucial importance since the CERFOAR certification is based on the Principles, Criteria and Indicators scheme of the Montreal Process as it is established among the lines of action of the GEF Project.
  - Another important activity was the development of a Strategic Environmental Assessment (SEA) and a Biodiversity Monitoring Program (PMB) in the Patagonia region and another SEA / PMB for Mesopotamia. In addition, a third SEA was carried out in the NOA region but was financed with funds from the IBRD loan, component 2. The institutions responsible for the preparation of these documents were, the Andean Patagonian Andean Forestry Research and Extension Center, and for Mesopotamia a consortium of Universidad Maimónides, CONICET and the Faculty of Forestry Sciences of the National University of Misiones, and the Argentine Forestry Association. In the case of the Patagonian region, a Strategic Environmental Assessment was achieved with a technical level and a consultation process considered appropriate. The EAE compiles the existing information in three great aspects 1) Legislation, 2) Forest Aptitude, 3) Biodiversity. These three aspects are combined to map potentials and risks to forest development in relation to biodiversity conservation taking into account the presence of endemic and endangered species and other ecosystemic attributes. The biodiversity monitoring protocol was appropriately developed and field-adjusted from a pilot survey. This protocol was developed taking into account two main aspects: 1) Situations of particular sensitivity to forestry, 2) Heterogeneity of forest management (planted species, management modalities, etc.). The Strategic Environmental Assessment of the Mesopotamian and NEA regions showed a high technical level in their development, however, the degree of public consultation and validation was relatively low, since few consultation workshops were held, and most of them were subsequent to the elaboration of the SEA and the monitoring protocol. While this is true for Mesopotamia, it was not so for Patagonia, in which the workshops were carried out through every step of the process and moreover, CIEFAP includes in its directorate high level officials of every province in Patagonia.
  - Computer and laboratory equipment were provided to the five forest faculties; and nursery equipment, tools for pruning, computer and laboratory equipment to various Directorates, agencies, research institutes, nurseries in the Provinces of Jujuy, Formosa, Buenos Aires, Chaco, Corrientes, Tucumán, Chubut, Neuquén and Río Negro. Also the bidding processes for procurement of equipment for the network of environmental observatories in plantations for implementation of the biodiversity monitoring programs (in partnership with CONICET) were completed.

- Equipment was also purchased and installed to strengthen the nursery of native species in the province of Buenos Aires (Reserva Otamendi). Other equipment was procured to strengthen a nursery to develop research, extension and field activities related to the protection, conservation and restoration of Andean-Patagonian forest ecosystems and productive activities in the region, especially those associated with the forest plantations belonging to INIBIOMA in the town of Bariloche.

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

**Outputs**

- The project promoted the incorporation of biodiversity contents in forestry engineering in 5 national forestry schools. A program of courses was carried out with the objective of training professors of Forestry Engineering of those schools in topics related to biodiversity and ecosystem conservation in forest plantations. A total of 11 courses were held, of which 215 teachers participated alternately in the headquarters of the five schools. The topics addressed were mainly aspects of Biodiversity, Functional or Ecosystemic and Social Processes to a lesser extent. From the training program, FCF-UNAM promoted the establishment of a specialization in Conservation Biology. This post-graduate institution will provide an opportunity for the specific training of forestry engineers and will provide continuity and sustainability to the actions of the sector.
- 15 BIO SILVA projects were financed. The objective of the BIO projects was to pilot, validate and disseminate forest management practices that promote the biodiversity conservation in cultivated forests. Five projects were financed in the provinces of Misiones, Buenos Aires and Neuquén, carried out by the Institute of Subtropical Biology of CONICET, the University of Buenos Aires and INTA, testing different management practices on biodiversity conservation and ecosystem functions in the different environments on which the plantations are located (Patagonian steppe, Missionary Jungle and Paraná Delta). In the case of Delta, the project tested the value of plantations as shelters of key species. The objective of the SILVA projects was to promote the conservation and sustainable production of native forest species. Ten SILVA projects were implemented that worked on species from the Andean and Patagonian Andean jungles. The identification and delimitation of new areas and seedlings was achieved for the establishment of regions of origin for the identification of genetic material adapted to different sites in the Patagonian region.
- In addition to these subprojects, 3 special subprojects related to applied research were implemented in 2015:
  - i) The marsh deer in the productive landscape of the Paraná Delta generating key knowledge to integrate forest management to the conservation strategy of the species.
  - ii) Restoration of water courses and banks in streams of forest establishments for the generation of biological corridors in the Lower Delta of Paraná.

- iii) Insect diversity in forest plantations, validation of tools for long-term monitoring and exploration of modulation mechanisms
- The publication called "Conservation of Biodiversity in Productive Systems, foundations and practices applied to afforestations in Northwestern Patagonia," was prepared under Component 2 of the Loan 7520-AR.
- In 2015, the project contributed to the Environmental Education Campaign (financed under the Loan) through the development of a compendium of general and specific information on the theme of the campaign and the realities of the provinces of Entre Ríos and Corrientes, to complement the training activities for professors.

**Component 3: Support for adoption of biodiversity-responsible plantation forestry practices (US\$8.77 million, including US\$3.34 million GEF funding)**

The Forest Production and Conservation Subprojects (SFPC) are sustainable productive initiatives operated by groups of rural producers with technical assistance from local development agencies (civil associations, cooperatives, foundations, NGOs, INTA, Universities, etc.) that received non-refundable funds from the Project for its implementation. The design and financing of the subprojects emphasizes the support, monitoring and training of producers in sustainable forest management and biodiversity conservation. The productive actions to be financed were defined in a comprehensive and flexible manner with the participation of regional producers in regional workshops in 2010 and include practices related to sustainable forestry, production and marketing management, management of non-timber forest products, biodiversity conservation, and environmental services.

**Outputs**

- 19 DAS were implemented, 18 in the province of Misiones and 1 in Río Negro, and involved holdings of 440 small and medium producers and their families covering an area of approximately 13,000 ha. The most frequent objectives were related to the conservation and protection of water sources, restoration and enrichment with native species and conservation of forest remnants. See ANNEX IV of Borrower's ICR for a complete listing of the 19 DAS.
- In order to contribute to increasing the awareness of biodiversity management practices in forest plantations, three workshops were organized for SFPC field technicians, including those providing assistance to subprojects financed under Component 2 of the Loan. The first was held in the Faculty of Forestry Sciences of the National University of Misiones (FCF - UNaM) on "Management of forest production systems oriented to the conservation of biodiversity". Two other training workshops were held for technicians of the Mesopotamian Subprojects: "Soil Conservation: Theory, Techniques and Applications. Silvopastoral Systems" at INTA EEA Montecarlo, and "Restoration with native species" at the Faculty of Forestry Sciences of UNAM.
- Monitoring visits were carried out by UDI to forestry production and conservation subprojects to verify the implementation and achievement of the objectives over

the life of the subprojects.

- A pilot subproject implemented by the Forest Fire Prevention and Control Service (SPLIF) in El Bolsón, Río Negro province, was also financed. Its overall objective was to conserve the environment through prevention and planning activities that contribute to Forest protection of forest fires.
- Good Practices Manuals were prepared for the Mesopotamian and Andean Patagonia regions. The manuals were divided into two regions by biome affinity and productive level: Region I that included Misiones and the Northeast of Corrientes and Region II that included the South of Corrientes and Entre Ríos. These manuals were elaborated by a consortium made up of Maimónides University, the Faculty of Forestry Sciences of the National University of Misiones and the Argentine Forestry Association. Interinstitutional work was also encouraged. In the case of Patagonia the preparation was in charge of a consortium formed by the Center of Investigation and Extension Andino Patagonian Forest; The Foundation for Forestry, Environmental and Patagonian Ecotourism Development; and the San Martín de los Andes University Settlement of the University of Comahue. The Manual of Good Practices of Patagonia was published and extension activities are planned.
- In addition, progress was made in the preliminary design of a corridor in the province of Corrientes between the Mburucuyá National Park and the Iberá Provincial Reserve, based on consultancy financed by the project.
- It should be noted that the synergy of the various instruments financed by the project was encouraged. Thus the PP "Energy Improvement for Yerba Mate Cooperative Drying, Forest Nursery Equipment and Purchase of Agricultural Tools for Community Use for Soil and Mate Yerba Plantation and Forest Management" financed under Component 2 of the Loan was possible from the successful implementation of one of the SFPC subprojects - Energy Self-Supply subproject for Yerba Mate Cooperative, Drying, Forest Nursery and Yerbales Enrichment.

**Component 4: Project Implementation, Monitoring and Evaluation (US\$0.71 million total, including US\$0.57 million GEF funding)**

**Outputs**

- A Midterm Review was carried out in 2012.
- In 2013, a Technical Assistant to UDI was hired to facilitate project activities on biodiversity with the different public and private organizations in the provinces.
- Regular monitoring visits to the BIO and SILVA subprojects
- Active participation in the World Bank oversight missions was also maintained during the supervision missions and in portfolio reviews. Emphasis was also given to qualitative studies and systematizations to learn from project implementation.
- Submission of progress and financial reports to the World Bank to comply with the Grant Agreement covenants.

### **Annex 3. Economic and Financial Analysis (including assumptions in the analysis)**

#### **1. Introduction**

**The significance of ecosystems is seldom adequately recognized in economic markets, government policies or land management practices.** The tendency to underestimate the value of ecosystems is related, for the most part, to their “public good” quality. Ecosystems and the services they provide are owned by all and, thus, protected by none. They generate shared benefits and so encourage free riding. Being publicly provided, they are under-priced or un-priced and thus tend to be over-used and abused. Since the benefits are shared and ownership is collective, there is a tendency to free-ride on contributions for the provision of these goods. Collectively, these features lead to pervasive degradation of ecosystems as a consequence of systemic market failures.

**Acknowledging the challenge of sustainable natural resource management and conservation of the environment, the sustainable natural resources management project in Argentina supported from resources by the GEF and the IBRD is designed to improve the sustainable and efficient management of forest resources, conserve biodiversity in protected areas and forest landscapes, and integrate small producers into forestry development and conservation.** The investment will result in the provision of private and public goods, not least enhanced sequestration and long-term storage of carbon, conservation of biodiversity, climate adaptation and climate resilience benefits, improvement of watershed management, improved income opportunities for small forest landholder and existence values. The proposed investment will also generate an increased provision of timber and non-timber products for consumption stipulating enhanced economic opportunities and growth.

**This section presents an analysis of the economic (welfare) benefits generated by the proposed investment.** By estimating the (partial) values of changes to core ecosystem services, and comparing them against the cost of the proposed investment, the overall economic welfare generated by the project is assessed.

#### **2. Economic Benefits generated by the Project**

**With its different components and multiple areas of investments, the project generated a diverse portfolio of economic benefits ranging from direct, tangible benefits to indirect, intangible benefits.** A direct, tangible benefit is, for example, the increase in tourism income through an increase in tourists to national parks. On the other side of the scale, indirect and intangible economic benefits of the project are, for example, the improvement of the public administration and the associated delivery of public services triggered by the capacity building of the forest administration supported by the project. Table 2 provides a limited overview of selected examples of the four categories of benefits that could be associated with the project.

**Given the difficulties of assigning monetary benefits to the entire range of economic**

**benefits generated by the project, only one specific economic benefits was included in the quantitative ex-post economic assessment of project feasibility.** For this project, the ex-post economic analysis was based on areas under improved forest management. Other economic benefits that were not included are, for example, increased human capital, improved governance structures, biodiversity values, bequest values, and many more. Further, the economic benefits included in the analysis were strictly limited to those immediately generated and associated with the project. Other benefit effects, such as, future improvements of forest management due to the capacity building in the administration are not included.

**Table 2: Non-exhaustive selection of economic benefits generated by the project**

	<b>Tangible</b>	<b>Intangible</b>
<b>Direct</b>	<ul style="list-style-type: none"> <li>• Improved forest management</li> <li>• Tourism</li> </ul>	<ul style="list-style-type: none"> <li>• Biodiversity conservation</li> <li>• Reduction in GHG emissions</li> <li>• Reduction in deforestation</li> </ul>
<b>Indirect</b>	<ul style="list-style-type: none"> <li>• Increased resilience to external shocks</li> <li>• Improved watershed services (e.g. for drinking water, hydropower generation, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction in soil erosion</li> <li>• Enhancing institutional mechanisms in support of decentralization and delivery of public services by the Forest Administration</li> <li>• Strengthened self-governance capacity of communities and community groups</li> <li>• Regulatory frameworks for forestry are in place</li> </ul>

**For this economic assessment, only the direct improvements of forest area affected is included in the quantitative analysis.** Other, often secondary impacts, generated by the investment through broader improvement of governance and management of forests is not included as benefit attribution is challenging. Variations and benefits assignments for the impacted area remaining areas, beyond the core area, are unclear and could lead to potential over- or underestimations of benefits. Thus, limiting the analysis to the core area, contributes to its robustness

### **3. Main assumptions and cost factors**

**Cost-Benefit-Analysis was applied to conduct the economic efficiency assessment for this project.** Sensitivity analysis is applied for the main simulation parameters notably discount rate and project horizon. For the discount rate, alternative rates of 5%, 10%, and 20% are applied. To test the robustness of initial results the economic benefits are reduced by 20% and 50% in subsequent analysis. All sensitivity analyses are run for all discount rates scenarios. The results of the quantitative results will be complemented with qualitative benefits to conclude overall project feasibility. It is assumed that improvements in forest management have been distributed evenly throughout the project lifetime, i.e. increases of forest areas under improved management is the same in every year.

#### Time

The distribution of costs and benefits over time follow the actual disbursement of the

project. This means benefits start only to arise with the first disbursement in 2009 as it seems unlikely that benefits are created without prior financial contributions. After 2015 it is assumed that benefits remain constant and no further improvements are achieved even though it is likely that the project will trigger further improvements in the future without substantial additional costs.

#### Climate and Carbon

**The quantification of climate and carbon benefits applied for this economic analysis follows a conservative approach.** It only estimates sequestered carbon and storage through areas that are explicitly brought under improved forest management plans and not for example areas that might benefit from better institutions or capacities. As explained further below, these incremental carbon benefits are modeled over a period of 15 and 20 years, respectively, although it can be expected that project impacts will last for a longer time period.

**The valuation of project carbon benefits requires the assignment of a dollar value per ton of carbon, which is a difficult exercise, given the recent collapse of global carbon markets.** In this context, the market price of carbon does not reflect the social value of carbon storage of forests. Using the official guidance for the social value of carbon as provided by the World Bank (2001) a shadow value of USD 70/tCO<sub>2</sub>e is applied. In order to estimate the sequestered CO<sub>2</sub> through improved forest management this analysis uses the national forest biomass average for Argentina of 200.5 t/ha forest area (Gasparri et al. 2004) and the CO<sub>2</sub> emission factors of 1.85 t CO<sub>2</sub>/t biomass from IPCC Guidelines for National Greenhouse Gas Inventories (2006). It is assumed that improved forest management results in a carbon sequestration equivalent to only 0.2% of what a newly reforested hectare forest land would generate.

**Carbon sequestration and storage values of forest ecosystems are different from climate regulation benefits, encompassing broadly adaption and resilience services.** Climate regulation benefits are additional values provided by forest ecosystems. For a case study in Cameroon, TEEB (2009) states that associated values range between US\$842 and US\$2,265 per hectare per year (ha/year). Pearce et al. (2001) state values for the same service to range from US\$360 to US\$2,200 per ha/year. For this analysis a rather conservative value of USD 50/ha/a is assumed.

#### Watershed Values

**Given the important role of forests with respect to hydrological functions, watershed values are another category of benefit values included in the quantitative economic assessment.** Another reason for including watershed values in this assessment is that they are clearly distinguishable from the other value categories, which is important for avoiding double counting of benefits. For example, TEEB (2009) states the economic value of intact tropical forests as US\$6,120 per ha/year, which is significantly higher than any of the values assumed in this assessment (however, it is not fully clear which values are considered in TEEB's assessment). Pearce (2001) values watershed benefits for tropical forests at a range between US\$15 and US\$850 per ha/year, with the higher-bound value



applying to tropical forests. The World Bank<sup>5</sup> estimates watershed values at USD129/ha for developed and USD27/ha/a for developing countries, respectively. Again, following a conservative approach, the baseline value assumed for this analysis is USD27/ha/a.

#### Existence Values

**Estimates related to the “existence value” associated with preservation (non-use) of forests show a wide variety of values in the literature.** The studies carried out tend to be based upon contingent valuation in rich countries where people appear to be willing to pay for the costs of preserving natural species and places. Horton et al. (2003), use a contingent valuation study that is applied to the specific case of the willingness to maintain conservation units in Amazonia detected among a sample of people in the United Kingdom and Italy. Two possible conservation scenarios are presented, based on conservation values of 5% and 20%. The study identifies an annual value in the form of an additional tax in each country, and not a single fixed value to be allocated by an international fund. The average value estimated, combining the samples in both countries, was US\$50 per ha/year for 5% of the area of Amazonia, and US\$67 per ha/year for 20 % conservation. When the order of the questions was inverted (first 20%, followed by 5%) the average estimates changed to US\$36 per ha/year and US\$50 per ha/year, respectively. Referring to the same study, TEEB (2009) estimates existence values at US\$43 per ha/year. Pearce et al. (2001) provides a range of existence values between USD 2-12/ha/a. For this analysis the most conservative value of USD2/ha/a was applied.

#### Project Costs

**Project costs are approximated using the investment costs of the proposed project totaling USD 56.38 million, which includes GEF grant and IBRD loan.** The costs are distributed over the years according to their actual disbursement. We do not differentiate between the different components of the projects and also do not include potential second party contributions such as working hours of staff that is being trained in a workshop.

### **4. Methodology**

**A net present value analysis is applied to compare project’s net benefits and net costs at time of the first payment (2009).** In addition to applying conservative values for the quantitative assessment, sensitivity analysis is applied in various ways for the key simulation parameters, notably discount rate and assessment of benefit variation. Alternative discount rates of 5%, 10%, and 20% are chosen, with 20% significantly exceeding what has recently been recommended as average “default” discount rates for project analysis by the World Bank. Quantitative results will be contrasted with qualitative benefits to arrive at overall project feasibility.

**As is required for the economic analysis of projects, a “with-” and “without-” project**

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<sup>5</sup> The Changing Wealth of Nations – Measuring Sustainable Development in the New Millennium (2011)

**situation is used for estimating incremental benefits generated by the project.** The incremental difference between the “with-” and “without-” Project situation is simulated using the cost values outlined in the previous section. Since forest is only brought under improved management and not completely reforested only a fraction of 10% of the environmental benefits of a new forests is assumed, i.e. the project interventions results in a benefit generation of 10% of baseline value.

**A 15-year and 20-year period is assumed to assess the economic feasibility of the Project.** While Project costs only occur during the first eight years of the Project, benefits are assumed to be generated beyond the lifetime of the Project. To harmonize project benefits and costs through the calculation of a present value of costs and benefits, a discount rate needs to be determined. Given the often significant impact of the choice of the discount rate on economic analysis outcomes, and the common difficulty in determining discount rates reflecting economic discounting behavior, a sensitivity analysis is applied considering discount rates of 5%, 10%, and 20%.

**In addition to testing the impact of different discount rates on simulation results, other sensitivity analyses are applied that account for possible variations in key input parameters to test the robustness of simulation results.** In addition to varying discount rates, simulation results are tested against changing benefit values. Although all assumed benefit values are already lower-bound estimations, focus on four core benefit categories only, and are only applied the area brought under improved management plans (excluding spillover effects and positive externalities resulting from improved policy frameworks, research and monitoring), benefit reductions of minus 20% and minus 50% are tested. It has to be noted that in addition to using already conservative values, those are not adjusted from their publication year to current prices, which would result in an increase in values. This set of sensitivity assessments enables a comprehensive analysis of the economic robustness of the Project vis-à-vis changing or differentiated value parameters.

## **5. Results**

**Overall, results show positive simulation outcomes for the Project, thus confirming economic feasibility. Simulation results are summarized in tables 3 and 4.** Each table shows the net present value (NPV) and the benefit-cost ratio (BC) for different discount rates and benefit variations. Only for situations in which combined input parameters are set at very “extreme” low values in terms of Project impacts, does the analysis yield negative results. Only the combination of a very high discount rate of 20% and a benefit value reduction of 50% (with already conservative values assumed for the baseline) result in a negative net present value and a benefit cost ratio below one. The benefits are more than two times larger than the costs in the majority of scenarios and create a net present value of USD 93 million in what is regarded as the most appropriate scenario.

**Table 3: Summary of net present values and benefit cost ratio for the project under different scenarios for benefits until 15 years after project start**

	<i>Baseline</i>		<i>Baseline (-20%)</i>		<i>Baseline (-50%)</i>	
	NPV	BC-Ratio	NPV	BC-Ratio	NPV	BC-Ratio
<b>Discount Rate 5%</b>	93,710,341	3.25	66,647,098	2.60	12,520,612	1.30
<b>Discount Rate 10%</b>	57,248,419	2.82	39,519,604	2.26	4,061,974	1.13
<b>Discount Rate 20%</b>	25,113,449	2.33	16,301,494	1.86	-1,322,416	0.93

**Table 4: Summary of net present values and benefit cost ratio for the project under different scenarios for benefits until 20 years after project start**

	<i>Baseline</i>		<i>Baseline (-20%)</i>		<i>Baseline (-50%)</i>	
	NPV	BC-Ratio	NPV	BC-Ratio	NPV	BC-Ratio
<b>Discount Rate 5%</b>	129,867,586	4.12	72,287,977	3.30	18,660,553	1.98
<b>Discount Rate 10%</b>	95,572,894	3.30	51,551,251	2.64	18,660,553	1.98
<b>Discount Rate 20%</b>	26,983,510	1.65	10,077,798	1.32	-142,887	0.99

NPV = Net Present value; BC-Ratio = Benefit Cost Ratio

## 6. Discussion

**This ex-post economic efficiency analysis conducted for the Argentina – Sustainable Natural Resources Management Project confirms the positive economic impact the project was expected to generate.** The results of the quantitative simulations are also robust across a range of sensitivity analyses assuming significant changes in discount rates and key benefit parameters. Throughout the analysis, it was emphasized that benefit assumption was always done conservatively using lower-bound values of associated non-market benefits attributed to the project.

**The quantitative analysis was also strictly limited to values that can be clearly attributed to the project.** Besides, to brought under improved forest management by the project, additional benefits can be associated with biodiversity conservation, economic benefits arising from the project investments, and better public service delivery resulting from capacity building of the forest administration. Further, it was assumed that benefits would not further change beyond the project implementation period, even though it is likely that positive effects will continue to generate positive incremental changes compared to the without project situation. While this approach systematically undervalues project impacts, it provides a high degree of robustness. If additional and downstream project benefits had been considered the simulations would have yielded even stronger results.

**Probably one of the most important, though so far unstated, economic impacts of the project relate to the capacity building of government institutions at central and decentralized levels.** Enhanced capacities of government institutions will be improving public service delivery with numerous benefits and positive economic impacts. Especially with the continuing challenges of natural resources management – not least due to climate change – the aspect of enhanced functioning of public institutions cannot be underestimated, particularly in a “with” and “without” project scenario. Enhanced functioning of government institutions will also facilitate the implementation of future projects and investments that will built on and continue the achievements of this project.

Similar considerations apply to knowledge generation and management achieved by the project.

**In summary, based on this economic evaluation, it is concluded that the project has resulted in significant positive development impacts.** The consideration of only a few of those benefits into the quantitative analysis sufficed to yield positive economic results. The achieved economic benefits comply largely with what was anticipated during the design stage of the project. This supports the design and implementation of the project, in particular the selection of activities in which the project invested. It demonstrates that investments in sustainable natural resource management can significantly contribute to the economic development ambitions of transition economies such as Bosnia and Herzegovina as they generate and safeguard important direct environmental services and instigate economic development.

## Annex 4. Bank Lending and Implementation Support/Supervision Processes

### (a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
<b>Lending</b>			
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Xiomara Morel	Senior Finance Officer	LOAFC	IBRD/GEF
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Mi Hyun Miriam Bae	Senior Social Development Spec	CRKI4	IBRD/GEF
Nikolai Sviedrys	Consultant	GGO01	GEF
Pablo Francisco Herrera	Environmental Specialist	GEN04	IBRD/GEF
Peter Jipp	Senior Natural Res Mgmt Spec	GEN04	Task Team Lead
Raquel Orejas Tagarro	Consultant	GEN04	IBRD/GEF
Ricardo Larrobla	Consultant Forestry Specialist	GENDR	IBRD/GEF
Robert Ragland Davis	Senior Forestry Specialist	GENDR	Task Team Lead
Sandra Monica Tambucho	Sr. Finance Officer	WFALA	IBRD/GEF
Santiago Sandoval Valencia	Language Program Assistant	GEN04	IBRD/GEF
Sergio Gabriel Kormos	Consultant	GWA04	IBRD
Teresa M. Roncal	Consultant	GENDR	IBRD

**(b) Staff Time and Cost – P100806**

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
<b>Lending</b>		
FY07	40.13	187,960
FY08	35.2	162,001
<b>Total:</b>	75.3	349,961
<b>Supervision/ICR</b>		
FY08	3.4	17,895
FY09	17.2	64,530
FY10	18.9	98,213

FY11	9.0	54,421
FY12	27.0	161,462
FY13	33.0	143,398
FY14	18.1	95,317
FY15	10.1	68,549
FY16	12.0	64,837
FY17	3.7	16,620
<b>Total:</b>	<b>152.3</b>	<b>785,242</b>

**c) Staff Time and Cost – P094425**

Stage of Project Cycle	Staff Time and Cost (GEF Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
<b>Preparation</b>		
FY06	8.3	38,764
FY07	10.9	40,383
<b>Total:</b>	<b>19.2</b>	<b>79,148</b>
<b>Supervision/ICR</b>		
FY08	7.0	29,021
FY09	2.1	28,855
FY10	4.8	13,328
FY11	4.0	31,514
FY12	3.2	29,808
FY13	10.5	21,492
FY14	5.8	45,604
FY15	5.0	29,437
FY16	5.0	-
FY17	6.0	-
<b>Total:</b>	<b>37.4</b>	<b>229,059</b>

## **Annex 5. Beneficiary Survey Results**

Not applicable.



## **Annex 6. Stakeholder Workshop Report and Results**

Not applicable.

## **Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR**

1. The project's objective was to improve the sustainable and efficient management of forest resources, conserve biodiversity in protected areas and forest landscapes, and integrate small producers into forestry development and conservation. The project was executed by three different agencies: Secretaría de Ambiente y Desarrollo Sustentable (SAyDS), dealing with native forests and biodiversity (Component 1), Ministerio de Agroindustria (formerly Ministerio de Agricultura, Ganadería, Pesca y Alimentos (MAGPyA, and SAGPyA) , focusing on sustainable plantation forestry (Component 2), and Administración de Parques Nacionales (APN), which supports protected areas and conservation corridors (Component 3). It was executed jointly, from March 2009 to February 2016.

### **A. Summary of Borrower/Client ICRs**

#### **Component 1 – Native Forests and Biodiversity: Summary of Borrower Completion Report<sup>6</sup>**

2. With the issuance of Law No. 26.331 of "Minimum Budgets for Environmental Protection of Native Forests", on November 18, 2007, and regulated on February 13, 2009, the Secretariat for Environment and Sustainable Development (SAyDS), through the Forest Department of the Secretariat for Environmental Planning and Policy, has been promoting national policies and programs for the protection, conservation, recovery and sustainable use of native forests within a mechanism for consultation with Provincial governments and institutions of the forestry sector, with emphasis on the participation of the communities that inhabit the forest ecosystems. As of 2009, the National Government has undertaken the implementation of activities throughout the national territory that involve the use of forests for the economic development of the population and its conservation for future generations Plantation Forests. In that sense, the technical and financial assistance of the World Bank proved to be an invaluable tool for institutionalizing the protection and conservation policy of Native Forests in the country, and has particularly strengthened the SAyDS Forestry area to better address operational tasks and carry out relevant studies in order to effectively develop activities required for implementation of Law 26.331.

3. In this operation, US\$4.1 million of the loan from the IBRD was allocated for SAyDS activities. The component was designed to last only two years with the objective to prepare a follow-on investment regarding native forest issues, focusing on the Chaco area. It consisted of the following subcomponents: (i) Formulation of a Native Forests and Biodiversity Project, and (ii) Pilot Activities, Studies and Outreach Programs to support the introduction of sustainable management and conservation practices in native forests. Given the high social and environmental seriousness of the Chaco region, the objective of the component was consistently aligned with the government's development and

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<sup>6</sup> Completion Report of *Componente de Bosques Nativos y su Biodiversidad (Documento Final)*, Secretaría de Ambiente y Desarrollo Sustentable, Julio 2014.

environmental plans.

#### Implementation (positive and negative factors)

4. During the implementation of the Project there were no external factors that would significantly affect the execution of the project. In this sense, it should be mentioned that there were no natural disasters, wars or other aspects outside the control of the government and external to the country that affected the sector in general and the Project in particular.

5. The implementation of Law 26.331, and the consequent territorial plans developed in native forests for the first time in the history of the country, created a climate of debate in civil society and social media which resulted in particular interest in the activities developed by the Component. Also, given that natural resources are exclusive legacy of the provinces, the National Government had to articulate actions to establish a regional dialogue between the provinces that are part of the Chaco area. The main purpose of this dialogue was to achieve an effective implementation of policies and strategies for sustainable development and conservation of the native forest and its associated communities, as well as the proper control of the products extracted from it.

6. SAYDS has not suffered any significant problems during implementation of the component that could affect the timely development of its activities, although there were changes of authorities in SAYDS.

#### Achievement of Objectives and Results

7. *Macroeconomic policies:* It is difficult to quantify at this time the impact of the results of the Native Forest and Biodiversity Component on the macroeconomic policies implemented by the National Government, but indeed both the formulation of the investment project and the pilot activities, and the studies and specific experiences started during implementation, such as SACVEFOR, the implementation of the Node Network and the Palo Santo Inventory, will enhance existing policies to maintain a reasonable balance of foreign trade through the promotion of sustainable forest management activities in the native forest, and the consequent valuation of its products as well as strengthening the control of economic activities and working conditions.

8. *Sectoral policies:* The results of Component 1 are framed within the sectoral policy promoted by the National Government on the protection of their native forest resources as well as the development of the quality of life of the communities associated with their habitat. Both the formulation of the new Investment Project (subcomponent 1.1) and the pilot activities, studies and specific activities (subcomponent 1.2.), carried out mainly in the Chaco region, provide substantial support to the implementation of Law 26.331, which has been fundamental given the need to improve the institutional capacity of the provinces to develop and manage the sustainable forest management plans that this law requires.

9. *Physical goals:* The results of Component 1 have satisfactorily fulfilled the physical objectives proposed in their planning. Among these results are the installation and equipment of 4 forest assessment nodes (Selva Misionera, Tucumano-Bolivian Forest,

Patagonian Andes and Monte-Espinal Forests). These nodes constitute a interface support between the Forestry Evaluation System Management Unit (UMSEF), dependent on the Secretariat of Environment and Sustainable Development, and the provinces, completing the national coverage initiated by the IBRD Project 4085-AR, through the which first pilot node was installed in the Chaco region.

10. Numerous field studies have also been carried out on the status and prospects of sustainable management, conservation and recovery of all forest regions, as well as the determination of critical socio-environmental areas where the new investment project would operate. It is worth mentioning that Manuals of Forestry Practices have been designed for all the forest regions of the country (Selva Misionera, Tucumano-Bolivian Forest, Chaqueño Park, Espinal, Monte, Andean Patagonian Andean Forest, and Southern Patagonian Andean Forest).

11. *Institutional development:* In terms of institutional development, the results of Component 1, have contributed to strengthen the operational capacities of both the National Government and the Provincial jurisdictions, through the preparation and implementation of several tools for planning, monitoring and control.

12. *PDO Contribution:* Component 1 contributes to the first part of the PDO of Loan 7520-AR to "improve the sustainable and efficient management of forest resources, conserve biodiversity in protected areas and forest landscapes". With respect to the latter, studies have been carried out that, although not implemented in this project, will allow the sustainable and efficient management of native forests during the implementation of the new Investment Project.

13. Implementation of the two subcomponents has been satisfactory. In addition, the Component has been broadly participatory in terms of the different stages of formulation of the new Investment Project, in turn has actively cooperated with the Undersecretariat of Planning and Environmental Policy in aspects related to institutional strengthening and capacities of provincial actors. For the preparation and presentation of the Sustainable Management Plans required by Law 26.331, stakeholder participation in the Component output has been important and sustained. For the development of the Models and Manuals of Good Practices, participatory meetings (workshops) have been developed for each forest region.

14. The component has been able to compile an important amount of research material on the sustainable use of native forests, as well as the formulation of an innovative project in the conservation of these ecosystems together with the improvement of the quality of life of the communities that inhabit them.

15. These achievements are fundamental to the continuity of the National Public Policy of Preservation of Native Forests, channeled mainly through the application of Law 26.331.

16. *Sustainability:* The sustainability of the project's development objective, with respect to the Component, will depend fundamentally on the implementation of the new

Investment Project approved by the World Bank.

### Lessons Learned

17. The Projects implementation period was extended for several reasons. The Project has delays at the beginning to manage disbursements.

18. Planned activities should have a reasonable margin of flexibility to allow for modifications. In this particular Project, when the subcomponents were designed, there was no Law 26.331 enacted. This Law created a specific fund that provided financing to institutional strengthening at the Provincial level. Therefore, funds allocated under the Loan for these activities had to be reallocated to avoid overlapping with the funds provided by said Law.

19. The Project Implementing Unit should always be fully staffed to avoid overloading work load of other team members in the unit. At various stages of implementation of the Component, there were vacant positions that increase work load of other SAYDS officials, and resulted also in modification of the flow of funds of the component, that made necessary a transfer of funds directly from the Loan Account to the United Nations Development Program (UNDP), without opening a Designated Account at the National Bank (BNA), to avoid bank costs and unnecessary delays. The use of this UNDP account and its corresponding procedures were agreed with World Bank financial teams. The cost of it was fully assumed by the Argentine Government.

### **Component 2 – Sustainable Plantation Forestry: Summary of Borrower Completion Report<sup>7</sup>**

20. The main objectives of the component were: (i) improvement of policy and planning frameworks, (ii) institutional capacity building at provincial and federal levels, (iii) upgrading park management capacity, infrastructure, and sustainable development in and around parks; (iv) improvement and promotion of private forest information distribution services; (v) support to small and medium-sized farmers, landowners and producers in adopting sustainable practices; (vi) institutionalization of environmental protection and incorporation of best practices; and (vii) promotion of greater participation of private sector in the provision of services.

21. The component was implemented by the Ministry of Agroindustry (formerly SAGPyA) over a 7-year period. The Loan amount allocated originally to the component was US\$25.0 million, and at closing US\$26.1 million. It was partially blended with GEF Grant TF90118). It closed on March 15, 2016.

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<sup>7</sup> Completion Report of *Componente de Plantaciones Forestales Sostenibles del Proyecto de Manejo Sustentable de los Recursos Naturales (Documento Final)*, Unidad para el Cambio Rural Ministerio de Agroindustria, Marzo 2016. Author: Ing Graciela Gonzalez. Collaborator: Ing. Valeria Uccelli 2014.

22. Throughout project implementation, subcomponents were slightly reformulated, and their objectives partially redefined as follows: (i) Institutional and policy development; (ii) Research, technology transfer and extension; (iii) Support to small and medium producers for sustainable forestry production; and (iv) Implementation, monitoring and evaluation.

#### Implementation (positive and negative factors)

23. The physical and financial execution of component 2 had a stagnation period of approximately 18 months due to institutional problems. It experienced a conflictive situation at the national level as a result of the retentions applied to soybean exports that generated problems with different key players in the provincial and private sector, and civil society. In that period there were several changes of authorities in the Ministry. Staff rotation affected all projects.

24. In 2009, the Unit of Rural Change (UCAR) was created for the management of all the Ministry's projects. Technical implementation was delegated to the Project Implementation Unit (PIU), structure common to all projects coordinated by UCAR. This new structure and the institutional continuity of its teams allowed a satisfactory project implementation. It still maintains a level of independence from changes at hierarchical levels of the Ministry.

25. One main external factor that has "impaired" implementation is the lack of investment in mega national industrial-forestry projects. The trade balance of forest products is still at deficit, which aggravates the fact that the forestry sector is recognized for its potential contribution to the balance of payments, as is the case in other Southern Cone countries (Brazil, Chile and Uruguay).

26. Also inter-institutional relations have been difficult in the first stage of implementation, between the national level and the provincial levels, with strong tensions regarding the distribution of resources.

27. In interviews with key actors, it is evident that the lack of a national strategy and an "explicit" policy for the sector at the National and Provincial level on wood or cultivated forest has affected the achievement of some results. Another factor of weakness, unrelated to the management of the PIU, is that some of the actions originally foreseen lost relevance for the project implementation plan because of the variation in the institutional context when the project was designed. An example of this is Law 25.080.

28. The distrust of the private sector (both civil society and producers) to get involved in projects with the Government was also a factor that affected implementation.

29. Currency and inflationary issues are also seen as threatening, which in the case of delays in implementation could have some effect on actions that were already budgeted.

## Sustainability

30. This topic requires an analysis of the different mechanisms that would ensure the sustainability of the project actions in each of the institutions involved and in all their aspects (e.g. financial, technical, economic, organizational, management). In this sense, at the national as well as the provincial level, a significant degree of sustainability becomes evident as these institutions are becoming permanent institutional bodies.

31. At the national level, there potential risks associated with policy disruption and / or financing problems. In the first case, the probability is low given the importance of this issue, while the second source of risk can be managed with adequate budgetary policies and obtaining partial financing from other sources. These include the IDB loan 2853 on Sustainability and Forestry Competitiveness, which has allowed the continuation of many of the project activities.

32. At the provincial level, different perspectives are presented per province or type of project. In general terms, it can be said that, in the provinces with greater degree of institutionalization, sustainability of the actions is much more likely. This is also more likely to occur in provinces where the sector's public policy has a higher hierarchical rank (e.g. Forestry Management vs. Forestry Undersecretaries).

33. Despite this, the sustainability of the actions is expected to be highly probable as the sector presents a promising future based, among other, on a growing trend of silvopastoral systems and sustainable afforestation, increasing international demand, possibilities to develop the domestic market and new markets, Argentina's comparative advantages due to its location and high productivity rates, the launching of the Argentina Forest Certification in 2010, contribution to the population's roots in the rural environment, employment generating activity and high multiplier effect.

## Impact

34. The following conclusions take into account that the objectives in the Project documents have a time horizon that could hardly be considered achievable within the narrow implementation period of a project. Even more so when a good part of the actions implemented could be considered as pioneering efforts to promote an activity that has not yet been a priority in Argentina. In this context, it was considered advisable to avoid measuring impacts in quantitative terms, or to take as reference the levels of implementation or specific outputs obtained. This is due to the complexity of its management, and for the social actors involved, and also because it is an activity with a long-term investment maturing cycle.

35. Something similar can be said about the tangible aspects of institutional strengthening that have been involved in the numerous investments, training promoted in various aspects that strengthen the human capital of the sector, as well as the possibilities of interaction that has opened between various public and private, and non-profit organizations

36. A positive view may also arise in relation to the subprojects (SFPCs), since they imply policies that have hitherto been little in the way, such as support for groups of small and medium-sized producers to undertake or deepen activities directly or indirectly linked to forestry.

37. With regard to achievements in each subcomponent, it can be said that the activities under Sub-component 1, Institutional Strengthening, operated primarily on the basis of responding to demands. In this regard, technical assistance was provided for institutional analysis and recommendations for strengthening the technical areas of the provincial forest directorates. But "responding to demands" does not mean that there is no strategy, that is, it does not necessarily imply putting the direction of the process in the hands of another. On the contrary, this approach implies recognizing the importance of territorial specificities, capacities and constraints at the local level, and also giving prominence to the priorities presented there by social and institutional actors. It cannot be inferred that "there is no policy" (objectives, instruments, unity of articulation and decision-making).

38. Among the recommendations that could be gathered in the interviews with provincial officials, the insistence on the need to deepen relations with the provincial policies in forestry is perceived. In this regard, they clarify that UCAR showed a lot of disposition, consulted and took into account the opinions of the regional public actors. They also consider that the investment plans have been carried out through consultation on their relevance, a fact that is not frequent in the links between the national and local level. They propose to deepen these practices and to continue accompanying the strengthening of the provincial units so that they can take actions by themselves.

39. A central element within this subcomponent has been investment and training activities. With regard to the actions aimed at strengthening the capacities of the Forest Directorates, it was facilitated that technicians attended master's degrees and facilitated the participation of officials of the first rank of these directions in sectoral events of an international character. Foreign specialists were brought to congresses and symposiums, meetings that had the support of the Project in many levels (organization, travel costs, accommodation, scholarships, etc.). Consultancies were also funded to strengthen the various actors that are part of the productive and social forest fabric.

40. Regarding higher education of postgraduate sectoral human resources, referring to Component II, they consider that these training processes have been important, but regret that they could not be continued in the magnitude and substantiality with which they were initially deployed. They also consider that the formation of forestry human resources should be thought of as an investment and not mere expenses.

41. With regard to Subcomponent 2, Research, technology transfer and extension, it can be said that research projects have generated possibilities for universities, research centers and INTA, which have resulted in an increase in the collection of instruments and equipment as well as in the generation of knowledge very relevant to the sector. Some of this research is aimed at facilitating the recovery of native forests, especially since they have been accompanied by investments aimed at strengthening nurseries through Subcomponent 1 and Subcomponent 3, through the financing of subprojects that include



the development of nurseries of native plants. It should be noted that the results of the Applied Research Projects were compiled and systematized in the publication Forest Research 2011-2015 which is available both in paper and digital format.

42. As one of the interviewees pointed out, "Argentina had never been given so much resources to forestry research, especially at the level of experimentation, with a much more defined profile than before ... Research and training was greatly strengthened for researcher. This is a multiplier, once you train people, it has a huge, inertial multiplying effect." The same specialist stressed that at least for the moment, "research that is done from public institutions or private non-profit entities is irreplaceable since it is not done by the business sector. In any case at that level some studies of genetic improvement are done, but the private investigation is an investigation always of low risk or with little infrastructure".

43. One challenge is to improve articulation with the business sector, not only with large companies, and to explore forms of cooperation that bring mutual benefits, particularly from universities.

44. Some research projects have facilitated the interrelation between colleagues dedicated to the study of forest issues located in different regions of the country. While each of these regions presented problems with a certain degree of specificity, this has not been an obstacle to the emergence of possibilities of exchange and replication that have been well exploited. In addition, it should be taken into account that the results of research activities often require systematic efforts in time. In this sense, many of the subprojects carried out can be seen as a platform for future developments, that is, for other research programs or for the expansion of collaborative networks, both within the scientific, national and international community.

45. Given the particularities mentioned, a recommendation that may be contemplated in the future is to increase the funds allocated to equipment, since this allows the generation of a critical mass for materials that are essential for improving capacities of to the researcher teams.

46. In many cases, the researchers find difficult tasks related to the administration of the subprojects, particularly those tasks that entailed preparation of financial information. Future projects of this nature could include an overhead component for the subprojects, so that the recipient institutions could contract an administrator or other alternatives to allow them more time to be dedicated to research.

47. With regard to Subcomponent 3: Support to small and medium-sized producers for sustainable forest production, a significant contribution of material and technical resources has been made, to promote and expand productivity. As a result of these investments, 73 subprojects and two pilot projects with a wide territorial coverage were developed, with emphasis on the NEA (Misiones, Chaco and Formosa) and NOA (Santiago del Estero, Jujuy and Salta).

48. According to the conclusions of a workshop carried out by the program itself to

reflect on the observations made in the monitoring activities, the SFPC "(...) have been a novel initiative and widely accepted by the beneficiaries. It has meant, in most cases, an original (if still incipient) approach among forestry technicians to small-scale agricultural producers, peasants and indigenous peoples. However, as in any new experience and where there were no precedents or lessons learned to be taken into account, mistakes have been made and some important obstacles have been faced. "

49. On occasion the field visits carried out by the consultant in charge of the interviews in the field, have allowed to appreciate the relevance of the investments made at the land and / or group level. In others, the dispersion of the amounts received by groups with the participation of numerous producers makes it difficult to get an idea of the total magnitude of what was contributed. A relatively different situation can be perceived in the case of large-scale works concentrated in a delimited region or space, such as in Jujuy or in the Paraná Delta.

50. It is also important to highlight the presence of subprojects that incorporated the concept of plantations for energy purposes and also the planting of native trees. These subprojects encouraged farmers to take care of their farms and natural resources, improve their productive potential and be more efficient. Both aspects can be key to enable its continuity as producers. The implementation of these subprojects has led to changes in farmers' perceptions of environmental impacts and the importance of more rational management of fuelwood use, native forest exploitation, protection of water sources, and the efficiency in the management of the productive use of the soil. The forestry component has increased awareness of the importance of protecting the slopes and small watercourses that are born within the farms. It has also allowed small producers to visualize more intensely the opportunity offered by the fact of having self-sufficiency in the provision of firewood, also reducing impacts on biodiversity.

51. Since one of the characteristics of SFPC was the formation of groups as a condition to be support individuals, some comments and considerations about this methodology are made. In the first place, it seems appropriate to take into account that there is a "bad image" of collective initiatives and that, in addition, there is the perception that small producers are very individualistic and that this hampers group action. In this regard, some reflections may be made that may be useful in future actions that involve the formation of groups or that are anchored in formally constituted associations of producers. On the former, it is convenient to have as a reference a kind of guide for action in the field of local development. The mere aggregation of producers can be a starting point for cooperation, but it is not predicted. While it at least facilitates interaction among subproject participants, it is unlikely to be useful in the development of consolidated organizational instances.

52. From the point of view of institutional impact, different actors who have participated in the preparation of Project have agreed that it has contributed to the strengthening of INTA, as well as research centers and faculties. In some cases, such as CIEFAP, one of the interlocutors emphasized that the funds contributed "kept them alive, because they were very close to the bottom". The Project also contributed to hierarchizing the forestry issues within the Ministry but particularly within INTA.

53. In summary, the amount invested in institutional strengthening and training, in research and in subprojects, constitute a relevant contribution towards developing sustainable forest management in the country. Much remains to be done if the important contribution of Component 2 is to be consolidated and the initiatives and subprojects developed continue, thus impacting forestry production and conservation.

#### Lessons Learned

54. *Institutional Aspects:* The high commitment of national officials and the leadership of the Directorates involved in articulating the actions and components of the project was key to the success of the project. The performance of the PIU and UCAR for the efficient channeling of resources to meet the physical and financial goals during implementation was key. It is important to continue strengthening UCAR that allow the articulation between the different instances of participation in the project and to improve interaction between the technical staff and the coordinating team. In the first stages of implementation, some difficulties were detected in the coordination with other projects and/or public and private organizations in the provinces. It is also important to strengthen accessibility mechanisms so that all beneficiaries could receive the same information and access opportunities. The communication strategy must make the Project visible at the level of the general public. With regard to the Borrower/Bank relationship, the commitment of the technical staff of both institutions and the willingness to solve problems and overcome usual inconveniences during the execution were invaluable. The institutional continuity of the staff facilitates project implementation and allowed the achievement of more satisfactory results.

55. *Internal Dynamics of the Project.* Special emphasis was placed on the participation and involvement of managers and officials in achieving the project objectives. However, one result that needs to be strengthened is the process of programmatic cohesion between the project components and the institutional instances in which they are based. Another conclusion suggests the need for a permanent adjustment of the technical assistance scheme and the social targeting criteria to ensure the impact on the direct beneficiaries, particularly in the specific case of producer organizations that have implemented forestry production and conservation subprojects.

56. *Accessibility of beneficiaries.* It is very important to adapt the technical assistance activities to the local socio-productive reality, to adjust the subproject proposals to the actual demands of the beneficiaries. It is necessary to implement mechanisms that allow a greater degree of flexibility in the different financing modalities offered. Although producers tended to benefit from individual work, there is a need to continue promoting group practices as a sustainability strategy. Project design should include specific objectives, concrete in terms of the actions to be developed, and a clearly defined project cycle.

57. *Design for future projects.* Despite the good results of the project, it is necessary for UCAR to have an internal discussion about the feasibility of formulating sectoral projects vs. systemic projects (with a diversity of instruments for strengthening public services). This analysis would be interesting because it is possible to evaluate the

desirability of reaching a larger beneficiary population, avoid overlapping support and achieve greater impact in a region or sector. It would also be interesting to re-evaluate the IBRD's operations procedures that interfere during implementation (e.g. no-objection requests for each activity) as well as carry out a review of the procurement rules, which in some instances have played against the efficiency and effectiveness of the project. A good project design does not require constant interventions in the implementation stage. It was also learned that, given the impossibility of having enough funds for a sector, and for having greater impacts, it is important to prioritize funds for subprojects that are based on the needs identified in workshops and consultations rather than to use funds for institutional strengthening activities.

### **Component 3 – Protected Areas and Conservation Corridors: Summary of Borrower Completion Report<sup>8</sup>**

58. The general objective of Component 3 was to develop new conservation policies and the enhancement of protected areas as an integral part of landscape development. The specific objective was to develop capacities to strengthen the National System of Protected Areas (SiNAP). The component was implemented by the Administración de Parques Nacionales (APN) over a 7-year period. The Loan amount allocated originally to the component was US\$26.8 million, and at closing US\$29.6 million. It closed on March 15, 2016.

59. The component consisted of four subcomponents: (i) Strengthened Management of Protected Areas; (ii) Institutional Strengthening for Improved Outreach and Management; (iii) Consolidation of the Gran Chaco Conservation Corridor; and (iv) Project Administration, Monitoring and Evaluation. Throughout project implementation the subcomponents were not reformulated, maintaining the initial objectives.

#### Implementation (positive and negative factors)

60. One external factor that affected implementation was the continued institutional changes which caused delays in the management of the project, as well as in the selection criteria for the proposed infrastructure for the parks. In total there were four changes in the presidency of the organization and three coordinators in the project implementing unit. This caused a high turnover of staff with the consequently loss of knowledge, and delays, because training for new staff need to be provided.

61. Another aspect to highlight is the particular cadastral registration situation of the protected areas that made difficult the implementation of operational infrastructure of APN. In this sense, the assignment of these properties is done by means of agreements that do not always constitute a sufficient title for the transfer of ownership, and as such were

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<sup>8</sup> Completion Report of *Componente 3 de Bosques Nativos y su Biodiversidad* (Documento Final), Administración de Parques Nacionales, Marzo 2016. Authors: Nael Tavernelli and Romina Estabillo

observed by the World Bank. This situation implied the postponement of the three infrastructure projects, and the delay in the management of others.

62. On the other hand, the location of the PAs in distant places without services, with deteriorated access routes or not suitable for the transfer of materials has significantly restricted the possibility of finding potential bidders for small civil works. Such is the case of the construction of two houses and a warehouse in the locality of Gobernador Gregores, where two bidding processes were canceled due to no bid offers. The execution of some other civil works were also delayed due to extraordinary climate conditions.

63. Difficulties have been encountered in recruiting consultants for the preparation of studies, either because of the specificity or particularities of certain areas to be studied or the selection procedures stipulated in the Operations Manual. It was difficult to obtain six comparable consultant proposals.

64. The main factor that affected the implementation of subprojects is the location of the beneficiaries in isolated or very remote areas. This represented an obstacle particularly when dealing with purchases, transportation of goods, banking transactions, etc., and affected subprojects for compliance with administrative deadlines or implementation schedules.

#### Sustainability

65. Various actions carried out in the implementation of the Loan contributed substantially to the strengthening of the protected areas, whether related to the institutional presence on the ground, to the control and information of its visitors, or the generation of tools for management. In this same line we can mention that as indicated in the Report of the Mid Term Report, the mission highlights the quality of the works carried out, thus ensuring its sustainability over time. APN is in a position to guarantee that the infrastructure will be used will be properly maintained as intended. Management plans and baselines developed are implemented in the areas, being updated and constantly monitored, and represent indispensable management tools for decision making.

66. With regard to subprojects, the mechanisms for selection and implementation have been consolidated since the first experiences with GEF Grant TF23872, and these mechanisms were incorporated by APN through the "Program for Strengthening Indigenous Communities (PROFOCI), which allocated funds from the national budget for the financing of subprojects under this modality.

67. After the experience under Loan 7520-AR with the financing of sustainable use subprojects APN is analyzing different tools to continue supporting subprojects with funds from the national budget. In addition to the start-up of PROFOCI, similar lines are being developed for farmer communities and settlers in general.

68. As a result of the methodological approach adopted for the implementation of the subprojects, the ties of technical cooperation with different public agencies and development NGOs have been strengthened, which will allow technical support for the

subprojects that were implemented.

### Impact

69. In relation to the first project objective, it was developed in three main lines of action: infrastructure, management plans and support studies, and sustainable development activities (subprojects). The infrastructure built in the protected areas allowed APN to have a greater institutional presence in the field, allowing more control and surveillance of the parks, as well as better service to visitors. In addition, certain civil works have benefitted the administrative and operational capacity of APN, such as the intendencies and operational centers.

70. Regarding the management plans and complementary studies, these are not only regularly consulted by the protected areas staff PAs, but also the intendencies have included in their regular activities the updating of these plans.

71. The Project, through the sustainable use subprojects helped APN to prioritize the work with indigenous communities, farmers and general population. This has had a notable impact on APN institutional image in protected areas or in buffer zones, who no longer see the institution as a restrictive entity for the development of their subsistence activities (restrictions of hunting, fishing, logging, pasturing, etc.), but also as an opportunity for change, which provides possibilities and training for the development of alternative, more environmentally friendly activities.

72. Sustainable use subprojects have great potential for future sustainability for several reasons. On the one hand, 90% of the subprojects were carried out by collective actions that existed prior to the creation of the program; and on the other, all subprojects involved a greater link between the groups that supported them and APN, finding common ground for problems that affect each other. In the different protected areas where the program was implemented, a coordination among public extension organizations (SAF, INTA, INTI, MDS, among others), APN and the implementing groups has become evident.

73. In relation to the second objective of the Project, a new GEF project has been prepared that will allow the consolidation of pilot corridors in the dry and humid Chaco region, as well as support to protected areas in the region.

74. Parks personnel has increased overall by 20%. Only in three areas has there been a decrease, and this may be due to the fact that some contracts are seasonal. Regarding the budget assigned to each PA, we can see that the increase was notable, even if we considered it in terms of the levels of inflation recorded during the years of project implementation. In this sense it is considered that the objectives of the Project have been achieved.

### Lessons Learned

75. Firstly, it has been observed that at the initial stage of planning and preparation of the preliminary infrastructure projects, the participation of the different substantive areas of APN is necessary to reach agreement on the parameters of the works, APN construction regulation and environmental issues, to obtain stronger products, adequate to the

operational and maintenance capacities, and the specific conditions of each protected area.

76. The timing of procurement procedures has been optimized, both in the contracting of civil works and in the procurement of goods, improving and streamlining the internal procedures of APN. Given the extreme logistical complexity of some of the planned works, which involved biddings that were canceled because not a single bid was received, the publicity of the bid invitations was expanded, reaching the National and provincial construction chambers, as well as the most important construction companies in the area, thus making it possible to incorporate more local suppliers to bidding processes, with lower execution costs and, therefore, more efficient.

77. It is worth mentioning that the contracting procedures for consultants included Operational Manual, were based generally on the "quality and cost selection procedure", that was difficult to follow since it was almost impossible to get six comparable proposals for the contracting of the studies required. In this particular point, it would be advisable to consider alternative methods, based on quality, or through direct recruitment based on background, in order to be able to guarantee the hiring of the required specialists.

78. In the case of the subprojects, previous experiences were taken into account and, prior to its execution, the Accounting Area of the PIU provided training in accounting to executing entities (bank accounts management, financial reporting / Accounting, verification of validity of vouchers, among others), improving also the instructions of use of funds, making it more didactic and with practical examples.

79. It is also important to note that the support to the beneficiaries in the implementation stage has been fundamental, either by the promoters as well as by the teams of the protected areas and the regional delegations of APN. The figure of the promoter within the organization has been identified as an advance against previous experiences with external consultants. With regard to cooperation and coordination with other public agencies, the subprojects have benefited, either through the additional funds for their financing, or through the provision of technical assistance.

80. Another point to note is that the Universities have demonstrated certain shortcomings in the execution of socio-productive subprojects. In this sense it is suggested to take some safeguards when evaluating subprojects executed by Universities, in order to guarantee agility in the use of funds and to comply with the terms referring to the administrative aspects of them. For the future, an analysis of the entity's capacity to execute multiple projects is necessary. There are situations where the low level of organization of the communities leads to an entity executing (administratively) several subprojects. In some cases, they have done so without any problem, however, in others they required constant support from the project, both the promoter and APN accounting area. In future experiences it will be necessary to clarify this type of situation prior to execution, not only to define an optimal number of subprojects to be executed per entity, but also to evaluate the type of support that will be required.

81. Finally, concerning the legal and fiscal status of the subprojects executing agencies, it is necessary to include in the Participative Diagnosis an annex in which the legal and

fiscal status of these entities is described to be able to provide prior support and avoid later problems.

### **GEF Associated Project (TF090118): Executive Summary of Client Completion Report<sup>9</sup>**

82. The Biodiversity Conservation in Productive Forestry Landscapes Project was financed by a donation of US\$7.0 million from GEF executed by the Ministry of Agroindustry (formerly SAGPyA) from February 2009 to February 2016. This operation corresponds to Component 2 of Loan 7520-AR, also executed by the Ministry of Agroindustry.

83. The project was organized in four components: (i) Institutional Capacity Strengthened; (ii) Development and dissemination of biodiversity-responsible plantation practices and technology transfer; (iii) Support for the adoption of biodiversity-responsible plantation practices; and (iv) Project Implementation, Monitoring and Evaluation.

#### Implementation (positive and negative factors)

84. As a project associated with Component 2 of the Loan, Sustainable Forest Plantations, and having started implementation simultaneously, the physical and financial execution of the project also suffered the initial delays of approximately 18 months, due to institutional problems that resulted in obstacles or external factors that affected implementation of both projects, as described above under Component 2.

#### Sustainability

85. In the case of national institutional strengthening activities, potential risks are associated with policy disruption and / or financing problems. In the first case, the probability is low given the increasing importance of this issue, while the second source of risk can be managed with adequate budgetary policies and obtaining partial financing from other sources. These include the Sustainability and Forestry Competitiveness Program, funded by the Inter-American Development Bank, which supports many activities like the new Applied Research Projects, support for nurseries with equipment and infrastructure, support for training and training on supplementary topics.

86. At the provincial level and in general terms, it can be said that in the provinces the sustainability of the actions is very likely. The contributions made by the GEF Grant in terms of training of political and technical staff of the participating entities, as well as the implementation, at the governmental level, of the results of the Strategic Environmental Assessments developed under the project are valuable.

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<sup>9</sup> Completion Report of *Proyecto de Conservación de la Biodiversidad en Paisajes Productivos Forestales*, Final Document, Ministry of Agroindustry, April, 2016.



87. The Environmental Area continues to be part of the Ministry structure within the Forest Production Division (DPF), under the name of Sustainable Forest Management Area, incorporating an Area Manager who is now a ministry official. The DPF has already expressed its commitment to continue with the application of tools generated through the GEF project and the work on the Country Report III to the Montreal process. There is also a formal commitment of CONICET for the maintenance of the Biodiversity Observatories equipped by the project.

## **Impact**

88. The impacts of the Project will become evident later on - in the medium and long term - considering the opportunities of diversification and strengthening that the project has generated for the beneficiaries, institutions, researchers and producers, and the significant change that has resulted from the increase of resources directed to forestry research, particularly for biodiversity conservation.

89. Some of the results of this section were the result of a specific consultancy whose main objective was to evaluate the performance of the GEF project. In order to carry out this consultancy, the experts had at their disposal partial progress reports such as the end of the BIO, SILVA and Special projects, the EAEs and the Biodiversity Monitoring Programs, the SFPC, information on the Training Program for university teachers; and also had reports from the Environmental Department of the DPF. On the other hand, interviews were made for managers and technical personnel involved in the different components. The format of these interviews was variable according to the component to be evaluated and the region. Based on the information gathered, a matrix was developed using a set of indicators (achievement of objectives, generation of information, training of human resources, generation of recommendations, dissemination of the project, impact on public policies and management of plantations, etc.). The results were systematized in tables and comparative figures.

90. The Strategic Environmental Assessments under Component 1 constitute a fundamental tool for territorial and environmental planning of the territory. Implementing agencies have maps that will enable them to make productive decisions taking into consideration the environmental dimension. The creation and strengthening of Biodiversity Observatories in forest plantations by CONICET within the framework of the Project have become a main tool for monitoring of forest productive landscapes and, eventually, changes in management practices. CONICET's highly qualified staff (researchers, fellows and technicians) guarantees the operation of these observatories. These observatories will be in charge of implementing the biodiversity monitoring program associated with Strategic Environmental Assessments.

91. Regarding the strengthening and consolidation of the environmental area in the DPF (current Undersecretariat of Forestry Industrial Development): (i) Inter-institutional interaction allowed the investigations on invasions caused by plantations to be reflected in the exclusion of the murrayana pine (*Pinus Contorta* var. *Latifolia*) from the promotion scheme of Law 26,432 and in the agreements reached with SAyDS to complement the

promotion plans of both agencies in the activities of Native Forest Enrichment through Regulatory Resolution 33/2013.

92. The Second Country Report was prepared based on the Montreal Process Criteria and Indicators, after 12 years of the first one by an Interagency Technical Team of the Forestry Production Directorate of the Ministry of Agroindustry and the Forestry Division of the Ministry of Environment and Sustainable Development (SAyDS).

93. The homologation of CERFOAR to PEFC granted international recognition to the Argentine certification system and this allowed in a short time the certification of 22,300 ha in Misiones, 7,300 ha corresponding to plantations and 15,000 ha to native forest, by *Papel Misionero*.

94. With regard to Component 2: Development and dissemination of forestry practices for biodiversity conservation and technology transfer in general, it can be said that the BIO SILVA projects represented a great opportunity for universities, CONICET, INTA, and other institutions for the strengthening of human resources, its capacities and equipment to continue carrying out research activities, and even developing new lines of research. In general, it was observed that the projects fulfilled most of their objectives, the execution was timely. The analysis and preliminary results in many cases are considered as relevant and in some cases constitute the basis for the development of new research.

95. On specific BIO projects that had to test management practices that contribute to the conservation of biodiversity in forest plantations for a period of at least two years, projects were identified that addressed themes that were little studied in forest systems or with Original approaches on more traditional issues, such as BIO 30 "Impact of the pine plantations of the Patagonian region's NW on biodiversity: a structural and functional assessment" and BIO 27 "Changes in plant diversity and Microarthropods in Pinus taeda plantations in response to thinning, fertilization and management practices at undergrowth and soil level ". Also noteworthy is BIO 16: Evaluation of shelters and corridors for vertebrates in lowland forest landscapes that according to the consultants is the only project that explicitly evaluates functional connectivity (role of forests as biological corridors) and next to BIO 23 Developed on a scale that allows planning on a landscape scale.

96. With reference to the SILVA projects that should contribute to the generation and dissemination of information and materials in relation to native forest species, SILVA 17 stands out. The results are the basis for the development of forest plantations with native species in the province of Misiones and the reforestation and restoration programs, considering the genetic origin of the material. SILVA 26, is of great interest in conservation, due to the reduced natural populations and priority conservation of its genetic diversity. It is a forest species considered in the highest category of extinction at the global level by the International Union for the Conservation of Nature. Also SILVA 3, "Basis for the sustainable use of the genetic resources of Austrocedrus chilensis in the northwest mountain range", where the project sought to develop the forest potential of a native species in natural forests that are threatened.

97. The Individual Project "Restoration of water and river streams in forest stream for the generation of biological corridors in the Lower Delta of Paraná" can be highlighted due to its very probable impact. Also during the project, an agreement was reached between the forest owners who regularly participate in activities with INTA to define and establish corridors, and some of them contributed to the establishment of the pilot corridors of the project. During its execution, a number of transfer activities were carried out, an unpublished guide to the restoration of riparian forest was published, and an increase in population awareness of the importance of restoration and conservation was observed.

98. With relation to the training program on biodiversity conservation and ecosystem processes in forest plantations, this initiative resulted in the creation of a forum for discussion among the five forest faculties of the country which is expected to last in time. It should also be noted that on average the quality of the courses was assessed as very good by the participants, the answers were in all cases between good-very good for all courses, and all courses were considered to be adequate and relevant.

99. Regarding Component 3 "Support for the adoption of forestry practices for the conservation of biodiversity", the implementation of the Forest Production and Conservation Subprojects was highlighted. The general perception of technical people is that activities and practices will be maintained after the completion of the SFPC.

100. The executing agencies and technical assistance agencies, although they had difficulty adjusting to the administrative requirements of the operation, at the end of the implementation period resulted more strengthened in their capacities. From the survey it is also evident that the main strength consisted of the organization of local groups and the formation of ad-hoc groups of producers to participate in the call for proposals.

### Lessons Learned

111. In order to avoid delays in administrative processes, it is essential for a project of this type to achieve fluid communication among the national organizations that participate in the project (e.g. the Office of the Cabinet of Ministers, Ministry of Economy and Finance (now Ministry of Finance) and the Ministry of Agroindustry through UCAR).

112. It is of great importance for future projects to adjust the institutional communication strategy to allow clear communication with the target population or potential beneficiaries, and provide information of the financing lines available and of goods and services offered by the program.

113. The institutional continuity of the project staff is a factor that facilitates project implementation and allows more satisfactory results.

114. *Internal Dynamics of the Project.* Emphasis is placed on the participation and involvement of managers and officials in achieving the objectives. However, it was learned that it is necessary to strengthen the process of programmatic cohesion between the components of the project and the organizations on which they are based. Given the heavy

workload involved in the management of this type of projects, it is necessary to have sufficient support staff at all times in the implementing units to avoid overloading managers with operational tasks.

115. *Accessibility of beneficiaries.* It was learned that it is very important to adapt technical assistance to the local socio-productive reality, to adjust the proposals to the actual demands of the population. Although there is a certain tendency on the part of the producers to benefit from individual work, there is need to continue promoting group practices as a sustainability strategy. The appropriation and participation of organizations, institutions, communities involved, and private actors positively affects the implementation of the project and contributes by improving the possibility of extending the results to the whole national territory. However, for this it is necessary to develop mechanisms for consultation and participation during the different stages of project design, implementation and completion.

#### Recommendations on implementation

116. Some recommendations that resulted from the workshop "Evaluation of the monitoring of the Forest Production and Conservation Subprojects" corresponding to Component 2 that took place in November 2015 are the following:

- (a) Ex-ante evaluation of subprojects has to be much more rigorous. The stage of feasibility analysis of a subproject helps to reduce the risk of failure, and seeks - among other things- to identify possible factors that facilitate or hamper the achievement of the objectives.
- (b) Prioritize groups of producers with a previous history of joint work. In cases of new groups, provide training prior to the formulation of the subproject.
- (c) Framing projects in broader programs and regional macro strategies rather than prioritizing standalone interventions that will hardly continue.
- (d) Create a database of the performance of institutions. This would allow to choose institutions with better performance when there is more than one institution in the same area. Distinguish, through certification, the performance of executing entities.
- (e) It is important that during the implementation of the SFPC the institutional and organizational capacity of executing agencies and producer groups is developed.

118. It would be necessary to re-evaluate the World Bank's operational procedures, specifically at the implementation stage (e.g. no-objection requests for each recruitment) as well as the review of recruitment rules, which in some particular cases have affected efficiency and effectiveness of the project. It was learned that a good project design does not require constant interventions at the implementation stage. Likewise, the Bank as an institution should ensure that its instruments and approach are flexible enough to adapt to the changing conditions of a country and the reality of the territories where the project is implemented.

119. Considering that participation is key, it would be interesting at the stage of designing the operation to think of mechanisms of consensus and agreement so that institutional political changes do not affect its normal development. The Logical Framework Matrix should have sufficient flexibility and adaptability in order to maintain validity and relevance throughout project implementation.

120. Administrative processes should be agile and compatible with the capacity of beneficiaries and intermediate entities participating in project activities. In addition to the above, considering that local populations are rarely formally organized, regulations for project implementation must be flexible enough and must adapt to the reality of the territory.

121. In the development of specific works of high technical level and requiring access to information from academic fields, it is desirable to develop alliances with institutions structurally dedicated to the study and analysis of this information, since this reduces cost and time of management and better quality.

122. It is important to carry out all the public calls of proposals during the first year of execution, in order to obtain more robust results and make corrections during implementation, if necessary, foreseeing their completion at least 6 months before the closing date of the Project in order to have sufficient time to transfer products and results.

## **B. Borrower/Client Comments on Bank's Draft ICR**

123. The Bank's draft ICR was sent to UCAR at the Ministry of Agro-industry, SADyS, and APN for comments on December 11, 2016. UCAR and APN sent minor comments which were incorporated in the draft, but no letter. Should SADyS send a letter it will be archived in WBDocs.

## **Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders**

Not applicable.

## Annex 9. Table of Restructured Indicators for P100806 (Jan 6, 2014)

PDO indicators	Linea Base	Unit	Target Values (cumulative)							Target	Data collection and reporting		
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7		Frequency	Data survey methodology	Responsibility for data collection
Strategic Environmental Assessments, guidelines and strategies for the sustainable use and conservation of forests available and in use	0	Text								Strategic Environmental Assessments, guidelines and strategies for the sustainable use and conservation of forests available and in use	semi-annual	Progress report and technical studies	SAyDS, MAGyP, APN
Reforms in forest policy, legislation or other regulations supported	0	Yes/no								Yes	semi-annual	Progress report and technical studies	MAGyP
Government institutions provided with capacity building support to improve management of forest resources	0	#								DPF, <i>Administraciones Locales provinciales</i> (20 provinces), <i>direcciones provinciales de bosques</i> (7)	semi-annual	Progress report and reports on training events.	SAyDS, MAGyP
Direct project beneficiaries (number), of which female (percentage)	0	#								15,440	semi-annual	Report on number of direct beneficiaries	SAyDS, MAGyP, APN
Forest area brought under management plans	0	ha								378,715	semi-annual	Progress report and management plans	APN
Regional office for the Chaco established and operating	0	%								100%	semi-annual	Progress report	SAyDS

Component 1: Native forest and biodiversity	Linea Base	Unit	Target Values (cumulative)							Target	Data collection and reporting		
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7		Frequency	Data survey methodology	Responsibility for data collection
Regional Participatory Workshops developed	0	#								11		Report on workshops done	SAyDS
Environmental and social assessment	0	%								100%	semi-annual	Technical document	SAyDS

(including IPP) for the BNC project prepared													
Operational Manual Prepared	0	%								100%	semi-annual	Progress report	SAyDS
Strategy for sustainable management of the Chaco Forests prepared	0	%								100%	semi-annual	Progress report	SAyDS
Timber control system developed and installed in Parque Chaqueño Ecoregion	0	%								100%	semi-annual	Progress report	SAyDS
Palo Santo survey completed	0	%								100%	semi-annual	Progress report	SAyDS
4 Regional forestry monitoring nodes installed and operating	0	%								100%	semi-annual	Progress report	SAyDS
Sustainable production models reviewed and best practices manuals prepared for SFM in 7 native forest ecosystems	0	%								100%	semi-annual	Progress report	SAyDS
Economic incentive system for sustainable forest management assessed	0	%								100%	semi-annual	Progress report	SAyDS

Component 2: Sustainable Plantation forestry	Linea Base	Unit	Target Values (cumulative)							Target	Data collection and reporting		
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7		Frequency	Data survey methodology	Responsibility for data collection
Technical studies to support policy formulation	0	%								100%	Individual report	Progress report and technical studies	Unidad de Implementación/MAGyP
Studies to support policy formulation completed	0	#								7	semi-annual	Progress report and technical studies	Unidad de Implementación/MAGyP
Information system installed	0	%								100%	semi-annual	Progress report and technical studies	Unidad de Implementación/MAGyP
National, regional and provincial dialogues created and/or strengthened	0	# dialogues								1 dialogue federal y 5 provinciales	semi-annual	Progress report and technical studies	Unidad de Implementación/MAGyP



Proposal for forestry provincial strategies developed	0	# proposals							6	semi-annual	Progress report and technical studies	Unidad de Implementación/MAGyP
Strategic environmental assessment for NAO and Chaco regions developed	0	#							7	semi-annual	Progress report and technical studies for each environmental assessment	Unidad de Implementación/MAGyP
Private service providers trained by regional forestry staff	0	# people							1,590		Progress report and report on training activities	Unidad de Implementación/MAGyP
Applied research projects developed	0	# projects							115	semi-annual	Progress report and reports on the research results	Unidad de Implementación/MAGyP
Producers received extension services from regional DPF staff	0	# producers							17,000		Progress report and report on visits to the field	Unidad de Implementación/MAGyP
Small/Medium Producers assisted for production forestry and forest conservation subprojects	0	# producers							5,000	semi-annual	Progress report and report on visits to the field	Unidad de Implementación/MAGyP
Monitoring and evaluation program developed and functioning	0	%							100%	semi-annual	Progress report and report on visits to the field	Unidad de Implementación/MAGyP

Component 3: Protected areas and conservation corridors	Linea Base	Unit	Target Values (cumulative)						Target	Data collection and reporting			
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6			Frequency	Data survey methodology	Responsibility for data collection
Essential infrastructure for strengthening natural parks management finished	0	#								50	semi-annual	Progress report	UCEFE
Management plans prepared and approved	0	#								5	semi-annual	Management plan	UCEFE
Subprojects on sustainable activities (DAS) implemented	0	#								74	semi-annual	Progress report and report on visits to the field	UCEFE

Project webpage active, updated and linked with APNs webpage	0	%								100%	semi-annual	Manual	UCEFE
Informatics system designed and functioning	0	%								100%	semi-annual	Document	UCEFE
Landscape management plans (Chaco region) developed	0	#								2	semi-annual	Document	UCEFE
Strategic Plan for the Chaco Corridor	0	%								100%	semi-annual	Document	UCEFE

## Annex 10. GEF Additional Results Monitoring Indicators

<b>Indicator 1.1 :</b>	Biodiversity planning and monitoring tools developed			
Value (quantitative or Qualitative)	0	7		8 provinces included in 2 Ecoregional SEAs.
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Partially Achieved</b> (90%). Rather than a provincial approach, an ecoregional approach was adopted and SEAs including biodiversity monitoring plans were prepared for two ecoregions 1) Patagonia (covering Nequen, Rio Negro, Chibut, Santa Cruz and Tierra del Fuego Provinces) and 2) Mesopotamia (covering Misiones, Corrientes, and Entre Rios Provinces) including a total of 8 provinces. A third SEA was prepared in the north-western Chaco ecoregion with funds from the IBRD component (covering 4 additional provinces including Salta, Santiago del Estero, Chaco, Formosa and Tucuman). The SEAs were judged to be of good technical quality and endorsed at national and provincial levels however public consultation and dissemination were limited thus limiting achievement to 90%.			
<b>Indicator 1.2 :</b>	Percentage of DPF forestry officials trained in biodiversity and plantations			
Value (quantitative or Qualitative)	0	100%		100%
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved.</b> Over 600 national and provincial officials and extension agents were trained. The training included aspects such as invasive species and fire control/management, certification, ecosystem restoration, and native species plantation among others.			
<b>Indicator 1.3 :</b>	Percentage of designated provincial officials trained in biodiversity and plantations			
Value (quantitative or Qualitative)	0	100%		100%
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved.</b> Over 600 national and provincial officials and extension agents were trained. The training included aspects such as invasive species and fire control/management, certification, ecosystem restoration, and native species plantation among others.			
<b>Indicator 1.4:</b>	Designated national authorities completed and applying EIA training			
Value (quantitative or Qualitative)	0	100%		0%
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Not achieved.</b> The client reports no training was provided at national level for applying EIA. EIA requirements and legislation are a provincial responsibility in Argentina so national training in EIA application was not implemented as anticipated.			
<b>Indicator 1.5:</b>	Designated provincial authorities complete and apply SEA and EIA training			
Value	0	5		1 province

(quantitative or Qualitative)				
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Partially achieved (20%)</b> Only one province is currently applying EIA training. Lag is due to pending approval of revised regulatory frameworks in participating provinces.			
<b>Indicator 1.6:</b>	Participating extension agents trained and applying knowledge on best practices in field			
Value (quantitative or Qualitative)	0			100%
Date achieved	12/18/2008			02/28/2015
Comments (incl. % achievement)	<b>Achieved (100%)</b>			
<b>Indicator 1.7:</b>	Provincial forestry offices equipped for biodiversity databases and sustainable management			
Value (quantitative or Qualitative)	0		7	7
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved.</b> (100%) No specific numeric target was set in the PAD. All 7 provincial offices were equipped.			
<b>Indicator 1.8:</b>	Draft policies, regulation and/or promotion programs develop and consulted with stakeholders			
Value (quantitative or Qualitative)	0	1 National Policy and at least 3 provinces draft policies, frameworks or programs		1 National policy and 4 provincial policies drafted
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved (100%).</b> Four of seven provinces developed and consulted draft policies and regulations.			
<b>Indicator 1.8:</b>	5 of 7 Provincial environmental agencies employ stronger biodiversity criteria in environmental impact assessment			
Value (quantitative or Qualitative)	0	5		1
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Not achieved.</b> (0%) Draft policies and regulatory frameworks developed at provincial level but client completion report indicates only 1 province is applying the draft policies at present. Lag is due to pending approval of revised regulatory frameworks in participating provinces. (see indicator 1.5 above).			
<b>Indicator 1.9:</b>	Draft Federal Legislation and associated regulatory framework incorporating appropriate diversity concerns developed and presented for adoption			

Value (quantitative or Qualitative)	0			100%
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	Laws 26.432 (extension of Law 25.080) and No. 26.331 and associated regulations provide technical recommendations by Phytogeographic region incorporating appropriate diversity concerns.			
<b>Indicator 2.1 :</b>	The Advisory Commission for law 25.080 (or its successor) regularly incorporates, by EOP, biodiversity related subject in its agenda			
Value (quantitative or Qualitative)	Biodiversity is not a regular topic of discussion	Biodiversity is regularly discussed.		Biodiversity is not a regular topic of discussion
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Not achieved.</b> (0%) Biodiversity concerns are raised periodically not regularly in the Advisory Commission's agenda.			
<b>Indicator 2.2:</b>	Economic analyses developed for plantations and biodiversity in all 7 provinces involved in the project			
Value (quantitative or Qualitative)	0	7		8 provinces included in 2 Ecoregional SEAs.
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Partially Achieved</b> (90%). Rather than a provincial approach, an ecoregional approach was adopted and SEAs including associated economic analysis were prepared for two ecoregions 1) Patagonia (covering Nequen, Rio Negro, Chibut, Santa Cruz and Tierra del Fuego Provinces) and 2) Mesopotamia (covering Misiones, Corrientes, and Entre Rios Provinces) including a total of 8 provinces. The SEAs were judged to be of good technical quality and endorsed at national and provincial levels however public consultation and dissemination were limited thus limiting achievement to 90%.			
<b>Indicator 2.3:</b>	Seed Bank (natives) networks established in Misiones, Delta and Patagonia			
Value (quantitative or Qualitative)	0	3		0
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Not achieved.</b> (0%) No Seed Banks were created, however nurseries providing native seedlings increased by 578% (see indicator 20 below).			
<b>Indicator 2.4 :</b>	Toolkits developed and disseminated for grasslands, forest and wetland ecosystems			
Value (quantitative or Qualitative)	0	5		3
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Partially achieved.</b> (60%) Three out of five planned toolkits were implemented			

<b>Indicator 2.5:</b>	Pilot project for dissemination of best practices for biodiversity completed for 7 provinces			
Value (quantitative or Qualitative)	0	7		73 Forest Production and Conservation subprojects in 13 Provinces yield 3 pilot projects
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Partially Achieved.</b> (43%). 73 subprojects executed in 13 provinces. 3 pilot projects emerged: 1) Assistance to the Quinoa Processing Plant of CADECA; 2) Improved drying yerba, Caiyal de Colonia Guarani, Misiones; 3) Extending the fire prevention network in Cerro Saturnino (1,650 ha with 97 properties but covering 5,000 ha of area managed).			
<b>Indicator 2.6:</b>	Sub regional international conference held in Argentina on plantation and biodiversity for global dissemination of lessons			
Value (quantitative or Qualitative)	0	1		1
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved.</b> (100%) Proceedings published.			
<b>Indicator 2.7:</b>	Extension programs incorporate biodiversity into forestry technical assistance developed and implemented in 7 provinces			
Value (quantitative or Qualitative)	0	7		0
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Not Achieved.</b> (0%) Progress on this indicator is pending approval of provincial regulatory frameworks. Follow-on projects are supporting application of best practices in native forest management and in biodiversity corridors in same ecoregions. Although new provincial standards were not incorporated in provincial extension programs during project implementation biodiversity has been incorporated into technical assistance provided to small and large forest plantations through project financed subprojects under component 3 (see indicators 3.1, 3.2, 3.4 and 3.6 below)			
<b>Indicator 2.8:</b>	Improved knowledge base for improvement of ecosystem conditions and reduction of threats to species of global importance through special treatments via pilot initiatives			
Value (quantitative or Qualitative)	0	5		5
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved.</b> (100%)			
<b>Indicator 2.9:</b>	Completed draft program curriculum for certificate in biodiversity and plantations. Developed and adopted in at least 1 regional school in each of			

	Mesopotamia and Patagonia			
Value (quantitative or Qualitative)	0	2		Curriculum developed and implemented in 1 regional school
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved.</b> (50%) Only one of two regional schools completed and adopted revised curriculum (Mesopotamia). Sustainability, biodiversity and social impact were incorporated in the forest engineering curricula of 5 universities through an assessment of current curricula and the development of 12 workshops at those universities.			
<b>Indicator 2.10:</b>	Number of nurseries offering native tree seedlings increases by 100%			
Value (quantitative or Qualitative)	0	18		52
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved.</b> (288%) Significant number of nurseries including Buenos Aires province and Patagonia developed for native species propagation (without establishment of seedbanks).			
<b>Indicator 3.1:</b>	Technical assistance for small and medium producers in agroforestry (Misiones) or best management practices (Patagonia or Mesopotamia) benefits 400 families			
Value (quantitative or Qualitative)	0	400		564
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved</b> (141%). Complete list included in recipient's completion report.			
<b>Indicator 3.2:</b>	Technical assistance for small and medium producers in agroforestry (Misiones) or best management practices (Patagonia or Mesopotamia) benefits 20,000 ha			
Value (quantitative or Qualitative)	0	20,000		18,000 has
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Substantially Achieved</b> (90%). Complete list included in recipient's completion report.			
<b>Indicator 3.3:</b>	Environmental education increase awareness of plantations in and on biodiversity in sampled subprojects areas by 50% over baseline			
Value (quantitative or Qualitative)	0			20% over baseline
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Not achieved.</b> No baseline exists to measure percent increase. Many training events held and academic study opportunities provided but without baseline data it is not possible to measure the given indicator. Data on participant evaluations of training are presented in the recipient's completion report.			
<b>Indicator 3.4:</b>	50,000 ha of large plantations (> 1,000 ha) are incorporating biodiversity –			

	responsible practices and planning within ecoregional of global importance through project			
Value (quantitative or Qualitative)	0	50,000		135,000
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved</b> (270%) Recipient's closure report indicates 135,000 ha achieved (pg. 23).			
<b>Indicator 3.5:</b>	Baseline studies prepared and dialogue advance for establishment 7 of private and public protected areas within targeted eco-regions in the plantation forestry landscape			
Value (quantitative or Qualitative)	0	7		0
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Not achieved.</b> (0%) Baseline studies to measure impacts were not carried out and therefore impacts are not measurable.			
<b>Indicator 3.6:</b>	Increases in locales identified for private and public protected areas for biodiversity conservation as a result of improved dialogue and governance in the forestry sector			
Value (quantitative or Qualitative)	0	7		19 private areas identified and protected
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved.</b> (270%) 19 Forest conservation and protection subprojects were approved and implemented on private lands. 18 in the province of Misiones and 1 in Rio Negro. These subprojects involved 440 small producers and covered a total of approximately 13,000 hectares. The most frequent objectives were related to the conservation and protection of water sources, restoration and enrichment with native species and conservation of forest remnants. For a detailed list see Annex 4 of the recipient's completion report.			
<b>Indicator 3.7:</b>	Corridors restored or established in critical ecosystems or sensitive areas in production forest			
Value (quantitative or Qualitative)	0	5		2
Date achieved				02/29/2016
Comments (incl. % achievement)	<b>Partially Achieved</b> (40%). Details in the Recipient's completion report (see para 88 and 90).			
<b>Indicator 4.1:</b>	SAGPyA coordination team is organized formally and successfully managing project			
Value (quantitative or Qualitative)	0	100%		100%
Date achieved	12/18/2008			02/29/2016



Comments (incl. % achievement)	<b>Achieved (100%)</b>			
<b>Indicator 4.2:</b>	Monitoring programs in place and providing data to relevant national programs			
Value (quantitative or Qualitative)	0	100%		100%
Date achieved	12/18/2008			02/29/2016
Comments (incl. % achievement)	<b>Achieved (100%)</b>			

## **Annex 11. List of Supporting Documents**

Administracion de Parques Nacionales – UCEFE. Informe de Cierre. Febrero 2009-Marzo 2016. Componente III. Areas Protegidas y Corredores de Conservacion. BIRF 7520-AR.

Inter-American Development Bank. 2012. Argentina Forest Sustainability and Competitiveness Program (Ar-L1067). Loan Proposal. Accessed at [www.iadb.org](http://www.iadb.org)

International Bank for Reconstruction and Development, International Finance Corporation, Multilateral Investment Guarantee Agency. August 2014. *Country Partnership Strategy for the Argentine Republic for the Period FY15-18*. Report No. 81361-AR

Jefatura de Gabinete de Ministros. Secretaria de Ambiente y Desarrollo Sustentable. 2014. Componente Bosques Nativos y su Biodiversidad. Informe de Cierre del Componente. Version Borrador.

Ministerio de Agroindustria – UCAR. 2016. Proyecto Conservacion de la Biodiversidad en Paisajes Productivos Forestales (GEF TF 090118). Informe de Cierre. Febrero 2009-Febrero 2016.

Ministerio de Agroindustria – UCAR. 2016. Componente Plantaciones Forestales Sustentables del Proyecto Manejo Sustentable de los Recursos Naturales (MAGyP-BIRF 7520-AR). Informe de Cierre. Febrero 2009-Febrero 2016.

Republica Argentina. Jefatura de Gabinete de Ministros. Secretaria de Ambiente y Desarrollo Sustentable. 2015. Quinto Informe Nacional para la Conferencia de las Partes del Convenio Sobre la Diversidad Biológica. Accessed at [www.cbd.int](http://www.cbd.int)

Ministerio de Turismo. 2016. Plan Federal de Turismo. Plan Integral de Gestion 2016-2019. Presentation PDF accessed at <http://www.turismo.gov.ar/plan> 10 November 2016.

The World Bank. 2016. Argentina. Country Environmental Analysis. Report No. AUS11996

### **Videos:**

<http://www.bancomundial.org/es/news/video/2014/11/05/vecinos-de-la-naturaleza-vivir-en-los-cardones-argentina>

<http://www.bancomundial.org/es/news/video/2015/08/21/asado-carbon-ecologico-protoger-bosques>

