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Report No: 41419-PY

PROJECT APPRAISAL DOCUMENT  
ON A  
PROPOSED LOAN  
IN THE AMOUNT OF US\$37.5 MILLION  
TO THE  
REPUBLIC OF PARAGUAY  
FOR A

SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT PROJECT

December 21, 2007

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

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective November 15, 2007)

Currency Unit = Guarani  
Guarani 4,800 = US\$1

FISCAL YEAR  
January 1 – December 31

## ACRONYMS AND ABBREVIATIONS

AOM	Administrative Operational Manual
BNF	National Development Bank ( <i>Banco Nacional de Fomento</i> )
CAS	Country Assistance Strategy
CDG	Community Development Group ( <i>Comité Vecinal de Microcuenca</i> )
CFAA	Country Financial Accountability Assessment
CIS	Community Development Groups Investment Subproject
COC	Community Organization Coordinator
DEAG	MAG's Directorate of Rural Extension
DGJ	MAG's Directorate of Gender and Youth
DGP	MAG's Directorate of Planning
DIA	MAG's Directorate of Agricultural Research
DINCAP	MAG's Directorate for the Coordination and Administration of Projects
DIPA	MAG's Directorate of Livestock Research
EA	Environmental Assessment
EE	Environmental Education
EIRR	Economic Internal Rate of Return
EMP	Environmental Management Plan
ENPAB	National Strategy and Action Plan for the Conservation of Biodiversity
FAP	Fiduciary Action Plan
FDRS	Sustainable Rural Development Fund ( <i>Fondo de Desarrollo Rural Sostenible</i> )
FIDES	Rural Development Investment Fund
FIS	Individual Small-scale Farmer Investment Subproject
FM	Financial Management
FMR	Financial Monitoring Report
FOCORN	PARN-supported Grants Fund
GIS	Geographic Information System
GOP	Government of Paraguay
IA	Indigenous Association
ICB	International Competitive Bidding
ICDP	Indigenous Community Development Plan
INDERT	National Rural Development and Land Institute
INDI	Indigenous People's Institute of Paraguay
IPPM	Integrated Production and Pest Management
JBIC	Japan Bank for International Cooperation

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JSDF	Japanese Social Development Fund
MAG	Ministry of Agriculture and Livestock
MDC	Micro-catchment Development Committee ( <i>Junta de Desarrollo de Microcuenca</i> )
MDG	Millennium Development Goal
MDP	Micro-catchment Development Plan
MEC	Ministry of Education
MH	Ministry of Treasury
MIP	Municipal Investment Plan
MIS	Management Information System
MSC	Municipal Steering Committee
NCB	National Competitive Bidding
NCC	National Coordination Committee
NRM	Natural Resources Management
PARN	Paraguay Natural Resources Management Project
PMU FM	Project Management Unit Financial Management
PMU	Project Management Unit
POA	Annual Operating Plan
PRODECO	Pilot Community Development Project ( <i>Proyecto Piloto de Desarrollo Comunitario</i> )
PRODERS	Paraguay Sustainable Agriculture and Rural Development Project ( <i>Proyecto de Desarrollo Rural Sostenible</i> )
PRODESTAL	Program to Support the Development of Small Cotton Farms
QAT	Quality Assurance Team
RIS	Rural Investment Service
SAT	Safeguard Assurance Team
SEAM	Secretary of the Environment
SENACSA	National Service for Animal Health and Quality
SOE	Statement of Expenses
SRDP	Financial Management Arrangements for the Project
SUB-UAF	Sub-Administrative and Financial Unit
TMS	Technical Management Service
UBN	Unsatisfied Basic Needs
UOC	Procurement Unit
VMG	Vice Ministry of Animal Husbandry
WBI	World Bank Institute
ZCU	Zone Coordination Unit

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**PARAGUAY**  
**PARAGUAY: Sustainable Agriculture and Rural Development Project**

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# PARAGUAY

## SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT PROJECT

### PROJECT APPRAISAL DOCUMENT

#### LATIN AMERICA AND CARIBBEAN

#### LCSR

Date: December 21, 2007	Team Leader: Gerardo Segura
Country Director: Pedro Alba	Sectors: General agriculture, fishing and forestry sector (100%)
Sector Manager: Ethel Sennhauser	
Director: Laura Tuck	Themes: Land administration and management (P); Water resource management (P); Participation and civic engagement (P); Improving labor markets (P); Rural policies and institutions (S)
Project ID: P088799	Environmental screening category: Partial Assessment
Lending Instrument: Specific Investment Loan	

#### Project Financing Data

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

For Loans/Credits/Others:

Total Bank financing (US\$m.): 37.5 M.

Proposed terms: FSL, 5 years of grace, 23 years maturity

#### Financing Plan (US\$m)

Source	Local	Foreign	Total
BORROWER	3.86	0.00	3.86
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT	34.08	3.42	37.50
BENEFICIARIES	3.39	0.00	3.39
OTHER	2.00	0.00	2.00
Total:	43.33	3.42	46.75
Front end fee	0.00	0.09	0.09
Total:	43.33	3.51	46.84

#### **Borrower:**

Republic of Paraguay  
 Ministry of Finance (*Ministerio de Hacienda*)  
 Palma y Chile 128  
 Asuncion, Paraguay  
 Facsimile 595 (21) 448-283

**Responsible Agency:**

Ministry of Agriculture and Livestock (*Ministerio de Agricultura y Ganadería*)  
 Directorate for Administration and Coordination of Projects – DINCAP  
 Presidente Franco y 14 de Mayo  
 Asuncion, Paraguay  
 Telephone/Facsimile 595 (21) 449-951

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

FY	2009	2010	2011	2012	2013	2014		
Annual	1.4	7.5	10.9	10.6	5.4	1.7		
Cumulative	1.4	8.9	19.8	30.4	35.8	37.5		

Project implementation period: Start July 1 2008 End: June 28, 2013

Expected effectiveness date: September 1, 2008

Expected closing date: December 30, 2013

Does the project depart from the CAS in content or other significant respects?

*Ref. PAD A.3*

[ ]Yes [ X] No

Does the project require any exceptions from Bank policies?

*Ref. PAD D.7*

[ ]Yes [ X] No

Have these been approved by Bank management?

[ ]Yes [ X] No

Is approval for any policy exception sought from the Board?

[ ]Yes [ X] No

Does the project include any critical risks rated “substantial” or “high”?

*Ref. PAD C.5*

[ X]Yes [ ] No

Does the project meet the Regional criteria for readiness for implementation?

*Ref. PAD D.7*

[X]Yes [ ] No

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

The project development objective is to improve the quality of life of small-holder farming community and indigenous communities in the project areas in San Pedro and Caaguazú departments in a sustainable manner, by supporting actions that will: (a) strengthen community organization and self-governance; (b) improve natural resources management; and (c) enhance the socio-economic condition of the target population, and (d) address animal health issues in the project areas.

Project description *Ref. PAD B.3.a, Technical Annex 4*

The project has four main components:

(a) Community Organization Development and Capacity Building that aims to: (a) organize beneficiaries to participate actively in local decision-making structures; and (b) prepare project staff for the implementation of the project technical strategy.

(b) Rural Extension and Adaptive Research that aims to assist small-holder farmers, community groups and indigenous communities to shift from existing non-sustainable agricultural practices to sustainable livelihood strategies which enhance natural resources management and reduce rural poverty.

(c) Sustainable Rural Development Fund that will finance demand-driven investments identified in the context of the Micro-catchment Development Plans (MDP) and the Indigenous Community Development Plans (ICDP) which are based on a participatory local-level diagnostic and planning process supported under the Rural Extension sub-component.

- (d) Animal Health Improvement to assist Paraguay to initiate animal health improvement measures and to contribute to the regional strategy for animal health management.  
 (e) Project Management, and M&E that aims to put in place a functional and effective project management team.

Which safeguard policies are triggered, if any? *Ref. PAD D.6, Technical Annex 10*  
 Environmental Assessment (OP/BP 4.01)  
 Natural Habitats (OP/BP 4.04)  
 Pest Management (OP 4.09)  
 Indigenous Peoples (OP/BP 4.10)  
 Forests (OP/BP 4.36)

Significant, non-standard conditions, **if any**, for:

***Ref. PAD C.7***

Board presentation:

None

Loan/credit effectiveness:

- (a) Sub-UAF and UOC established and financial management and procurement specialists selected.

Covenants applicable to project implementation:

- (a) INDI and SENACSA Participation Agreements, and INDERT Agreement signed.  
 (b) Carry out environmental screening of subproject on Component 3.  
 (c) Authority to audit Component 3 has been hired and the Project's Management Information System is in place and acceptable by the Bank.  
 (d) Human Resources firm selected.



## A. STRATEGIC CONTEXT AND RATIONALE

### 1. Country and Sector Issues

#### Country Context

1. Economic Recovery. Following a long period of stagnation beginning in the 1990s, Paraguay's economy has maintained general improvement in recent years: (i) the economy returned to positive growth rates in 2003, with real GDP growing at an estimated 3.5% in 2006<sup>1</sup>; (ii) the exchange rate has remained stable with inflation being held to single digits since 2004; and (iii) the public sector now enjoys both overall and primary surpluses. This recovery was prompted by a combination of developments, which included a pronounced expansion in agricultural output driven by the exceptionally high commodity prices, as well as the adoption of more rational spending policies and enhancements in tax administration. Importantly, the economic turnaround has led to a significant decline in external public debt, which stood at 30.5% of GDP in 2006, down from 50% just three years earlier. The outlook for 2008 is for a continuation of these trends with a forecast GDP growth rate of 4%.

2. Inequality. Despite the ongoing economic improvement, per capita GDP in 2006 was at the same level as over a quarter century ago. As a result, the moderate rates of GDP growth projected for the medium term (3.5%) remain insufficient to compensate for the under-performance of the second half of the 1990s when poverty rates and income inequality increased considerably. Inequality is also high in Paraguay relative to other countries in the region. National surveys point to a Gini coefficient of 0.53 for the country as a whole. The wealthiest 10% consumes 90 times what the poorest 10% consumes, one of the worst ratios in the world. This is partly a reflection of extreme inequality in land ownership. Ten percent of the rural population owns two-thirds of the land, while 30 percent of the population is landless.

3. Poverty. One of the most pressing social issues in Paraguay today is poverty, especially in the country's Eastern Region where 97% of the population lives and of which 47% reside in rural areas. In 2005, 32% of the 5.9 million Paraguayans lived below the poverty line; this number reached 40% in rural areas. At the same time, while 17% of the total population lived in extreme poverty, 22% of the rural population lived such conditions. In concrete terms, over 1.2 million people in rural areas live in poverty, including virtually all of Paraguay's 86,000 indigenous people, and with more than 650,000 people live in extreme poverty.

4. Governance. Since mid-2003 the current government of Paraguay has sought a recovery of confidence in state institutions by a sustained fight against corruption, improved procurement and financial management in all government institutions, and greater participation of civil society. While recent assessments note progress, many challenges remain.

#### Rural Sector Context

5. Agricultural Sector. While important inroads are being made in the country's service sector, especially in trade and finance, Paraguay's economy is essentially rural, and still depends

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<sup>1</sup> All economic figures used in this section are from the International Monetary Fund.

on agricultural and livestock production, which account for 25% of GDP, generate the bulk of total exports (over 85%) and employ about 45% of the country's labor force.

6. Paraguay's agricultural sector can be divided into two sub-sectors: (a) an emerging sub-sector of capitalized entrepreneurial agriculture which is responsive to market signals, and is primarily responsible for growth within the broader sector in recent years; and (b) a small-scale farmer sub-sector characterized by low-productivity, family agriculture whose main products are subsistence crops and a few heads of cattle and other livestock, with a connection to the market economy primarily through cotton and with very limited access to land, capital and technology as well as to social and human capital resources. The expansion of modern agriculture has left these 300,000 mostly poor small-scale farmers behind, and they continue with subsistence farming supplemented by cotton production.

7. Given Paraguay's economic dependence on agriculture and livestock and the importance of these activities the livelihoods of many Paraguayans, the use and management of land has a notable impact on production, livelihoods and natural resources. The land situation in Paraguay today is characterized by significant inequality in tenancy and extensive titling irregularities. This situation not only makes it extremely difficult for small-scale farmers to diversify their production and thus improve food security and increase incomes, but it is also a major disincentive to investing resources in environmentally friendly productive practices on the land to protect the basis of the country's economy.

8. Livestock Sector. This sector is one of the most dynamic ones in the rural economy of Paraguay. The livestock export market has significantly increased in the last few years. Only in 2007 (November 30) total exports have reached US\$437 million. Given this volume of exports, which is expected to continue increasing, Paraguay needs to become a more active and engaged party of the regional initiative of animal health, which focuses on foot and mouth, and other common trans-boundary diseases. The country still faces important constraints in controlling animal health, mainly as a result of inadequate infrastructure in the regulatory agency network of clinics and laboratories. Other significant constraints include the lack of adequate extension services relating to appropriate animal health and husbandry practices and the lack of adequate livestock working facilities in small-scale farms, which account for about 20 % of the overall cattle figures, and 90% of the livestock units.

9. Environmental Degradation. Paraguay is home to part of the Atlantic Forest which, with only 7% of its original area still extant, is regarded as one of the most threatened ecosystems in the world and characterized by a high degree of fragmentation. Less than 30 fragments larger than 10,000 ha and 12 larger than 20,000 ha existed in 1997; only one of the latter is under effective protection (the Mbaracayú Forest Natural Reserve, which is being managed with assistance from a World Bank GEF grant) while another large fragment, San Rafael National Park, has received assistance from a prior Bank loan and a GEF grant to the Secretary of the Environment. Several other ecosystems of Paraguay are considered of global and regional importance for conservation including the Cerrado and Misiones Grasslands, the Pantanal and Humid Chaco wetlands, and the increasingly threatened Dry Chaco forests.

10. Despite its ecological importance, Paraguay suffers from severe environmental degradation. This includes accelerated erosion, loss of soil fertility, loss of biological diversity,

decreased quantity and quality of water resources, and severe deforestation, all of which highlight the need to maintain the fragile productive resource base.

11. One of the principal causes of this environmental degradation has been Paraguay's model of agricultural development which has predominantly promoted short-term profits over long-term environmental sustainability. Some of the major practices which contribute to this degradation include the expansion of the agriculture frontier through the colonization of new lands, slash-and-burn agriculture, extensive grazing and the practice of mono-cultivation of cotton and, more recently, soy.

12. The frontier has basically vanished in the eastern region as the push to expand soy production has resulted in nearly total deforestation of native forests (less than five percent remain). As a result of deforestation, Paraguay has reached the point of becoming a net importer of wood, creating an unneeded drain on the balance of payments, not to mention the loss of employment in the previously strong forestry sector.

### **Government Strategy**

13. The Government's overall Development Strategy has the following three objectives:

- (a) Sustainable growth through agro-industry and export diversification;
- (b) Increased human capital through policies that enhance equity and increased access to basic services, and well-targeted poverty reduction programs to include the most vulnerable groups; and
- (c) Facilitate greater participation of civil society in the formulation of public policy and the control of public expenditure;

14. A Poverty Assessment carried out in 2001-02 recommended that: (a) the principal focus of poverty reduction efforts should be in rural areas; (b) efforts should include improved delivery of public services to rural communities; (c) there should be a strong focus on technical assistance in agriculture; and (d) basic health services, including water and sanitation, should continue to be expanded.

15. The Government of Paraguay (GOP) has recognized the need to address poverty in rural areas, the need to include vulnerable groups, and the agricultural and environmental challenges, and has shown a high degree of commitment through initiatives at three levels:

- (a) At the policy level, through the creation of the Social Cabinet, under the Presidency, for joint ministerial solutions to Paraguay's major social problems. This is a clear indication of government commitment to the reduction of poverty and social exclusion;
- (b) At the sector level, through GOP's development strategy, which stresses two programmatic focal points relating to agriculture and social issues: (i) "Sustainable economic growth" which includes actions to strengthen agricultural

production and agro-industry; and (ii) “Combating poverty and social exclusion” which includes various poverty reduction programs<sup>2</sup>; and

- (c) At the operational level, through the preparation of the National Strategy and Action Plan for the Conservation of Biodiversity by the Secretariat of the Environment (SEAM), which highlight sound natural resource planning, and sustainable agriculture and pasture management, as a means to ensure the sustainable use of biodiversity.

16. To operationalize the sectoral focal points, GOP is currently implementing the following initiatives: (a) National Strategy for the Fight against Poverty, Inequality and Social Exclusion<sup>3</sup>; (b) Agricultural and Rural Development Plan (2004–2008); (c) National Plan to Revive Family-based Agriculture (2003-2008); (d) National Agricultural Sector Development Programme<sup>4</sup>, and (e) the 2004 law (2524) that prohibits transformation and conversion of forested areas in the Eastern Region of Paraguay. Critical also to the success of these policy instruments is Paraguay’s Agrarian Statute, which was established in 2002. It is designed to promote rural development with the goal of incorporating rural farming families and landless peasants into the country’s agricultural economy, through a strategy that integrates productivity, environmental sustainability and distributive equity.

### **Key Challenges Facing the Rural Sector**

17. Various rural development projects in Paraguay, including the recently-completed Bank-financed PARN project, have clearly demonstrated that agriculture continues to remain a viable proposition for small-scale farmers with landholdings of less than 20 hectares. However, as indicated below, there are some aspects which need to be strengthened to better realize this potential. In addition, there exist critical inter-dependent issues relating to agriculture, environmental degradation, and rural poverty, some of which have been provided below. It is also important to recognize that there could be some geographical areas and some very small land-holdings which may not be viable, and population groups which are landless. This will require a focused attention in terms of capacity building to transition such groups into alternative rural non-farm employment opportunities. These initiatives could be covered through a separate project, and are therefore not included in this project.

- (a) Lack of Social Organization and Participation. Despite the relatively large number of community and producer organizations in Paraguay’s rural areas, these groups often lack social organization and the participatory method skills required to play a successful role in sustainable rural development as well as a means to scale up production, access information and markets with greater effectiveness;
- (b) Access to Technology Services. Despite some advances in recent years, agricultural and livestock research and extension remain weak in their technical

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<sup>2</sup> As presented in the San Bernardino Declaration signed on November 26, 2004.

<sup>3</sup> Also known as the “Jahapo’o Teko Asy” Plan, it was introduced by the Social Cabinet of the Presidency in July 2004.

<sup>4</sup> The latter three programs were designed and are currently being implemented by the Ministry of Agriculture and Livestock.

- strategy and in their response to the demands by small-scale farmers who comprise 60% of the rural population. The little research carried out rarely takes into account small-scale production systems and rationale, and the coverage and focus of official technical assistance services is very limited. Coverage of official technical assistance services reaches only about 11% of small-scale farmers (those with fewer than 20 hectares);
- (c) Lack of Adequate Land-use Planning. The degradation of soil and forest resources caused by unsustainable land use has been exacerbated by inadequate planning of productive endeavors at the national and local levels;
  - (d) Access to Credit. It is exceedingly difficult for small-scale farmers to gain access to credit. Seventy percent of farmers with fewer than 20 hectares of land are unable to obtain credit. Of those who are able to access credit, 16% receive it from the formal public sector, 8% from cooperatives and producers' organizations, and 72% from the informal sector of middlemen, wholesalers, factories and truckers;
  - (e) Livestock Sector. There is a need to improve the field level infrastructure relating to clinics and laboratories, cool chain and livestock working facilities, specially for small livestock units, to contain foot and mouth and other transboundary diseases, and strengthen the nodal agency, the National Service for Animal Health and Quality (SENACSA) and the Vice Ministry of Animal Husbandry (VMG) to be able to manage this effort vigorously and effectively;
  - (f) Inadequate Infrastructure and Unmet Basic Needs. In terms of infrastructure, the population's access to basic infrastructure services is limited. Only 23% of all roads are paved and less than 43% of these paved roads are in good condition. Only 70% and 37% of the population in urban and rural areas, respectively, are served by water supply. The coverage of sanitation networks is much less; and
  - (g) Weak Institutional Framework. MAG and other sectoral institutions have historically been deficient in policy setting, although they are introducing improvements in targeting poverty-oriented strategies.

## 2. Rationale for Bank Involvement

18. There are three value propositions which place the Bank in a position of comparative advantage to operate in partnership with the government of Paraguay: (a) an integrated portfolio of which the project is an important part, and which can benefit considerably from the synergies of the projects being implemented as an integrated portfolio; (b) country and international experience on various aspects of the project approach; and (c) learning from approaches of other internationally financed projects.

19. Strategic Fit of the Project and Linkages with other Bank/GEF/JSDF-financed Rural Sector Projects. Building on previous experiences under the Natural Resources Management Project (PARN) and the Pilot Community Development Project (PRODECO), as well as, string

of rural water supply and sanitation projects under implementation since 1970's and national road maintenance projects, PRODERS is central to the Bank's rural sector inter-linked operations portfolio in Paraguay that include: (a) the GEF Paraguay Biodiversity Project which is a partly blended operation with the project; (b) the Bank's Japanese Social Development Fund (JSDF) Indigenous Land Regularization Project; (c) additional financing for PRODECO; (d) the recently approved JSDF Indigenous Community Development Project; (e) the Forestry Project; and (f) the Land Administration Project.

20. Although PRODERS will maintain a sharp focus on its specific objectives and not attempt to completely resolve Paraguay's land tenure, indigenous or biodiversity issues, it will collaborate with other initiatives, where these issues converge with the project's focus. More specifically, the project will:

- (a) Closely coordinate its activities with the JSDF Indigenous Land Regularization Project in Caaguazú where the two projects will jointly prepare indigenous peoples' annual work plans and targets for land titling and will collaborate on updating information on indigenous lands in the project area;
- (b) Link up with the JSDF Indigenous Community Development activities to be carried out in Caaguazú; and
- (c) Work closely with the Bank's proposed Forestry Project and Land Administration Project in Paraguay to establish the groundwork for collaboration, through local organizations' strengthening.

21. At the project level (for the two departments), this will be a specific responsibility of the Project Management Unit. At the country level, this collaboration and linkage will be assured through an Integrated Technical Unit operating under the Vice Minister of Agriculture.

22. The GEF/Bank Paraguay Biodiversity Project will overlap in some municipalities and micro-catchments in the two project departments of San Pedro and Caaguazú in Eastern Paraguay. An estimated US\$4.5 million of PRODERS' on-farm investment subprojects will comprise counterpart funding for the GEF project. As part of those micro-catchment investment plans that overlap with biodiversity corridors supported by the GEF project, PRODERS will facilitate the investing of nearly US\$2.0 million of the GEF project's funds in conservation-related activities. These activities will be aimed at the incorporation of a biodiversity aspect in the proposed project's training and extension activities and the integrated management of biodiversity in the productive endeavors of beneficiary small-scale farmers in areas where the largest and most important forest remain. Matrixes of technical and operational complementarities have been drafted by MAG and SEAM who are responsible for implementing the proposed GEF intervention; these details will be reflected in the project operational manual. Details of coordination between the two projects are described in Annex 4, Appendix 3.

23. Relevant Country and International Experience in this Sector. The Bank's comparative advantage lies in its unique experiences as a multilateral donor in executing projects with a similar focus and, specifically, with local-level capacity building and planning for natural resource management. In Paraguay, this includes the enriching experiences of PARN which

promoted an integrated model of natural resources management and agricultural technical assistance. The two poorest departments of San Pedro and Caaguazú were incorporated into PARN towards the end of the project and therefore did not benefit from the project. It seems logical to now focus on these two departments to deepen the processes introduced under PARN and to initiate micro-catchment management interventions.

24. The Bank has also supported various micro-catchment area-based sustainable rural development projects in the Brazilian states of Santa Catarina, Paraná, Río Grande do Sul and São Paulo which are proving very effective. Given the numerous socio-economic, cultural and technical similarities between the two countries, this experience is very relevant and enriching. In particular, the participatory diagnostic focus in the more recent of these Brazil projects, which will be an essential focus of the project, is much more inclusive and integrates the environmental, social and productive aspects in rural areas more effectively.

25. The Bank has been working with other countries in the Latin American Region and elsewhere in the world to manage the incidence of food and mouth and other trans-boundary diseases. It is working closely with MERCOSUR to introduce similar animal health initiatives in other countries such as Argentina, Bolivia, Brazil, Chile and Uruguay. This puts the Bank in a synergistic position of being able to coordinate animal health related activities at the regional level.

26. Moreover, the Bank has promoted a series of learning activities between related projects in Paraguay and South-Southeast Brazil including: (a) the establishment of an informal network for technical exchanges; (b) several international conferences for technical exchanges on projects' experiences; and (c) a proposed Bank study on comparative experiences. These experiences have been reflected in the design of this project, and will also be useful in assisting the government's project team to successfully implement the project activities.

27. Learning from Initiatives of other Agencies. While no other projects are addressing sustainable rural development issues in the same manner as this project, there are a number of relevant ongoing initiatives in the sector. The approaches developed under the following projects could be reviewed, discussed and adapted through information exchange seminars which the Bank is eminently positioned to facilitate, including developing innovative investment scale-up proposals for assistance under the project's Rural Development Fund:

- (a) KfW's Sustainable Management of Natural Resources Project, whose objective is to introduce sustainable agricultural and forestry management systems on small-scale farms, by sharing best-practices for conservation agriculture, particularly no-tillage;
- (b) IFAD's Paraguay Rural Project, by sharing experiences in the creation of social capital through training for beneficiaries and their organizations for collective commercialization of agricultural products;
- (c) the GTZ-executed Caazapá Rural Development Project, which is focused on the sustainable management of natural resources, the diversification of production

and the improvement of local and regional public management, by sharing experiences in product diversification; and

- (d) IDB's Modernization of Agricultural Public Management project, a follow-up operation to the recently closed Program to Support the Development of Small Cotton Farms (PRODESAL), by sharing information and promoting coordination on best-practices and technologies for the small-holder sector.

### **3. Higher Level Objectives to which the Project Contributes**

28. The objectives of the CAS are aligned closely with the government's development priorities, and are grouped along four main pillars. The first pillar indicates the need for fiscal and financial stabilization as the sine qua non for regaining confidence in the economy and getting back to a sustainable growth path. The second pillar focuses on the need to restore confidence in state institutions by improving governance and transparency in public administration. Improved governance is another critical ingredient for growth in terms of raising the confidence of the private sector to increase investment. The third pillar indicates the need to achieve sustainable growth through improved infrastructure and increasing the productivity of the rural sector, in particular that of small-scale farmers among whom poverty is highest. And, the fourth pillar focuses on the need to expand the coverage and efficiency of basic social services (education, public health, water and sanitation), in order to help Paraguay meet its millennium development goals.

29. The project clearly supports the third and the fourth pillars of the CAS. It focuses on San Pedro and Caaguazú which are two of the poorest departments in Paraguay, focuses on the rural areas and small-scale farming community, and provides assistance to:

- (a) Increase agricultural productivity of small-scale farmers through technology adaptation, diversification and production systems improvement, soil conservation and forest rehabilitation, value-added agro-processing schemes, and horticultural nurseries;
- (b) Deepen the rural roads network, including improved maintenance;
- (c) Reduce the unmet basic needs gap relating to water supply and sanitation;
- (d) Introduce interventions specifically for the vulnerable indigenous peoples' communities;
- (e) Improve livestock health and husbandry management through focused infrastructure and institutional capacity building, including specific decentralized animal health improvement investment proposals; and
- (f) Enhance the level and quality of social participation at all stages of project implementation from diagnostics, planning, and investment through monitoring and evaluation.

30. The project also supports the GOP's global strategy to combat rural poverty, and is in line with the objectives of the *National Strategy for the Fight against Poverty, Inequality and Social Exclusion*. It will also contribute directly to the objectives of the *Agricultural and Rural Development Plan (2004–2008)* which are to: (a) achieve a good standard of living for the needy population in the rural sector; (b) raise the level of competitiveness of small-scale farmers and large-scale agriculture; and (c) maintain, improve and conserve renewable natural resources.

31. The project incorporates actions to meet the objectives enshrined in the government's Development Strategy relating to enhanced civil society participation, diversification and export-orientation of agriculture, and targeting vulnerable groups for assistance.

32. The project contributes clearly to the achievement of the following MDGs: (a) MDG 1: which aspires to eradicate extreme poverty and hunger; and to reduce extreme poverty by half; and (b) MDG 7: which aspires to ensure environmental sustainability by reversing loss of forest cover, to halve population without access to potable water and sanitation.

## **B. PROJECT DESCRIPTION**

### **1. Lending Instrument**

33. Specific Investment Loan. IBRD Loan of US\$37.5 million, with the following features: (a) Fixed Spread Loan; (b) Variable interest rate; (c) Front-end Fee of 0.25% of Loan to be paid by Borrower from own funds; (d) Level repayment with a five year grace period, and 23 years maturity; and (e) Conversion Options: all (currency, interest rate, caps/collars).

34. The GOP will provide the remaining financing of US\$3.86 million. In addition, the project will be partially blended with a GEF grant of US\$4.5.million approved by GEF Council in November 2007 and scheduled to be appraised and negotiated in early 2008.

### **2. Project Development Objective and Key Indicators (see Annex 3 for details)**

35. The project development objective is to improve the quality of life of small-scale farmers and indigenous communities in the project areas in San Pedro and Caaguazú departments in a sustainable manner, by supporting actions that will: (a) strengthen community organization and self-governance; (b) improve natural resources management; and (c) enhance the socio-economic condition of the target population.

36. The expected principal outcomes for the primary target group (small-scale farmers and indigenous communities) are: (a) greater capacity and active participation in the planning and implementation of sustainable agriculture and rural development activities at the farm, community and micro-catchment levels; (ii) increased local management capacity to support this implementation; and (iii) improved incomes, living conditions, food security, and management of environmental resources.

37. The achievement of the project's principal outcomes will be assessed using the following key performance indicators (see Annex 3 for details):

- (a) CDGs, MDCs, MSCs and IAs established, strengthened and participating in the management of rural sustainable development in at least 80% of the target micro-catchments and indigenous communities in the project area with participation of women and rural youth in decision-making (appropriate level of participation to be agreed by the organizations), measured by number established, number trained and number submitting subproject proposals;
- (b) At least 50% of the target farms increase their agricultural incomes by 30%. Of these, at least 40% obtain an agricultural income above the poverty line;
- (c) Production of crops for domestic consumption increased by 20% in 50% of the poorest beneficiary families;
- (d) Productivity of land (by hectare) increased by an average of 25% in 10,000 farms through the application of productive practices promoted by the project;
- (e) The incidence of poverty (measured in UBN) reduced by 50% in the assisted small-scale farmers and indigenous communities;
- (f) 65% of beneficiary households assisted with at least one subproject for home improvement and sanitation;
- (g) 20% of indigenous communities without formal land titles at project start acquire titles and 50% of small-scale farmers without title receive assistance toward acquiring titles;
- (h) Environmental conditions (soil, water quality, vegetation cover) improved in at least 70% of the 84 target micro-catchments and 73 indigenous communities;
- (i) Greater awareness among 50% of project beneficiaries of land degradation and the potential contribution of sustainable natural resources and land management to improved livelihoods in the project area<sup>5</sup>; and
- (j) Greater awareness among 70 % of project beneficiaries of the importance of good animal health management and husbandry.<sup>6</sup>

### **3. Project Components (see Annex 4 for details)**

38. The project area will cover the 39 municipalities in the two poorest departments of the country's Eastern Region, Caaguazú and San Pedro. Project interventions will be concentrated in 84 micro-catchments (about 10% of all micro-catchments in the two departments) within those 39 municipalities. Direct project beneficiaries will be small-scale farmers (with fewer than 20

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<sup>5</sup> To measure these indicators a baseline attitude survey will be conducted at the beginning of the project and another one at the end in order to evaluate changes in perception.

<sup>6</sup> See footnote No. 5.

hectares of land), indigenous communities and rural workers in the two target departments who will benefit from extension services, capacity building and investment funding.

39. It is estimated that the project will reach 16,800<sup>7</sup> small-scale farmers in an estimated 600 communities, and 2,030 indigenous families in 73 indigenous communities. In addition, larger-scale farmers in the selected micro-catchments, rural school teachers and students, technical staff and managers from municipal governments and MAG, and producer and civil society organizations will benefit from training and environmental education services.

40. The project is expected to cost US\$46.84 million (Bank share: US\$37.5 million, including a US\$1.29 million contingency, and a US\$0.09 million front-end loan processing fee; Government of Paraguay share: US\$3.86 million; beneficiaries share: US\$3.39 million; stakeholders share: US\$2.00 million), and have a duration of 5 years, starting July 1, 2008.

41. The project is designed to operationalize the micro-catchment area-based project strategy to address rural poverty and natural resource degradation. It uses a highly participatory and decentralized demand-driven approach to poverty amelioration and natural resources management, and a production support process for rehabilitating and attaining sustainability of degraded and low productive farming systems. The project has five main components: (a) Community Organization Development and Capacity Building; (b) Rural Extension and Adaptive Research; (c) Sustainable Rural Development Fund; c) Animal Health Improvement; and (d) Project Management, and M&E.

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<sup>7</sup> Although the targeted universe for the project is to reach 16,800 small-scale-scale farming families and 2,030 indigenous families in 84 micro-catchments and 73 indigenuos peoples communities, and at least education and outreach activities are expected in all of these, more specific targets have been formulated for diagnostic, planning and investment activities as detailed text and specifically in Annex 3.

**Components by Financiers  
(in US'000)**

COMPONENTS	World Bank		GOP		Beneficiaries		INDERT/FIDES		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Community Organization, Development and Capacity Building	2,226.49	83.6	437.80	16.4	-	-	-	-	2,664.29	5.7
2. Rural Extension and Adaptive Research	9,137.87	84.1	1,731.54	15.9	-	-	-	-	10,869.41	23.3
3. Sustainable Rural Development Fund	19,497.25	78.3	-	-	3,387.75	13.6	2,000.00	8.0	24,885.00	53.2
4. Animal Health Improvement	3,378.72	80.7	811.00	19.3	-	-	-	-	4,189.72	9.0
5. Project Management and Monitoring	3,279.86	79.4	850.00	20.6	-	-	-	-	4,129.86	8.8
<b>TOTAL</b>	<b>37,500.03</b>	<b>80.2</b>	<b>3,850.51</b>	<b>8.2</b>	<b>3,387.75</b>	<b>7.4</b>	<b>2,000.00</b>	<b>4.3</b>	<b>46,738.29</b>	<b>100.0</b>
Front-end Fee									93.75	
<b>Total PROJECT COSTS</b>	<b>37,500.03</b>	<b>80.2</b>	<b>3,850.51</b>	<b>8.2</b>	<b>3,387.75</b>	<b>7.4</b>	<b>2,000.0</b>	<b>4.3</b>	<b>46,832.04</b>	<b>101.0</b>

42. Component 1: Community Organization Development and Capacity Building (US\$2.7 Million, 5.7% of Total Project Cost). The objectives of this component are to: (a) organize beneficiaries to participate actively in local decision-making structures both within and outside of the project; and (b) prepare project staff for the implementation of the project technical strategy aimed at adopting sustainable agriculture and rural development activities in micro-catchments. It has three sub-components: Training, Community Organization Development, and Environmental Education.

43. The first sub-component, Training, includes activities to build awareness and capacity relating to project strategy and approach in project technical staff (including extension agents, extension agents for indigenous communities and social organization technicians), as well as for small-scale farmers, indigenous communities and others.

44. The second sub-component, Community Organization Development, includes applying the targeting criteria to micro-catchments and communities for their selection and participation in the project, establishing and strengthening Micro-catchment Development Committees (MDC), Indigenous Associations (IA) and Municipal Steering Committees (MSC), as well as related training and institutional strengthening activities.

45. The third sub-component, Environmental Education, supports education efforts focused on environmental problems to increase stakeholder awareness in dealing with these issues to improve their livelihoods.

46. Main Outcomes. Beneficiary (municipal, micro-catchment and community) organizations institutionally strengthened for sustainable rural development management; Project staff trained to execute project actions.

47. Component 2: Rural Extension and Adaptive Research (US\$10.9 Million, 23.3% of Total Project Cost). The objective of this component is to assist small-scale farmers, community groups and indigenous communities to overcome specific technical, socio-economic and environmental constraints to allow them to shift from existing non-sustainable agricultural practices to sustainable livelihood strategies which enhance natural resources management and reduce rural poverty. It has two sub-components: Rural Extension, and Adaptive Research and Studies.

48. The first sub-component, Rural Extension, supports: (a) beneficiaries to prepare Micro-catchment Development Plans (MDP), Indigenous Community Development Plans (ICDP) and Municipal Investment Plans (MIP); (b) participatory identification of community demands for social, technical and financial support arising from those plans; (c) implementation at the community level; and (d) training indigenous community and micro-catchment-level community promoters to facilitate the process of knowledge management for adopting the project strategy at their respective community levels.

49. A second set of activities focuses on providing project beneficiaries specific and specialized technical assistance relating to agricultural and environmental practices, including: (a) sustainable land management; (b) product intensification and diversification; (c) processing and marketing; (d) environmental protection; and (e) management skills.

50. For the provision of specialized technical assistance, a roster of private service providers will be created by selecting local consulting firms, NGOs and individuals that have the experience and qualifications in all the technical areas of the project, and who would be interested in providing their services to project beneficiaries. The roster will be prepared by the Human Resources firm that will be hired for selecting project staff. It will be made available in the Projects web site in MAG, and directly to project beneficiaries, who will select the provider that best responds to their needs and interests.

51. The second sub-component, Adaptive Research, will finance practical technology validation and information needs to better address production and marketing issues of the project's primary target beneficiaries (small-scale farmers and indigenous communities), as well as policy studies of special interest to decentralized local (departmental and municipal) and national sectoral institutions.

52. *Main Outcomes:* Small-scale farmers, indigenous communities and the rest of the micro-catchment population trained in planning and implementing development plans and investment proposals for sustainable micro-catchment management, supported by rural extension and relevant research initiatives.

53. Component 3: Sustainable Rural Development Fund (US\$24.9 Million, 53.2% of Total Project Cost). The objective of this component is to finance demand-driven investments identified in the context of the Micro-catchment Development Plans (MDP), the Indigenous Community Development Plans (ICDP), and Municipal Investment Plans (MIP) which are based on a participatory local-level diagnostic and planning process supported under the Rural Extension sub-component.

54. Investment Subprojects are grouped in five categories based on the type of beneficiary: (i) Individual Small-Scale Farmer, targeted to finance basic home improvements and sanitation (up to US\$500.00 for subproject); (ii) Individual Small-scale Farmer targeted to improve farm production and productivity (up to US\$2,000.00 for subproject); (iii) Community Development Group targeted to improve agricultural and livestock production and productivity (up to US\$10,000.00 for subproject); (iv) Indigenous Community (up to US\$25,000.00 for subproject); and (v) Municipal (up to US\$40,000.00 for subproject).

55. The proposals for subprojects are to be prepared by eligible project beneficiaries with support from project extension agents, screened first by Micro-catchment Development Committees (MDC) or in the case of indigenous people by Indigenous Associations (IA). Applications will then be evaluated by the PMU. Once awarded, grant funds will be transferred to beneficiaries for implementation through their legal associations. Beneficiary representatives and regional and national project staff will be responsible for subproject monitoring.

56. In most cases, the grant will finance a maximum of 85% of investment cost, with the grantees contributing the 15% in-kind contribution.

57. In an estimated 12 micro-catchments, project activities would overlap and complement with the implementation of the proposed Paraguay Biodiversity Project with which the project would be partially blended. The beneficiaries of these 12 micro-catchments which are located in the biodiversity conservation corridor (project area of Paraguay Biodiversity), would receive PRODERS support for NRM and sustainable production practices at the farm level, which would be combined with specific investments for restoration or maintenance of connectivity and sustainable use of biodiversity to be funded by the GEF.

58. *Main Outcomes:* Individual Small-scale Farmer Investment Subprojects, Community Development Group Investment Subprojects, Indigenous Community Investment Subprojects and, and Municipal Investment Subprojects financed.

59. Component 4: Animal Health Improvement (US\$4.2 Million, 9.0% of Total Project Cost). The objectives of this component are to assist Paraguay to initiate animal health improvement measures and to contribute to the regional strategy for animal health management. It has two main sub-components: (a) Strengthening the nodal implementing agency for this component - SENACSA; and (b) Strengthening the Vice Ministry of Animal Husbandry(VMG).

60. Under the first sub-component, the project would finance software and information systems, lab and office equipment, communication services, small works, consulting and training to increase the capacity of SENACSA to implement animal health improvement measures in the country, with emphasis in the areas along Paraguay's borders with neighboring countries (Argentina, Brazil and Bolivia) and with small-scale farmers and indigenous communities assisted in the project area, all this consistent with the actions comprising the Regional Strategy for Eradication of Transboundary Diseases in Mercosur.

61. The second sub-component would strengthen the VMG with office and clinic equipment, small works, consulting and training to monitor and manage the animal health and animal husbandry initiatives effectively.

62. Main Outcomes: Improved Animal Tracking and Information systems, laboratory facilities and field operations established and managed effectively by SENACSA and the VMG to ensure high national standards of animal health.

63. Component 5: Project Management, Monitoring and Evaluation (US\$4.1 Million, 8.8% of Total Project Cost). The objectives of this component put in place a functional and effective project management team. It has three subcomponents: (a) Project Management; (b) Monitoring and Evaluation; and (c) Communication and Information Dissemination.

64. The first sub-component, Strengthening of SENACSA, finances software and information systems, lab and office equipment, communication services, small works, consulting and training to improve the performance of SENACSA to implement an effective animal health strategy for Paraguay.

65. The first sub-component, Project Management and Capacity Building for MAG, finances management services, office equipment, and all administrative and operational expenditures to improve MAG's organizational skills-mix to effectively manage the project.

66. The second sub-component, Monitoring and Evaluation, finances the design and implementation of a M&E system to support project management. Specific objectives of the system include: (i) monitoring project implementation in relation to overall objectives, baseline situation, inputs and outputs; (ii) providing and receiving feedback from stakeholders; and (iii) generating inputs for dissemination of project results and lessons learned.

67. The third sub-component, Communication and Dissemination, supports the dissemination of project information to provide project stakeholders with systematized knowledge for the management of natural resources and rural poverty reduction throughout the country's Eastern Region.

68. Main Outcomes: Project management structure, including the Project Management Unit (PMU) at the central level and four Zone Coordination Units (ZCU), and units of MAG: Established, and functioning effectively, executing and monitoring project activities, and integrating them with the activities of other sustainable rural development programs.

#### **4. Lessons Learned and Reflected in the Project**

69. The project design incorporates lessons learned in PARN as well as other Bank funded poverty alleviation and natural resource management projects in Brazil and elsewhere in the world. In addition, experiences generated through the Paraguay Pilot Community Development Project (PRODECO), which has been testing a decentralized, participatory approach to improve the quality of life and social inclusion of poor rural and marginal urban communities along Paraguay's southern border, have also been particularly valuable. The main lessons incorporated in the project design are summarized below:

- (a) Micro-catchment area-based projects aimed at improving sustainable natural resources management, rural poverty alleviation and income generation in poor communities should: (i) include an effective and transparent process of

- participatory and decentralized planning and decision-making; (ii) be demand-oriented; and (iii) combine actions facing relevant issues (i.e., natural resources, production and social needs) faced by poor communities in an integrated way;
- (b) There should be strong support from technical agencies to the beneficiary groups in the area of planning, implementation, monitoring, and management of completed investments for successful project implementation;
  - (c) It is vital for micro-catchment area-based projects to create and/or strengthen beneficiary organizations at the local and regional level and to involve local governments and organized civil society. This furthers decentralization of decision-making;
  - (d) It is critical to work with and strengthen indigenous organizations, respecting the culturally-defined decision-making mechanisms of each ethnic group to ensure active participation of organizations and communities in project implementation. Project technicians must respect the processes of indigenous development and adapt the project to the needs and demands that arise from communities without imposing pre-established packages, timing or modalities of work that are foreign to the communities;
  - (e) It is crucial to establish strict criteria for targeting beneficiaries and areas, as well as clear and transparent eligibility criteria and decision-making processes, to allocate resources to defined subproject investment groups;
  - (f) Funds for investment in subprojects should be transferred to the beneficiaries directly with participatory administration of funds, and effective control mechanisms; and
  - (g) An effective strategy to foster good governance could focus on: (i) strengthening the implementation and management system capacity of the executing agency; (ii) mitigating fiduciary risks as best as possible; and (iii) incorporating measures to enhance public accountability and transparency.
  - (h) It is necessary to improve the capacity of government institutions to address animal health control and monitoring, and develop a sound animal husbandry strategy for small-scale farmers, which includes the development and implementation of a tracking system of livestock units and cattle.

## **5. Alternatives Considered and Reasons for Rejection**

70. The project scope and design is shaped by a number of factors, including the outcomes of the PARN project. Key alternatives considered and rejected for scoping or designing the project are provided below.

71. Adopt a Project Design that Considered either Strictly Environmental Actions or Purely Poverty Alleviation Actions. Given the links between poverty and environmental degradation,

and the recognition that neither can be sustainably addressed in rural areas without considering the other, it was important to pursue both in an integrated fashion. ***Alternative adopted:*** integrate poverty alleviation and environmental management initiatives in the project.

72. **Provide Micro-Credits to Producers, rather than Grants, to Fund Beneficiary Subprojects.** This was clearly an option, but the poor credit and repayment environment, the need to build beneficiary capacity to manage and repay a loan, and the time required to create this “willingness to repay” climate would take longer than the project period. The earlier PARN project’s pilot credit component did not take off at all and had to be canceled at the mid-term review. ***Alternative adopted:*** provide matching grants to beneficiaries (maximum 85% of subproject cost) and seek their commitment through the remaining 15% contribution.

73. **Targeting the Project’s Activities over a Larger Part of the Eastern Region or even all of Paraguay.** Ten departments in Paraguay were covered under the PARN project. San Pedro and Caaguazú were incorporated into the project towards the end of the project period. There is a need to deepen the participatory processes in these two departments which are the poorest in Paraguay, and focus on the needs of small-scale farmers and indigenous communities. ***Alternative adopted:*** situate the project in San Pedro and Caaguazú, and focus on small-scale farmers and indigenous communities.

## C. IMPLEMENTATION

### 1. Partnership Arrangements

No other international agencies are financing this project.

### 2. Institutional and Implementation Arrangements (*see Annex 6 for details*)

74. **Project Duration, Execution and Oversight.** The project will have a five-year duration. Overall project management and implementation will be the responsibility of the Ministry of Agriculture and Livestock (MAG) in partnership with key rural development and environmental institutions, including the National Land and Rural Development Institute (INDERT), and the Indigenous People’s Institute of Paraguay (INDI).

75. At the *national level*, the project will be headed by a Director General in DINCAP (in MAG). He will have the accounting and financial management function directly reporting to him, and he will monitor the implementation of project activities through a Project Manager. A National Coordination Committee (NCC) will be established to facilitate coordination of project execution consistently throughout the life of the project and ensure the alignment of the work program with project objectives and GOP policies. An Integrated Technical Unit will also be established under the Vice Minister, Agriculture, to coordinate and link activities and initiatives under various Bank and other donor-financed projects to ensure that there is no duplication and that there is an exchange of tested modalities across financing agencies.

76. At the *project level*, a central PMU will be established within MAG’s Directorate of Rural Extension (DEAG) prior to effectiveness to coordinate the project implementation in the two departments of San Pedro and Caaguazú. The central PMU will be headed by the Project

Manager, who will have the responsibility for overall technical and administrative management of the project, including coordination with the partner institutions – INDI, INDERT and SEAM. He will have six units reporting to him: (a) the Technical Management Services to handle activities relating to the Rural Development Fund, and the coordination of the four zonal units. This unit will be headed by the Technical Director; (b) Coordinator of IP micro-catchments; (c) Administrator to be in charge of all administrative matters of the project; (d) the Planning and M&E Manager to prepare Action Plans, and manage the M&E system; (e) the Communication and Dissemination Service Manager to disseminate project information and materials; and (f) three advisors for specific functional guidance relating to extension and adaptive research, environmental management, and social organization and capacity building. The Technical Manager will have four zonal coordinators, in charge of implementing the project in the two departments, reporting to him.

77. At the *department level*, the project implementation arrangements consist of the four decentralized Zone Coordination Units (ZCU). Unlike the central PMU, the ZCUs will be eminently operative and responsible for the field work in the entire project area. Each Zonal Coordinator will have a range of experts to integrate the activities across the two departments in each of the following areas: (a) rural investment subprojects; (b) community organization and training; (c) environmental and GEF project related-micro-catchment aspects; (d) adaptive research and extension; (e) indigenous communities' development; (f) micro-catchment development; and experts in sustainable agriculture, marketing and planning functions. At the department level, CDA Director and his staff will provide the necessary support to the Zonal Coordinators.

78. At the *local level*, the bulk of the project activities will be implemented in a participatory manner through Micro-catchment Development Committees (MDC), Indigenous Peoples Associations (IA), and Municipal Steering Committees (MSC). The project will work through 8-10 firms to coordinate the work of diagnostics, planning, implementing, monitoring, and reporting in GEF-and-project overlapping micro-catchments and the IP area catchments. The rest of the micro-catchments will be served through individually retained consultants. At the local level, ALAT staff will provide the support and coordination with the field teams.

79. Accounting and Financial Management (FM) System. With regard to Financial Management (FM) arrangements, Annex 7 provides the details on flow of funds and accountabilities. The proposed arrangements take into consideration: (i) previous project experience managing a Bank-funded operation; (ii) the high degree of commitment and ownership of the PMU FM staff; (iii) MAG's increased FM capacity to execute beneficiary transfers via the National Development Bank (BNF)<sup>8</sup>; (iv) analyses of Paraguay's FM institutions<sup>9</sup>; and (v) the inherent FM risks and weaknesses related to the project (detailed in Annex 7). These are reflected in the FM design of the proposed project through the creation of a Sub-UAF and a RIS to execute FM activities as well as in the development of a comprehensive Fiduciary Framework (Annex 7) and an Improved Governance Framework (Annex 12).

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<sup>8</sup> This is a result of MAG's ongoing experience in implementing rural development projects, in particular with the IDB and GTZ.

<sup>9</sup> See Víctor Hugo Zúñiga Rodríguez. *Contribución al Diseño Institucional Para la Ejecución del Proyecto de Desarrollo Rural Sostenible* (PRODERS). Febrero 2007.

80. Procurement Arrangements. Annex 8 provides the details with regard to Procurement Arrangements. The proposed arrangements take into consideration: (i) previous project experience managing a Bank-funded operation; (ii) analyses of Paraguay's Procurement Legal and Institutional Framework; (iii) the country procurement risk and (iv) the fact that most of the project procurement would be done through CDD procedures. These are reflected in the design of the proposed project through: (a) resorting to the extent possible on traditional procurement methods, which includes the employment of the Country Procurement Portal (SICP – *Sistema de Información de Contrataciones Públicas*), (b) the inclusion in the Loan Agreement of several Special Procurement Provisions and Covenants aimed at mitigating procurement risk, (c) the implementation of an oversight mechanism over CDD subprojects through a concurrent audit, (d) the hiring of a Human Resources firm to support the hiring of individual consultants, and (e) the hiring of the project Procurement Specialist and Assistants.

### **3. Monitoring and Evaluation of Outcomes/Results (see Annexes 3 and 4 for details)**

81. A decentralized Monitoring and Evaluation (M&E) system to support project planning and management is proposed for the project. Specific objectives of the system are to: (a) track changes towards the project objectives, outputs and inputs, and make changes in the project if necessary during implementation to provide a basis for informed and effective project-related decision-making; (b) promote accountability for resource use against objectives; (c) provide and receive feedback from stakeholders; and (d) generate inputs for dissemination of project results and lessons learned.

82. The M&E system will be implemented by: (a) monitoring the project's day-to-day activities, including a system of physical and financial monitoring to track project execution; (b) monitoring project outcomes and impact; (c) undertaking special evaluation studies (including ex-ante, mid-term and ex-post evaluations as well as regular environmental monitoring); (d) undertaking internal and external auditing; and (e) pursuing participative monitoring and evaluation of project activities and results from the perspective of the beneficiaries. The M&E system will include indicators for the evaluation of achievement of objectives and the monitoring of outputs and outcomes to allow for changes to be made as necessary during implementation thereby contributing to inform and effective project-related decision-making. It will also be used to generate inputs for dissemination of project results and lessons learned.

83. The M&E system will be supported by a computerized Management Information System (MIS) which will include project activities, inputs and outputs and will constitute a tool for planning, coordinating, providing transparency and monitoring the project's physical and financial implementation progress.

84. The PMU's M&E Unit will be responsible for operating and coordinating M&E activities both within the project and with other projects, directly for the GEF/Bank Paraguay Biodiversity Project or through DGP for other projects. However, the following parties will also be involved in data collection, processing and reporting: (a) project staff (particularly extensionists); (b) beneficiary organizations (MDCs, IAs and MSCs); (c) beneficiary groups through biannual client satisfaction evaluations; and (d) reports from implementation partners. In addition, key groups of stakeholders, particularly indigenous communities and small-scale farmers living in the micro-

catchments, will participate in data generation through monitoring social and environmental aspects of the project.

#### **4. Sustainability**

85. Government Commitment to the Project. The GOP has confirmed that rural poverty reduction and environmental protection are government priorities and has requested Bank support through the implementation of a follow-on project to PARN. This project constitutes a step towards these objectives in two of Paraguay's poorest departments. The proposed operation is part of a longer-term strategy that would initially focus on two departments, and, based on performance, could possibly be scaled-up to extend to other departments by means of an Additional Financing or a parallel "repeater" operation.

86. During preparation, MAG continually reaffirmed the GOP's commitment to this operation. Further commitment is evidenced by INDERT's agreement to coordinate some of the activities supported by its rural development fund (FIDES) with this new operation by complementing investments (roads, schools, etc.) in the municipalities covered by the project. Finally, the decision to allocate scarce DEAG staff to project implementation at the national, departmental and local level is a further demonstration of the GOP's commitment to sustainable rural development and to the project's strategy.

87. Sustainability of Outcomes. The project builds on the experiences of PARN, and incorporates all of the success factors in the design: (a) focusing on increasing capacity of beneficiary organizations and producer groups; (b) utilizing existing institutional structures to organize and undertake project activities; (c) involving national and local government institutions in order to facilitate follow-up; (d) capitalizing on existing coordination mechanisms, particularly those which were established by PARN, including public-private-civil society partnerships; (e) extensive use of experts to support the local beneficiary teams; (f) adaptive research more focused on small-scale farmers; and (g) an integrated approach to micro-catchment management, capacity building, among others.

88. Technical Sustainability. The project will further the innovative conservationist technologies developed and implemented under PARN, which resulted in more environmentally-sustainable production systems, lower production costs, lower labor requirements, higher productivity and, therefore, more economically and socially-sustainable systems. Also, the improvement of animal health and husbandry management among small-scale farmers and indigenous communities, and the development of a tracking system for livestock units and cattle will provide more secure ways to improve animal production and commercialization. This is expected to ensure the technical sustainability of the project.

89. Institutional Sustainability. The PARN project had a positive impact on MAG. In particular, MAG's expanding experience and mainstreaming of participatory approaches to natural resource management was notable. MAG still requires further institutional strengthening that is being addressed through this project. At the local and municipal levels, many PARN project achievements are attributable to the strengthening of these development institutions. Both these initiatives are being deepened under this project.

90. Financial Sustainability. The analysis of expected benefits at the farm level indicates that improved practices will yield greater returns per hectare than traditional ones (see Annex 9). Improved financial returns, the ability for product diversification and access to new markets will act as important incentives for farmers to continue employing project practices. The financial viability of these production and investment models has already been amply validated under the PARN project.

91. For indigenous communities and micro-catchments, the participatory development of sustainable agriculture and rural development plans applied to local agro-ecosystems will integrate the objective of sustainable natural resources management with traditional objectives of production for domestic consumption and sale, thus fostering long-term sustainability.

## **5. Critical Risks and Possible Controversial Aspects**

92. The main critical risks and mitigation measures are presented in the following table.

<b>Risks (to Project Development Objective)</b>	<b>Risk Mitigation Measures</b>	<b>Risk Rating w/ Mitigation*</b>
Institutional weakness of MAG with inadequate financial and other management systems causes inefficient and unsatisfactory project performance.	The project's framework for good governance includes institutional strengthening and improvement of financial and other management systems.	S
Lack of government commitment and ownership and failure to provide regular counterpart funds.	Mitigation measures include: (i) the Bank's verification of the high priority and interest across the political spectrum in rural poverty reduction and environment protection; (ii) significant consultations, public accountability and transparency during preparation as well as included for implementation; (iii) use of FIDES funds as a significant portion of counterpart funds required; and (iv) implementation of administrative capacity building activities for enhanced financial planning.	M
Project fails to deliver on its decentralized highly participatory approach either because of insufficient local organizational strengthening and poor public accountability or due to time required for community development.	Mitigation measures include: (i) use of rigorous and transparent targeting criteria; (ii) extensive training of target population and local organizations contributing to capacity building, empowerment and creation of social capital, and tempering expectation of quick results from the project; (iii) extensive training of project staff on participatory methodologies; (iv) extensive information campaigns to ensure the target population is well informed about the project's objectives, opportunities and procedures; and (v) beneficiary representatives on decision-making bodies and participatory monitoring.	M
Lack of consultations, participation, and ownership of indigenous communities assisted by the project, as a result of MAG's weak attention to and capacity for Indigenous Peoples issues.	The indigenous strategy of the project, which calls for very participatory processes will be incorporated into the Operational Manual in its entirety. M&E by the project will also focus on this issue, ensuring careful supervision by the Bank team. A covenant will also be included in the loan agreement to condition disbursements to acceptable progress on indigenous activities.	S
Insufficient procurement capacity and risky country procurement environment	During preparation, a Bank procurement specialist conducted a capacity assessment of MAG and developed a time-bound action plan to build procurement expertise. Special provisions and covenants will be included in Loan Agreement. A Human Resources firm will be hired for the selection of project staff, as well as a concurrent audit.	H
Weak control environment and low FM capacity on the part of MAG hinders project execution	During preparation, a Bank FM specialist conducted a capacity assessment of MAG and developed a time-bound action plan to build its institutional capacity and mitigate risk. Concurrent audits will be contracted. FM specialist would participate in supervisions	H

<i>Risks (to Project Development Objective)</i>	<i>Risk Mitigation Measures</i>	<i>Risk Rating w/ Mitigation*</i>
	missions to proactively address FM concerns during project execution.	
<b><i>From Components to Outputs</i></b>		
Local institutions not sufficiently prepared or provided with technical assistance for planning, implementation and monitoring of project activities.	Mitigation measures include: (i) extensive training of project facilitators and extension agents; and (ii) direct training to strengthen local organizations.	M
Lack of land titles impedes the involvement of small-scale farmers and indigenous communities in adoption of more sustainable natural resource and productive practices.	Project includes support for land titling assistance for indigenous communities and small-scale farmers.	M
<b><i>Overall Risk Rating</i></b>		S

\* H = High; S = Substantial; M = Modest; L/N = Low/Negligible

93. As further described in Annexes 7, 8 and 12, the project is considered a high risk operation from a fiduciary point of view. This high FM risk rating is mainly a result of: (a) the inherent risk from the country and ministry fiduciary environment; (b) the transfer of funds to community subprojects; (c) a high control risk due to the level of internal control; and (d) the potential time-lag and suspension of inception activities between project effectiveness and Congress approval. The detailed risk analysis is provided in Annex 7. The high Procurement risk rating is the result of: (a) the risky country procurement environment, mainly due to the weaknesses of control institutions and lack of competitiveness of the market; (b) the fact that most of the procurement would be done through CDD procurement procedures and the hiring of individual consultants and (c) the lack of experienced procurement staff. The detailed risk analysis is provided in Annex 8.

94. No issues have been identified that might be controversial or pose any reputational risk to the Bank.

## 6. Loan/Credit Conditions and Covenants

95. Condition of Effectiveness: The Sub-Administrative and Financial Unit (Sub-UAF) and Procurement Unit (UOC) have been duly established, and a financial management specialist for the Sub-UAF, and a procurement specialist for the UOC, both assigned to work for the Project, have been selected, all in a manner acceptable to the Bank as provided in the Operational Manual and Loan Agreement.

## **D. APPRAISAL SUMMARY**

### **1. Economic and Financial Analyses (*see Annex 9 for details*)**

96. Overall, the project will improve natural resource management (soil conservation practices) and productivity on 10,000 farms<sup>10</sup>. Of these farms, 5,000 are also expected to develop innovative and diversified sustainable production systems consistent with land capabilities and 5,000 are expected to diversify production. In addition, 2,030 indigenous households will be assisted for improving natural resources management and increased food production.

97. Farmers' net income with and without the project were estimated on the basis of illustrative farm models. Net incremental income could vary from 24% to over 100% depending on the farmers' initial conditions, the cropping pattern and the farmers' own dynamics to go beyond the rehabilitation stage and adopt practices of sustainable production. According to the analysis carried out, all farm models are expected to ensure incomes above the rural poverty line, in addition to the benefits derived from improved natural resources management, increased food availability and better housing and sanitation conditions.

98. The overall internal economic rate of return (EIRR) of the project is estimated to be 17%. This estimate is conservative since it does not take into account some benefits accrued from the project that are extremely difficult to quantify such as: (i) improved water quality, biodiversity conservation and decreased soil erosion; (ii) increased well-being as a result of more food availability and improved social services; and (iii) the long-term effects of strengthened community organization and self-management.

### **2. Technical**

99. Overall, the project is deemed technically sound given that the main constraints to improved socioeconomic conditions and management of natural resources by small-scale farmers and indigenous communities have been adequately identified throughout the implementation of PARN and during the preparation of the proposed project. They have been addressed in the organization and capacity building approach for participatory, community-based development work and in the technical strategy of the project. PRODERS will maintain PARN's technical strategy of promoting practices that maximize soil protection from rainfall, contributing to improved water infiltration by enhancing soil structure and safely handling rainfall runoff, by taking the micro-catchment into account in the planning and implementation unit. Basic technology for simple diversification and post-harvest improvements to the production systems of small-scale farmers is well known in Paraguay and already promoted by MAG. Adaptation to the local agro-ecological conditions and circumstances of indigenous communities and the poorest small-scale farmers continues to be a challenge and will be undertaken under the project research and development programs.

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<sup>10</sup> Based on past experience, it is expected that about 80% of targeted small-scale producer population (i.e. approximately 8,000 farmers) will effectively become involved in the project productive activities. The total area of micro-catchments eligible to receive project assistance is 353,351 hectares.

### **3. Fiduciary**

100. (see Annexes 7 and 8 for more information on the Financial Management and Procurement Assessments, respectively).

101. The Financial Management Arrangements for the Project (SRDP) Meet Bank Requirements. The proposed FM and audit arrangements, mitigations measures and action plan will be implemented to mitigate FM risk. Despite the mitigation measures, the residual risk level was rated high particularly due to: (i) the high level of inherent risk in Paraguay; (ii) MAG's weak control environment and insufficient FM capacities; (iii) the transfer of funds to final beneficiaries (FDRS); and (iv) the potential time-lag and suspension of inception activities between project effectiveness and Congress and approval.

102. A comprehensive Fiduciary Framework is planned for this project in order to comply with project development objective and mitigate the high FM risk. This will also contribute to the Improved Governance Framework for the project (described in Annex 12).

103. For the sustainability purpose of project results, the project under Bank FM supervision will provide support to strengthen the Financial and Administrative functions of MAG (Project Component 5). The objective is to increase the capacity of MAG's treasury and procurement functions, through the creation of the Sub-UAF within DINCAP, which were outsourced under PARN.

104. The project FM arrangements and mitigating measures are described in Annex 7. Due to the high level of risk, additional measures were incorporated to ensure proper mitigation.

105. Procurement Assessment. An assessment of MAG's capacity to implement project procurement was carried out and included a review of the organizational structure for project implementation, the procedures in use, the capabilities of personnel assigned to procurement and the nature of the procurement to be carried out. The overall project risk for procurement is high, which is the result of: (a) the risky country procurement environment, mainly due to the weaknesses of control institutions and lack of competitiveness of the market; (b) the fact that most of the procurement would be done through CDD procurement procedures or through the hiring of individual consultants and (c) the lack of experienced procurement staff. To minimize this risk, a set of actions are recommended to mitigate risks and build procurement expertise, which will be implemented within the planned project institutional structure. These include spelling out in the Loan Agreement a set of Special Procurement Provisions and Covenants, resorting on a concurrent audit for oversight purposes, hiring a human resources firm to support the process of hiring of individuals and hiring a procurement specialist for the PMU and procurement assistants for the ZCUs.

### **4. Social (see Annex 16 for details)**

106. The social assessment identified the following challenges facing the target population: (i) deepening of rural poverty in recent years; (ii) inadequate provision of sanitation and other basic services including water; (iii) degradation of natural resources; (iv) lack of attention to indigenous issues; (v) lack of access to resources and technical information necessary to

undertake improved productive practices; (vi) insufficient awareness of participatory methods by rural technicians and beneficiaries; (vii) absence of market opportunities for small-scale farming production, especially the need to introduce alternatives for beneficiaries, accompanied by proper marketing support; and (viii) poor integration of policies and programs at the local level.

107. Stakeholder Participation. Stakeholders will include small-scale farmers, local community organizations, indigenous communities and Indigenous Associations (IAs), rural laborers, rural school teachers and students, technical staff and managers from local governments, main government agencies implementing projects related to poverty reduction, natural resources management and sustainable rural development, producer and civil society associations, and staff from MAG-DEAG and other relevant directorates.

108. During project preparation, consultation workshops were held with project stakeholders to identify and prioritize problems to be addressed by the project as well as resources and constraints to bear in mind during project preparation and implementation. In addition, PARN extension agents were consulted to learn from their direct, on-the-ground experience and to determine areas in which PARN succeeded and failed, especially in regard to targeting, extension and delivery of services so as to strengthen the design of PRODERS.

109. Stakeholders will play a key role in project implementation and decision-making through the CDGs and project steering committees. Some of their roles will include: participation in the elaboration of MDPs and ICDPs and annual operation plans, as well as in assuring social control. Indigenous groups will play a determining role in the implementation of project activities in their communities ranging from elaboration to approval and implementation of the indigenous community investment proposals (see Annex 6 for further details).

110. Indigenous Peoples. Approximately 2,030 indigenous families living in 73 communities will benefit from project activities. In addition to living in conditions of extreme poverty with severe degradation of their natural resources, many lack legal title to their land and/or have insufficient lands to meet the community's needs. Moreover, historically, inadequate attention has been given to addressing the concerns of Paraguay's indigenous communities, especially in a manner consistent with their traditional beliefs and organizational structures. Thus, the proposed project will work with all 73 communities located in the two target departments to mainstream them in all of the project's components. They will receive the same project benefits as their non-indigenous counterparts but these will be prepared and implemented in such a way as to respect their specific cultural characteristics, including language and community leadership structures (see Annex 14 for the project's detailed Indigenous People's Development Plan).

111. Women. Women, who comprise 49% of the population in rural areas, play an important role as agricultural producers. Moreover, studies have shown that women are much more receptive than men to adopting technological innovations, especially when presented with a positive relationship between such innovations and improvement of the situation of the family. Despite this, little effort has been made to directly and differentially target women with technical and financial assistance. PRODERS will work to build capacity of local women and promote the establishment of Women's Associations. The project will also ensure that women play a role in the day-to-day functioning of the project through representation on the CDGs and MDCs. In addition, through technical assistance and assistance in obtaining land titling, it will work to

increase awareness of a recent law requiring that the titling of landholdings be in the name of both husband and wife, even in the cases of common-law marriages.

112. Youth. Few efforts have been made to effectively integrate Paraguayan youth into development. Youth organizations are also sorely lacking in capacity. To overcome these challenges, PRODERS will promote youth integration into regional development by increasing their capacity with specific focus on improving youth employability in the agricultural and livestock sectors. Moreover, young people will be represented in the organizations responsible for the basic management of the project (CDGs, MDCs and MSCs). In addition, the project will support the formation of Youth Associations in the micro-catchments.

113. Monitoring of Main Social Impacts. The beneficiary perception of project performance will be monitored closely through a number of events that will be encouraged by project and DEAG extension agents. Activities will include periodic workshops with project participants to assess project implementation and plan future actions as well as quarterly and semi-annual evaluation meetings of MDCs and MSCs, respectively. In addition, the entire participative strategy pursued by PRODERS will allow for a permanent feedback process between the project staff and the beneficiary population.

## 5. Environment

114. Positive environmental impacts are a basic objective of the project, especially relating to the improved management and conservation of natural resources and the reversal and control of land degradation processes (i.e. through improved soil and water conservation, adoption of agro-forestry techniques, restoration of riparian forests, water source protection and domestic sanitation). The monitoring and evaluation system will incorporate specific means to measure impacts. Some of the expected direct positive impacts in the project area include: (i) improved soil fertility; (ii) improved water quality (both surface and ground water); and (iii) greater biodiversity within riparian zones. In addition, project-supported activities for environmental education and improved inter-institutional coordination are expected to generate substantial environmental benefits for the project area.

## 6. Safeguard Policies

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

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

115. Environmental Rating: B – Partial Assessment. The Project is designated as Category B project based on the above assessment of potential impacts. On November 23, 2004, the Bank PCN (which partially forms the basis for this document) was reviewed by the Quality Assurance Team (QAT), which agreed with the proposed Category B rating. The QAT also agreed that the project is “an environmentally positive project which primarily aims to introduce more environmentally friendly technologies and productive activities”. See Annex 10 for details regarding the triggering of safeguard policies.

## 7. Project Compliance with Applicable Safeguard Policies

116. Environmental Assessment. The project is classified as Category B. It was designed to ensure compliance with the requirements of the Bank umbrella policy on Environmental Assessment (OP 4.01). Positive environmental impacts are a basic objective of the project. Some project activities will have potential environmental impacts and will mostly be those financed by the FDRS to support the adoption of improved land use practices, community and municipal subprojects and works. In conformity with Bank policy and GOP legislation on Environmental Assessment, an Environmental Assessment (EA) was conducted, and an Environmental Management Plan (EMP) was prepared. Strict environmental evaluation procedures and environmental licensing mechanisms, as well as proposing mitigation measures, are built into the EMP and the Operational Manuals of the FDRS. A negative list of activities that are not eligible for funding will also be incorporated into the EMP and the Operational Manual in regard to subprojects funded through the FDRS.

117. The draft EA and respective EMP were submitted by the borrower in December 2005. The final EA will be sent to the Infoshop before Appraisal.

118. For the environmental monitoring and impact evaluation, a number of output and impact indicators will be measured and supported under the M&E subcomponent which will include a systematic socio-environmental monitoring of 10 pilot micro-catchments (see Annex 3 for details).

119. Pest Management. The project will not finance the procurement of any pesticides or other chemical amendments that will trigger the Bank policy on Pest Management (OP 4.09) nor will it promote increased use of agricultural chemicals. Nevertheless, it should be noted that small amounts of pesticides will probably continue to be used by a small portion of micro-catchment farmers for which disposal of containers may be requested by communities to reduce health and environmental risks associated with pesticide use. This disposal will follow the guidelines set forth under OP 4.09 Bank guidelines. In addition, pertinent national laws and regulations in this regard will also be followed.

120. The project will support technical assistance for the adoption of proven, economically and environmentally sustainable Integrated Pest Management practices (IPM), an approach designed to increase farmer productivity (yields) while reducing input costs, human health risk and adverse environmental impacts through the virtual elimination of pesticide use. The IPM approach further increases sustainability of agro-ecosystems by focusing on improving the knowledge and skills of farmers to enable better management of resources. Finally, IPM programs are economically sustainable as they reduce farmers’ dependence on procured inputs.

121. Indigenous Peoples. The proposed project will specifically target indigenous peoples in the project area. Thus, during project preparation, consultations were held with IAs to determine their priorities and needs. Project activities will be implemented with the full participation of the communities and will be carried out in a manner respectful of their cultural characteristics. To ensure this, extension agents working with indigenous populations will have prior training and experience working with indigenous communities. In addition, an anthropologist will be employed by the project to consult on indigenous and other social issues. Moreover, an Indigenous Peoples Development Plan has been prepared to orient the project's interaction with indigenous communities and can be found in the project files. See Annex 17 for more information.

122. Forestry. The proposed project will primarily support environmentally protective activities and those which are supportive of small-scale farmers (i.e., farm and community forestry). No logging activities, charcoal or fuelwood production will be supported through project funding although these activities take place within the project region and micro-catchments. The project will finance investments focused on reforestation or regeneration of natural forests to protect water sources and waterways, and reforestation for productive purposes in beneficiary small-scale farmers to reduce impacts on native forests. No large scale reforestation activities with exotic species will be carried out and the use of native species will be promoted. The total area of plantations or enrichment activities in the project area is estimated at 10,000 hectares.

123. Natural Habitats. The project, as well as the semi-blended GEF project, seeks to increase sustainability, maintain and enhance habitat for biodiversity conservation, and provide environmental goods and services for rural communities. No significant conversion or degradation of natural habitat is expected from the project investments. Improvements in natural resource use and management should provide an important for the maintenance of connectivity in the landscape. Critical natural habitats and protected areas have been identified within the project area and precautions will be taken through the EMP which provides for an environmental review framework to ensure that natural habitats are not adversely affected and positive effects are maximized.

## **8. Policy Exception and Readiness**

124. The proposed project does not require any exceptions from Bank policies.

## **Annex 1: Country and Sector Background**

### **PARAGUAY: Sustainable Agriculture and Rural Development Project**

#### **1. Economic and Sector Background**

1. Paraguay has a total area of 406,752 km<sup>2</sup> and an estimated population of 5.9 million inhabitants. Some 43% of Paraguayans inhabit rural areas, making Paraguay the most rural of all South American countries. The Paraguay River divides the country into 2 sections, the Eastern (*Región Oriental*) and Western (*Región Occidental or Chaco*) regions. While the country's Eastern Region represents only 39% of the national territory, over 97% of all Paraguayans live there, including virtually all of Paraguay's small-scale farmers.

2. The Eastern Region is comprised of 14 departments, of which two, selected on the basis of a national poverty index<sup>11</sup>, represent the proposed project area (see Annex 18 for a map of the project area). These two departments are home to 762,851 people, including 9,687 of Paraguay's 85,674 indigenous people.

3. Economy. Paraguay's economy has been largely stagnant since the 1990s. This is due to a variety of factors including successive banking crises as well as the recent weaknesses in the economies of neighboring countries that have affected the country. Since 2003, however, economic performance has maintained general improvement: (i) the economy returned to positive growth rates in 2003, with real GDP growing at an estimated 3.5% in 2006<sup>12</sup>; (ii) the exchange rate has remained stable with inflation being held to single digits since 2004; and (iii) the public sector has enjoyed both overall and primary surpluses. This recovery was prompted by a combination of developments, which included a pronounced expansion in agricultural output driven by the exceptionally high commodity prices, the institution of more rational spending policies and enhancements in tax administration. The economic turnaround has also led to a significant decline in external public debt, which stood at 30.5% of GDP in 2006, down from 50% just three years earlier. The outlook for 2007 is for a continuation of these trends.

4. On the external front there is the usual risk of a terms-of-trade shock either owing to further increases in world oil prices or to a downturn in commodity prices. While the regional economy appears strong, there could be macroeconomic shocks in the much larger neighboring economies that will depress external demand. There is also the possibility of deteriorating conditions for emerging capital markets which could worsen market sentiment and thus reverse recent capital inflows.

5. Macroeconomic prospects are positive given the government's commitment to follow prudent fiscal policies and the supportive external environment. The political stalemate – due to differences over constitutional reform to allow re-election of the President – with opposition parties, however, slowed the structural reform agenda. Casualties of the stalemate included

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<sup>11</sup> The PLIPEX index, proposed in 2004 by Paraguay's Secretariat for Social Action, is a method for targeting and prioritizing territorial areas in which to implement social investments aimed at the reduction of extreme poverty. Its values derive from a combination of income levels and UBN.

<sup>12</sup> All figures used in this section are derived from the International Monetary Fund.

bilateral and multilateral credits (which in Paraguay need to be approved by Congress) and draft laws presented to Congress.

6. The recent growth of the economy reverses the long-term steep decline in per capita incomes, where per capita GDP, measured in constant 2000 US dollars, fell at an average annual rate of 0.8% between 1981 and 2002. However, despite the recent economic improvement, per capita GDP in 2006 was about equal to its level over a quarter of a century ago, in 1979. As a result, the moderate rates of GDP growth projected for the medium term (3.5%) remain insufficient to compensate for the underperformance of the second half of the 1990s when poverty rates and income inequality increased considerably.

7. Agricultural Sector. While important inroads are being made in the country's service sector, especially in trade and finance, Paraguay's economy still ultimately rests on agricultural and livestock production, which account for close to 25% of GDP, generate the bulk (over 85%) of total exports and employ about 45% of the country's labor force. Nearly 80% of all export goods fit into five categories: cotton, soy bean, vegetable oils, meat and wood; a significant part of the national industry is based on the processing of these commodities. Sixty-five percent of total exports correspond to just two categories: soy and cotton (either unprocessed or with some degree of processing). However, in recent years there has been a marked shift away from cotton and towards soy.

8. The principal crops grown in the Eastern Region, as well as in the proposed project area, are soy (cultivated primarily by medium and large enterprises), corn (cultivated both by larger enterprises and small-scale farmers), manioc, cotton and wheat, with tobacco, oranges, pineapple and tomato all important for small-scale farmers. However, cotton, which forms the basis of small-scale farmers' livelihoods, has experienced a sustained drop in returns (including a 64% drop in the area planted with cotton from 1996 to 1999) which has had a severe impact on the domestic economies of these producers.

9. The most important livestock production is beef based on a stock of 10.5 million head of cattle. There are 230 thousand livestock units in Paraguay of which almost 80 % are small-scale farmers with 3 to 5 heads per unit accounting for almost 15 % of total cattle population. There is a substantial gap in animal productivity between medium and large livestock farms and small-scale farmers with a few head of cattle.

## **2. Sector Issues**

10. Poverty. Poverty is one of the most pressing social issues in Paraguay today, especially in the Eastern Region where most Paraguayan live. In 2005, 32% of the total population lived below the poverty line, a percentage that increased to 40% in rural areas. In the same year, 17% of the population lived in extreme poverty, a figure that increased to 22% in the rural population. This means that in rural areas approximately one million people lived in poverty, including virtually all of Paraguay's 85,674 indigenous people, with one in every 3.5 rural inhabitants living in conditions of extreme poverty.

11. Small-scale Agriculture Issues. Poverty and natural resource degradation are closely related to the situation and current trends of the country's agricultural sector. Paraguay's

agricultural sector can be divided into two sub-sectors: an emerging sub-sector of capitalized entrepreneurial agriculture which has been able to respond to market signals and is primarily responsible for the growth within the broader sector in recent years; and a small-scale farming sub-sector characterized by low-productivity, family agriculture whose main products are subsistence crops, with a connection to the market economy primarily through cotton, and livestock products obtained from a few number of animals per unit which are badly cared of in terms of animal health and husbandry.. Poverty is widespread in this population and is linked to a very limited access to land, capital and technology as well as to social and human capital resources. Substandard housing, overcrowding, lack of sanitation services, polluted water supplies and food insecurity are widespread among small-scale farmer and indigenous community households.

12. Due to Paraguay's economic dependence on agriculture and livestock and the reliance of many Paraguayans on those sectors for their livelihoods, the way that land is managed heavily impacts production, livelihoods and the management of natural resources. In particular, the question of land in Paraguay today has two primary elements: (i) extreme inequality in land tenancy; and (ii) extensive irregularities in land titling.

13. The existing distribution of land in Paraguay is grossly unequal and is one of the most inequitable in Latin America. In the Eastern Region, where most poor farmers live, 16% of rural landholdings account for 86% of the land; in the five project-targeted departments, 85% of all landholdings have fewer than 20 hectares with half of these properties comprising 5 hectares or less. Further complicating the situation, land tenancy among small-scale farmer households is plagued by lack of titles, a situation that affects about 60% of Paraguay's population, and numerous cadastral problems. In addition, only 50% of the indigenous communities present in the project area hold legal title to their lands, although even in these cases the size of the landholding is often not sufficient to meet the needs of the community (nor commensurate with the number of hectares dictated by law). Furthermore, these communities often do not receive sufficient technical assistance. This land situation not only makes it extremely difficult for small-scale farmers to diversify their production, thereby improving food security and increasing income, it is also a major disincentive to invest resources in environmentally friendly productive practices on the land.

14. Livestock Sector. This sector is one of the main contributors of foreign exchange. In years 2006 and 2007 livestock products exports will amount almost 500 million US\$ per year which has been increasing along the last decade. Paraguay needs to be a part of the regional initiative focused on animal health (foot and mouth and other trans-boundary diseases) and diminish as much as possible the risks of having animal health limitations in export markets. This is constrained mainly by the inadequate infrastructure in the regulatory agency network of clinics and laboratories, the existence of a large number of cattle without registration and poor animal health and husbandry management by small-scale farmers and indigenous communities. Another significant constraint is the lack of adequate extension services in the MAG relating to appropriate animal husbandry practices, and the provision of improved genetic material and sound forage seeds in small-scale farming communities.

15. Environmental Degradation. Paraguay is home to part of the Atlantic Forest, which is regarded as one of the most threatened ecosystems in the world with only 7% of its original area

still extant. Paraguay's Eastern Region represents a unique bio-geographical transitional zone where the Upper Parana Atlantic Forest merges with the Cerrado and the Humid Chaco eco-regions. Paraguay's Atlantic Forest is a subtropical forest that originally covered eastern Paraguay, northeastern Argentina and southwestern Brazil. The Humid Chaco is a complex of savannahs which are characterized by periodic flooding, while the Cerrado is characterized by a low-lying undulating topography primarily composed of sandy soils.

16. Despite its ecological importance, the Eastern Region suffers from severe environmental degradation. This includes deforestation, accelerated erosion, loss of soil fertility, loss of biological diversity, and decreased quantity and quality of water resources. In terms of forest resources, deforestation has been particularly severe, with current estimates indicating that nearly 5 million hectares of forest cover have been lost in the Eastern Region since 1945 (this represents 60% of the existing forest cover in the Region in that year). Presently, there are approximately 3.5 million hectares of forest in the Eastern Region, covering 22% of the Region's area, of which 765,500 hectares correspond to productive forests (defined as being of sufficient quality and quantity to warrant their sustainable management through forest management plans). At present, the annual loss in total forest cover is an estimated 90,000 hectares. More recently, devastating wildfires have degraded natural resources in the Eastern Region, especially remnant forests, and have also impacted rural communities' crops and fuelwood sources.

17. One of the principal causes of environmental degradation in Paraguay is the country's model of agricultural development which has promoted short-term profits over long-term environmental sustainability. Some of the major practices which contribute to this degradation include: (i) the expansion of the agriculture frontier through the colonization of new lands; (ii) slash-and-burn agriculture; (iii) extensive grazing; and (iv) the practice of mono-cultivation of cotton and, more recently, soy. Failure to employ appropriate soil conservation and management measures as part of a sound land use planning framework have further aggravated deforestation, erosion and loss of soil fertility in the Eastern Region. In turn, non-sustainable land use practices are contributing to decreased productivity and falling incomes which most heavily impact small-scale farmers who have the least ability to adjust to these trends. Reduced farming income and increasing demand for wood and charcoal within Paraguay and neighboring Brazil have also put pressure on remaining forest fragments.

### **3. Policy, Institutional and Related Constraints**

18. Various rural development projects in Paraguay, including the recently-completed Bank-financed PARN project, have clearly demonstrated that agriculture continues to remain a viable proposition for small-scale farmers with landholdings of less than 20 hectares. However there are some aspects which need to be strengthened to better realize this potential. In addition, there exist critical inter-dependent issues relating to agriculture, environmental degradation, and rural poverty, some of which have been provided below. It is also important to recognize that there could be some geographical areas and some very small land-holdings which may not be viable, and population groups which are landless. This will require a focused attention in terms of capacity building to transition such groups into alternative rural non-farm employment opportunities. These initiatives could be covered through a separate project, and are therefore not included in this project:

- (a) Lack of Sound Land-use Planning and Enforcement. The degradation of soil and forest resources caused by unsustainable land use has been exacerbated by inadequate planning of productive endeavors at the national and local levels as well as by weak enforcement of environmental laws;
- (b) Weak Generation or Adaptation and Transfer of Applied Technology. The government's agricultural and livestock research and extension services are weak. In addition to financial and budgetary constraints, this can be attributed to a constant drain of technicians who move to the private sector due to inadequate remuneration. Another problem stems from the huge extension staff being close to retirement. The little research carried out (mostly adaptive in nature) rarely takes into account the needs of small-scale farmers or their production systems and rationale. Coverage of official technical assistance services is very limited and it is estimated that it reaches only 11% of small-scale farmers (those with fewer than 20 hectares);
- (c) Access to Credit. It is exceedingly difficult for small-scale farmers to gain access to credit. Seventy percent of farmers with fewer than 20 hectares of land are unable to obtain credit. Of those who are able to access credit, 16% receive it from the formal public sector, 8% from cooperatives and producers' organizations, and 72% from the informal sector of middlemen, wholesalers, factories and truckers;
- (d) Lack of Social Organization and Participation. Despite the relatively large number of community and producer organizations in Paraguay's rural areas, these groups generally lack the degree of social organization and knowledge of participatory methods necessary to play a successful role in sustainable rural development, especially since they are faced with a government that has yet to implement any sort of consistent set of policies aimed at them;
- (e) Weak Institutional Framework. MAG, and the other sectoral institutions, have historically had deficiencies in policy management, but they are making improvements in focalizing poverty-oriented strategies; and
- (f) Livestock Sector. There is a need to improve the field level infrastructure relating to clinics and laboratories to contain foot and mouth and other transboundary diseases, and strengthen the nodal agency, the National Service for Animal Health and Quality (SENACSA) and the Vice Ministry of Animal Husbandry (VMG) to be able to manage this effort vigorously and effectively specially in border areas and small-scale farmers and indigenous communities.

#### **4. Rural Sector Development Strategy**

18. FAO and the Bank have identified a number of action areas for the development of the rural sector in Paraguay. The following matrix provides a summary of the complementary initiatives that are either under implementation or at planning stage.

Identified Action Area	Projects/Studies Supporting the Initiative
Maintain and expand modernization of agriculture	PRODERS (through strengthening of MAG), Studies
Develop the agriculture sector	PRODERS, GEF Biodiversity Project, Studies
Improve factor productivity	PRODERS, GEF Biodiversity Project, Studies
Diversify production	PRODERS, Studies
Develop technologies that support value-addition to products, generate employment, and are environmentally sustainable	PRODERS, GEF Biodiversity Project, Studies
Promote regional equilibrium	PRODERS, Studies
Improve land titling and tenancy	PRODERS, Land Administration Project, Studies
Decentralize the sector and improve the agricultural policies	PRODERS, Land Administration Project, Studies

19. The studies indicated in the above matrix are proposed to be financed under PRODERS. A broad definition of these studies is provided below:

- (a) Study to prepare a policy note on the Limitations for the Development of the Rural and Agricultural sectors in Paraguay. This study aims at identifying the main barriers and challenges of the agricultural sector, and give recommendations to the new administration on strategies and policies to promote the development of the sector. (This study is currently being conducted);
- (b) Study to identify an operational strategy for rural development in Paraguay. Based on the findings and recommendation of the policy note, this study will identify a series of strategies and instruments to promote rural development in Paraguay. (*June – September, 2008*);
- (c) Study to evaluate current extension practices in Paraguay. This study will compare strengths and limitations of extension models and methodologies that have been used in Paraguay in recent years and compare these with those used by PRODERS. An outcome of this study would be a series of recommendations of a new system of extension services for Paraguay (*First semester of 2009*); and
- (d) Study on strategies to address rural poverty in Paraguay. This study will be based on the positive experiences documented by the PRODERS Project and other relevant initiatives to identify a new strategy to address rural poverty among small-scale-farmers in Paraguay. (*Second semester of 2009*).

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

**PARAGUAY: Sustainable Agriculture and Rural Development Project**

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank-financed projects only)	
Bank-financed		Implementation Progress (IP)	Development Objective (DO)
Community-based rural development and natural resources management	Paraguay Pilot Community Development Project (P069269)	S	S
	Land Management III São Paulo (P006474 )	MS	S
	Natural Resources Management and Rural Poverty Reduction - Santa Catarina (P043869)	S	S
	Paraguay NRM Project (P007918) (closed)	S	S
	Rural Poverty and NRM Project-Paraná (P037328) (closed)	S	S
	NRM and Rural Poverty Project-Rio Grande do Sul (P043868) (closed)	S	S
Develop and transfer agricultural technology	Agricultural Technology Development Project for Brazil (P043873)	S	S
Regularization of Indigenous Lands	Indigenous Land Regularization Project (TF053106)		
Forestry Development	Paraguay Forestry Development Project (P085335) (proposed)		
Water Sector	Water and Sanitation Sector Modernization Project (P095235) (under preparation)		
Transport Sector	Road Maintenance Project (P082026) (under supervision)	MS	S
Social Sector	Pilot Community Development Project (P069269) (under supervision)		
	Pilot Community Development Project Additional Financing (P106433) (under preparation)	S	S
Other Development Agencies			
IFAD	Empowerment of Rural Poor Organizations and Harmonization of Investments (Paraguay Rural) Project (I-667-PY)		
KfW	Sustainable Management of Natural Resource Phase I and proposed Phase II		
JBIC	Strengthening of the Agricultural Sector II (PG-P14)		
IDB	Modernization of Agricultural Supports Public Management (PR-L1001)		
	Diversification of Agricultural Production (PR0084)		
	Cotton Small-scale Farm Development Program (PR0082) (closed)		

### Annex 3: Results Framework and Monitoring

#### PARAGUAY: Sustainable Agriculture and Rural Development Project

<b>Project Development Objective (PDO)</b>	<b>Project Outcome Indicators</b>	<b>Use of Outcome Information</b>
<p>Improve the quality of life of small-scale farmers and indigenous communities in the project area in a sustainable manner, by supporting actions that will strengthen local organization and self-governance, improve natural resources management and improve the socio-economic condition of the target population.</p>	<p><i>By PY06:</i></p> <ul style="list-style-type: none"> <li>(a) CDGs, MDCs and MSCs or IAs established, strengthened and participating in the management of rural sustainable development in at least 80% of the target micro-catchments and indigenous communities in the project area with participation of women and rural youth in decision-making (appropriate level of participation to be agreed by the organizations).</li> <li>(b) At least 50% of the target farms increase their agricultural incomes by 30%. Of these, at least 40% obtain an agricultural income above the poverty line.</li> <li>(c) Production of crops for domestic consumption increased by 20% in 50% of the poorest beneficiary families.</li> <li>(d) Productivity of land (by hectare) increased by an average of 25% in 10,000 farms through the application of productive practices promoted by the project.</li> <li>(e) The incidence of poverty (measured in UBN) reduced by 50% in the assisted small-scale-farmer and indigenous communities.</li> <li>(f) 65% of beneficiary households with access to at least one additional basic service aimed at home improvements.</li> <li>(g) 20% of indigenous communities without formal land titles at project start acquire titles and 50% of small-scale farmers without title receive assistance toward acquiring titles.</li> <li>(h) Environmental conditions (soil, water quality, vegetation cover) improved in at least 70% of the 84 target micro-catchments and 73 indigenous communities.</li> <li>(i) Greater awareness among 50% of project beneficiaries of land degradation and the potential contribution of sustainable natural resources and land management to improved livelihoods in the project area.</li> <li>(j) Greater awareness among 70 % of project beneficiaries of the importance of good animal health management and husbandry</li> </ul>	<ul style="list-style-type: none"> <li>(a) <i>PY03:</i> Review project implementation strategy micro-catchment if incorporation rate does not meet 70% of target.</li> <li>(b) <i>PY06:</i> Evaluate project performance.</li> </ul>

<b>Intermediate Outcomes</b>	<b>Intermediate Outcome Indicators</b>	<b>Use of Results Monitoring</b>
<p><b>Component 1: Community Organization Development and Capacity Building</b></p> <p><b>Outcome:</b> Greater community participation in the implementation of sustainable agriculture and rural development activities and increased local management capacity to support this implementation.</p>	<p><b>Subcomponent 1.1 and 1.3: Training and Environmental Education</b></p> <p><i>By PY06:</i></p> <ul style="list-style-type: none"> <li>(a) 290 technicians trained and operating in the project area including 120 PRODERS technicians, 70 DEAG technicians and 100 technicians from municipal and departmental governments as well as other relevant institutions.</li> <li>(b) Environmental education program implemented and reaching about 8,000 people, including teachers, students and members from local organizations (i.e., municipal government sector offices and medium and large-scale farmers' organizations).</li> <li>(c) Beneficiaries directly trained by the project, including 800 rural laborers and youth, as well as members from the 84 Micro-catchment Development Committees and 39 Municipal Steering Committees.</li> </ul>	<ul style="list-style-type: none"> <li>(a) <i>PY02:</i> Reevaluate the environmental education strategy if the achieved target for any stakeholder group is less than 80%. Reevaluate group formation and community organization strategy if the achieved target for any stakeholder group is less than 50%.</li> <li>(b) <i>PY03:</i> Reevaluate the training strategy if the achieved target for any stakeholder group is less</li> </ul>

	<p><b>Subcomponent 1.2: Community Organization Development</b> <i>By PY06:</i></p> <p>(a) At least 600 Community Development Groups, 73 Indigenous Associations, 84 Micro-catchment Development Committees and 55 Municipal Steering Committees established and strengthened. In addition, the establishment of the National Coordination Committee.</p> <p>(b) Participation of stakeholders (male and female farmers, rural youth, indigenous people, rural laborers) in meetings of project-supported groups (Community Development Groups, Micro-catchment Development Committees, Indigenous Associations and Municipal Steering Committees).</p>	than 80%.
<p><b>Component 2: Rural Extension and Adaptive Research</b></p> <p><b>Outcome:</b> Small-scale farmers and indigenous communities planning and implementing sustainable agriculture and rural development activities at the farm, community and micro-catchment levels, with technical support from rural extension and research institutions.</p>	<p><b>Subcomponent 2.1: Rural Extension</b> <i>By PY06:</i></p> <p>(a) Elaboration and execution of:</p> <ul style="list-style-type: none"> <li>- 84 Micro-catchment Development Plans, 12,600 Farm Investment Proposals and 480 Community Investment Proposals.</li> <li>- At least 60 Indigenous Community Development Plans, including investments in income generation, land titling, rural home improvements, food security, and improved land and natural resources management practices.</li> <li>- 39 Municipal Investment Proposals developed and implemented with the communities to support the improved management of natural resources (i.e., improvement of existing rural roads establishment of nurseries, construction of facilities for recycling pesticide containers).</li> </ul> <p>(b) 3,200 farms diversify commercial activities.</p> <p>(c) Producers organized for purposes of marketing in 30 percent of the targeted micro-catchments.</p> <p>(d) At least 13,500 small-scale farmers and 73 indigenous communities assisted by rural extensionists (87 in the project area including 84 extensionists at the micro-catchment and municipal levels, and 3 extensionists in indigenous communities).</p> <p>(e) About 17,100 men and women beneficiaries directly trained by the project including: 13,500 small-scale farmers, 1,650 indigenous communities, 1,200 medium-scale producers (with more than 20 hectares), 600 community promoters and 150 indigenous community promoters.</p> <p><b>Subcomponent 2.2: Adaptive Research and Studies</b> <i>By PY06</i></p> <p>(a) 20 on-farm technology validation trials implemented.</p> <p>(b) 9 market studies for new products (3 for indigenous products).</p> <p>(c) 16 feasibility studies for the development of new products.</p> <p>(d) 6 studies aimed at addressing specific issues raised by indigenous communities (2 on land tenure).</p> <p>(e) 5 demand-driven studies aimed at addressing specific issues raised by micro-catchment and indigenous communities, including 3 studies to overcome technical, socio-economic and environmental problems and 2 studies to generate awareness of environmental issues.</p> <p>(f) 2 policy harmonization studies developed.</p> <p>(g) Base studies and proposal for follow-up operation developed.</p>	<p>(a) <i>PY02:</i> Adjust efforts if fewer than 30 participatory diagnostic activities or 20 Micro-catchment Development Plans are prepared or underway. Review adaptive research strategy if fewer than 10 practices are tested and validated by PY02.</p>

<b>Component 3: Sustainable Rural Development Fund</b>  <b>Outcome:</b> Small-scale farmers and indigenous communities implement investments designed to achieve improved incomes, rural home improvements, food security, animal health and reduced environmental degradation.	<p>(a) Subprojects stemming from Farm Investment Proposals implemented to increase productivity and adopt sustainable productive systems in 12,600 farms, diversify production in 3,200 farms, improve living conditions in rural homes through <i>inter alia</i> water supply and basic sanitation in 65 percent of project homes, and improve access to markets for 100 producer groups.</p> <p>(b) 480 Community Investment Proposals implemented in water supply facilities, agro-processing and artisanal micro-enterprises, equipment for improved agriculture and land-titling assistance.</p> <p>(c) At least 60 indigenous communities benefited through subprojects from Indigenous Community Development Plans in land titling (whenever required), improvement of rural homes, food security, improved production systems and sustainable land management practices, and income generation.</p> <p>(d) 39 municipalities receive support in the implementation of subprojects stemming from Municipal Investment Plans in improvement of rural roads, establishment or improvement of nurseries (fruits and trees) and construction of recycling facilities for agro-chemicals.</p> <p>(e) Natural resource management practices improved in the 84 micro-catchments and 73 indigenous communities including at least 12,000 ha under sustainable land management practices and 5,000 ha of forests recovered through reforestation with native species or natural regeneration.</p>	(a) PY03: Review project implementation strategy and intensify efforts if fewer than 3,200 on-the-ground investments have been identified through the CIPs and FIPs or if fewer than 1,600 have begun implementation by end of PY02.
<b>Component 4. Animal Health Improvement</b>  <b>Outcome:</b> Animal tracking and information system (SIGOR) improved and covering the whole range of livestock units, laboratories facilities for high safety, biotery and beef chemical residues analysis functioning efficiently and field operations of both SENACSA and Vice-ministry of livestock production established and functioning efficiently to ensure high national standards of animal health.	<p><b>Subcomponent 4.1 Strengthening of SENACSA</b></p> <p>a) SIGOR system with improved coverage incorporating 4 new units reaching 76 local units; on line information available for 100 % of information load with an average registering delay of 2 to 4 days instead of current figures of 25 % load and 1 month registering delay; information on livestock movements available within a week instead of current delay of about 1 month; livestock units registration covering 100 % of cases compared to current figures of about 95 %.</p> <p>b) A new high safety laboratory providing high quality and safe pathogen agents sample processing and vaccines analysis.</p> <p>c) A biotery laboratory producing high quality and adequate quantities of biological inputs for the high safety laboratory and other demanding laboratories.</p> <p>d) A chemical residues analysis laboratory using 100 % of its potential instead of current performance of 10 % of potential.</p> <p>e) Improvement of animal health control practices on 22 internal movements control posts and 6 border livestock entries control posts; cool chain involving management of vaccines functioning adequately throughout the whole country; a complete vaccination coverage of small-scale farmers with livestock units within the 84 micro-catchments; an adequate training program for SENACSA staff extended to the whole country.</p> <p><b>Subcomponent 4.2 Strengthening of the VMG</b></p> <p>a) Provision of high quality genetic material of cattle, sheep,</p>	

	<ul style="list-style-type: none"> <li>b) milk cows and goats to small livestock units in the 84 micro-catchments.</li> <li>b) Small-scale farmers and indigenous communities of the 84 micro-catchments trained on animal health management, genetics, artificial insemination, and livestock and pasture management.</li> <li>c) Improvement of high quality pasture availability in the 84 micro-catchments through the provision of improved pastures seeds to sow 0,25 has in each livestock unit.</li> <li>d) Promotion of alternative enterprises such as poultry, pig and honey production among small-scale farmers as a way to diversify risks.</li> </ul>	
<b>Component 5: Project Management, Monitoring and Evaluation</b>  <b>Outcome:</b> Project management structure established, functioning and able to effectively execute project activities and integrate them with the activities of other sustainable rural development programs.	<p><b>Subcomponent 5.1: Project Management</b></p> <ul style="list-style-type: none"> <li>(a) Project Management Unit established in MAG and facilitating effective Project implementation by PY01.</li> <li>(b) Effective collaboration and coordination undertaken through MAG in a systematic manner with other projects and initiatives, including the GEF/WB proposed Paraguay Biodiversity , the WB's Indigenous Land Regularization project, KfW's Natural Resource Management, FIDA's Paraguay Rural and the IDB's Modernization of Agricultural Public Management.</li> <li>(c) Annual Operating, Procurement and Disbursement Plans prepared and submitted in a systematic manner throughout the life of the project.</li> </ul> <p><b>Subcomponent 5.2: Monitoring and Evaluation</b></p> <ul style="list-style-type: none"> <li>(a) Management Information System designed and operating from PY01.</li> <li>(b) Geographic Information System operational and providing technical information and mapping for project implementation from early PY01.</li> <li>(c) System to monitor project activities, results and impacts fully operational in PY02 with participation of local stakeholders and local project staff.</li> <li>(d) Project implementation and M&amp;E reports prepared and submitted to the World Bank, MAG and to the project management throughout the life of the project.</li> </ul> <p><b>Subcomponent 5.3: Communication and Dissemination</b></p> <p>Project communication and dissemination strategy elaborated in PY01 and implemented including: one communication and dissemination strategy designed and implemented; three launch workshops; 10 informational workshops at the departmental level; two national promotional campaigns; 15 department and local level campaigns; and 5 animal health campaigns at department level.</p>	<ul style="list-style-type: none"> <li>(a) <i>PY01</i>: Confirm if efficient project management is in place to ensure high-quality implementation. Intensify efforts if MIS is not fully functional by project start-up. Intensify efforts if SIG is not fully operational.</li> <li>(b) <i>PY02</i>: Evaluate creation of coordinating bodies and participation of key stakeholders regarding project execution if less than 30 MDCs and 3 MSCs established by the end of PY02. Adjust project dissemination campaign if less than 50% of target indicator is achieved. Increase efforts if the project impact monitoring system is not defined or sufficiently detailed.</li> <li>(c) <i>PY03</i>: Conduct mid-term evaluation and readjust project implementation if necessary.</li> </ul>

## Appendix 1

### Arrangements for Results Monitoring

Outcome Indicators	Baseline	Target Values					Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
		Year 1	Year 2	Year 3	Year 4	Year 5			
CDGs, MDCs and MSGs or IAs established, strengthened and participating in the management of rural sustainable development in 80% of the selected micro-catchments and indigenous communities in the project area with participation of women and rural youth in decision-making (appropriate level of participation to be agreed by the organizations).	To be taken as micro-catchments begin implementation	-	10%	30%	65%	100%	<ul style="list-style-type: none"> <li>○ Pilot micro-catchments and indigenous communities: yearly reports</li> <li>○ Project area: mid-term evaluation and final evaluation report</li> <li>○ Pilot micro-catchments and indigenous communities: yearly reports</li> <li>○ Project area: mid-term evaluation and final evaluation report</li> <li>○ Pilot micro-catchments and indigenous communities: yearly reports</li> </ul>	<ul style="list-style-type: none"> <li>○ Yearly socioeconomic surveys</li> <li>○ Socioeconomic and environmental surveys</li> <li>○ Yearly socioeconomic surveys</li> <li>○ Socioeconomic and environmental surveys</li> <li>○ Yearly socioeconomic surveys</li> </ul>	<ul style="list-style-type: none"> <li>○ M&amp;E office with data collected through independent evaluation team</li> <li>○ M&amp;E office through independent evaluation team</li> <li>○ M&amp;E office with data collected through independent evaluation team</li> <li>○ M&amp;E office through independent evaluation team</li> <li>○ M&amp;E office with data collected through independent evaluation team</li> </ul>
At least 50% of the target farms increase their agricultural incomes by 30%. Of these, at least 20% obtain an agricultural income above the poverty line.	To be taken as micro-catchments begin implementation				50% and 20% of target farms		<ul style="list-style-type: none"> <li>○ Project area: mid-term evaluation and final evaluation report</li> <li>○ Pilot micro-catchments and indigenous communities: yearly reports</li> </ul>	<ul style="list-style-type: none"> <li>○ Socioeconomic and environmental surveys</li> <li>○ Yearly socioeconomic surveys</li> </ul>	<ul style="list-style-type: none"> <li>○ M&amp;E office through independent evaluation team</li> <li>○ M&amp;E office with data collected through independent evaluation team</li> </ul>
Production of crops for domestic consumption increased by 20% in 50% of the poorest beneficiary families.	To be taken as micro-catchments begin implementation				50%		<ul style="list-style-type: none"> <li>○ Project area: mid-term evaluation and final evaluation report</li> <li>○ Pilot micro-catchments and indigenous communities: yearly reports</li> </ul>	<ul style="list-style-type: none"> <li>○ Socioeconomic and environmental surveys</li> <li>○ Yearly socioeconomic surveys</li> </ul>	<ul style="list-style-type: none"> <li>○ M&amp;E office with data collected through independent evaluation team</li> <li>○ M&amp;E office through independent evaluation team</li> </ul>
Productivity of land (by hectare) increased by an average of 25% in 10,000 farms through the application of productive practices promoted by the project.	To be taken as micro-catchments begin implementation				25% in 10,000 farms		<ul style="list-style-type: none"> <li>○ Project area: mid-term evaluation and final evaluation report</li> </ul>	<ul style="list-style-type: none"> <li>○ Socioeconomic and environmental surveys</li> </ul>	<ul style="list-style-type: none"> <li>○ M&amp;E office through independent evaluation team</li> </ul>

The incidence of poverty (measured in UBN) reduced by 50% in the assisted small-scale farmers and indigenous communities.	To be taken as micro-catchments and indigenous communities begin implementation	Poverty reduced by 50%	<ul style="list-style-type: none"> <li>○ Pilot micro-catchments and indigenous communities: yearly reports</li> <li>○ Project area: yearly reports</li> <li>○ Component progress yearly reports</li> <li>○ Mid term evaluation and final evaluation report</li> <li>○ Semi annual independent technical audit reports</li> <li>○ Component progress yearly reports</li> <li>○ Mid term evaluation and final evaluation report</li> <li>○ Semi annual independent technical audit reports</li> <li>○ Reports from sub-components 1.2 and 2.1</li> <li>○ Reports from Component 3</li> <li>○ Socioeconomic and environmental evaluation surveys</li> <li>○ Reports from sub-components 1.2 and 2.1</li> <li>○ Reports from Component 3</li> <li>○ Socioeconomic and environmental evaluation surveys</li> <li>○ Reports from sub-components 1.2 and 2.1</li> <li>○ Environmental sampling</li> </ul>	<ul style="list-style-type: none"> <li>○ Early socioeconomic surveys</li> </ul>	<ul style="list-style-type: none"> <li>○ M&amp;E office through independent evaluation team</li> </ul>
67% of beneficiary households with access to at least one additional basic service aimed at home improvements.	To be taken as micro-catchments and indigenous communities begin implementation	67%	<ul style="list-style-type: none"> <li>○ Annual Household Surveys and Population Census</li> <li>○ Reports from Component 3</li> <li>○ Socioeconomic and environmental evaluation surveys</li> <li>○ Reports from sub-components 1.2 and 2.1</li> </ul>	<ul style="list-style-type: none"> <li>○ M&amp;E office from DGECC's data</li> <li>○ M&amp;E office from PRODERS records</li> <li>○ M&amp;E office from independent evaluation team</li> <li>○ Project Manager office from technical audit data</li> </ul>	<ul style="list-style-type: none"> <li>○ M&amp;E office from DGECC's data</li> <li>○ M&amp;E office from PRODERS records</li> <li>○ M&amp;E office from independent evaluation team</li> <li>○ Project Manager office from technical audit data</li> </ul>
20% of indigenous communities without formal land titles at project start acquire titles and 50% of small-scale farmers without title receive assistance toward acquiring titles.	To be taken as micro-catchments and indigenous communities begin implementation	20% of indigen. comm. 50% of peasant families	<ul style="list-style-type: none"> <li>○ Socioeconomic and environmental evaluation surveys</li> <li>○ Reports from sub-components 1.2 and 2.1</li> </ul>	<ul style="list-style-type: none"> <li>○ M&amp;E office from independent evaluation team</li> <li>○ Project Manager office from technical audit data</li> </ul>	<ul style="list-style-type: none"> <li>○ M&amp;E office from PRODERS records</li> <li>○ M&amp;E office from independent evaluation team</li> <li>○ Project Manager office from technical audit data</li> </ul>
Environmental conditions (soil, water quality, vegetation cover) improved in at least 70% of the 84 target micro-catchments and 73 indigenous communities.	To be taken as micro-catchments and indigenous communities begin implementation	70% of micro. and indigen. commns.	<ul style="list-style-type: none"> <li>○ Environmental sampling</li> <li>○ Mid term evaluation and final evaluation report</li> <li>○ Socioeconomic and environmental evaluation surveys</li> </ul>	<ul style="list-style-type: none"> <li>○ Environmental Management Coordinator from independent evaluation data</li> <li>○ M&amp;E office from independent evaluation data</li> </ul>	<ul style="list-style-type: none"> <li>○ M&amp;E office and Environmental Management Coordinator from independent evaluation data</li> <li>○ M&amp;E office and Environmental Management Coordinator from independent evaluation data</li> </ul>

Results Indicators for each Component	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Data Collecting and Reporting		Responsibility for Data Collection
								Target Values	Frequency and Reports	
<b>Component 1: Community Organization Development and Capacity Building Subcomponent 1.1: Training and Environmental Education</b>										
290 technicians trained and operating in the project area including:										
<ul style="list-style-type: none"> <li>○ 120 project technicians.</li> <li>○ 100 technical staff at municipal and departmental level and other relevant government institutions.</li> <li>○ 70 DEAG technicians at its Agriculture Development Centers (ADC) and Local Technical Assistance Agencies (LTAA).</li> </ul>	<ul style="list-style-type: none"> <li>None</li> <li>None</li> <li>To be taken as ADCs and LTAAAs begin implementation via studies of training needs</li> <li>To be taken as micro-catchments begin implementation</li> </ul>	<ul style="list-style-type: none"> <li>44</li> <li>50</li> <li>35</li> <li>80</li> </ul>	<ul style="list-style-type: none"> <li>44</li> <li>50</li> <li>35</li> <li>160</li> </ul>	<ul style="list-style-type: none"> <li>-</li> <li>-</li> <li>-</li> <li>240</li> </ul>	<ul style="list-style-type: none"> <li>-</li> <li>-</li> <li>-</li> <li>240</li> </ul>	<ul style="list-style-type: none"> <li>-</li> <li>-</li> <li>-</li> <li>80</li> </ul>	<ul style="list-style-type: none"> <li>-</li> <li>-</li> <li>-</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>○ Quarterly reports</li> <li>○ Quarterly reports</li> <li>○ Quarterly reports</li> <li>○ Quarterly reports</li> </ul>	<ul style="list-style-type: none"> <li>○ Training records</li> <li>○ Training records</li> <li>○ Training records</li> <li>○ Training records</li> </ul>	<ul style="list-style-type: none"> <li>○ M&amp;E office with data from subcomponent 1.1</li> </ul>
800 rural labor and youth from the micro-catchments trained for agricultural and non-agricultural activities.										
Members of local organizations trained, including:										
<ul style="list-style-type: none"> <li>○ 1,000 members from 84 MDCs.</li> <li>○ 410 members from 39 MSCs.</li> </ul>	<ul style="list-style-type: none"> <li>None</li> <li>None</li> <li>To be taken as micro-catchments begin implementation</li> </ul>	<ul style="list-style-type: none"> <li>120</li> <li>180</li> <li>250</li> </ul>	<ul style="list-style-type: none"> <li>250</li> <li>230</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>370</li> <li>-</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>260</li> <li>-</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>-</li> <li>-</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>○ Quarterly reports</li> <li>○ Quarterly reports</li> <li>○ Quarterly reports</li> </ul>	<ul style="list-style-type: none"> <li>○ Training records</li> <li>○ Training records</li> <li>○ Training records</li> </ul>	<ul style="list-style-type: none"> <li>○ M&amp;E office with data from subcomponent 1.1</li> <li>○ M&amp;E office with data from subcomponent 1.1</li> <li>○ M&amp;E office with data from subcomponent 1.1</li> </ul>	
Environmental education program implemented and reaching about 8,000 people, including teachers and students, and members from local organizations (i.e., municipal government sector offices and medium and large-scale farmers' organizations).										

<b>Component 1: Community Organization Development and Capacity Building</b>	<b>Subcomponent 1.2: Community Organization Development</b>	By PY05, Subcomponent has established or strengthened:							
		o 84 Micro-catchment Development Committees.	None	18	38	28	-	-	o Project progress records
		o 39 Municipal Steering Committees.	None	18	21	-	-	-	o M&E office with data from subcomponent 1.2
		o 600 Community Development Groups.	To be taken as implementation begins	130	280	190	-	-	o Project progress records
		o 73 Indigenous Community Organizations.	To be taken as implementation begins	13	25	25	10	-	o M&E office with data from subcomponent 1.2
		o National Coordination Committee established.	None	1	-	-	-	-	o Project progress records
		17 Social Organization Technicians operating in project area during the life of the project to facilitate training and strengthening of local organizations.	None	5	12	-	-	-	o Project progress records
		Strong stakeholder participation (male and female farmers, rural youth, indigenous people, rural laborers) in meetings of project-supported groups (CDOs, MDCs, MSCs).	None	-	-	-	More than 50% of the groups	-	o Project progress records

Results Indicators for each Component	Baseline	Target Values					Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection	
		Year 1	Year 2	Year 3	Year 4	Year 5				
Results Indicators for each Component	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection

Component 2: Rural Extension and Adaptive Research Sub-component 2.2: Adaptive Research and Studies											
By PY05, research and studies implemented in the Project area have included:	20 on-farm technology validation trials.	None	2	3	10	5	-	-	-	-	-
	9 market studies for new products (3 for indigenous products).	None	3	5	1	-	-	-	-	-	-
	6 studies aimed at addressing specific issues raised by indigenous communities (2 on land tenure).	None	2	2	2	-	-	-	-	-	-
	16 feasibility studies for development of new products.	None	-	3	8	5	-	-	-	-	-
	2 policy harmonization studies.	None	-	1	1	-	-	-	-	-	-
	1 environmental study analyzing micro-catchment ecosystems.	None	1	-	-	-	-	-	-	-	-
	2 environmental studies aimed at forest conservation.	None	-	1	-	-	-	-	-	-	-
	1 study analyzing options for project sustainability.	None	-	-	-	-	1	1	1	1	1
	1 study to prepare a new sustainable rural development project.	None	-	-	-	-	1	1	1	1	1
	5 demand-driven studies aimed at addressing specific issues raised by micro-catchment communities.	None	-	1	2	2	-	-	-	-	-



Results Indicators for each Component	Baseline	Target Values					Frequency and Reports	Data Collection Instruments	Data Collecting and Reporting	Responsibility for Data Collection
		Year 1	Year 2	Year 3	Year 4	Year 5				
<b>Component 4: Animal Health Improvement</b>										
Subcomponent 4.1 Strengthening of SENACSA	72 units									
SIGOR local units connected	25 % of information	4								
SIGOR on line coverage	None	40 %	35 %				○ 1 <sup>st</sup> quarterly report ○ Yearly reports	○ Project Manager records ○ Project Manager records	○ Project Manager with SENACSA	○ Project Manager with SENACSA
High Safety Lab	20% of potential use	35 %	35 %	30 %			○ Yearly reports	○ Project Manager records	○ Project Manager with SENACSA	○ Project Manager with SENACSA
Biotry Lab	10 % of potential use	40 %	40 %				○ Yearly reports	○ Project Manager records	○ Project Manager with SENACSA	○ Project Manager with SENACSA
Residues Lab		45 %	45 %				○ Yearly reports	○ Project Manager records	○ Project Manager with Vice Ministry	○ Project Manager with Vice Ministry
Subcomponent 4.2 Strengthening of Vice Ministry of Livestock of MAG										
Genetic material provided in 84 micro-catchments to small-scale farmers and indigenous communities.	Surveys	30 %	30 %	30 %	10 %					
Pasture seeds provided in 84 micro-catchments to small-scale farmers and indigenous communities.	Surveys	40 %	40 %	20 %			○ Yearly reports	○ Project Manager records	○ Project Manager with Vice Ministry	○ Project Manager with Vice Ministry
<b>Component 5: Project Management and M&amp;E</b>										
<b>Subcomponent 5.1: Project Management and Capacity Building for MAG</b>										
PMU established at central level.	None	1	-	-	-	-				
I GIS functioning.	None	1	-	-	-	-	○ 1 <sup>st</sup> quarterly report	○ Project Manager records	○ Project Manager office	○ Project Manager office
Annual operating plans, M&E Reports, Procurement Plans and Disbursement Plans prepared and submitted in a systematic manner throughout the life	None	1	1	1	1	1	○ Yearly reports	○ Operating, procurement and disbursement plans and documents as well as	○ Project Manager office	○ Project Manager office

of the project.								M&E reports	Project Manager office
General Coordination Agreement signed.	None	1	-	-	-	-	o 1 <sup>st</sup> quarterly report	o General Coordination Agreement	o Project Manager office
<b>Subcomponent 5.2: M&amp;E</b>	None	1	-	-	-	-	o 1 <sup>st</sup> quarterly report	o Project Manager records	o Project Manager office
M&E system established.							o Yearly reports	o Project progress records	o M&E office
Baseline studies undertaken:							o Yearly reports	o Yearly socioeconomic surveys	o M&E office
o Producer census in 84 micro-catchments.	Producer census	18	38	28	-	-	o Yearly reports	o Project progress records	o M&E office
o Surveys in 56 micro-catchments.	Surveys	18	38	-	-	-	o PY01 monitoring reports	o Environmental sampling	o M&E office
o Census in 73 indigenous communities.	Indigenous community census	13	38	22	-	-	o PY01 and PY02 monitoring reports	o Yearly socioeconomic surveys	o M&E office
o Surveys in 55 indigenous communities.	Surveys	15	40	-	-	-	o PY01 and PY02 monitoring reports	o Environmental sampling	o M&E office
o Environmental sampling in 15 micro-catchments.	Environmental sampling	4	6	-	-	-	o Yearly pilot micro-catchments monitoring reports	o Yearly socioeconomic surveys	o M&E office
Annual evaluations of pilot micro-catchments undertaken.	None	1	1	1	1	1	o Pilot micro-catchments monitoring reports	o Yearly socioeconomic surveys	o M&E office
340 Socio-economic surveys.	PY01 surveys	-	40	100	100	100	o Semi-annual environmental sampling	o Environmental sampling	o M&E office
Environmental sampling in 10 micro-catchments.	PY01 environmental sampling	-	4	10	10	10	o Semi-annual technical audit reports	o Semi-annual evaluation surveys	o M&E office
9 operational audits completed.	None	1	2	2	2	2	o Yearly financial audit reports	o Early evaluation surveys	o Project Manager office
5 financial audits completed.	None	1	1	1	1	1	-	o Annual case studies reports	o M&E office
3 case studies completed.	None	-	1	1	1	-	-	o Specialized reports	o M&E office
Special evaluations and studies	None	Ex-ante	-	Mid-	-	-	Ex-post	o Evaluation surveys	o Evaluation surveys

completed.			term			
<b>Subcomponent 5.3: Communication and Dissemination</b>						
1 communication and dissemination strategy designed and implemented.	None	1	-	-	<ul style="list-style-type: none"> <li>o 1<sup>st</sup> quarterly report</li> </ul>	<ul style="list-style-type: none"> <li>o Communication and dissemination office</li> </ul>
3 launch workshops.	None	3	-	-	<ul style="list-style-type: none"> <li>o 1<sup>st</sup> annual report</li> </ul>	<ul style="list-style-type: none"> <li>o Communication and dissemination office</li> </ul>
10 informational workshops at the departmental level.	None	-	4	4	<ul style="list-style-type: none"> <li>o Yearly reports</li> </ul>	<ul style="list-style-type: none"> <li>o Workshop records</li> </ul>
2 national promotional campaigns.	None	1	-	1	<ul style="list-style-type: none"> <li>o PY01 and PY03 yearly reports</li> </ul>	<ul style="list-style-type: none"> <li>o Monitoring records</li> </ul>
15 department and local level campaigns.	None	3	6	3	<ul style="list-style-type: none"> <li>o Yearly reports</li> </ul>	<ul style="list-style-type: none"> <li>o Monitoring records</li> </ul>
5 animal health campaigns at department level.	None	2	2	1	<ul style="list-style-type: none"> <li>o PY01, PY02 and PY03 yearly reports</li> </ul>	<ul style="list-style-type: none"> <li>o Monitoring records</li> </ul>

## **Appendix 2**

### **Project Monitoring and Evaluation**

#### **1. Overview**

1. A decentralized Monitoring and Evaluation (M&E) system to support project planning and management will be implemented by the project. Specific objectives of the system are to: (i) track changes towards the project objectives, outputs and inputs, and make changes in the project if necessary during implementation to provide a basis for informed and effective project-related decision-making; (ii) promote accountability for resource use against objectives; (iii) provide and receive feedback from stakeholders; (iv) and generate inputs for dissemination of project results and lessons learned.
2. Progress in the fulfillment of the project objectives and outcomes will be monitored in accordance with MAG and Bank procedures, and will be based on the project Results Framework. The M&E system will be supported by a physical and financial monitoring system, a Management Information System (MIS). In addition, a Geographical Information System (GIS) will be made operative building on PARN's efficient GIS and will be designed to provide technical information for project implementation, including mapping.

#### **2. Guiding Principles**

3. The project M&E will be guided by the following principles: (i) project results framework approach (detailed earlier in this Annex); (ii) participatory evaluations and beneficiary assessments to enable stakeholders to share their feedback; (iii) full transparency and participation in project information management; and (iv) integration of the M&E system into MAG's information systems to provide information to guide decisions on MAG policies and operations.

4. To achieve its outcomes, the M&E system will cover the following lines of actions:

- (a) *Monitoring the day-to-day activities and outputs of the project*, based on the project annual operational plans and on the selection of indicators and methodologies for the different project dimensions (socioeconomic and environmental) providing periodic reports (at least quarterly);
- (b) *Monitoring project outcomes* to determine impacts on poverty and environmental conditions over the life of the project, including community involvement and behavior change indicators. Using information stemming from the MIS, together with a continuous quantitative and qualitative monitoring of 10 pilot micro-catchments and approximately 20 indigenous communities, this activity will measure the intermediate and final outcome indicators specified in the Results Framework. The measurements in these pilot areas will include a detailed monitoring in 5 micro-catchments and a simplified monitoring in 5 micro-catchments, covering indicators and methodologies for the following project dimensions: socio-economic features, soil conservation and management, forestry

and biodiversity, surface water resources, and ground water resources. With regard to indigenous communities, this will include an assessment of the planning and implementation of the Indigenous Community Development Plans (ICDP);

- (c) *Undertaking special evaluation studies* to guide decisions and to measure the effectiveness of project performance, hence providing feedback and helping improve the effectiveness of the project. Project impact evaluations will complement the above-mentioned monitoring activities (which will allow the comparison of actual performance with expected performance) and will include:

- **Ex-ante evaluation**: The baseline information and respective ex-ante evaluation will be based on information to be obtained from different data sources. They will include: (i) socio-economic and environmental surveys, covering representative samples that take into account the diverse types of beneficiary groups as well as the typical production systems and environmental conditions of the project area, before project implementation; (ii) baseline information obtained from micro-catchment participatory diagnostics; and (iii) specific studies. This information will be useful for comparing progress during the mid-term review and for assessing final project performance at completion.
- **Mid-term evaluation**: An independent external mid-term evaluation will be carried out at end of PY03. This evaluation will provide an in-depth analysis of progress towards achieving project outcomes and the identification of possible adjustments where warranted. The evaluation will focus on the effectiveness in achieving project results and in meeting the implementation schedule, identifying areas and components which need adjustments and emphasizing lessons learned up to that point which could guide actions in the project's final phase.
- **Ex-post evaluation**: An independent external evaluation will be carried out at the end of the project, focusing on the same questions and indicators as the mid-term evaluation. The final evaluation will aim to identify project impacts, sustainability of project results and the degree of achievement of long-term results.

- (d) **Internal and External Auditing**: The project will be subject to internal auditing by MAG's Internal Auditing Directorate. Yearly external audits will follow the Bank's new audit policy and guidelines issued by the Financial Management Sector Board in 2003 (see Annex 7 for details).

5. The **MIS** will facilitate the availability of information for many of the aforementioned performance evaluations. The project MIS will be web-based in order to allow participation of local actors and will be designed to be performance-oriented and user-friendly. In addition, given the decentralized nature of the project and to ensure timely budgetary and expenditure information for the Bank and other stakeholders, the MIS will incorporate internal controls, records of project assets, procurement, accounting, auditing and means to reconcile the project's account that will conform with Bank guidelines. Monitoring intermediate project inputs and outcomes will be part of the MIS, thus allowing a real-time tracking of micro-catchment and

indigenous community development plans and related investments being implemented on the ground. The MIS design will also include the following capabilities: (i) reporting from project staff (particularly extensionists) and beneficiaries, in particular MDCs and MSCs; (ii) recording planned and executed activities (physical, financial, and procurement information), in accordance with the directives in the Operational Manual, at all levels (state, regional, municipal, and micro-catchment); (iii) providing information on financial management; and (iv) reporting on occasional reports regarding impact evaluations.

### **3. Implementation Arrangements**

6. The PMU's M&E Unit will be responsible for operating and coordinating M&E (see Annex 6 on Implementation Arrangements) with the project's Zonal Coordination Units, with CAD and other partner agencies (INDI, INDERT, SEAM) exchanging information. Key stakeholder groups, particularly those indigenous groups and small-scale farmers living in the 10 pilot micro-catchments, will also participate in data generation through monitoring social and environmental aspects of the Project.

**Annex 4: Detailed Project Description**  
**PARAGUAY: Sustainable Agriculture and Rural Development Project**

## **1. Overview**

1. The Project's development objective is to improve the quality of life of small-scale farmers and indigenous communities in the project area in a sustainable manner, by supporting actions to strengthen community organization and self-governance, improve natural resources management and enhance the socio-economic condition of the target group.
2. The project will be implemented over five years in the two poorest and most environmentally degraded departments of the country's Eastern Region, selected according to poverty-based targeting criteria using the national PLIPEX index (a prioritization method to target areas for social investments which are aimed at the reduction of extreme poverty). These departments are Caaguazú and San Pedro. Project interventions in these departments will be concentrated in specific micro-catchments in 39 previously identified municipalities, the latter selected through the application of a combination of environmental and socio-economic criteria. Activities will be supported in an estimated 84 micro-catchments (about 10% of all micro-catchments in the two departments) projected to cover approximately 353,351 hectares of land.
3. The total cost (with contingencies) of this proposed five-year project is an estimated US\$46.8 million, of which the Bank will finance about 80.1%.
4. Direct project beneficiaries will be small-scale farmers (with fewer than 20 hectares of land), indigenous communities and rural workers in the two target departments who will benefit from extension services and investment funding. It is estimated that the project will reach 16,800 small-scale farming households and 73 indigenous communities (2,030 indigenous families). Appendix 1 to this Annex summarizes key targeting criteria.
5. In addition to the above, larger-scale farmers in the selected micro-catchments, rural school teachers and students, technical staff and managers from municipal governments and the Ministry of Agriculture and Livestock (MAG), and producer and civil society organizations will benefit from training and environmental education services.

## **2. Sector Issues to be Addressed by the Project**

6. Project components have been designed so that, acting separately or in synergy, they will address the issues in the project area as follows.
7. Rural Poverty and Natural Resources Degradation. To reduce rural poverty in a sustainable manner, the project will employ clear criteria to target the rural poor (see Appendix 1 to this Annex). The project strategy emphasizes:
  - (a) A highly participatory and decentralized demand-driven approach to poverty alleviation and natural resources management. It proposes: (i) the adoption of community development initiatives and participatory management mechanisms; (ii) a strong training program to induce technical and social development changes

and mechanisms; and (iii) promoting and strengthening effective participatory local steering and social control monitoring; and

- (b) A production support process for rehabilitating and attaining sustainability of degraded and low productive farming systems, including biodiversity conservation. It will involve a two step process: rehabilitation of degraded and low productive farming systems, and sustainable production, which will benefit both groups of farms and communities (mostly indigenous people). The strategy foresees: (i) rehabilitation and conservation of natural resources; (ii) use of appropriate and more productive/profitable farming practices/methods; (iii) introduction of more diversified production patterns; and (iv) improved commercial mechanisms.

Specifically, the project will:

- (a) Provide seed capital, technical assistance and information needed to overcome barriers to the adoption of more sustainable and productive land use practices;
- (b) Promote the adoption of a decentralized approach to sustainable rural development through a focus on local decision-making. The project will employ rural participatory assessments at micro-catchment and community levels. This will mitigate the lack of coordination in the flow of resources to the target population;
- (c) Address environmental degradation: Small-scale farmer group subproject proposals and individual farm household subproject proposals stemming from the micro-catchment approach will address critical agronomic and ecological processes. Such investments will propose short, medium and long-term solutions, through collaborative land and water management and conservation activities, while, at the same time, increasing soil fertility and farm productivity and income; and
- (d) Promote the improvement of animal health and husbandry among small-scale farmers and indigenous communities. Subprojects proposals will also address issues related to animal registration, working facilities and sound management of vaccination programs.

8. Land Titling. The project will work with the Indigenous People's Institute of Paraguay (INDI) to complete the regularization and titling process of indigenous communities' lands in areas of the project where this process has not been completed. Project land titling activities with small-scale farmers will aim at the regularization of land tenure by revising the cadastre of the National Rural Development and Land Administration Institute (INDERT) for settlements located in the target micro-catchments, and providing support and promoting better institutional coordination for the titling of lots of project beneficiaries.

9. Indigenous Issues. The project proposal mainstreams indigenous peoples' issues in the design of all components and activities bearing in mind their values, knowledge and

technologies. On a demand-driven basis, and in coordination with the INDI, the project will assist indigenous communities in addressing key social and productive issues. The project will also strengthen indigenous peoples' representation by supporting indigenous organizations and promoting strong indigenous participation in project management decisions. The provision of technical assistance to indigenous communities will be undertaken in a culturally appropriate manner by specialized extensionists and community promoters. Indigenous communities will benefit from general project training, as well as from specialized training designed to directly address specific issues relevant to these communities. See Annex 14 for details.

10. Social Inclusion. The project will seek to mitigate negative impacts on the well-being of small-scale farmers and indigenous communities from substandard housing, lack of sanitation and polluted domestic water supplies through technical assistance and grants to provide water, sanitation or waste disposal as well as minor structural improvements to housing. See Annex 13 for details.

11. Unequal Access to Markets. The project will promote participative marketing arrangements and economic diversification thereby helping poor small-scale farmers and indigenous communities to achieve greater economies of scale, and address the lack of market opportunities and weak bargaining power. Specifically, the project will support market studies and capacity building of extensionists to provide them with the necessary skills to assist farmers in production diversification, product processing, marketing and marketing organization.

12. Women. Approximately 20% of small-scale farmer families in the project area are female-headed. Thus, an important element of the project will be the provision of capacity building, through training for the empowerment of the project's female beneficiaries in project decision-making structures and in sustainable rural development.

13. Youth. An estimated 67% of the project area's rural population is under 30 years old. Thus, the project will pay special attention to training and capacity building of rural youth to integrate them into the labor market and the project's decision-making structures.

### **3. Project Implementation Strategy**

14. The proposed project will pursue an approach based on the creation and consolidation of sustainable development management capacity at the local and central level, and the integration of the sustainable management of resources and poverty alleviation efforts with environmental education efforts. To ensure the most effective use of project resources and the most appropriate coverage of project activities, project area targeting criteria were based on degree of poverty, type of land use, and level of natural resources degradation. These criteria recognize the links between low productivity of small-scale farming systems, environmental degradation, rural poverty, and traditional non-sustainable cultivation practices.

15. Activities in indigenous communities will be planned around the physical and leadership structures of communities in coordination with their respective Indigenous Associations. Each indigenous community's access to the project's various types of support (e.g. diagnostic, development and implementation of Indigenous Community Development Plans, training activities, and land titling) will vary. Support will depend on individual community needs,

which will be determined with the assistance of an “Indigenous Peoples Land Access and Natural Resources Use Index,” designed by the project team to target the most relevant activities in each community. As direct project beneficiaries, indigenous communities will benefit from all components. See Annex 14 for further details.

16. In the remaining project areas, the physical planning and implementation unit will be the micro-catchment. Experience from PARN and Bank-financed projects in South-Southeast Brazil shows that the micro-catchment represents a natural stepping stone in the effort to aggregate individual farm plans and achieve larger policy objectives associated with natural resources management and rural poverty reduction. The micro-catchment provides an appropriate forum for local participation in priority-setting and decision-making, as well as a discrete area for handling water and soil-related issues.

17. Participatory micro-catchment planning and management will foster *beneficiary organization* and ownership. It will involve the establishment of Micro-catchment Development Committees (MDC) as the main investment planning and management cells and, whenever required, of Municipal Steering Committees (MSC) with representation from micro-catchment representatives, the municipal government and civil society. Participatory development plans will be prepared for 84 micro-catchments that will determine social and technical measures to be taken and set priorities for environmental protection, sustainable improvements to social and productive infrastructure, and capacity building. The plans will also include proposals for the adoption of techniques and practices for sustainable land management, product diversification, processing and marketing. These will be implemented with technical assistance provided by the project.

18. *The productive strategy* to rehabilitate farm and community natural resources, and promote sustainable production provides for farm improvements and the adoption of sustainable production practices. It is estimated that at least 80% of beneficiary farmers will rehabilitate their farming systems, and about 50% of that group will adopt further sustainable agricultural practices. The technological proposal involves simple but efficient practices, which are not foreign to the project area but are not currently within farmers’ reach due to a lack of financial incentives and technical assistance. Farming systems will undergo a process of transformation from no rotation, soil management based on extracting nutrients without replacement, chemical pest management, etc., to soil improvement, level curves, subsoiling, liming, green fertilizer and further, for the more dynamic farmers, to summer and winter rotation crops, zero tilling cropping, integrated pest management, post-harvest management, improved domestic livestock production, development of forestry and agro-forestry systems, etc. In addition, assistance will be provided to diversify production systems to supply existing markets, introduce innovative procurement and marketing mechanisms aimed at reducing transaction costs, and improving access to new markets, and develop alliances to improve value chains.

19. Investments for socio-economic, agricultural and environmental development identified during the community-based planning process (small-scale farmers and indigenous communities) will be funded through a rural investment fund (see Component 3 below).

20. In addition to supporting the adoption of sustainable agricultural practices, the project will provide *assistance and training* in food processing, conservation and storage. It will also

promote crop and small livestock production for domestic consumption, and home and school gardens, where appropriate, using sustainable technologies. It will provide access to clean water and sanitation, as well as basic housing improvements, and will promote environmentally sustainable activities designed to alleviate threats to food security, such as degradation of land and aquatic-based natural resources, pests and erosion of agro-biodiversity.

21. The project will work to *generate sustainable income opportunities* through improvements in agricultural and small business management skills, productivity and production, and marketing linkages, through innovative and participatory demand-driven extension and training activities. Specific activities will include identification, adaptation and validation of new technologies and practices, marketing, small agro-industries, and small rural enterprise support.

22. A partnership agreement has been made with INDERT to harmonize rural investments in the target micro-catchments undertaken by the government's existing Rural Development Investment Fund (FIDES), under INDERT's administration, and those financed by the proposed project. In principle, FIDES will mostly concentrate on the improvement of local roads and water supply.

#### **4. Detailed Description of Project Components**

23. The proposed project will be implemented through the following components and subcomponents:

##### **Component 1: Community Organization Development and Capacity Building (US\$2.7 Million, 5.7% of Total Project Cost)**

24. The objectives of this component are to: (i) organize beneficiaries to participate actively in local decision-making structures, and (ii) prepare project staff for the implementation of the project technical strategy, aimed at adopting sustainable agriculture and rural development activities in micro-catchments and indigenous community territories. There are 2 subcomponents: (1.1) *Training and Environmental Education*, and (1.2) *Community Organization Development*.

25. Main Outcomes. Beneficiary organizations at the community, micro-catchment and municipal levels institutionally strengthened for sustainable rural development management, and project staff trained to execute project actions.

26. Target Group. All project beneficiaries will benefit from this component but in different ways. Whereas small-scale farmers and indigenous communities will be assisted to develop and strengthen local community organizations, municipal governments, MAG and project staff will be strengthened to undertake sustainable rural development activities. Rural school teachers and students, producer and civil society organizations, in addition to the above, will also benefit from environmental education activities.

27. Subcomponent 1.1: Training and Environmental Education. This subcomponent will: (i) train project extensionists (micro-catchment, indigenous community and social organization

technicians) and other project staff (including MAG staff involved in the project) as well as rural workers and youth; and (ii) design and implement an environmental education program.

28. Training. Project staff and other technical staff involved in project implementation will be trained in new modes of operation and changes in attitudes that are implicit in the participatory, demand-led approach to sustainable rural development. It will cover the following broad areas: (i) conceptual and methodological aspects of the project; (ii) project administrative procedures; (iii) community development and strengthening of local organizations; (iv) principles and practice of participatory rural assessments, group formation and operation, participatory planning, and stakeholder monitoring; (v) sustainable natural resources management practices; (vi) on-farm production and off-farm income generation; and (vii) gender and youth sensitization.

29. Training activities will include: (i) identification and recruitment of trainers of trainers; (ii) training of project staff, including micro-catchment extensionists, social organization technicians (see subcomponent 1.2) and extension agents for indigenous communities; and (iii) production of didactic materials. In addition to general project training, indigenous communities will benefit from specialized training designed to address specific issues of these communities. Training will be supplemented by an annual Project Management Unit (PMU) managers' seminar to review progress in project implementation as part of the activities of Component 5.

30. Environmental education (EE) will increase stakeholder awareness of the need to address environmental problems as a way to improve rural livelihoods. It will support education efforts in the project area directed at developing environmental awareness and promoting a sense of personal responsibility toward the environment. EE activities will be implemented in rural schools, indigenous communities (upon request by the community) and at the micro-catchment level in close coordination with training events and activities in other project subcomponents, in particular the rural extension and rural investment components. The Ministry of Education will facilitate EE activities in rural schools.

31. Main Outputs. (i) 290 technicians and managers trained and operating in the project area during the life of project, including 120 project technicians at the central and regional levels (84 micro-catchment extension agents, 17 social organization technicians, 3 extension agents for indigenous communities and 16 specialists), 70 DEAG technicians and 100 municipal and department staff; (ii) 800 youth and rural laborers; (iii) 10 workshops or short trips to exchange experiences with similar projects; and (iv) an environmental education program implemented and reaching 130 rural schools, including 8,000 teachers and students, and members from local organizations.

32. Subcomponent 1.2: Community Organization Development. This subcomponent will build the basis for the implementation of participatory management mechanisms that will give greater control of decisions and resources to local groups. Utilizing a highly participatory approach, the subcomponent will promote the creation and strengthening of local and community organizations and the establishment of local project steering committees. It will provide the framework for channeling resources to the community and farm levels, and for increasing ownership and appropriation of development activities and of their investments.

33. Specific *activities* will include: (i) identification of the micro-catchments and indigenous communities to be targeted by the project in accordance with the project selection criteria (see Appendix 1 to this Annex for criteria); (ii) support to the strengthening and establishment of Community Development Groups (CDGs) (*Comités Vecinales de Microcuenca*), starting with rural participatory assessments of the communities and their existing organizations to facilitate a better understanding of problems, conflicts and interests; (iii) support the establishment of Micro-catchment Development Committees (MDCs) (*Juntas de Desarrollo de Microcuenca*), which will be integrated by representatives of CDG's, and other producers groups and local stakeholders located in micro-catchments; (iv) support the strengthening and establishment of Municipal Steering Committees (MSC); and (v) support the legal recognition of CDGs and MDCs. A team of 17 social organization technicians will work in the project micro-catchments to facilitate training and strengthening of community organizations.

34. The project will build the capacity of women and youth and ensure their full integration into the project through promoting the establishment of Women's Associations and Youth Associations, strengthening their role in existing entities, and promoting their participation in the project decision-making structures.

35. Main Outputs. (i) 84 MDCs established; (ii) 39 MSCs strengthened and operative; and (iii) 600 CDGs established where none exist and strengthened in areas where they already exist.

36. Staffing. A Community Organization Coordinator within the PMU's Technical Management Service will be responsible for this subcomponent. The field work will be carried out through the Zone Coordination Units (ZCU) (see Annex 6) which will include 17 social organization technicians with each extensionist working in five micro-catchments.

## **Component 2: Rural Extension and Adaptive Research (US\$10.9 Million, 23.3% of Total Project Cost)**

37. The objective of this component is to assist individual small-scale farmer households, producers groups, and indigenous communities to overcome specific technical, socio-economic and environmental constraints to allow them to shift from existing non-sustainable agricultural practices to sustainable livelihood strategies enhancing natural resources management and reducing rural poverty.

38. Main Outcomes. Small-scale farmers, indigenous communities, and other local stakeholders trained; planning and implementing management plans and investment proposals for sustainable development supported by rural extension and research.

39. Target Group. Rural extension (including training of beneficiaries) and adaptive research activities likely to be supported under this component will primarily benefit small-scale farmers and indigenous communities. The component will also benefit rural workers, extensionists and artisans who utilize natural resources. Although the project financial incentives (Component 3) to fund small investment subprojects will only be directed at small-scale farmers and indigenous communities, the participation of all farmers in the micro-catchment, including larger farmers, is

essential for successfully introducing new and sustainable practices, and will be promoted by the project. Larger farmers in the micro-catchment will benefit from training, organization and technical assistance in order to help them to introduce the sustainable natural resources practices proposed by the project.

40. Subcomponent 2.1: Rural Extension. Objectives and conceptual framework: Rural extension will be a pivotal element of the project. Through the adoption of methodological tools tailored to small-scale farmers and indigenous community needs in the various agro-ecological and socio-economic contexts of the project area, this subcomponent will: (i) provide technical assistance and training to the project beneficiaries; (ii) assist beneficiaries to prepare micro-catchment development plans (MDPs), Indigenous Community Development Plans (ICDPs), and Municipal Investment Plans (MIP); (iii) assemble community demands for social, technical and financial support arising from those plans; (iv) help with implementation of the plans at the small-scale farm and indigenous community level; and (v) train indigenous community promoters and small-scale farmer promoters at the micro-catchment level to facilitate the process of knowledge management for adopting the project strategy by beneficiaries. Technical assistance and training will cover techniques to improve agricultural and livestock production, the sustainable management of natural resources, product intensification and diversification, processing or marketing, environmental protection, and developing management skills.

41. Organization of the Extension System. The extension system in Paraguay is weak, with limited operational budgetary allocations, a small 300 staff complement half of which is near retirement, and inadequate supporting infrastructure. Under the PARN project, the arrangement focused on deploying consultants as technical experts which resulted in huge benefits with some savings in costs. During the past year, DEAG has established Centers for Ag Development (CDAs) at the department level and Local Technical Assistance Agencies (ALATs) at the local level. The project will work closely with these new agencies.

42. A Rural Extension Coordinator within the PMU's Technical Management Service will be responsible for the project's extension services. Consultants in specific technical fields (e.g. non traditional crops, marketing, agro-industries) will be appointed by the Rural Extension Coordinator according to needs. The extension network will operate through the ZCUs (established in the CDA) with one extensionist for each micro-catchment and 3 specialized extensionists for the indigenous communities (87 extensionists in total). In addition, the project extension work will be supported by about 600 voluntary micro-catchment community promoters (about 7 per micro-catchment) selected amongst the most progressive farmers, and 150 indigenous community promoters selected with the same above criterion. These field level extension staff will work closely with ALATs. While small-scale farmers will not pay for the extension service received under the project, it is expected that the project will: (a) support a sufficiently large cadre of good extensionists, including local level enterprises, with adequate capacity to continue to provide the required services; and (b) demonstrate the benefits from relevant demand-driven extension through income increases, which would be adequate to create a demand for the local level private extension services.

43. Technical Strategy. The farming systems of the target population are characterized by low productivity, non sustainable land management practices leading to soil erosion and loss of

nutrients, little use of chemical or organic fertilizers, chemical pest control, manual or mechanical weeding, and absence of any on-farm investments for land improvements. The crop pattern is dominated by food crops associated with some cash crops, mainly cotton. Diversification is very limited because of capital and marketing constraints, as well as seasonable agricultural work and weak agricultural services.

44. Within that context, practices to be transferred through the project include sub-soiling, terracing, appropriate fertilizing, direct planting and integrated pest management, which will have an impact on improving soil and water conservation and management. The introduction of diversified cropping patterns and crop rotation will also be promoted. With regard to post-harvest activities, the project will assist farmers in product conservation and to improve marketing mechanisms and access to market information, including help for building-up strategic alliances both for traditional and new markets and products.

45. Indigenous communities will be assisted through specific modalities that take into account their traditions and particular collective mode of production. For that purpose the project will strengthen existing Indigenous Associations and promote their legal recognition. The project will also promote food production for domestic consumption and cash crops in those communities that have already started diversification. Other products, such as crafts and medicinal herbs, will also be promoted.

46. For the provision of specialized technical assistance, a roster of private service providers will be created by selecting local consulting firms, NGOs and individuals that have the experience and qualifications in all the technical areas of the project, and who would be interested in providing their services to project beneficiaries. The roster will be prepared by the Human Resources firm that will be hired for selecting project staff, and will be made available in the Project's web site in MAG, and directly to project beneficiaries, who will select the provider that best responds to their needs and interests. The performance of roster members will be evaluated periodically by MAG and the beneficiaries, and the results of this evaluation will be made available to project beneficiaries in the Project's web site. The Operations Manual will include the guidelines and rules for the participation of technical service providers in the roster.

47. Activities under this subcomponent will cover 84 micro-catchments and 73 indigenous communities and will include: (i) carrying out a project information workshop in each selected micro-catchment involving small-scale farmer households and producer groups, indigenous communities, rural youth, women's groups, rural laborers and landless farmers; (ii) participatory rural appraisals (PRAs) in selected micro-catchments (with four PRA workshops per micro-catchment); (iii) complementary socioeconomic and environmental diagnostic surveys/census undertaken by the micro-catchment extension agent with support from the project GIS team; (iv) resource mapping of micro-catchments (fed into GIS software) prepared by the project GIS team with inputs from farmers (maps of land capability, at a 1:15,000 or other appropriate scale suitable for soils for use as cropland, land use, and environmental and social dynamics); (v) formulating Micro-catchment Development Plans (MDPs) and Indigenous Community Development Plans (ICDPs); (vi) preparing investment subprojects at individual-farm and Community Development Group (CDG) levels based on MDPs and ICDPs; (vii) formulating Municipal Investment Plans (MIPs) with community participation via Municipal Steering

Committees (MSCs) and in line with micro-catchment diagnostics (see Annex 6); (viii) regular technical assistance and training for implementing beneficiary investment subprojects, adopting the productive and environmental management practices, and marketing improvement; (ix) land titling for indigenous communities and support to land titling for small-scale farmers; (x) field trips for information dissemination and exchange of experiences between the farmers/communities undertaking on-farm trials (subcomponent 2.2) and the remaining farmers/communities of the project; and (xi) coordination and integration between extension and research activities (the latter implemented under subcomponent 2.2) with both rural extensionists and technical staff involved in research trials at the farm level.

48. Extension activities will not be implemented in all micro-catchments or indigenous communities simultaneously. Rather, they will be gradually introduced according to the following preliminary schedule:

<b>Target Beneficiary or Activity</b>	<b>PY1</b>	<b>PY2</b>	<b>PY3</b>	<b>PY4</b>	<b>PY5</b>	<b>Total</b>
Small-scale farmer households benefited by extension services	700	3.000	4.900	3.800	1.100	13.500
Indigenous communities benefited by extension services	7	15	25	15	11	73
Micro-catchments benefited by extension services	8	17	22	20	17	84
Micro-catchment Development Plans (MDP)	18	38	28	-	-	84
Indigenous Community Development Plans (ICDP)	-	15	20	15	10	73
Municipal Investment Plans (MIP)	0	9	17	10	3	39
Individual Small-scale Farmer-Investment Subprojects (FIS)	700	2.800	4.400	3.600	1.100	12.600
Community Development Group Investment Subprojects (CIS)	27	108	171	133	41	480
Indigenous Community Investment Subprojects	0	0	20	30	10	60
Municipal Investment Subprojects	0	0	10	15	14	39

49. Main Outputs. The subcomponent will provide technical assistance to about 13,500 families (including small-scale farmers and indigenous communities) in the 84 micro-catchments and 73 indigenous communities. In addition, producers will be organized for purposes of marketing agricultural products in at least 25 micro-catchments. With regard to training, this subcomponent will reach about 600 community promoters, 150 indigenous community promoters, 10,000 small-scale farmers, 800 rural laborers and youth, and members from 600 CDGs, 84 MDCs and 39 MSCs. In addition, there will be field trips to 10 small-scale farms with on-going technology validation trials to exchange experience among farmers.

50. Subcomponent 2.2: Adaptive Research and Studies. This subcomponent will respond to specific, practical technology validation and information needs to better address production and marketing issues of small-scale farmers and indigenous communities. Policy studies will also be financed to address regional issues affecting small farmers and evaluate the effectiveness of different government sectoral strategies and program. Research trials and marketing studies will

benefit the primary project beneficiaries, whereas policy studies will be of special interest to decentralized local (department and municipal) and national government and other local institutions and civil society organizations. A major part of the on-farm adaptive research activity themes and studies have been pre-identified during project preparation; the remaining themes, activities and studies will be identified by the project beneficiaries and other local stakeholders during the micro-catchment and indigenous community planning process.

51. Activities will include: (i) on-farm technology validation trials for the improvement and validation of existing agricultural production technologies and practices aimed at diversifying production and addressing farming issues raised by communities, and for the adaptation and validation of existing productive systems to local agro-ecological conditions and/or to small-scale farming systems; and (ii) thematic studies to address technical and social constraints, including: (a) studies to identify, develop or access specialized markets (e.g. organic products, non-timber forest products and ecotourism); (b) land tenure assessments; (c) policy studies to support mainstreaming of natural resources management and rural development and poverty strategies into national policy; (d) feasibility studies to identify opportunities for new products in selected project areas; (e) assessing alternative financial mechanisms for sustainable follow-up of development assistance to project beneficiaries; (f) other demand-driven studies aimed at addressing specific issues raised by project beneficiaries (such as related to regional animal health and necessary plant and animal phytosanitary improvements); and (g) base studies and development of a proposal for a follow-up operation.

52. Based on the research themes identified through the micro-catchment and indigenous community diagnostics and on departmental priorities, an overall research plan would be prepared by the Rural Extension Coordinator. Proposals for technology validation would be invited from public and private research institutions, and evaluated by a Technical Committee. Grants would be assigned on a competitive basis for research to be validated following a public-private partnership approach. The final reports would be analyzed and evaluated by the Technical Committee before the results are disseminated for adoption by the farmers.

53. Main Outputs. An estimated 20 on-farm technology validation trials, nine market studies for new products (three for indigenous products), 16 feasibility studies for development of new products, six studies aimed at addressing specific issues raised by indigenous communities (two on land tenure), two policy harmonization studies, one environmental study analyzing micro-catchment ecosystems, two environmental studies aimed at forest conservation, five demand-driven studies aimed at addressing specific issues raised by micro-catchment communities, and one study analyzing options for project sustainability will be carried out during project implementation.

### **Component 3: Sustainable Rural Development Fund (US\$24.9 Million, 53.2% of Total Project Cost)**

54. The objective of this component is to implement a financial incentive mechanism to facilitate the adoption of the project strategy within the benefited micro-catchments. The Sustainable Rural Development Fund (FDRS) will finance demand-driven investment subprojects identified in the context of the MDPs, ICDPs, and MIPs. The proposals will be

prepared by eligible project beneficiaries with support from project extensionists. In most cases, the FDRS grant will finance a maximum of 85% of investments included in the subproject. Grantees will provide at least 15% in-kind contribution to cover the rest.

55. As part of the Sustainable Rural Development Fund, INDERT in coordination with MAG, and based on an agreement to be signed between the two institutions for the execution of the project, will finance, through its rural development fund (FIDES), complementing investments (e.g. construction of basic hydraulic infrastructure and rehabilitation of roads) in the municipalities covered by the project.

56. In an estimated 12 micro-catchments, project activities would overlap and complement with the implementation of the proposed Paraguay Biodiversity Project with which the project would be partially blended. The beneficiaries of these 12 micro-catchments which are located in the biodiversity conservation corridor (project area of Paraguay Biodiversity), would receive PRODERS support for NRM and sustainable production practices at the farm level, which would be combined with specific investments for restoration or maintenance of connectivity and sustainable use of biodiversity to be funded by the GEF.

57. Main Outcomes. Individual Small-scale Farmer Investment Subprojects, Community Development Group Investment Subprojects, Indigenous Community Investment Subprojects and, and Municipal Investment Subprojects financed.

58. *Categories of Subprojects Eligible for Grant Subprojects under the FDRS:* There will be five categories of subprojects to be financed under the FDRS: (i) Individual Small-Scale Farmer Investment Subprojects targeted to finance basic home improvements and sanitation (up to US\$500.00 for subproject); (ii) Individual Small-scale Farmer Investment Subprojects targeted to improve farm production and productivity (up to US\$2,000.00 for subproject); (iii) Community Development Group Investments Subprojects targeted to improve agricultural and livestock production and productivity (up to US\$10,000.00 for subproject); (iv) Indigenous Community Investment Subprojects (up to US\$25,000.00 for subproject); and (v) Municipal Investment Subprojects (up to US\$40,000.00 for subproject).

59. Common topics to be considered for FDRS investment subprojects include, but are not limited to: (i) sustainable land use practices, increased crop and small livestock production, and post-harvest food processing and storage; (ii) animal health (vaccination) and livestock identification (tagging) activities, and infrastructure for working with cattle; (iii) forest and water conservation and management at the farm, micro-catchment and community levels; (iv) production diversification and improved production systems to increase income; (v) land titling for indigenous communities and support to land titling for small-scale farmers; (vi) community investments for small-scale farmers that include minimum tillage equipment, water supply and processing micro-enterprises; and (ix) municipal investments in target micro-catchments, including rehabilitation of roads, establishment of nurseries, and construction of facilities for disposal and recycling of pesticide containers. Detailed information on activities eligible under each investment category can be found in Appendix 2 to this Annex.

60. Main Outputs. The main outcome of Component 3 will be the financing of the different types of subprojects, which will be fully demand-driven and will stem from the participatory

development plans of the beneficiaries. Because the demand-driven nature of the FDRS is not yet possible to determine the number of subprojects that will be funded in each category. However, estimations were made with regard to the number of beneficiaries in each category. A list of these estimations, as well as a table showing upper thresholds for grant applications, is included in Table 1 of Appendix 2 to this Annex.

61. The management and administration of subprojects will be the responsibility of the project beneficiaries, following CDD guidelines. For a description of subproject beneficiaries, eligibility criteria, regulations governing the fund and responsibilities for selection, approval, implementation and monitoring of the FDRS, see Appendix 2 to this Annex.

#### **Component 4: Animal Health Improvement (US\$4.2 Million, 9.0% of Total Project Cost)**

62. The objectives of this component are to assist Paraguay to initiate animal health improvement measures and to contribute to the regional strategy for animal health management. It has two main sub-components: (a) Strengthening the nodal implementing agency for this component - SENACSA; and (b) Strengthening the Vice Ministry of Animal Husbandry(VMG).

63. Sub-component 4.1. Strengthening of SENACSA. This subcomponent would finance : a) the improvement of the information system SIGOR by means of extending the communication network to cover the whole country with 76 local units, buying new adequate software, training its technical staff, managing livestock information on stocks and movements 100 % on line, diminishing the delays in the incorporation of information in the system, keeping updated information on livestock units with geo-references, connecting SIGOR with the tracking system currently under the responsibility of the Asociación Rural del Paraguay and incorporating a Geographical Information System; b) the organization of a high safety laboratory able to deal with exotic pathogen material and with vaccine analysis; c) the improvement of the biotery laboratory which will provide animal inputs for biological research; d) improvement of the residues laboratory updating its capabilities of dealing with heavy metal, anabolics and pesticides analysis; and e) the improvement of its 22 control posts along the country and 20 local units in the Chaco region, providing generators, cool chain inputs, vehicles and staff training, and specially supporting and strengthening the 6 border control posts along Paraguay's borders with its neighboring countries (Argentina, Brazil and Bolivia) consistently with the actions comprising the Regional Strategy for Eradication of Transboundary Diseases in Mercosur.

64. Sub-component 4.2. Strengthening of the VMG. This subcomponent would finance a) office and clinic equipment, small works, infrastructure for working with animals and a group of inputs for both the research station in Barreritos and the experimental unit of the Faculty of Veterinary in Asuncion; b) the improvement of the genetic program for small holders considering cattle, sheep, milk cows and goats; c) the improvement of training programs on animal husbandry, animal health, artificial insemination, processing of agricultural products for small-scale farms; and d) the improvement of pastures programs for small-scale farmers and indigenous communities through the provision of high quality forage seeds and training on pasture management.

*Main Outcomes:* Improved Animal Tracking and Information systems covering the whole range of livestock units and animals, three major laboratory facilities in operation for dealing with high

risk operations, animal inputs production and residues analysis, two research and experimental units owned by VMG and Faculty of Veterinary updated for the provision of sound genetic material, training and pasture seeds to small-scale farmers and indigenous communities and field operations established and managed effectively by SENACSA and the VMG to ensure high national standards of animal health consistent with the Regional Strategy and sound animal husbandry management.

#### **Component 5: Project Management, Monitoring and Evaluation ((US\$4.1 Million, 8.8% of Total Project Cost)**

65. This component includes overall management, financial and project management capacity building at MAG, and monitoring and evaluation of the project as well as dissemination and coordination with other related projects and programs.

66. Main Outcomes. (i) an established project management structure, including the Project Management Unit (PMU) at the central level and four Zone Coordination Units (ZCU) at the departmental level; (ii) adequately organized units of MAG, where relevant, with civil servants trained to effectively, efficiently and autonomously manage the financial aspects of Bank-funded operations; and (iii) an effective implementation and monitoring of project activities capable of integrating them with the activities of other sustainable rural development programs.

67. Subcomponent 5.1: Project Management. This subcomponent will finance management services, office equipment and all administrative and operational expenditures necessary to contribute to the improvement of MAG's administrative and financial organization skills to effectively and autonomously manage a Bank-funded operation, and ensure the effective implementation of project activities and management of resources.

68. Activities. The subcomponent will establish and operate the PMU at the central level and four ZCUs (see Annex 6). Operative planning, supervision, administrative and financial management, and the general oversight of project implementation will be under the responsibility of the PMU. The ZCUs will mainly coordinate field operations.

69. Project management will be supported by a Management Information System (MIS) that will incorporate records of project implementation progress, procurement, accounting, auditing, etc. The technical assistance strategy of the project will include specialized advisory services, trainers and services to support project administration and monitoring. When appropriate, these will require contracting individual consultants or firms, the former involving a delegation of responsibility to a third party (Annex 8).

70. The sub-component will also provide resources for: (i) training in project management, public sector accounting, treasury management, Paraguay public sector characteristics, financial control and organization to be delivered to a selection of civil servants from MAG; and (ii) technical assistance, studies and advisory services in public sector organization, financial management, accounting and treasury processes in the public sector. The types of training and advisory activities will be based upon the Bank Fiduciary Action Plan resulting form the Integrated Fiduciary Assessment under implementation.

71. Main Outputs. (i) a PMU established in MAG and facilitating effective project implementation; (ii) Annual Operating Plans, Monitoring and Evaluation (M&E) Reports, Procurement Plans and Disbursement Plans prepared and submitted in a systematic manner throughout the life of the project; (iii) collaboration and coordination undertaken in a systematic manner with other relevant projects and initiatives in the sector; and (iv) organized units of MAG, where relevant, with staff trained to manage the financial aspects of Bank-funded operations.

72. Subcomponent 5.2: Monitoring and Evaluation. The subcomponent will design and implement a M&E system to support project management. Specific objectives of the system include: (i) monitoring project implementation in relation to overall objectives, baseline situation, inputs and outputs; (ii) providing and receiving feedback from stakeholders; and (iii) generating inputs for dissemination of project results and lessons learned. Progress in the fulfillment of the project objectives and outcomes will be monitored in accordance with MAG and Bank procedures and will be based on the Results Framework (Annex 3) as an essential tool that will facilitate results-oriented project implementation and sound M&E. The M&E system will be supported by the above-mentioned MIS. In addition, the M&E unit will operate a GIS building on the existing GIS system used by PARN. It will be designed to provide technical information for project implementation including resource mapping.

73. Activities. The subcomponent will cover the following activities (see Annex 3 for detailed project M&E approach and activities): (i) monitoring day-to-day activities, including a system of physical and financial monitoring to track project execution; (ii) monitoring project outcomes; (iii) undertaking special evaluation studies (ex-ante, mid-term and ex-post evaluations); (iv) undertaking internal and external auditing; and (v) pursuing participative monitoring and evaluation of project activities and results with beneficiary input.

74. Main Outputs. (i) MIS designed, operating and providing information for any necessary adjustments to project implementation; (ii) regular monitoring and evaluation of project progress and impacts with participation of local stakeholders; (iii) project reports prepared and submitted to project managers, MAG, World Bank and project steering committees at all levels in a systematic way throughout the life of project; and (iv) an operational GIS providing technical information for project implementation, including mapping of the 84 micro-catchments and 73 indigenous communities.

75. Subcomponent 5.3: Communication and Dissemination. This subcomponent will support the dissemination of project information, sharing experiences and results both within and outside the project, to provide project stakeholders with systematized knowledge for the management of natural resources and rural poverty reduction throughout the country's Eastern Region. To implement the communication strategy within the project area, it will build on existing capacities to promote and strengthen effective social networking and collaboration across project steering committees and other groups. Information dissemination and exchange of experiences among the farmers/communities undertaking on-farm technology validation trials (subcomponent 2.2) and the remaining farmers/communities of the project area will be supported under the capacity building subcomponent 1.1 (this includes activities such as field days and trips). Early in PY01

there will be an information campaign involving promotional activities (mainly workshops) to increase awareness among target beneficiary groups, government officials, NGOs and other civil society organizations.

76. Main Outputs. (i) One communication and dissemination strategy designed and implemented; (ii) three project-launch workshops (one national and two at the department level); (iii) ten informational workshops at the departmental level; (iv) two national promotional campaigns; (v) fifteen department and local level campaigns; and (vi) five animal health campaigns at department level.

77. The following dissemination media will be employed by the project: (i) home page (project news, technical information, results attained, etc.); (ii) printed periodic reports (project annual reports and project news sent to the project-targeted departments, municipalities and micro-catchments); (iii) news for the media (print, radio and television); (iv) promotional campaigns to be transmitted by radio; (v) educational programs on videotape to be shown on local/regional television and used in meetings and courses; (vi) printed material for distribution especially in target micro-catchments (booklets, folders, reports); and (vii) other media to be determined during the course of the project, including audiovisual.

## **Appendix 1**

### **Targeting Criteria for Project Beneficiaries**

#### **1. Overall Targeting Strategy**

1. The proposed project will use objective criteria applied at the department, municipal and micro-catchment levels to target activities to best achieve project objectives. The micro-catchment boundaries are to be treated as flexible and where required would be “adjusted” to cover other more natural, existing administrative or organizational boundaries.

#### **2. Targeting Criteria to Select Priority Departments**

2. The project will be implemented in the two poorest departments of the country’s Eastern Region (Caaguazú and San Pedro), which were selected according to poverty-based targeting criteria using the national PLIPEX index (a prioritization method for targeting areas for social investments aimed at the reduction of extreme poverty). The PLIPEX index measures poverty levels according to income and Unsatisfied Basic Needs (UBN). It was calculated in 2004 by Paraguay’s Secretariat of Social Action.

#### **3. Targeting Criteria to Select Priority Municipalities**

3. The two departments under consideration encompass a total of 39 municipalities<sup>13</sup>. Targeting criteria to select priority municipalities include socioeconomic and environmental factors and land use. The municipalities were classified under four levels of priority (High, Medium High, Medium Low and Low) based on the combination of the following factors:

- (a) Density of Rural Poor. Evaluated in terms of UBN and Subsistence Capacity based on information from the General Bureau of Statistics, Surveys and Censuses. Because there is no up-to-date data on rural poverty by income at the municipal level, UBN was used to measure this concept. UBN data was utilized to determine Subsistence Capacity, which refers “to the probability of insufficient household income, related to the existence or nonexistence of a wage-earner, the educational level of the head of household, and the number of dependents per wage-earner.” This UBN is the best approximation of the concept of poverty with regard to the level of earned income;
- (b) Loss of Forest Cover. Percentage deforested in 2003 compared to 1999; and
- (c) Conflicting Use of Soils. Based on the percentage of area, by municipality, with annual crops on soils of classes IV through VIII, which are the soils least suitable for agriculture and most susceptible to damage if used for agricultural purposes (according to the United States Department of Agriculture’s land capability classification).

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<sup>13</sup> 20 municipalities in Caaguazú and 19 in San Pedro.

4. According to these criteria, there are 3 High Priority, 11 Medium High, 12 Medium Low and 12 Low Priority municipalities in the project area (see Table 1 below). The levels of priority determine the intensity of project intervention in each municipality. It is proposed that no municipality be excluded, but a different number of micro-catchments will be assisted in each depending on the degree of priority with the greatest number of micro-catchments assisted in high priority municipalities and gradually decreasing in the other categories.

**Table 1: Municipality Priorities**

Department	Low Priority	Medium Low Priority	Medium High Priority	High Priority	Total Municipalities
Caaguazú	5	6	6	3	20
San Pedro	8	6	5	0	19
Total	12	12	11	3	39

#### **4. Targeting Criteria to Select the Number of Micro-catchments per Municipality**

5. The diagnostic performed during project preparation indicates the existence of a total of 953 micro-catchments in the 39 municipalities. However, the rural population (and rural producers) is not uniformly distributed among the 953 micro-catchments; there are zones of higher population concentration that indicate the presence of clusters of small-scale farmers and large vacant zones that denote the presence of large-scale farms.

6. The number of micro-catchments assisted per municipality will differ depending on the municipality's level of priority. However, because the land area of municipalities is highly variable, as is that of micro-catchments, it is not advisable to determine a single number of micro-catchments to be assisted under each priority level. A second criterion will therefore be applied: in High Priority municipalities, up to 5 micro-catchments will be assisted; up to 4 Medium High Priority; up to 3 in Medium Low Priority; and up to 2 in Low Priority. Thus, the number of micro-catchments to be assisted by the project in each of the 39 municipalities is determined, but which ones they will be is not determined. This task will be the responsibility of potential beneficiaries at the start of project execution, based on pre-determined criteria. These criteria will be discussed and agreed with stakeholders in the Project and with potential beneficiaries at regional workshops.

#### **5. Targeting Criteria to Select Priority Micro-catchments within Selected Municipalities**

7. The proposed targeting criteria to select priority micro-catchments within selected municipalities will give:

- (a) Sixty percent weight to a socioeconomic measure combining four parameters: (i) number of households per micro-catchment; (ii) UBN in Subsistence Capacity (density of inhabitants/km<sup>2</sup>); (iii) percentage of the population with two or more UBN; and (iv) presence of INDERT settlements; and

- (b) Forty percent weight to environmental factors represented by: (i) deforestation in the 1999-2003 period; (ii) percentage of land area of soil classes IV to VIII with annual crops; (iii) existence of micro-catchments located in the headwaters of river basins; and (iv) existence of micro-catchments located in the recharging zone of the Guarani Aquifer.

8. The combined total of the above criteria will have an established maximum score. In each municipality, micro-catchments with the highest score will be selected, up to the maximum number of micro-catchments established for each municipality provided that 70% of its residents have expressed their agreement to participate in the project and the corresponding municipality has provided its support. Further details will be included in the Operational Manual.

## **6. Focus on Indigenous Communities**

9. The 73 indigenous communities in the project are considered High Priority due to the high incidence of poverty and the degree to which the natural resources on which they depend for survival are degraded. Thus, they will all be project beneficiaries. However, the access of each indigenous community to the various types of support to be offered by the project will vary according to the application of the Indigenous Peoples Land Access and Natural Resources Use Index designed by the project. This index will be applied to all indigenous communities in the first year of the project and will be updated in its third and fifth years. The communities with the highest rankings will be able to access more of the project's activities determined by each community's Indigenous Community Development Plan. This index will be prepared jointly with the communities and their associations.

10. The Indigenous Peoples Land Access and Natural Resources Use Index will be generated as a result of information obtained in each indigenous community based on the following:

- (a) The ensuing questions, if affirmative, will generate points: (i) Does the community know where its lands are located? (ii) Are the community's lands delimited and surveyed? (iii) Does the community have legal status? (iv) Does the community have title to its lands? and (v) Does the community live on and utilize the land that is in its name?; and
- (b) The ensuing questions, if affirmative, will subtract points: (i) Are there conflicts on the use of land in terms of physical occupation?; and (ii) Are there problems with regard to litigation or other types of claims?

11. If, after the index is applied, it is detected that a community needs assistance to title its lands, it may be eligible for land titling support, as a first step, under Component 3 of the project. If the community has resolved its land problem, it will then be able to access the participatory planning activities (participatory diagnostic and preparation of Indigenous Community Development Plans, Subcomponent 2.1) and the implementation of community investments (Component 3). With regard to training activities, all communities will be beneficiaries of training programs (Subcomponent 1.1).

## Appendix 2

### Detailed Description of the Sustainable Rural Development Fund (FDRS)

#### 1. Overview

1. The Sustainable Rural Development Fund (FDRS) will finance demand-driven investments identified in the context of the Micro-catchment Development Plans (MDP), Indigenous Community Development Plans (ICDP), and Municipal Investment Plans (MIP). Subproject proposals will be prepared by eligible project beneficiaries with support from project extensionists. The Fund will provide financial support to farmers to improve social inclusion, to adopt more sustainable land use practices (which contribute to improving crop production, farm productivity and income), to improve animal health and husbandry management, and to diversify production systems, among other topics.

#### 2. FDRS Beneficiaries

2. Within project indigenous *communities* or selected micro-catchments, Fund beneficiaries will include:

- (a) *Individual Small-scale Farmers.* Small-scale farmer households who possess no more than 20 hectares of land in micro-catchments where the project will be implemented. These beneficiaries will be eligible to two types of subprojects: (i) home improvement; and (ii) production and productivity improvement.
- (b) *Community Development Groups (CDGs).* Legally recognized groups of individual farmers (with fewer than 20 hectares) and/or landless rural workers living in the micro-catchment, and composed of a minimum of 8 members (other farmers, with more than 20 hectares, will be eligible to join the group only when in association with at least 85% of the target population). Existing cooperatives or other types of producer associations located in the selected micro-catchments, and which meet the criteria of owning less than 20 hectares per member, may also be considered as eligible CDGs to receive grants. CDGs that do not have a legal personality will be eligible to receive assistance from the project (Component 2a), to obtain such legal personality.
- (c) *Indigenous Communities.* Indigenous communities located in the project area whether overlapping or not with the 84 micro-catchments to be selected for project support.
- (d) *Municipalities.* Municipalities which include at least one selected micro-catchment and comply with all requirements to be established in the Project's Operational Manual, such as preparation and approval of a Municipal Investment Plan (MIP; see other requirements below).

3. Subproject grants will *finance* a maximum of 85% of investments. Beneficiaries will provide at least 15% in-kind contribution to cover the rest.

### **3. Main Outputs, Number of Subprojects and Upper Thresholds for Grant Applications**

4. As all *investment subprojects* financed under the Fund will be fully demand-driven and will stem from the participatory development plans of the beneficiaries, it is not yet possible to determine the number of subprojects and beneficiaries in each category. However, estimations were made with regard to the number of subprojects for each category of beneficiary and expected type of activity, and a maximum grant amount for each category was determined (see Table 1). According to estimations made on the basis of the PARN experience and the farm models, the maximum amount of individual small-scale farm investments subprojects range from US\$500.00 to US\$2,000.00. Maximum amounts for Community Development Group, Indigenous Community and Municipal Investment subprojects are US\$10,000.00, US\$25,000.00 and US\$40,000.00 respectively.

**Table 1: Categories of FDRS Subprojects, Activities, Costs and Upper Thresholds**

<b>Category of Subproject/Activity Type</b>	<b>Estimated Number of Subprojects (1)</b>	<b>Average Cost of Subproject (US\$)</b>	<b>Maximum Grant Amount (US\$)</b>
<b>Individual Small-scale Farmer Investment Subprojects (Home improvement)</b>			500
Home improvements and sanitation (e.g. minor structural improvements to housing, septic tanks and other home sanitation, improved wood stoves)	11,200	300	
<b>Individual Small-scale Farmer Investment Subprojects (Production and productivity improvement)</b>			2,000
Increasing production and soil rehabilitation	12,600	758	
Forest and water rehabilitation and conservation	5,000	305	
Production diversification and improved production systems	3,200	250	
<b>Community Development Group (CDG) Investment Subprojects</b>			10,000
Water supply, minimum tillage equipment, value-added schemes (agro-processing, handicraft production)	480	7,800	
<b>Indigenous Community Investment Subprojects</b>			25,000
Home improvements and sanitation, increasing production, forest and water rehabilitation and conservation, production diversification and improved production systems, value-added schemes (e.g. agro-processing, handicraft production)	60	22,130	
<b>Municipal Investment Subprojects</b>			40,000
Erosion control along rural roads, fruits and trees nurseries, recycling facilities for pesticide containers.	39	40,000	

(1) This estimation of number of activities was made for the sake of project design and evaluation purposes and they are not binding as far as implementation is concerned; grant proposals result from a demand-driven process.

#### **4. Responsibilities for Selection, Approval, Implementation and Monitoring**

5. The FDRS will be characterized by a decentralized project review process to facilitate a rapid response to assistance requests and maintain closer contact with potential participant's needs. Subproject grant applications, prepared by project beneficiaries with the support of project extensionists (for micro-catchments and indigenous communities), will be revised initially by the Micro-catchment Development Committees (MDCs), and when involving indigenous communities, by the corresponding Indigenous Association (IA). After proposals are submitted by the MDCs and IAs to the PMU's Rural Investments Service (responsible for the operation of the fund; see Annex 6 for details), an assessment will be carried out by the PMU's Technical Management Service after which the proposal may be approved and the grant processed. This component (Component 3) will be coordinated by a grant administrator in the PMU. Once awarded, grant funds will be transferred directly to the beneficiary's bank accounts. Municipal Steering Committees and staff from the executing offices at the national and regional levels (PMU and ZCUs) will be responsible for monitoring the use of grants.

#### **5. Regulations Governing the FDRS**

6. The FDRS will be *administered* by the same procedures and financial arrangements of the other components of the project. Beneficiaries will open accounts with local banks (private or government) to receive the resources approved annually for disbursement. Through its Rural Investment Service, the PMU will be responsible for the overall management and supervision of the FDRS. The operation of the FDRS will be governed by a set of regulations that will be detailed in the Operational Manual.

#### **6. Requirements for Eligibility and Subsequent Selection of Grant Proposals**

7. To be eligible, subproject *proposals* must be consistent with activities designated as priorities in the corresponding MDPs, ICDPs and MIPs. They must also fit under the categories and types of subprojects deemed eligible in the Operational Manual.

#### **7. Eligibility Criteria for Beneficiaries**

8. The following *requirements* will be applied for eligibility of beneficiaries:

- (a) *Individual Small-scale Farmers.* (i) actively participate in the definition of priorities of the MDP and in local steering committees foreseen under the project participatory management process; (ii) prepare a subproject proposal based on the priorities of the corresponding MDP and have it approved; (iii) sign terms of commitment to execute the planned activities according to the approved proposal; and (iv) be included in the list of eligible beneficiaries incorporated in the project's annual operational plan prepared by the MDCs for the micro-catchment;
- (b) *Community Development Groups (CDGs).* (i) proof of legal personality, (ii) actively participate in the definition of priorities of the MDP and in other group activities foreseen under the project participatory management process; (iii)

prepare a subproject proposal based on the priorities defined in the corresponding MDC and have it approved; (iv) sign terms of commitment to execute the proposed activities according to the approved proposal; and (v) ensure that the approved subproject is included in the project's annual operational plan prepared at the departmental level;

- (c) *Indigenous Communities.* (i) proof of legal personality, (ii) actively participate in local project steering committees foreseen under the project participatory management process; (ii) prepare a subproject proposal based on the priorities defined in the ICDP and have it approved; (iii) sign terms of commitment to execute the proposed activities according to the approved subproject; and (iv) be included in the list of eligible beneficiaries incorporated in the annual operational plan of the Regional Sub-Unit; and
- (d) *Municipalities.* (i) cover at least one project-selected micro-catchment; (ii) prepare a subproject proposal based on the priorities defined in the MIP and have it approved; (iii) hold/sign a cooperation agreement with MAG; (iv) ensure that the approved subproject is included in the project's annual operational plan prepared at the regional level; and (v) commit to execute the proposed activities according to the approved subproject.

## **Appendix 3**

### **Coordination with the Proposed GEF/Bank Paraguay Biodiversity Project**

1. The Atlantic Forest in general, and the Upper Parana Atlantic Forest in particular, is one of the most endangered biomes globally and the biodiversity it holds is highly threatened. The survival of this biodiversity greatly depends on the conditions the land is being managed outside protected areas and by integrating biodiversity into the productive systems at the farm level. Based on this particular situation, the proposed project would be associated to a proposed Bank-implemented GEF Project (Paraguay Biodiversity). This association would result in the integration of NRM and biodiversity conservation efforts in selected areas of the PRODERS' Project.
2. The Paraguay Biodiversity project would be implemented in an area of approximately 1.1 million hectares, representing a north-south conservation corridor along six departments of Eastern Paraguay. Within this area, implementation of PRODERS would overlap in 12 of the 84 micro-catchments that would be assisted by this project.
3. In these micro-catchments, financial resources from PRODERS would be applied, as in the rest of the project area, to implement NRM and sustainable production practices at the farm level which would provide the basis for the subsequent implementation of appropriate biodiversity conservation practices financed by Paraguay Biodiversity with GEF funding. The allocation of financial resources by PRODERS, estimated at US\$ 5.9 million would partially represent the counterpart contribution of the Government of Paraguay.
4. In addition to above described cofinancing, for the arrangements at the field level, the GEF project would aim at achieving the objective of mainstreaming biodiversity conservation in the productive landscape by financing a series of activities oriented at the incorporation of biodiversity in the activities of MAGs rural extension by providing training and technical assistance to extensionists.
5. GEF resources would also be used for training the project's staff in the promotion of biodiversity conservation and sustainable use, for awareness activities aimed at project beneficiaries within the micro-catchments with respect to the importance of biological diversity, and educational programs including workshops and seminars on legal issues, conservation and sustainable use of biodiversity, identification of local flora and fauna, and planning of income generation activities such as ecotourism activities, organic production, and traditional crops, among others.
6. During the final stage of project preparation, both project units strengthened their relations in a continuous and effective way. This resulted in agreements for project activities in the overlapping area and advantages of jointly developed operational tools. These agreements will be accordingly reflected in the institutional arrangements, time planning and other related matters in the operational manual, which will be covering joint actions in the micro-catchments of Paraguay Biodiversity.

## Annex 5: Project Costs

### PARAGUAY: Sustainable Agriculture and Rural Development Project

<b>Project Cost By Component and/or Activity</b>	<b>Local US\$ million</b>	<b>Foreign US\$ million</b>	<b>Total US\$ million</b>
1. Community Organization, Development and Capacity Building	1.97	0.42	2.39
2. Rural Extension and Adaptive Research	8.18	2.00	10.18
3. Sustainable Rural Development Fund	24.89	0.00	24.89
4. Animal Health Improvement	4.09	0.00	4.09
5. Project Management and Monitoring	3.26	0.64	3.90
<b>Total Baseline Cost</b>	<b>42.39</b>	<b>3.06</b>	<b>45.45</b>
Physical Contingencies	0.25	0.08	0.33
Price Contingencies	0.69	0.28	0.97
<b>Total Project Costs<sup>1</sup></b>	<b>43.33</b>	<b>3.42</b>	<b>46.75</b>
Interest during construction	-	-	-
Front-end Fee	-	0.09	0.09
<b>Total Financing Required</b>	<b>43.33</b>	<b>3.51</b>	<b>46.84</b>

<sup>1</sup>Identifiable taxes and duties are US\$m 1.7, and the total project cost, net of taxes, is US\$m 45.1. Therefore, the share of project cost net of taxes is 96%.

## **Annex 6: Implementation Arrangements**

### **PARAGUAY: Sustainable Agriculture and Rural Development Project**

#### **1. Project Management Structure**

1. Overall project management and implementation will be the responsibility of the Ministry of Agriculture and Livestock (MAG) in partnership with key rural development and environmental institutions including the National Land and Rural Development Institute (INDERT), the Indigenous People's Institute of Paraguay (INDI), the Secretary of Environment (SEAM), the Secretary of Animal Health (SENACSA), the Faculty of Veterinary, as well as the Ministries of Education, Justice and Labor. MAG will sign cooperative agreements with these institutions no later than twelve months after Loan Effectiveness. Whenever necessary, the project will also develop partnerships with civil society organizations in the project area to implement key collective activities foreseen under the project. Within MAG, the following Directorates will play an active role in the execution of project activities in the areas of management, capacity building, rural extension, agricultural research and studies: the directorates of Planning (DGP), Rural Extension (DEAG), Agricultural Research (DIA), Livestock Research (DIPA) and Gender and Youth (DGJ).
2. In addition to the executive structure, and building on the experience of PARN, the bulk of the project participatory management structure will be at the micro-catchment and municipal levels. This will help maximize participation and decision-making by the beneficiaries and facilitate the transfer of these responsibilities and project accountability to the lowest practical implementation levels. Maximizing local participation, in combination with executive and deliberative bodies (described below), is critical to ensuring the sustainability of beneficiary gains achieved under the project.
3. Project Executive Structure. MAG will act as the National Director of the project and will delegate implementation responsibilities to its Directorate for the Coordination and Administration of Projects (DINCAP). The Director General in DINCAP will have the Sub-UAF reporting to him directly. In addition, a Project Management Unit (PMU) will be established within DINCAP, headed by the Project Manager, and composed of a team of qualified professionals dealing with general management (planning, coordination, administration, etc.) and technical and normative functions, as follows:

- (a) Technical Director. Who will be responsible for the Rural Investment Fund, and for all field level activities through the four coordinating zonal units;
- (b) Coordinator of IP Micro-catchments. Who will be responsible for the micro-catchment operations in the IP communities, and for interaction with IP-related catchment development institutions;
- (c) Administrator. Who will manage all administrative and office-related functions of the PMU;

- (d) Planning and M&E Service (PMES) Adviser. Who will be responsible for disseminating project procedures and guidelines as well as for preparing the project's Annual Operational Plan (POA) and running the M&E system. It will adopt a bottom-up approach starting at the indigenous community and micro-catchment levels and moving on to the municipal, departmental and then national levels. Information management will be carried out through the establishment of a physical and financial information system (MIS). A Geographic Information System (GIS) group will be attached to this unit to support the implementation and maintenance of the GIS. The GIS will be built on the experience of PARN's GIS system, which will require a minor technical upgrade. The PMES will also work closely with DEAG . and SENACSA. Here, an institutional exchange will occur as PMES receives technical and methodological support with the elaboration of the POAs and DEAG strengthens and internalizes its evaluation capacity, particularly relating to micro-catchments and indigenous issues;
- (e) Communication and Dissemination Service Adviser. Who will coordinate the implementation and dissemination of project information and materials to promote understanding and transparency across executive, Departmental and Municipal levels, including the maintenance of a webpage, the distribution of promotional videos, folders and posters, etc., and the execution of media campaigns to divulge the project; and
- (f) Four Coordinators. Who will coordinate activities relating to the following four areas: (a) Extension and Adaptive Research; (b) Environmental Management (to link up with the 12 micro-catchments where GEF and project activities are inter-linked and overlap); (c) Capacity Building and Social/Community Organization and Development; and (d) Livestock Development.

4. Project Operational Structure. The executive structure of the project will be accompanied by four Zone Coordination Units (ZCU). Whereas the central PMU will be mostly normative and responsible for technical and administrative management, the ZCUs will be eminently operative and responsible for the field work in the entire project area, including at the municipal, micro-catchment and indigenous community levels. Two ZCUs will be established in both Caaguazú and San Pedro which will be physically based in DEAG's Agriculture Development Centers (the departmental operating bases). Through a strong presence of project technicians<sup>14</sup>, the ZCUs will carry out extension and organization strengthening activities with beneficiaries, coordinate field work and linkages with other activities, monitor adaptive research and investments, and assure overall quality assurance of project implementation.

5. Each ZCU will be managed by a Zone Coordinator, who, under the authority of the PMU's Technical Director, will be responsible for guiding and supervising the work of the

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<sup>14</sup> Project technicians will be hired through a competitive process open to public and private candidates. A company specializing in the contracting of human services, to be determined by an open bidding contest, will carry out the selection process, which will be supervised by the PMU's Technical Manager and approved by the Directive Committee. Candidates will be compensated according to legal stipulations to avoid salary confrontations between "public" and "private" individuals. Any technician who fails to meet performance standards will be replaced.

extensionists and specialists, as well as for quality control of the investment proposals. The four ZCUs will be staffed by a total of 84 micro-catchment extensionists (one per micro-catchment), 17 social organization technicians (one for every 5 micro-catchments) and 3 extensionists for indigenous communities. In addition, the ZCUs will be staffed with a number of specialists including soil, agribusiness, sustainable agriculture, livestock, information system management, fund management, and fiscal matters. Extensionists, organization technicians and ZCU staff may include staff seconded by DEAG. Local/municipal staff from INDERT and other DEAG staff will also provide support to the project in land titling (INDERT) and specific technical and marketing subjects (DEAG, DIA and DIPA).

6. **DEAG Collaboration.** At the executive level, DEAG will be responsible for interacting with the GOP regarding overall project progress and direction while it will simultaneously work with the PMU's Planning M&E Service to give general strategy advice, revise and approve POAs, and provide technical support. At the Departmental level, DEAG's Agriculture Development Centers will support the ZCUs with the planning, implementation and monitoring of project activities, including institutional, capacity building and logistical support and equipment. At the Municipal level, DEAG's Local Technical Assistance Agencies will coordinate with and support the project's extensionists and social organization technicians through trainings, managing information, social monitoring, implementing rural and indigenous activities as identified in the POA, and participating in the Municipal Steering Committees.

## **2. Participatory Decision-making Bodies**

7. Beneficiaries will participate extensively in project management through decision-making structures established, or strengthened in the case of existing structures, for the purposes of the project. This will include execution committees and steering committees which will operate in coordination with the MAG-led project executive structure.

8. **Beneficiary Implementation Structure.** The project will promote the establishment and consolidation of Micro-catchment Development Committees (MDC) in each of the project-supported micro-catchments as the central unit for beneficiary participation in project decision-making and implementation. In the indigenous communities, that function will be performed by the existing Indigenous Associations (IA) which the project will work to strengthen.

9. MDCs and IAs will be legally established and serve as development committees to represent their members prior to receiving any financial support under the project. The MDCs (one for each benefited micro-catchment) will be composed of project beneficiaries and medium and large-scale producers living in the micro-catchments. MDCs will: (i) on the basis of participatory social, economic and environmental diagnoses and beneficiary demands, participate in the preparation of the Micro-catchment Development Plans (MDP; assisted by the micro-catchment extensionist) or Indigenous Community Development Plans (ICDP; assisted by the indigenous community extensionist) which will include, *inter alia*, the consolidated local demands for project financing; (ii) promote and organize project events (MDC management meetings and workshops and focus groups associated with MDP preparation and implementation); (iii) discuss MDPs with concerned Municipal Steering Committees (MSC) for coordination; (iv) submit investment proposals to the PMU through the project micro-catchment

extension agent; (v) oversee MDP implementation; and (vi) monitor and evaluate results of the subprojects.

10. Wherever they exist, the Community Development Groups (CDG), pre-existing organizational structures of small-scale farmers, women, youth, indigenous people, rural workers, etc., will be the basis for organizing the MDCs just as they were the basic planning and budgetary entity in PARN. Therefore, support for the consolidation, and creation if necessary and feasible, of CDGs is regarded as crucial. In addition to their roles as the primary unit for developing the MDCs, the CDGs will be important actors in the dissemination of project information, identification of community investment needs and evaluation of demands eligible for project financing.

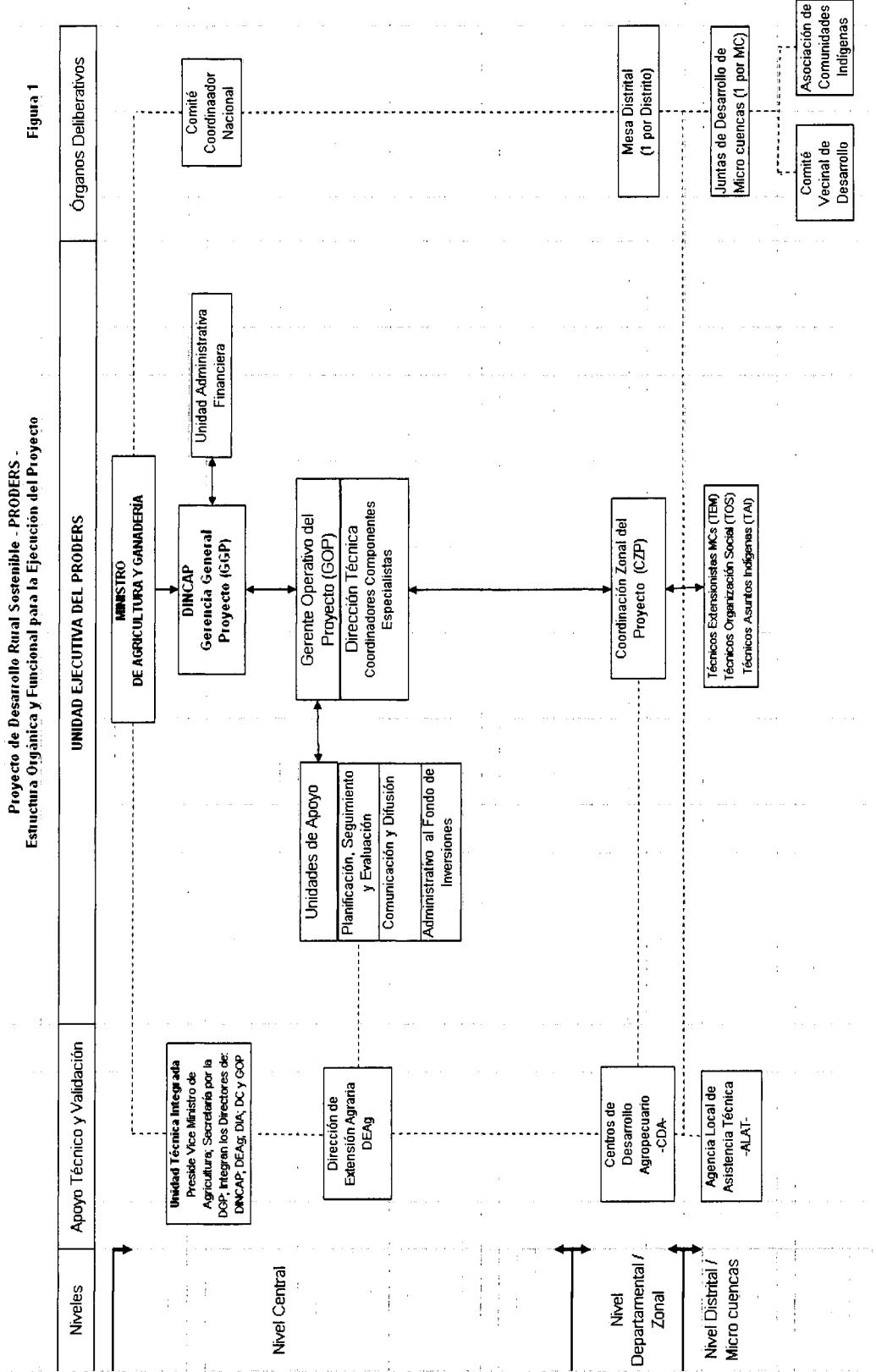
11. To deliver the services of the project and provide external coordination to facilitate the integration of project activities with those being carried out by other programs, provide overall guidance and address potential conflicts, the project will have the support of the following project steering committees at the various levels of project implementation: (i) steering committees in each of the municipalities selected for project implementation (MSCs); and (ii) a National Coordination Committee (NCC). See chart below showing the relations with the PMU.

12. Municipal Steering Committees (MSC). MSCs will be created to act as a forum for local participation and to gather local perspectives of the project to strengthen the implementation processes at the municipal and national levels. The major functions of the MSC will include: (i) monitoring and evaluating project implementation performance in their respective municipalities; (ii) consolidating demands from MDCs; (iii) setting priorities for Municipal Investments Plans (MIP) and implementing them (i.e., erosion control systems, establishment/strengthening of nurseries, construction of disposal facilities for pesticide containers, etc.); (iv) coordinating activities of other relevant projects at the micro-catchment level; and (v) presenting the local realities of project implementation to the NCC through a representative. MSCs will include: one representative from each of the concerned MDCs, one representative from the civil society of the municipality, one representative of the indigenous communities if they are present in the municipality, one representative of DEAG, the mayor and one of the project's micro-catchment extension agents working in the municipality who will act as the MSC's Executive Secretary. To ensure that development is demand-led, at least 50% of the participants in MSCs will be members of the target group or their representatives.

13. National Coordination Committee (NCC). The NCC will be established at the national level early in PY01. It will have approximately 10 members and will be responsible for: (i) promoting the active participation of relevant partner institutions in project activities; (ii) facilitating the integration of project outputs/lessons learned into national strategies; (iii) validating project implementation policies and priorities; and (iv) reviewing and approving POAs and respective fund allocations proposed by the PMU. The NCC will be chaired by MAG or a designated representative and will include a senior manager each from INDI, INDERT and SEAM; one representative from the departmental governments; one representative from the municipal governments; one or two representatives from the MDCs; one indigenous leader representative; and one representative from the MSCs (see below).

14. See Figure 1 below for the broad organizational structure proposed for the project at different levels.

**Figure 1: Project Organizational Chart**



**Annex 7: Financial Management and Disbursement Arrangements**  
**PARAGUAY: Sustainable Agriculture and Rural Development Project**

**1. Summary Conclusion of Financial Management Assessment**

1. The Financial Management (FM) arrangements for the project (SRDP) meet with Bank requirements. The proposed FM and audit arrangements, mitigations measures, and action plan and will be implemented to mitigate the FM risk. Despite the mitigation measures, the residual risk level was rated HIGH particularly due to: (i) the high level of inherent risk in Paraguay; (ii) MAG's weak control environment and insufficient FM capacities; (iii) the transfer of funds to final beneficiaries (FDRS); and (v) the potential time-lag and suspension of inception activities between project effectiveness and Congress approval.

2. A *comprehensive Fiduciary Framework* is planned for this project in order to comply with project development objective and mitigate the high FM risk. The main Fiduciary and Governance measures are summarized as follows:

- (a) Bank compliant reporting system and control framework linking disbursement to service output to final beneficiary;
- (b) Coordination with Integrated Fiduciary Assessment activities;
- (c) Planned incorporation of coming Paraguay Fiduciary Action Plan (FAP);
- (d) Social monitoring of project implementation;
- (e) FM Capacity building & Governance and Transparency Workshops with Project Stakeholders and FDRS Beneficiaries
- (f) Concurrent Audit of the mechanisms of fund transferred to final beneficiaries (FDRS);
- (g) Institutional and capacity building of MAG units relevant to the project;
- (h) Bank Fiduciary staff advice to MAG; and
- (i) Enhanced FM arrangements and supervision.

3. Management of Project Funds and Sustainable Rural Development Fund (FDRS). All project funds and the FDRS will be implemented through MAG. A Project PMU will be created within the National Directorate for the Coordination and Administration of Projects (DINCAP). The Sub-UAF that will be created in DINCAP will be responsible for the financial management, disbursements functions of the project.

4. All uses of funds will be processed by the PMU and supported by external third party documentary evidence, and the related goods and services will be procured in line with Bank guidelines. The PMU will be responsible for the SRDP, making payments to suppliers,

obtaining loan disbursements, and accounting and financial reporting. These arrangements include the FDRS which will also entail specific measures to enhance FM accountability to beneficiaries groups. The project implementation will be guided by an Administrative Operational Manual (AOM).

5. Project Assets. The assets to be procured during the Project will be incorporated into the Project and recorded in its asset registry. Assets to be acquired from beneficiaries subprojects will be part of the beneficiary's assets and not maintained into the SRDP asset ledger.

6. Lessons Learned and Governance Workshops. As part of the lessons learned from other projects recently prepared in Paraguay, it is planned to have accountability and governance/transparency workshops with project stakeholders groups to identify measures to improve implementation transparency, foster social control of project funds and mitigate project FM risk. Bank FM staff delivered the first seminar on 24 February 2006. These Governance Workshops will be complemented by FM capacity building and training to Community Beneficiaries from the FDRS.

7. Strengthening of MAG Financial and Administrative Functions. For the sustainability purpose of project results, the project under Bank FM supervision will provide support to strengthen the Financial and Administrative functions of MAG (Component 5). Thus, PRODERS will continue to build on MAG's treasury and procurement capacities through strengthening the Sub-UAF (functions which were outsourced during PARN).

8. FM Arrangements and Mitigating Measures. The project FM arrangements and mitigating measures are summarized in the table below. Due to the high level of risk, additional measures were incorporated to ensure proper mitigation.

<b>Project Financial Management Arrangements</b>					
<ul style="list-style-type: none"> <li>The project will include an Administrative Operational Manual including: (i) Chart of Accounts for the project; (ii) format and contents of the annual financial statements and Financial Monitoring Reports (FMR) format for monitoring and evaluation purposes; (iii) terms of reference for the external auditing; (iv) terms of reference for the FDRS specific concurrent audit; and (v) specific section for FDRS implementation process.</li> <li>The project funds, including the FDRS, will be managed directly by the PMU of MAG and, depending on MAG/PMU capacities, treasury functions will either be managed by the PMU .</li> <li>The project MIS will include an FM and a specific FDRS modules acceptable to the Bank.</li> <li>Specific PMU staff will be dedicated to the management of the FDRS.</li> <li>Specific semi-annual reporting for the FDRS.</li> <li>Governance and Transparency workshops will be carried out from project preparation onward.</li> <li>Training to project beneficiaries will be organized by the loan recipient</li> <li>FDRS release will be conditioned by the existence of a functional specific MIS module acceptable to the Bank and a satisfactory concurrent audit report.</li> </ul>					
<b>FM Supervision</b>					
<table border="1"> <tr> <td><b>Standards for High Risk Project</b></td> <td><b>Additional</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>Supervision site visits at least three times a year.</li> <li>FMRs reviewed bi-annually.</li> <li>Annual review of the Audit reports.</li> </ul> </td><td> <ul style="list-style-type: none"> <li>Review of the concurrent audit report.</li> <li>Review of the specific conditions to release FDRS (See Annex 7 FDRS section).</li> <li>Progress Review of MAG FM capacities</li> <li>Bank specific FM training for project staff and Governance Workshops.</li> </ul> </td></tr> </table>		<b>Standards for High Risk Project</b>	<b>Additional</b>	<ul style="list-style-type: none"> <li>Supervision site visits at least three times a year.</li> <li>FMRs reviewed bi-annually.</li> <li>Annual review of the Audit reports.</li> </ul>	<ul style="list-style-type: none"> <li>Review of the concurrent audit report.</li> <li>Review of the specific conditions to release FDRS (See Annex 7 FDRS section).</li> <li>Progress Review of MAG FM capacities</li> <li>Bank specific FM training for project staff and Governance Workshops.</li> </ul>
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<b>External Audit Scope</b>					
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## 2. Country Issues

9. The Paraguay Country Financial Accountability Assessment (CFAA), March 2004, and the Country Assistance Strategy (CAS), November 2003, raised the problems of governance and institutional weaknesses in Paraguay. The CAS states that Paraguay is renowned for corruption and contraband. Perceptions of corruption have increased during the past decade and Transparency International has consistently ranked Paraguay among the ten most corrupt nations.

10. The management and control systems of Government are also weak or non-existent. Within the central administration, the personnel management system is in an embryonic stage and is only now pulling together a master roster of all civil servants. A much larger task is to embark on the professionalization of the civil service including competitive entrance exams, career streaming and training.

11. The main weaknesses and shortcomings identified by the CFAA in terms of financial accountability include:

- (a) Weak control environment and control framework;
- (b) Numerous exceptions in the application of the financial administration law and regulation;
- (c) Disproportionate share of time and resources that the Auditor General devotes to ad hoc review requests;
- (d) Congressional introduction of budget increases without provision for corresponding financing;
- (e) Trade liabilities incurred by execution agencies, but unrecorded if they exceed the authorized cash program; and
- (f) Numerous exceptions to generally accepted accounting standards including financial statements non-compliant with the Government's own regulations.

12. According to the CFAA, the inherent and control risks are high and the advances made in the modernization of Paraguay's public financial management system do not compensate the effects of the deficient control environment.

13. The Bank's country portfolio review of October 2003 also identified the main issues affecting portfolio implementation in Paraguay. These include: (i) high staff turnover in the project implementation units; (ii) lack of timely and adequate availability of counterpart funds; (iii) cumbersome procedures for the flow of funds to the projects; (iv) delays in effectiveness and project start-up; and (v) limited disbursement capacity and knowledge of Bank procedures.

### **3. Risk Assessment and Mitigation**

14. As detailed in the table below, the project residual FM risk remains high and will be subject to the FM regional Manager review.

Risk	Risk Rating	Risk Mitigating Measures Incorporated into Project Design	Conditions of Negotiation, Board or Effectiveness
<b>Inherent Risk</b>	<b>High</b>		
Country Level	High	(i) Incorporation by the project of Paraguay FAP measures (ii) MAG organizational and human resources measures to cover the risk of delays between effectiveness and Congress approval of the loan	
Entity Level (MAG)  MAG processes and capacities for administrative & financial functions are weak	High	(i) Strengthening MAG FM capacities (project component 5) and re-activation of the MAG Sub-UAF (ii) Competitive Recruitment of staff to re-activate the Sub-UAF (iii) Capacity Program to support the re-activation of the DINCAP Sub-UAF	By dated covenant
Project/PMU Level	High	(i) PMU proposed staffing and organization satisfactory	By dated

The size and capacity of the current PMU administration & finance capacities remain insufficient for the new operation.		<p>to the Bank</p> <p>(ii) Administrative Operational Manual (AOM) to include internal control procedures, PMU staffing &amp; organization satisfactory to the Bank, job descriptions, FMRs &amp; financial statement formats, specific FDRS procedures, description of FDRS management specific staffing, project audit terms of reference</p> <p>(iii) Capacity building in FM</p>	covenant By Dated Covenant
Project – Sustainable Rural Development Fund (FDRS)  The funds' transfer to beneficiaries and its size reinforce the complexity and risk level of the project		<p>(i) Governance &amp; Transparency workshops</p> <p>(i) FDRS specific MIS module acceptable to the Bank is included in project MIS and operational before FDRS release</p> <p>(ii) Terms of Reference of concurrent audit specific to FDRS acceptable to the Bank (to be included in AOM)</p> <p>(iii) FDRS disbursement conditioned by Bank approval of FDRS concurrent audit</p> <p>(iv) Specific supervision of FDRS mitigating measures (See Annex 7 - FDRS section - paragraph 20)</p>	Initiated by Negotiations By Dated Covenant

Risk	Risk Rating	Risk Mitigating Measures Incorporated into Project Design	Conditions of Negotiation, Board or Effectiveness
<b>Control Risk</b>	<b>High</b>		
Budgeting	Modest	State budget includes specific budget lines for the project	
Accounting	High	FM specific module acceptable to the Bank is included in project MIS	
Internal Control  Insufficient capacities of the PMU Administrative & Finance department to undertake the complete FM management of the project	High	<p>(i) Include detailed FM processes and level of responsibility in the Operational Manual</p> <p>(ii) Enhanced Supervision (see Annex 7 - Supervision plan)</p>	By Dated Covenant
Funds Flow  The capacities of MAG and PMU Admin. & Fi department are insufficient to manage autonomously the payment process	High	<p>(i) Flexible alternatives based upon MAG capacities: treasury functions within Ministry structures or managed by an international organization</p> <p>(ii) Document monthly reconciliation between potential International Organization reporting and project accounting – The Operational Manual should describe this control</p>	By Dated Covenant
Auditing See Annex 7 - External Audit Section	Modest	<ul style="list-style-type: none"> <li>- Project Audit acceptable to the Bank (TORs to be included in AOM)</li> <li>- FDRS specific concurrent audit</li> </ul>	By Negotiation
<b>Overall</b>	<b>High</b>		

#### 4. Strengths and Weaknesses

15. **Strengths.** Previous and ongoing project experience in managing fund transfers; high degree of commitment and ownership of PMU FM staff.

16. Weaknesses. Main weaknesses include: (i) the high level of inherent risk; (ii) MAG weak control environment and insufficient FM capacities; (iii) the required reinforcement of the PMU FM and risk management resources to manage a more substantial project; (iv) the transfer of funds to beneficiaries (FDRS); and (v) the potential time-lag and suspension of inception activities between project effectiveness and Congress approval. These weaknesses are mitigated through the proposed measures, in particular the specific concurrent audit, the staff increase in FM and risk management activities, the capacity development actions and the enhanced FM supervision, to ensure appropriate use of funds.

## 5. FDRS Fiduciary Framework (Component 3)

17. The PMU is responsible for the management and the implementation of the FDRS and will include a specific team dedicated to the management of the fund.

18. The FDRS represents a significant proportion of the total loan amount with US\$24.9 million or 51% of the total loan amount. This fund will finance investments proposed by rural community associations, local NGOs and municipalities in support of subproject investments for improved natural resource and environmental management in the project area. The grants would be demand-driven and support the costs of needed investments in small-scale infrastructure, technical assistance, and other goods, and services. A subproject grant would typically range from US\$950 to US\$10,000 as the maximum size for which eligible beneficiaries would contribute at least 15% of total subproject cost in-kind. The FM arrangements are therefore designed to mitigate the high fiduciary risk generated by the management of funds by poorly capacitated communities in a weak control environment. The overall FDRS procedures designed in the project preparation and the FM specific measures are mutually complementary and concur to the same development and fiduciary objectives. (See Annex 4, Appendix 2 and Annex 6 for further details). The project will include a positive and negative list of activities for funding.

19. The following FM specific measures for the FDRS will be adopted and implemented:

- (a) The project preparation process should include transparency and governance seminars targeting staff from MAG and consultant preparing the projects (first seminar carried out on February 24, 2006);
- (b) Governance and Transparency seminars should be extended to the final beneficiaries of the project (NGOs and Municipalities) and be complemented by FM capacity building and training;
- (c) Conditions and scope of grants to Communities will be formalized in a written agreement between the Community and MAG;
- (d) FDRS disbursement is conditioned by the existence of a reliable control framework down to the level of output/service delivery to final beneficiary and by the identification of beneficiaries and the training of the relevant stakeholders;

- (e) The operational manual chapter on FDRS should include detail description of the following processes: (i) selection of beneficiary organization, in particular the preliminary requirements to be selected (for instance, satisfactory evaluation of the administrative and financial capacity of pre-selected municipality); (ii) required planning documents to determine the annual grant to each selected organization; (iii) opening procedure for the project specific bank account by the beneficiary; (iv) implementation and control procedures of the FDRS; (v) upper and lower limit of transfer of funds; (vi) the special procedure to authorize transfers above the threshold; the required documents and level of disbursement of the previous transfer to release the next transfer of funds to the NGO or Municipality; (vii) the description of the financial/project management training to be delivered to beneficiary organizations; (viii) FDRS specific accounting process for the PMU/Project accounting (in particular the accounting rule to register cash transfers); (ix) the FDRS specific reporting requirements; (x) the description of the functionalities of the FDRS module of the project Management Information System; (xi) the description (staff and functions) of the PMU team dedicated to the management of the FDRS; and (xii) the terms of reference of the concurrent audit specifically covering the FDRS; and
- (f) The above-mentioned operational manual requirements related to the FDRS will have to be approved by the Bank FM team.

20. Periodic reporting by an external *concurrent financial audit* acceptable to the Bank that will monitor on a continuous process the transactions and records from sub projects will be part of the measures to mitigate the FDRS fiduciary risk. This audit will be conducted in addition to the Project annual audit. The contracting of the concurrent auditor will be a condition of disbursement for the expenditure category Community Grants. The terms of reference of the concurrent audit will require the auditor to provide: (i) an opinion on the use of FDRS funds in subprojects; (ii) an opinion on the uses of funds statements sent by the sub projects; (iii) an opinion on the justification of pending balances from subprojects and its antiquity; and (iv) conclusions and recommendations for modifying processes and improve accountability and transparency of FDRS financial framework. Opinions, conclusions and recommendations will be provided every six months.

21. Prior to the release of the FDRS, the following requirements must be fulfilled and will be reviewed and approved by the Bank FM team:

- (a) The FDRS module of the project MIS is implemented and operational;
- (b) The PMU specific team dedicated to the FDRS is staffed and operational;
- (c) The identification and initial training of beneficiary organizations has been carried out; and
- (d) The concurrent audit TORs is acceptable to the Bank.

22. If the last three requirements are fulfilled and the MIS module is not yet operational, during project year 1, the Bank FM team may authorize fund release provided a transitory mechanism compliant with Bank FM requirements is operational.

## **6. Implementing Entity and Staffing**

23. The current PMU FM staff arrangements need to be strengthened. The management of the Administration and Finance Department has experience in Bank-funded operations. However, the technical skills, particularly in accounting and internal control should be reinforced through capacity building. The PMU FM human resources should also be increased and adapted to the magnitude of the new project and measures should cover the risk of delays between project effectiveness and loan approval by the Congress. The management of the FDRS should be carried out by specific staff from the PMU. The proportion of civil servants should be increased to improve sustainable capacity development. The administrative operational manual will define the FM and FDRS staff strength, the processes and functions, which will be subject to Bank FM review by negotiations.

24. MAG organization and operational capacities are weak and generated fiduciary and implementation issues in the previous project. Specific capacity building activities for MAG staff and for the Administration and Finance PMU staff will be designed and implemented throughout the project life. The purpose of these activities is to develop sufficient MAG sustainable capacity to manage efficiently project financial management aspects. The Governance and Transparency workshops will also benefit to the MAG and PMU FM staff. The Component 5 of the project will also provide technical assistance and advice in administration and finance to MAG (see Annex 4). Progress in MAG FM capacity building will be subject to Bank FM monitoring. Changes to the FM implementation arrangements will be subject to Bank FM approval.

## **7. Budgeting**

25. The Head of the PMU Administration and Finance Team in consultation with the PMU Planning Manager will prepare the budget annually according to Bank Format and National Budget format. The annual project budget is submitted to the Ministry for approval. The national budget, the national FMIS (SIAF), shall include specific lines for the project budget. The budget process is acceptable to the Bank.

## **8. Accounting and Reporting**

26. The PMU will be responsible for keeping accounting records for Project activities at the Project level. Project Accounting is on cash basis and will comply with international standards. Transactions will be recorded in the FM module of the Project Management Information System (MIS) acceptable to the Bank to allow adequate reporting and SOEs control. Project financial statements will disclose funds transferred to the FDRS and justification for pending balances.

27. The PMU will issue annual financial statements and semiannual Interim Financial Reports (IFR). The proposed format for the IFRs will be part of the Operational Manual and will include:

- (a) Source and uses of funds, for each semester and cumulative (uses by category);
- (b) Uses of funds by component; and
- (c) Physical progress report for each semester by Project component.

28. The FDRS reporting will be incorporated in the Project Financial Statements and Financial Monitoring Reports. The format of the FDRS IFRs will be part of the Administrative Operational Manual and will include:

- (a) Use of FDRS funds per sub-component (each beneficiary organization), for each semester and cumulative;
- (b) Use of FDRS funds by category for each semester and cumulative; and
- (c) FDRS Physical progress report for each semester.

29. The trigger for recording FDRS expenditures is the fund transfer to beneficiary organizations. The AOM will provide detailed accounting procedures for this type of transactions.

## **9. Internal Control and Internal Auditing**

30. The project internal control is weak. The function of the internal controller from the previous project consists of ex-ante control and accounting checking. There is a lack of updated and monitored summary balances and controls. For instance, the FM assessment mission observed that the register of asset was not consolidated and that, for a random selection, the reconciliation with monthly payment report was not documented. The manual of procedures is incomplete and a number of procedures lack supporting documentation. The Head of Administration and Finance is experienced and committed. However, several PMU FM staff lack skills or autonomy, which affects the control capacity.

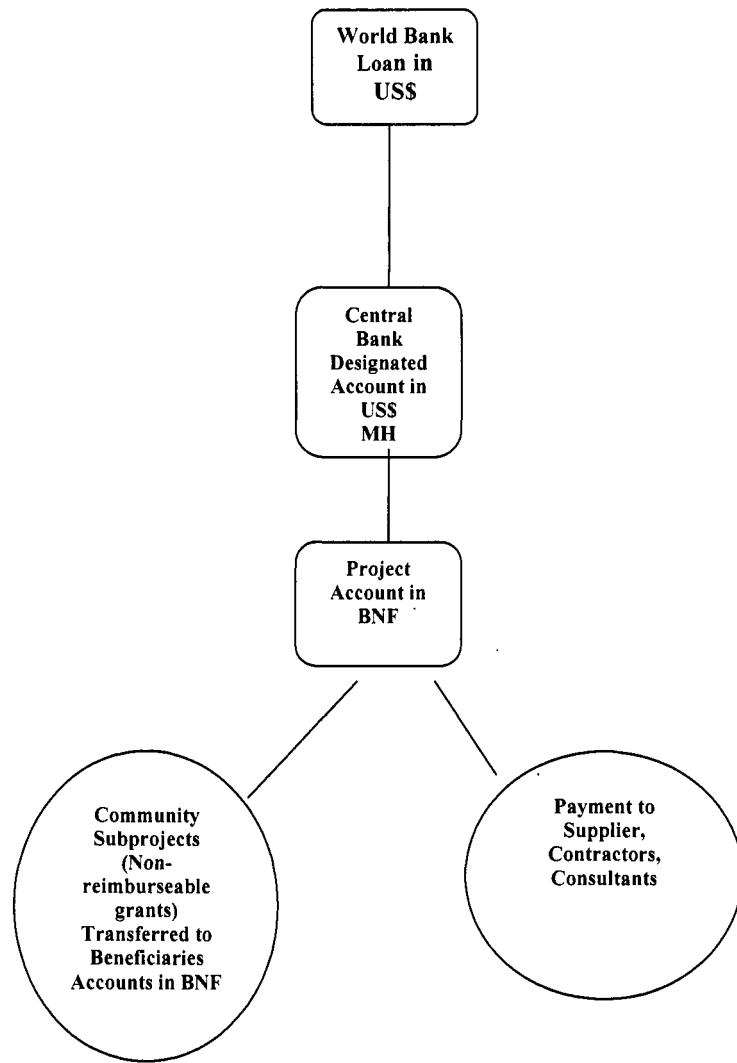
31. Measures to mitigate internal control risk include: (i) increase of and provision of training to PMU FM staff; (ii) design and incorporation of an FM module acceptable to the Bank in the new project MIS; (iii) enhanced project supervision; (iv) systematical documentation and archiving of the reconciliation between project accounting and project bank account/treasury and systematic documented justification of any difference; (v) incorporation of FAP additional measures; and (vi) continuous capacity building of MAG staff.

## **10. Flow of Funds**

32. Since the completion of PARN, in which the flow of funds was managed by UNDP through a Designated Account, MAG has improved its FM capacity through its experience in implementing projects with the IDB and GTZ. In general, MAG will make payments for three

components, except for payments done under FDRS subprojects (component 3) which will be made directly by the eligible beneficiaries of the subprojects (under the CDD guidelines).

#### Flow of Fund Diagram



33. Funds will be withdrawn from the Designated Account at Central Bank and then transferred to the Project Account at BNF as required from time to time for short-term payments to suppliers, consultants, and for transfers to eligible grant beneficiaries.

34. As explained above, the average size grant is US\$1,500, and the maximum anticipated is US\$10,000. Taking into consideration the high number of small value grants to be financed during the life of the project, and to facilitate an adequate and timely implementation and monitoring of these grants in the current risk environment, the following flow of funds will be followed once an agreement is signed between MAG and the eligible grant beneficiaries: (i) MAG will deliver the beneficiary registry to the BNF; (ii) eligible beneficiaries will open bank

accounts in BNF exclusively to receive funds for the implementation of the community investment subprojects; (iii) the RIS will request advance payments to the MH which will deposit these in the project account in BNF; (iv) after beneficiaries meet the requirements to receive resources, MAG will inform BNF who will transfer the funds in one tranche from the project account to the beneficiary individual bank accounts, and (v) beneficiaries will make payments to suppliers and services for the subprojects activities. In cases of community investment subprojects above US\$10,000, the transfer of fund to the beneficiary account could be made in more than one tranche, and the first disbursement will be an advance based on the needs of the subproject for a determined period of time; and subsequent disbursements will be made based on physical and financial progress. Disbursements for community investment subprojects will only be made up to the project completion date, i.e., six months prior to the loan closing date.

## **11. Disbursement Arrangements**

**Allocation of Loan Proceeds  
(in US\$'000)**

<b>Expenditure Category</b>	<b>Amount financed in US\$</b>	<b>Bank's Financing Percentage*</b>
1. Goods, works, non consultant services, consultants' services, Operating Costs and Training for Part 1 of the Project	1,900	100%
2. Goods, works, non consultant services, consultants' services, Operating Costs and Training for Part 2 of the Project	8,700	100%
3. Goods, works, non consultant services and consultants' services financed by Community Grants	19,500	100% of amounts disbursed
4. Goods, works, non consultant services, consultants' services and training for Part 4 of the Project	2,900	100%
5. Goods, works, non consultant services, consultants' services, Operating Costs and Training for Part 5 of the Project	3,200	100%
6. Unallocated	1,300	
<b>TOTAL</b>	<b>37,500</b>	

35. WB Disbursement Method. Loan proceeds will be withdrawn by MAG using the advance method supported by documentation showing that the Loan proceeds previously withdrawn have been used to finance eligible expenditures. Supporting documentation will be in the form of Statement of Expenditures (SOEs), at least initially, with the exception of payments related to contracts above the SOE threshold, which will be reimbursed against full supporting

documentation. Once the system for producing IFRs has been tested and found satisfactory to the Bank, the supporting documentation may be changed to interim un-audited IFRs.

36. Other Procedures. By appraisal, no need has been identified for the use of special commitment procedures. Should the need arise during implementation; the Bank will evaluate it and if granted, agree to their use via an amendment to the Disbursement Letter. The project may use reimbursement or direct payments.

37. WB Designated Account. MAG through the Ministry of Finance will open a segregated Designated Account in the Central Bank in US dollars, to be used exclusively for deposits and withdrawals of the Loan proceeds for eligible expenditures. After the conditions of Effectiveness have been met, and the Designated Account has been opened, MAG will submit its first disbursement request to the Bank, together with the expenditure and financing needs forecast for the next six months. For subsequent withdrawals, SAG will submit the disbursement request, along with the supporting documentation (SOEs or IFRs).

38. Disbursement Deadline Date. Four months after the Closing Date specified in the Loan Agreement. All consolidated SOEs documentation will be maintained by the PMU for post-review and audit purposes for up to one year after the final withdrawal from the loan. The Project will request access to the Bank's Client Connection webpage to access the 2380 Form and to perform the reconciliation process periodically between their bank account and the resources received from the different sources.

39. Retroactive Financing. The Bank would finance up to a maximum of US\$3.75 million for eligible expenditures under the proposed project incurred after January 1, 2008, but no more than one year from signing.

## 12. External Audit

40. Previous Project External Audit. Acceptable audit reports were submitted to the Bank in the previous project (PARN Project P007918) implemented by the PMU of MAG. As a result of the 2000 audit and subsequent supervision mission, mitigating measure have been adopted to address audit and FM supervision findings and identified internal control weaknesses. The nature of the 2001 and 2004 audit qualifications did not indicate substantial FM issues. For the 2002 and 2003 exercises, audit opinions have been unqualified. The following chart indicates for the previous project the audit opinion and the name of the auditors for the previous five years.

Year	Auditor	Project Financial Statements & SOE	Special Opinion (Special Account)
PARN Project P007918 – Loan 3708			
2005	Price Waterhouse Coopers	Unqualified	Unqualified
2004	Ernst & Young Paraguay	Qualified for the Financial Statements only	Unqualified
2003	Ernst & Young Paraguay	Unqualified	Unqualified
2002	Gestión Empresarial Estudio de Auditoría y Consultoría	Unqualified	Unqualified
2001	López Fracchia, Di Lorio & Asociados – Arthur Andersen	Qualified for the SOE only	Qualified

41. **SRDP Annual Audit**. Project financial statements will be subject to an annual financial audit under Terms of Reference and by auditors acceptable to the Bank within six months of each fiscal year. Annual audit will cover all funding and expenditures reported in the project financial statements. For audit purposes, the fiscal year will be the calendar year.

42. **SRDP Expanded Scope of Audit**. Due to the high level of risk of the project under preparation (in particular the transfer of funds to beneficiaries), a financial concurrent audit of the FDRS sub projects' execution will be carried out on a bi-annual basis to ensure proper use of funds and adequate reporting. This concurrent audit will include a random selection of beneficiaries for physical output control. The Terms of Reference of the concurrent audit will have to comply with the Bank guidelines and the scope acceptable to the Bank. The concurrent audit shall provide an opinion on the FDRS financial statements and reports.

<b>Audit Report</b>	<b>Due Date</b>
1. Project Financial Statements	June 30 of each year
2. Special Opinion - SOE: an opinion on the eligibility of expenditures reported and the correct use of Loan funds	June 30 of each year
3. Concurrent Audit on FDRS, with an opinion on: - Use of FDRS funds in subprojects - Use of funds statements and reporting by subproject - The justification of pending balances from subprojects and their justification - FDRS internal control procedures - FDRS follow-up on recommendations	No later than 45 days after the end of each semester of each year during project implementation

### 13. Action Plan

<b>Action</b>	<b>Responsible Entity</b>	<b>Estimated Completion Date</b>
Proposed PMU staffing and organization satisfactory to the Bank	MAG	By Dated Covenant
MIS, including FM and FDRS specific modules satisfactory to the bank	MAG	By Effectiveness
Transparency and Accountability workshops to be carried out as input for specific governance arrangements to be included in Operational Manual	MAG	Initiated before Negotiation (first Workshop in 24 February 2006)
Project Operational Manual acceptable to the Bank that includes <i>inter alia</i> : Chart of Accounts, FMRs formats and a specific section on FDRS	MAG	By Negotiations

Project audit terms of reference for concurrent audit acceptable to the Bank (to be included in AOM)	MAG	By Dated Covenant
Project audit terms of reference acceptable to the Bank (to be included in AOM)	MAG	By Dated Covenant

#### 14. Supervision Plan

Type	Timing	Mechanism	Objective
Visit	At least three times a year	Integrating project team supervision missions.	Review of International Organization or Designated Account reconciliation; uses of funds; Follow-up on External Audit recommendations/ raised issues. Review Internal Control procedures
Bank FM training to FM staff	Annually	Through supervision mission or specific FM seminar	Develop the capacity of PMU FM staff; Update the PMU FM staff in new regulations & practices; Improved control of the FM risk
Governance Seminars	To be agreed	Seminars	Raise awareness on project governance issues
Review of MAG FM capacity development	Annually	Integrated in project on site supervision	Contribute to the re-integration of outsourced functions
FMR Review	Bi-annually	Over the FMR submitted to the Bank	Review FMR information consistency
Audit Review	Annually	Over the Audit Report submitted to the Bank	Review Audit Report
Concurrent Audit Review	Bi-Annually	Over the Concurrent Audit Report on FDRS submitted to the Bank	Review of concurrent audit report and follow-up of previous year recommendations
Review of pre-conditions for FDRS disbursement	In the course of project year 1	Concurrent audit review and supervision visit	Ensure that the pre-conditions for the implementation of the FDRS are fulfilled

## Annex 8: Procurement Arrangements

### PARAGUAY: Sustainable Agriculture and Rural Development Project

#### 1. Introduction

1. Procurement for the proposed project will be carried out in accordance with: (i) the World Bank's "Guidelines: Procurement under IBRD Grants and IDA Credits" and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers", both published in May 2004 and revised in October 2006; (ii) the "Guidelines On Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits", dated October 2006; and (iii) the provisions stipulated in the Loan Agreement. The general description of various items under different expenditure categories are described below. For each contract to be financed by the Loan, the different procurement methods, the need for pre-qualification, estimated costs, prior review requirements, and time-frame have been agreed between the Borrower and the Bank in the Procurement Plan. The Procurement Plan will be updated and extended annually or as required to reflect the actual Project implementation needs and improvements in institutional capacity.

2. Procurement of Works. The project will finance small civil works for the rehabilitation of project offices, which will be procured following NCB and Shopping procedures. The Paraguayan legislation describes two alternatives for NCB and two alternatives for Shopping, which are acceptable to the Bank if: (i) they are slightly amended to permit that foreign companies not registered in the Country be allowed to participate in NCB; and (ii) terms to submit bids and quotations be extended to make them consistent with Bank recommendations, as displayed in the table below. Local-law thresholds for NCB and Shopping are lower than the maximum accepted by the Bank, as also illustrated in the table that follows. Acceptance of these thresholds will bring benefits in terms of: (a) facilitating project implementation through harmonization with local procedures; and (b) taking advantage of increased transparency and competition resulting from lower NCB thresholds. SBD for NCB and Requests for Quotations agreed with or satisfactory to the Bank be used in all cases.

Local Law Methods Applicable to the Project			Maximum Bank Thresholds for Methods below the ICB threshold	
Method	Threshold (US\$)	Amended Term (days)	Method	Threshold (US\$)
NCB <sup>15</sup>	100,000	30	NCB	250,000 (Works)
Shortened NCB <sup>16</sup>	20,000	20		50,000 (Goods)
Shopping <sup>17</sup>	2,000	10	Shopping	N/A
Shortened Shopping	200	5		

3. Procurement of Goods. Goods procured under this project would include laboratory equipment and information systems, office equipment, information systems and vehicles. To the

<sup>15</sup> *Licitación Pública Nacional*: Local NCB procedures comply with paragraphs 3.3 and 3.4 of the Procurement Guidelines, exception made of the requirements for foreign bidders to be registered in the Country before submitting bids.

<sup>16</sup> *Licitación por Concurso de Ofertas*: is an NCB process with reduced term to submit bids.

<sup>17</sup> *Contratación Directa*: is a request for quotations that is advertised through the SICP. Three quotations are required before award. *Contratación Directa* complies with paragraph 3.5 of the Procurement Guidelines.

extent possible, goods would be grouped in packages above US\$250,000 that would be procured through ICB procedures. Contracts for goods estimated to cost below the US\$250,000 in aggregate may be procured using NCB and Shopping procedures as discussed above.

4. Procurement of non-consulting services: Non-consulting services procured under this project would include information system maintenance, and services to implement the Communication and Dissemination Campaign. ICB processes are not foreseen, packages amounting below US\$250,000 in aggregate may be procured using NCB and Shopping procedures as discussed above.

5. Selection of Consultants: Individual Consultants hired under the project would include trainers; extension agents; social organization technicians; agricultural, institutional and environmental experts; and project management staff. These individuals would be selected through a Human Resources firm due to the high number involved (around 150) and in order to add transparency and professionalism to the process. The project will hire consultant firms to: (i) coordinate the work of diagnostics, planning, implementing, monitoring, and reporting in GEF-and-project overlapping micro-catchments and the IP area catchments under the above-mentioned components; and (ii) support the selection of individual consultants, design a M&E system, and provide financial audit and concurrent audit services. Short lists of consultants for services estimated to cost less than US\$200,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. Consulting Firms would be selected following QCBS or LCS while individuals through the comparison of 3 CVs.

6. Training. Training would include expenditures (other than those for consultants' services) incurred by the Borrower to finance logistics for workshops, meetings and seminars, and reasonable transportation costs and per-diem of trainees and trainers (if applicable), training registration fees, and rental of training facilities and equipment. The procurement would be done using NCB and Shopping procedures as discussed above. Direct Contracting (paragraph 3.6 of the Procurement Guidelines) may be used: (a) for the payment of registration fees, up to a ceiling amount to be established annually in the Procurement Plan, and (b) for individual transactions amounting below \$200, up to a ceiling amount to be included annually in the Procurement Plan and to the extent that local procedures known as "Revolving Fund"<sup>18</sup> be followed.

7. Operating Costs. The Project will finance Operating Costs consisting of travel expenses, per-diem and consumables required for managing and supervising the project. These items would be procured NCB and Shopping procedures as discussed above. Direct Contracting (paragraph 3.6 of the Procurement Guidelines) may be used for individual transactions amounting below \$200, up to a ceiling amount to be included annually in the Procurement Plan and to the extent that local procedures known as "Revolving Fund" be followed.

8. Subprojects. The Loan will finance small grants (US\$1,500 each on average) to rural beneficiaries on a demand-driven basis for implementation of subprojects. Procurement under subprojects would follow a CDD approach (paragraph 3.17 of the Procurement Guidelines), as further elaborated in the Operational Manual. Under this approach, goods and services will be

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<sup>18</sup> *Fondo Rotatorio.*

procured on the basis of standard documentation and procedures, utilizing commercial practices. Group investments estimated to cost US\$5,000 or more will be procured using Shopping. The CDD default approach notwithstanding, the PMU will identify opportunities for benefiting from the employment of local law procurement procedures and its associated Procurement Portal (*SICP – Sistema de Información de Contrataciones Públicas*) in order to gain additional transparency and competitiveness whenever information systems were available at the local level. A proposal on using the SICP or not will be included in the proposed FIPs, CIPs, ICDPs and MIPs, and will be further reviewed and approved by the Project Procurement Specialist. The first three proposals / plans of each type will be additionally prior-reviewed by the Bank.

## B. Assessment of the Agency's Capacity to Implement Procurement

9. Organization and Staffing. Project implementation will be the responsibility of the Ministry of Agriculture and Livestock (MAG). An assessment of MAG's capacity to implement project procurement was carried out and included a review of the organizational structure for project implementation, the procedures in use, the capabilities of personnel assigned to procurement and the nature of the procurement to be carried out. As available resources and experience of dealing with Bank-financed project in the unit is limited, a Project Management Unit (PMU) will be established within MAG's Directorate of Rural Extension (DEAG). The PMU will be in charge of coordinating project activities, including procurement. In addition, in order to add transparency to the hiring of individuals, the project will resort to a Human Resources Firm acceptable to the Bank to support this activity. Given the decentralized nature of the project, four Zone-Coordination Units (ZCU) will be established. The staff of the central PMU should include a full-time procurement specialist during the entire project implementation period, to provide for overall procurement supervision and control, process procurement bidding and consultant hiring; and coach the rest of staff involved in procurement. The Rural Investment Service (RIS), the sub-unit of the PMU responsible for the operation of the FDRS, will work with the procurement assistants in the ZCUs to assist beneficiaries in the carrying out of the procurement required by Component 3; which will be conducted under the oversight of a concurrent audit acceptable to the Bank.

10. Country Procurement Assessment. A CPAR led by the IADB was conducted in 2006 based upon the indicators developed by the OECD/DAC-Issue # 4<sup>19</sup>. It assesses the capacity of the public sector procurement system based on 12 baseline indicators with their respective compliance/performance indicators, organized around four pillars: (i) legal and regulatory framework; (ii) institutional framework and management capacity; (iii) procurement and market practices; and (iv) procurement integrity and transparency. The conclusion was that pillars (i) and (ii) require improvement, while pillars (iii) and (iv) require substantial improvement. On the other side, the country risk is high due to weaknesses in control environment and in market practices (i.e., indications of collusion in some sectors). The above notwithstanding, the high scores obtained for pillar (i) made it possible the employment of amended local law methods for low value procurement (below the ICB threshold).

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<sup>19</sup> The "Methodology for Assessment of National Procurement Systems (version 4)" was published in July 2006 under the auspices of the joint World Bank / OECD Development Assistance Committee (DAC) Procurement Round Table initiative.

11. The overall project risk for procurement is high, which is the result of: (a) the risky country procurement environment, mainly due to the weaknesses of control institutions and lack of competitiveness of the market; (b) the fact that most of the procurement would be done through CDD procurement procedures or through the hiring of high number of individual consultants and (c) the lack of experienced procurement staff.

12. The corrective measures which have been agreed are: a) resorting to the extent possible on traditional procurement methods, which includes the employment of the Country Procurement Portal (SICP – *Sistema de Información de Contrataciones Públicas*), (b) employment the SEPA (*Sistema de Ejecución de Planes de Adquisiciones*) for all project activities, (c) inclusion in the Loan Agreement of the Special Procurement Provisions listed in Section F and of the Covenants listed in Section G, (d) implementation of an oversight mechanism over CDD subprojects through a concurrent audit, (e) hiring of a Human Resources firm to select individual consultants and (f) hiring of the project Procurement Specialist and Assistants.

### C. Procurement Plan

13. The Borrower, at appraisal, developed a Procurement Plan for project implementation that provides the basis for the procurement methods (the initial Procurement Plan). The initial Procurement Plan has been agreed between the Borrower and the Project Team on December 11, 2007 and will be available at the SEPA [www.iniciativasepa.org](http://www.iniciativasepa.org) on or before loan effectiveness.

### D. Frequency of Procurement Supervision

14. In addition to the prior review supervision to be carried out from Bank offices, the capacity assessment of the Implementing Agency has recommended biannual supervision missions to visit the field to carry out post review of procurement actions. 1:5 contracts, subprojects and grants will by post-reviewed by the Bank.

### E. Details of the Procurement Arrangements Involving International Competition

(a) List of contract packages to be procured following ICB and direct contracting:

1	2	3	4	5	6	7	8	9
Ref. No.	Contract (Description)	Estimated Cost US\$	Procurement Method	P-Q	Domestic Preference (yes/no)	Review by Bank (Prior/Post)	Expected Bid-Opening Date	Comments
1	Equipment for Animal Health Laboratory	390,000	ICB	No	Yes	Yes	March 2009	
2	Equipment for Animal Health Laboratory	390,000	ICB	No	Yes	Yes	September 2009	
3	Equipment for Animal Health Laboratory	790,000	ICB	No	Yes	Yes	March 2010	

4	Equipment for Animal Health Laboratory	790,000	ICB	No	Yes	Yes	September 2010	
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- (b) Contracts for Works, Goods and Non-Consulting Services estimated to cost above \$250,000 and all direct contracting (if any), the first three (3) processes carried out under each procurement method and category, and the first three (3) proposals/plans for FIPs, CIPs, ICDPs and MIPs, will be subject to prior review by the Bank.

## 15. Consulting Services

- (a) List of consulting assignments with short-list of international firms;

1	2	3	4	5	6	7
Ref. No.	Description of Assignment	Estimated Cost US\$	Selection Method	Review by Bank (Prior/Post)	Expected Proposals Submission Date	Comments
1	SENACSA Biotechnology Laboratory – Design of refurbishment and upgrading works.	60,000	QCBS	No	June 2009	

- (b) Consultancy services estimated to cost above US\$100,000 per contract, single source selection of consultants (if any), recruitment of key staff (as determined by the Bank when reviewing Procurement Plans), the process for the concurrent audit, the process for the human resources firm and the first three (3) processes of each selection method will be subject to prior review by the Bank; and
- (c) Short lists composed entirely of national consultants: Short lists of consultants for services estimated to cost less than US\$200,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

## F. Special Procurement Provisions and other Covenants

- (a) All procurement shall be done using standard bidding documents, standard requests for proposals, model bid evaluation forms, model proposal evaluation forms and contract forms previously agreed with the Bank;
- (b) Foreign contractors, service providers, consultants and suppliers shall not be required: (a) to register; (b) or establish residence in Paraguay; and (c) or enter into association with other national or international bidders as a condition for submitting bids or proposals;

- (c) Minimum terms for submitting bids and quotations shall be the following: 45 days for ICB, 30 days for NCB procedures amounting US\$100,000 and above, 20 days for NCB procedures amounting US\$20,000 and above, 10 days for Shopping processes amounting US\$2,000 and above, and 5 days for Shopping procedures amounting below US\$2,000;
- (d) The Borrower: (a) will feed the Bank publicly accessible Procurement Plans Execution System (SEPA) within 30 days of Negotiations with the information contained in the initial Procurement Plan; and (b) will update the Procurement Plan at least biannually or as required to reflect the actual project implementation needs and progress and will feed the Bank Procurement Plans Execution System (SEPA) with the information contained in the updated Procurement Plan immediately thereafter;
- (e) The mechanism of direct payment from the Treasury for payments in local currency will be followed, as established by local regulations; however, payments in foreign currency to be made according to the Bank Procurement and Consultant Guidelines will be done through bank transfers to the suppliers' or consultants' accounts abroad;
- (f) Bidders will not be required to prove the purchase of the bidding documents; and
- (g) Procurement for subprojects will be done using the SICP (*Sistema de Información de Contrataciones Públicas*) and local-law procurement methods whenever possible.

## **G. Procurement-Related Covenants**

- (a) In order to disseminate project implementation requirements and procedures, and define roles, responsibilities, mechanisms, schedules and accountability arrangements, the Borrower will prepare a Project Operational Manual, to be submitted to the Bank before appraisal. It will include, inter alia, the project's institutional arrangements and operational, accounting, procurement and disbursement procedures. The approval by the Bank of the Project Operational Manual will be a condition for Loan Negotiations;
- (b) The selection of individual consultants will be done with the assistance of a Human Resources Firm, to be hired by the Project to this endeavor. The hiring of this Firm has been presented as a dated covenant in the Loan Agreement to be complied within three months after effectiveness;
- (c) The PMU will be staffed at all times by a Procurement Specialist and four Procurement Assistants (one per ZCU) acceptable to the Bank. They shall be hired before the publication of the first Request for Expressions of Interest or the first Specific Procurement Notice, as the case may be;

- (d) The Project will contract a concurrent audit, both for administrative and physical control, under TORs satisfactory to the Bank. The hiring of the concurrent audit firm shall take place prior to the approval of the first Subproject to be financed with Loan proceeds;
- (e) Within one (1) year counting from Loan Effectiveness, the Project will implement an integrated project management system acceptable to the Bank, including internal administrative steps tracking, project progress monitoring and consultants performance evaluation. The systems will include ad-hoc red-flag mechanisms. Either the system currently being developed by SENACSA or the one under implementation at MEC may be used as a basis;
- (f) Within one (1) year counting from Loan Effectiveness, the Project will implement digital files to store both the documentation related to the procurement process and to contract management (guarantees, payment certificates, invoices, receipts, etc.). The filing system developed by SENACSA or the one at MEC may be used as a model; and
- (g) Within one (1) year counting from Loan Effectiveness, the Project will create a web page to disseminate its most significant project information<sup>20</sup>. See for example [www.prodeco.org.py](http://www.prodeco.org.py) and [www.senacsa.gov.py](http://www.senacsa.gov.py).

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<sup>20</sup> For example, the Operational Manual, Bidding Documents and Standard Request for Proposal, technical background, designs, specifications and drawings of the works to be financed, terms of reference of the works to be executed with project funds; subprojects to be financed; beneficiaries of such subprojects; opportunities for scholarships, agreements with third parties and progress and monitoring reports.

## **Annex 9: Economic and Financial Analysis**

### **PARAGUAY: Sustainable Agriculture and Rural Development Project**

#### **1. Project Benefits**

1. To attain the project's objectives, its implementation strategy will be based on the following elements:

- (a) Rehabilitation and conservation of natural resources;
- (b) Use of appropriate and more productive and profitable farming practices and methods;
- (c) Introduction of more diversified production patterns; and
- (d) An improved commercial mechanisms.

2. Poor crop yields, low farm incomes and food insecurity among poor small-scale farmers and indigenous communities on one hand and environmental and soil degradation, on the other, are connected phenomena which are strongly related to the prevalence of inappropriate agricultural practices and cropping patterns. The conversion to a more profitable and sustainable system will involve a gradual process aimed at reaching, first, productive rehabilitation, and, second, sustainable, diversified production, though this will be a path that not all farmers will be able to complete during the project period.

3. Rehabilitation (i.e., restoration of the natural productive capacity) of farming systems which present environmental degradation and low productivity is the highest priority. Simple but efficient technological practices, such as use of lime to lower soil acidity, basic fertilizing, contour cropping, etc. will have great productive and environmental impacts. Achieving sustainable farming systems is a higher and more ambitious goal, under which households will reach levels of production, income and food availability above the poverty line in a context of preservation of natural resources. Innovation and product diversification are crucial elements of the project's strategy to achieve this. Technologies and markets required for crop diversification, vegetables for instances, are available locally, and the additional volumes to be put in the market will be marginal.

4. It is estimated that activities to rehabilitate farming systems will cover at least 80% of target households in the concerned micro-catchments. It is expected that a maximum of 50% of those households will progress beyond this rehabilitation and adopt practices of sustainable production (including innovation and diversification) to lead to sustainable production systems during the five years of project implementation

5. The table below details the main features and objectives of the current and the proposed conversion stages.

Agricultural and environmental practices	Social exclusion	Production, marketing, employment and income
<b>Main features of conventional stage (most common at present):</b>		
Seasonal agriculture Soil management based on extracting nutrients without replacement. Chemical pest control. Manual and mechanic weed control. No investments in environmental protection.	Little community organization. Insufficient access to social services. Unsecured land tenure. Low quality housing and sanitation. Food insecurity.	Low productivity, no diversification, limited market-oriented production. Traditional marketing and high transaction costs absorbed by intermediaries. Low occupation of labour force (underemployment). Low incomes.
<b>Phase One - Strategies for achieving Production Recovery and Environment Protection</b>		
Degraded soils: soils improvement; contour cropping (slopes >2%); subsoiling (crop lines); acidity correction - liming (as needed); basic fertilizing; green fertilizing (eg: Cumandá yvyrá'i). Non-degraded soil: soils improvement; contour cropping (slopes >2%); deep tillage.	Social awareness activities and training. Promotion of community and micro-catchment organization. Community participation in diagnostics, planning and execution of project actions.	Development of more diversified production systems (crop rotation and association). Promote innovative procurement and marketing mechanisms aimed at reducing transaction costs and improving access to new markets.
<b>Phase Two - Strategy for achieving Sustainability through Diversification and Innovation</b>		
(Degraded and non degraded soils) Summer and winter rotation crops for soil protection and fertilizing. Zero tillage cropping. Integrated pest management. Forestry and agro-forestry systems. Post-harvest management. Improved domestic livestock production.	Consolidation of local organization in its different levels (community, micro-catchment, municipality) and improved self management. Full participation of beneficiaries in project planning, monitoring and evaluation and implementation.	Associative management of marketing, market information, community investments, etc. Commercial alliances for accessing new markets and products. Economic diversification.

6. Overall, the project will improve natural resource management (soil conservation practices) and productivity on 16,800 farms<sup>21</sup>. Of these farms, 5,000 are also expected to develop innovative and diversified sustainable production systems consistent with land capabilities and 5,000 are expected to diversify production. In addition, 2,030 indigenous households will be assisted for improving natural resources management and increased food production.

## 2. Illustrative Farm Models and Financial Analysis

7. To assess the financial and economic impact of the above indicated project strategy, nine farm models representative of individual agricultural farming and one representing collective indigenous production in the project area were identified. They represent a working hypothesis

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<sup>21</sup> Based on past experience, it is expected that about 80% of targeted small-scale producer population (i.e. approximately 11,545 farmers) will effectively become involved in the project productive activities. The total area of micro-catchments eligible to receive project assistance is 353,351 hectares.

of likely beneficiary choices made in response to the proposed project activities and incentives towards the adoption of agricultural practices and implementation of investments.

8. Small-scale farming models were constructed on the basis of the following criteria: household income above or below the poverty line<sup>22</sup>, prevailing production patterns and present crop yields (as indicative of soil degradation). The sizes of farm models did not exceed 20 hectares as, according to a recent survey, 90% of poor households have holdings smaller than that size. In addition, the financial support and most of the technical assistance and organization support provided by the project is directed to that group.

9. About 40% of small-scale farmers (less than 20 hectare) cultivate cotton which represents the main source of monetary income for over half of them. They devote part of the available farming area to food crops for domestic consumption (maize, beans, cassava, vegetables, etc.) and very often raise poultry and livestock for egg and milk consumption. Those that do not grow cotton are mainly concentrated in food crops and peanuts and grow other crops such as castor-oil plant or sesame. The different farm models tend to be representative of one or many different areas in the two departments. An indigenous model is also considered for IP communities, which assumes communities to be living almost at subsistence level, with a combination of individual and collective assets and farming activities.

10. The main assumptions for the financial analysis are: (i) constant mid-2005 labor, input and output prices; (ii) constant real exchange rate; (iii) 100% of investment costs (excluding labor) included in farm models, financed by the project investment fund (FDRS); and (iv) 40% of farmers in each model achieving innovative and diversified sustainable production systems.

11. Incremental costs considered in the farm financial analysis include incremental on-farm productive investment and recurrent expenditure for the adoption of sustainable agricultural production practices and other expenditures related to post-harvest activities.

12. The result of the financial analysis in terms of net incremental income of the different indicative farm models is summarized for PY06 in the table below. The models are presented in pairs indicating the options for rehabilitation and sustainable production systems.

Type of Farm Model	Average on-farm income at full development (US\$)		Net incremental income	
	w/o project	with project	(US\$)	(%)
1. Cotton – Degraded Soils M I-1 Rehabilitation	992	1,624	632	64%
2. Cotton – Degraded Soils M I-1 Innovative and diversified sustainable production systems (IDSPS)	992	2,121	1,129	114%
3. Cotton – Non-degraded Soils M I-2 Rehabilitation	1,391	2,132	741	53%
4. Cotton – Non-degraded Soils M I-2 IDSPS	1,391	2,548	1,157	83%

<sup>22</sup> Data collected from the 2003 Household Survey (Encuesta de Hogares, 2003).

Type of Farm Model	Average on-farm income at full development (US\$)		Net incremental income	
	w/o project	with project	(US\$)	(%)
5 3. Diversified with spurge- Degraded Soils M II Rehabilitation	810	1,282	472	58%
6 3. Diversified with spurge- Degraded Soils M II IDSPS	810	1,549	739	91%
7 4. Diversified with vegetables -Non-degraded Soils M III Rehabilitation	1,193	1,891	698	59%
8 4. Diversified with vegetables -Non-degraded Soils M III IDSPS	1,193	2,662	1,469	123%
9 5. Diversified with sesame- Degraded Soils M IV Rehabilitation	1,050	1,696	646	62%
10 5. Diversified with sesame- Degraded Soils M IV IDSPS	1,050	2,196	1,146	109%
11 6. No cotton production- Degraded Soils M V-2 Rehabilitation	1,437	1,736	349	24%
12 6. No cotton production- Degraded Soils M V-2 IDSPS	1,437	1,923	486	34%
13 7. No cotton production- Non-degraded Soils M V-1 Rehabilitation	1,335	1,806	471	35%
14 7. No cotton production- Non-degraded Soils M V-1 IDSPS	1,335	1,922	587	44%
15 8. Non-vegetable Diversification- Non-degraded Soils M VI Rehabilitation	1,056	1,686	630	60%
16 8. Non-vegetable Diversification- Non-degraded Soils M VI IDSPS	1,056	2,073	1,022	97%
17 9. No or marginal agricultural activity MVII	83	297	214	258%
18 10. Indigenous households	720	1,149	429	60%

13. Under the project, farmers' net incomes are forecast to increase anywhere between 24% and 123% (excluding the model with a minimum of agricultural activity), depending on the farmers' initial conditions, the cropping pattern and the farmers' own dynamics to go beyond the rehabilitation stage and adopt practices of sustainable production. All farm models will assure incomes above the rural poverty line (US\$1,270 per household per year<sup>23</sup>), in addition to the benefits derived from improved natural resources management, increased food availability and better housing and sanitation conditions.

14. Income impact of mostly market oriented models 2 (cotton), 8 and 16 (diversified with vegetables) in the sustainable production systems is expected to be particularly high. The impact is in part associated to their already "improved" initial situation and/or particularly good agro-ecological and economic framework. The new natural resources and crop management practices to be adopted by model 2's project beneficiaries will allow them to overcome the initial soil degradation and low yields situation and to increase cotton production close to its potential. The vegetable production models will involve farmers that have already undergone an intensification and diversification process (i.e. tomato), and with assistance from the project will reinforce their farm production capacity. They are located mostly in areas of Caaguazú and San Pedro.

<sup>23</sup> Calculated on the basis of a consumption basket. DGEEC, Encuesta de Hogares, 2004.

15. On the other hand, producers with off-farm livelihood strategies (models 11 to 14), where food production and small livestock raising prevail over market crops, will likely benefit less from good practices and have lower income impact than those that are market-oriented. Households represented by model 17, who have minimum farming activity, will mainly benefit from housing improvements and other social services, training and family gardens. Benefits derived from agricultural improvements, mainly food production, are expected to be small in absolute value, although very significant in relative terms because of the expanded area. It should be noted that off-farm livelihood strategies in the project area are not unusual but not necessarily widespread. According to the 2003 Household Surveys, 70% of household family members in the project area are only employed on-farm and a mere 3% are only employed off-farm (22% are designated as “other situation” which involves a number of unexplained employment modalities).

16. The financial internal rate of return was not considered relevant for assessing the project's expected financial impact, as investments and technical assistance services are provided to the beneficiaries as grants and hence the model results do not reflect the actual market cost-benefit.

### **3. Economic Analysis and Sensitivity**

17. The overall internal economic rate of return (EIRR) of the project is estimated to be 17%. This estimate is conservative, since it does not take into account some benefits accrued from the project that are extremely difficult to quantify such as: (i) positive environmental externalities at the micro-catchment and community level, including improved water quality, biodiversity conservation, etc.; (ii) better nutrition and health as a result of increased and diversified production; (iii) long-term effects of strengthened community organization and self management; and (iv) improvements in social services.

18. The expanded agricultural activities will also create new on-farm employment opportunities for the equivalent of 8,670 man-years annually, in PY6. However, the model showed that the on-farm labor requirements derived from the proposed technologies are well below the availability of family labor, therefore it is not expected that the project will have a significant impact on hired labor. As shown above, households with mostly off-farm livelihood strategies are not many and most probably this is associated to the lack of job opportunities in rural areas in the project departments. Therefore, under these circumstances, the increased demand for labor resulting from the project will be a valuable economic benefit.

19. The cost stream for the economic analysis is based on four elements: (i) on-farm investment and recurrent costs (all); (ii) extension to farmers; (iii) community development costs and training; (iv) community and municipality investments; and (v) partial costs of project administration. Costs utilized were the base costs plus physical contingencies.

20. Incremental net benefits were estimated on the basis of the farm models (increased agricultural production and farmers' income) and the prices adjusted to reflect the economic opportunity cost, while all transfers including taxes and subsidies were excluded from the analysis. It should be noted that the latest estimation of shadow prices in Paraguay was done in

the 1970s. The rate of exchange is currently determined in the open market and, as there are no noticeable trade restrictions in Paraguay, domestic prices tend to correspond to border prices. While the project will increase on-farm and off-farm labor use in the areas where it will be implemented, unemployment and under-employment will not be eliminated. Therefore, shadow prices for unskilled labor were estimated at 0.70% of the market wage rate. In the case of skilled labor, the market rate was assumed to reflect its opportunity cost. All other inputs were adjusted by the standard conversion factor (0.90) to account for taxes. The time horizon is 20 years.

21. Analyses were performed on the EIRR to measure its sensitivity to the estimated expected benefits and costs and the stream of benefits. These indicated that were benefits to fall by 15% from their expected estimates, the EIRR will be 11%, and, similarly, were costs to exceed their expected values, the EIRR will be marginally lower, 12%. Finally, were both situations to occur simultaneously at 10% change, the EIRR will fall to 10%.

<b><u>Alternative Outcomes</u></b>	<b><u>EIRR</u></b>
- Basic Internal Economic Rate of Return	17 %
- Benefits reduced by 15%	11 %
- Costs increased by 15%	12 %
- Combination of both changes (10%)	10 %

#### **4. Fiscal Analysis**

22. According to the analysis, the fiscal impact of the project will initially be negative, as direct impacts stemming from revenue generation are likely to be small. However, experience from similar projects indicates that, in the long run, fiscal impact of these types of investments may be expected to be recuperated at least partially due to the improved financial situation of some beneficiaries and its effect on their purchasing power and expenditure patterns and, consequently, on fiscal revenues. Most importantly, it is expected that there will also be budgetary savings as a result of the decreased need for local governments to provide economic support to the beneficiary population. In addition, based on experience from PARN, the maintenance cost of rehabilitated roads is expected to be reduced significantly by better erosion control and the project's innovative road design.

## Annex 10: Safeguard Policy Issues

### **PARAGUAY: Sustainable Agriculture and Rural Development Project**

#### **1. Overview**

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

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

1. Environmental Rating. B – Partial Assessment. The Project is designated as Category B project, based on the above assessment of potential impacts. On November 23, 2004, the Bank PCN (which partially forms the basis for this document) was reviewed by the Safeguard Assurance Team (SAT), which agreed with the proposed Category B rating. The SAT also agreed that the project is “an environmentally positive project which primarily aims to introduce more environmentally friendly technologies and productive activities”. All relevant SAT documents can be found in the project files. Subsequent QER review on January 24, 2006 by the SAT team also highlighted the Indigenous Peoples safeguards mechanisms as “innovative and an example of good practice.”

#### **2. Project Compliance with Applicable Safeguard Policies**

2. Environmental Assessment (OP/BP/GP 4.01). The project is classified as a Category B. It was designed to ensure compliance with the requirements of the Bank umbrella policy on Environmental Assessment (OP 4.01). Positive environmental impacts are a basic objective of the project. Some project activities will have potential environmental impacts and will mostly be those financed by the FDRS to support the adoption of improved land use practices, community and municipal subprojects and works. In conformity with Bank policy and GOP legislation on Environmental Assessment, an Environmental Assessment (EA) was conducted, and an Environmental Management Plan (EMP) was prepared. Strict environmental evaluation procedures and environmental licensing mechanisms, as well as proposing mitigation measures, are built into the EMP and the Operational Manuals of the FDRS. Three levels or categories of projects have been established based on their environmental risk or potential for impacts and a framework for review, approval, supervision, and monitoring has been established within the EMP. A guide for mitigation measures has been included in the EA based on FAO guidelines in

this regard.<sup>24</sup> The project also has been formally licensed by the Secretary of the Environment as set forth under national law and regulations in regard to environmental impact assessment. The license was issued in January 2006 and is renewed every two years.

3. A negative list of activities that are not eligible for funding will also be incorporated into the EMP and the Operational Manual in regard to subprojects funded through the FDRS.

4. The draft EA and respective EMP were submitted to the Bank in December 2005. The final EA will be sent to the Infoshop before Appraisal. In addition the EA will be posted on the MAG website. Consultations, including stakeholder meetings, workshops preparation, presentation events, and interviews were held during the preparation period.

5. For the environmental monitoring and impact evaluation, a number of output and impact indicators will be measured and supported under the M&E subcomponent which will include a systematic socio-environmental monitoring of 10 pilot micro-catchments (for details, see Annex 3). Training has also been incorporated into the EMP and the program for project management, field personnel, and stakeholders include several environmental thematic areas including: Environmental assessment and management, land-use planning and watershed management, and other thematic areas that may result from local needs during project implementation. Study tours and exchanges also are included to improve understanding and mainstreaming of environmental and micro-catchment management.

6. Pest Management (OP 4.09). The project activities seek to reduce use and dependence on harmful agricultural chemicals and will not significantly increase use of pesticides or promote their use to any important level; therefore a pest management plan has not been prepared. Small amounts of veterinary antiparasitic chemicals and vaccinations will be procured for the activities related to strengthening animal health. In those cases, the Bank will provide its no objection based on the request for procurement. These substances will conform to Bank OP 4.09 standards in this regard, specifically only class III and IV substances as classified by the WHO can be procured.

7. In addition, it should be noted that small amounts of pesticides will probably continue to be used by a small portion of micro-catchment farmers for which disposal of containers may be requested by communities to reduce health and environmental risks associated with pesticide use. This disposal will follow the guidelines set forth under OP 4.09 Bank guidelines, in particular FAO Guidelines for Packaging and Storage of Pesticides (Rome, 1985), Guidelines on Good Labeling Practice for Pesticides (Rome, 1985), and Guidelines for the Disposal of Waste Pesticide and Pesticide Containers on the Farm (Rome, 1985). In addition, pertinent national laws and regulations in this regard will also be followed. The EMP procedures indicate a

8. The project will support technical assistance for the adoption of proven, economically and environmentally sustainable Integrated Pest Management practices (IPM), an approach designed to increase farmer productivity (yields) while reducing input costs, human health risk

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<sup>24</sup> Guía para la Formulación y Evaluación de Pequeñas Inversiones Rurales – Rural Invest – Serie de Publicaciones Ruta –Centro de Inversiones, FAO por Aidan Gulliver, Dino Francescutti y Katia Medeiros – San José, Costa Rica – Mayo 2000.

and adverse environmental impacts through the virtual elimination of pesticide use. The IPM approach further increases sustainability of agro-ecosystems by focusing on improving the knowledge and skills of farmers to enable better management of resources. Finally, IPM programs are economically sustainable as they reduce farmers' dependence on procured inputs.

9. Indigenous Peoples (OD 4.20, revised as OP 4.10). The proposed project will specifically target indigenous peoples in the project area. Thus, during project preparation, a social assessment of the indigenous population was carried out and consultations were held in 2005 and 2006 with indigenous leaders (representing 13 indigenous associations), INDI technical staff, technicians working in the previous project's indigenous component, and representatives of indigenous NGOs working in the area, to discuss the project with them and to determine indigenous communities' priorities and needs. When the project target area was decreased to two departments, additional consultations were carried out with indigenous leaders in 2007. Their concerns were subsequently incorporated in the project's Indigenous Strategy (equivalent of an Indigenous Peoples Planning Framework or IPPF). Project activities will be implemented with the full participation of the communities and will be carried out in a manner respectful of their cultural characteristics. To ensure this, extension agents working with indigenous populations will have prior training and/or experience working with indigenous communities. In addition, an anthropologist will be employed by the project to consult on indigenous and other social issues. Moreover, an Indigenous Peoples Planning Framework has been prepared to orient the project's interaction with indigenous communities, can be found in the project files, and is summarized in Annex 14.

10. Forestry (OP/BP 4.36). The proposed project will primarily support environmentally protective activities and those which are supportive of small-scale farmers (i.e., farm and community forestry). No logging activities, charcoal or fuelwood production will be supported through project funding although these activities take place within the project region and micro-catchments. The project will finance investments focused on reforestation or regeneration of natural forests to protect water sources and waterways, and reforestation for productive purposes in beneficiary holdings to reduce impacts to native forests. No large scale reforestation activities with exotic species will be carried out and the total area of plantation or enrichment activities is estimated under 5000 hectares.

11. Natural Habitats (OP/BP 4.04). The project, as well as the semi-blended GEF project, seeks to increase sustainability, maintain and enhance habitat for biodiversity conservation, and provide environmental goods and services for rural communities. No significant conversion or degradation of natural habitat is expected from the project investments. Improvements in natural resource use and management should provide an important for the maintenance of connectivity in the landscape. Critical natural habitats and protected areas have been identified within the project area and precautions will be taken through the EMP which provides for an environmental review framework to ensure that natural habitats are not adversely affected and positive effects are maximized.

**Annex 11: Project Preparation and Supervision**  
**PARAGUAY: Sustainable Agriculture and Rural Development Project**

	<b>Planned</b>	<b>Actual</b>
PCN review		11/24/2004
Initial PID to PIC		01/05/2006
Initial ISDS to PIC		01/04/2005
Appraisal	11/29/2007	11/29/2007
Negotiations	12/12/2007	12/18/2007
Board/RVP approval	01/29/2008	
Planned date of effectiveness	09/01/2008	
Planned date of mid-term review	09/01/2010	
Planned closing date	12/28/2013	

Key institutions responsible for project preparation include: Paraguay's Ministry of Agriculture and Livestock (MAG), Paraguay's Secretary of Environment (SEAM) and the United Nations Food and Agriculture Organization (FAO).

A Japanese PHRD grant for US\$482,600 (TF053772) was received, and approximately 50% of the available resources were used so far.

Bank staff and consultants who worked on the project included:

<b>Name</b>	<b>Title</b>	<b>Unit</b>
Gerardo Segura	Task Team Leader, Senior Rural Development Specialist	LCSAR
Harideep Singh	Senior Rural Development Specialist	LCSAR
Reynaldo Pastor	Senior Counsel	LEGLA
Michael Carroll	Lead Natural Resources Management Specialist	LCSR
Alexandre Arrobbio	Senior Financial Management Specialist	LCSFM
Andres Mac Gaul	Senior Procurement Specialist	LCSPT
Jose Janeiro	Senior Finance Officer	LOAFC
Frank Fragano	Environmental Consultant	LCSR
Marcelo Sili	Consultant	LCSR
Teresa Roncal	Operations Analyst	LCSR
Diana Rebolledo	Language Program Assistant	LCSR
Alvaro Soler	Senior Rural Dev Specialist	LCSR
Diego Paysse	Rural Development Specialist	Consultant
Nestor Bragagnolo	Agronomist, Micro-catchment Specialist	Consultant
Judith Lisansky	Senior Anthropologist	LCSEO
Maria Isabel Braga	Senior Environmental Specialist	LCSEN
Emilio Rodriguez	Senior Procurement Specialist	Consultant
Kamine Jorge	Senior Counsel	LEGLA
Karen Ravenelle-Smith	Language Program Assistant	LCSEN
Graciela Lituma	Rural Development Specialist	Consultant
Humberto Costa	Rural Development Specialist	Consultant
Matthew Cummins	Junior Professional Associate	LCSER
Jorge Caballero	FAO/CP, Economist	FAO/CP
Kátia Medeiros	FAO/CP, Sr. Environmental Specialist	FAO/CP
Takayuki Hagiwara	FAO/CP, Community Development Specialist	FAO/CP

Total Bank funds expended to date on project preparation: US\$400,867.44

Estimated Approval and Supervision costs:

1. Remaining costs to approval: US\$40,000
2. Estimated annual supervision cost: US\$100,000

## **Annex 12: Improved Governance Framework**

### **PARAGUAY: Sustainable Agriculture and Rural Development Project**

#### **1. Governance Issues**

1. The efficiency of public expenditure depends highly on the governance environment and practices. Therefore any effort to improve resource allocation must be accompanied by an enabling governance framework that facilitates efficiency and inhibits corrupt practices.
2. The World Bank Institute (WBI) defines governance as the traditions and institutions by which authority in a country is exercised for the common good. This includes: (i) the process by which those in authority are selected, monitored and replaced; (ii) the capacity of the government to effectively manage its resources and implement sound policies; and (iii) the respect of citizens and the state for the institutions that govern economic and social interactions among them. Corruption on the other hand, is generally defined as “the abuse of public office for private gain.” In an environment of weak governance, it is believed that corruption may thrive. However, weak governance itself is not necessarily synonymous with corruption, but rather with different manners of inefficiencies. For instance, due to budgetary structure, bureaucracy, scarce resources or inadequate management capacity, agencies may distort priorities or otherwise not adequately prepare programs (all of which lead to inefficiency, but not necessarily as a result of or to corrupt practices). Thus it is important to distinguish between corruption (intent and action for private gain with public goods) and a range of governance failures that likely provide opportunities if not inducements for rent seeking behavior.
3. With this in mind and following the government’s initiatives of improving transparency and governance overall, this project was designed to foster good governance practices by the project with special attention to the lead implementing agency, the Ministry of Agriculture and Livestock (MAG). The approach adopted is an Improved Governance Framework. Therefore, this annex describes the major elements of weak governance in Paraguay, assesses weak governance risk areas specific to the rural sector and presents the resulting Improved Governance Framework for the project.

#### **2. Paraguay Country Context**

4. Paraguay Governance Diagnostic. Paraguay was ranked in the 111<sup>th</sup> place among 163 nations by Transparency International’s 2006 Corruption Perceptions Index, up from 144<sup>th</sup> place in 2005. Paraguay also continually scores as one of the lowest in the world with respect to governance by the WBI. In 2005, the WBI noted that Paraguay’s control of corruption indicator was in the lowest place for the Latin American countries studied. Domestic reports by watchdog groups<sup>25</sup> are also highly critical and conclude that there is ample room for improvement regarding these issues in Paraguay. Critical reviews conclude that key contributing factors are

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<sup>25</sup> Reports such as “Political Culture and Democratic Governance Practices” published in 2004 by the Centro de Información y Recursos para el Desarrollo<sup>25</sup>, a well known Paraguayan civil society organization focused on democracy, and “Index of Transparency, Integrity and Efficiency” and “A National Survey on Corruption” published in 2005 by Transparency Paraguay.

that public institutions in Paraguay lack adequate management systems, public accountability and transparency.

5. Current Governance Improvement Initiatives. Since mid-2003 the current government has sought a recovery of confidence in state institutions by means of a sustained fight against corruption, and specifically greater participation of civil society in the formulation of public policy and the control of public expenditures. Paraguay has adopted international conventions<sup>26</sup> against corruption and, with technical support from WBI, established an anti-corruption commission, the National Integrity Council (CISNI), which focuses primarily on three areas: customs, the judiciary and public procurement. The Commission developed a program of institutional reforms for each area during 2000 and, following a period of public consultation, has since been actively promoting the adoption of these reforms. The most outstanding accomplishment of these efforts is the implementation of the new Law of Public Procurement. The implementation of the new customs code has also been crucial for substantive improvement of an area repeatedly assessed as the most corrupt in Paraguay. In 2005, CISNI and the national statistics agency, with technical assistance from WBI, started additional monitoring and evaluation of efforts to date.

6. Despite efforts, much remains to be done. For example, basic legislation to improve public accountability (such as access to public information, regulation of declaration of public officials' assets, civil society participation and modification of civil service) have not been adopted despite the close lobby and follow-up of several civil society organizations.

### **3. Assessment of Weak Governance Risk Areas**

7. Country-wide Governance Assessment.<sup>27</sup> The country risks as defined in the CAS may be summarized as follows: (i) existence of corruption; (ii) weak basic governmental management systems; (iii) special groups pressure to persuade the government to accommodate their interests; and (iv) decline of the rule of law. Bank assessments noted other specific risks, including high risk of misuse of funds and a weak control environment that indicated the need for reforms in the areas of internal controls, external audits and control of decentralized entities.

8. The most recent Country Risk Review concluded that significant progress had been made on procurement and financial management in all GOP institutions, which are confirmed by

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<sup>26</sup> Including Inter-American and United Nations Conventions Against Corruption. These conventions foresee several measures that impose the countries an agenda to improve their fight against corruption such as: (i) enabling greater public access to information, especially about public expenditures; (ii) civil service reform, including public declaration of assets and code of ethics for governmental officials; (iii) improvement of institutional control of the judiciary system, procurement, customs, etc.; (iv) enhancement of accountability of political parties; and (v) increase in civil society participation in public sphere, among other measures.

<sup>27</sup> This section draws on assessments carried out in preparation of the Country Assistance Strategy (CAS) and, in particular, the Country Financial Accountability Assessment (CFAA) and the Country Procurement Assessment Review (CPAR) of 2002 and the Paraguay Country Risk Review, World Bank, April, 2006.

external reviews. Thus, having achieved satisfactory progress on the Procurement Action Plan and the Financial Action Plan, at present Paraguay remains in the CAS base case scenario<sup>28</sup>.

9. Sector and Project Specific Governance Assessment. Rural sector governance issues can be extrapolated from the analysis in the Implementation Completion Report (ICR) for the Paraguay-Natural Resources Management Project (PARN), as well as lessons learned in other rural operations. The following governance issues were identified as risks for PARN, including: (i) institutional weakness including government institutions with inadequate management systems leading to inefficiencies; (ii) inadequate FM management contributing to inappropriate FM or procurement practices, insufficient internal controls and weak control of decentralized entities; (iii) lack of experience with approaches that foster high public accountability and transparency, specifically (a) civil society participation; and (b) broad access to public information. The Improved Governance Framework for PRODERS is designed to address these specific governance challenges.

#### **4. Improved Governance Framework**

10. The project's development objective is to improve the quality of life of small-scale farmers and indigenous communities in the project area in a sustainable manner, by supporting actions that will strengthen community organization and self-governance, improve natural resources management and enhance the socio-economic condition of the target group. The micro-watershed area-based approach emphasizes highly participatory diagnostics that enable better assessment of local needs, improved planning and implementation that facilitate more efficient and effective use of resources that generate larger social, environmental and economic impacts. The micro-watershed area-based approach is by design a highly participatory approach designed to foster a high degree of public accountability, particularly in terms of participation, demand-driven activities and broad access to public information.

11. The project's Improved Governance Framework, drawing on the aforementioned governance assessments and specific governance issues relating to the rural sector, must also address governance issues relating to institutional weakness and lack of adequate management and risk mitigation systems in Paraguay as well as strengthening mechanisms for public accountability. Its overall aim is to facilitate efficiency and inhibit corrupt practices.

12. Specifically, the PRODERS Improved Governance Framework is designed to: (A) carry out institutional strengthening and improvement of management systems; (B) mitigate fiduciary risks; and (C) enhance public accountability and transparency by means of a highly participatory approach and improved access to public information. In addition, the project will be closely supervised with (D) an improved governance supervision approach.

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<sup>28</sup> To pass to the high case, the triggers included: (i) the enactment of revised legislation on asset declaration, including enforcement mechanism; and (ii) the revision of the civil service law and establishment of merit-based criteria.

## **A. Institutional Strengthening and Improved Management**

13. PRODERS will support strengthening MAG and improving its management systems to more effectively and transparently manage its resources at both the central level, via the PMU in DINCAP/MAG, and at the regional level primarily through sub-units of DEAG/MAG (see Annex 6 for further details). This will be accomplished through: capacity building for improved management, the use of improved management systems, improved coordination and decentralized demand-driven management, and results-focused decentralized monitoring and evaluation.

14. Capacity Building. Well targeted capacity building activities will enhance MAG's ability to more effectively manage resources according to Bank standards and implement the project. The project will support (i) training in project management, public sector accounting, treasury management, Paraguay public sector characteristics, financial controls and organization to be delivered to a selection of civil servants from MAG with special attention to DINCAP and DEAG. It will also support (ii) the provision of technical assistance, studies and advisory services in public sector organization, financial management, accounting and treasury processes in the public sector. The types of training and advisory activities will also be linked to the Bank's Fiduciary Action Plan for Paraguay (currently being drafted). See also Section B Fiduciary Risk Management Measures below.

15. Improved Management Systems. MAG's institutional capacity will also be strengthened through the establishment of a Management Information System (MIS). The MIS will incorporate records of project implementation progress, procurement, accounting, auditing, etc. and is supported by a technical assistance strategy that includes specialized advisory services, trainers and services to support project administration and monitoring (See Annex 8 for further details). The MIS will also facilitate improved coordination and information exchange with other MAG programs and activities as well as facilitating inter-ministerial exchange. In addition, a Geographical Information System (GIS), building on PARN's successful experience, will be made operative and designed to provide technical information (including resource mapping, better targeting of project support to beneficiaries as well as avoidance of duplication of benefits) to further increase MAG's management effectiveness.

16. Improved Coordination and Demand-Driven Decentralized Management. It has been agreed that DEAG at the central, departmental and local levels will play a stronger role in implementation as well as in coordinating project activities as well as linking PRODERS with other relevant programs and projects. See Section C Public Accountability below for more details on project decentralized structures.

17. New Paradigm for Rural Extension. Based on the PARN experience, the proposed project will provide further in-depth training for DEAG/MAG and other rural extension agents in the new bottom-up sustainable land management approach to rural extension that differs from traditional top-down extension approaches that emphasize the delivery of pre-set technological tool-kits. All DEAG extension agents will be trained as well as all DEAG and other extension agents operating in the two departments. The newer extension paradigm assigns a much greater role to community involvement, participation and to local knowledge for a better assessment of

producers' needs, more integrated technical assistance solutions covering social, environmental and production concerns, more effective use of resources and greater impacts. This approach will also contribute to enhancing the public accountability of project activities.

18. Results-Focused Decentralized Monitoring and Evaluation. The project will implement a robust results-focussed decentralized Monitoring and Evaluation (M&E) system (detailed in Annex 3) to support project planning, management and implementation. One of the explicit objectives of the project's M&E system is to promote accountability for resource use against objectives. By focusing on results and performance, PRODERS will strengthen MAG's ability to effectively manage resources. See also Broad Access to Project Information and Participatory Monitoring in Section C.

## **B. Fiduciary Risk Mitigation Measures**

19. The proposed project streamlines a series of fiduciary risk mitigation measures to improve MAG's overall governance capacity. Because of the high level of inherent risk in Paraguay, MAG's weak control environment and insufficient Financial Management (FM) capacities, and the transfer of funds to final beneficiaries, the residual risk level of the proposed project is rated high despite the positive experience of the previous operation, PARN, in this respect. In response to these FM risk factors, the proposed project has developed a two-pronged strategy: (i) incorporating a Comprehensive Fiduciary Framework; and (ii) introducing additional measures into the project's FM arrangements to ensure proper mitigation. See Annex 7 for more detailed information.

20. The Comprehensive Fiduciary Framework includes a series of financial management measures including, among others: (i) FM capacity building at MAG; (ii) enhanced FM arrangements; (iii) Bank compliant reporting system and control framework linking disbursements to service output to final beneficiary; (iv) concurrent audit of the mechanisms of fund transfers to final beneficiaries; (v) enhanced FM supervision; as well as the following fiduciary measures: (vi) coordination with the integrated fiduciary assessments and linkages with the upcoming Paraguay Fiduciary Action Plan; and (vii) Bank fiduciary staff advice to MAG.

21. Additional measures for the project's FM arrangements includes: (i) use of a satisfactory Administrative Operational Manual that contains (a) Chart of Accounts for the project, (b) format and contents of the annual financial statements and FMRs format for monitoring and evaluation purposes, (c) terms of reference for the external auditing, (d) terms of reference for the FDRS specific concurrent audit, and (e) specific section for FDRS implementation process; (ii) that project funds (including the FDRS) as well as treasury functions will be managed directly by the PMU of MAG; (iii) that the project MIS will include an FM and a specific FDRS module acceptable to the Bank; (iv) that specific PMU staff will be dedicated to the management of the FDRS; (v) specific semi-annual reporting for the FDRS; (vi) governance and transparency workshops will be carried out from project preparation onward; and (vii) that FDRS release will be conditioned by the existence of a functional specific MIS module acceptable to the Bank and with a satisfactory concurrent audit report.

22. In summary, while FM supervision standards for high risk projects includes: (i) supervision site visits at least three times a year; (ii) FMRs reviewed bi-annually; and (iii) Annual review of the Audit reports, this project will also include additional supervision including: (iv) Review of the concurrent audit report; (v) review of the specific conditions to release FDRS (Annex 7); and (vi) Bank specific FM training for project staff and Governance Workshops.

23. Lastly the project would request the following expanded external audit scope: (i) Annual Report on the Audit of Project Financial Statements; (ii) Annual Report on the Special Opinions including (a) SOE: Opinion on the eligibility of expenditures reported and the correct use of Loan funds and (b) Special Account; and (iii) Concurrent Audit opinion (external audit section in Annex 7).

### C. Improving Public Accountability and Transparency

24. Participatory Approach. The majority of the project's activities are focused on strengthening local-level social organization and self-governance for poor small-scale farmer and indigenous communities in two of the poorest departments in Paraguay using transparent socio-economic and environmental targeting criteria, detailed in Annex 4, Appendix 1.

25. Building on the experience of the previous operation, PARN, other micro-catchment area-based approaches particularly in southern Brazil, and community-driven development approaches world-wide, the bulk of the project participatory management activities will be decentralized at the micro-catchment and municipal levels. Beneficiaries will participate extensively in project management through decision-making structures established, or strengthened in the case of existing structures, for the purposes of the project. This will include beneficiary execution groups and steering committees, which will operate in coordination with the MAG-led project executive structure, summarized below and further detailed in Annex 4, Project Description, and in Annex 6, Implementation Arrangements. In addition, annual governance and transparency workshops with project stakeholders and beneficiaries will be held.

26. Key project supported mechanisms for beneficiary involvement in planning, decision-making, implementation and monitoring will include the establishing and consolidating two kinds of beneficiary execution groups: (i) Micro-catchment Development Committees (MDC) in each of the project-supported micro-catchments; and (ii) Indigenous Associations (IA) for indigenous communities (see Annex 4 for further details). MDCs and IAs are the entities that will, with technical assistance, participate in diagnostic activities and formulate Micro-catchment Development Plans and Indigenous Community Development Plans.

27. Subproject proposals developed based on the aforementioned plans will be screened and selected for grant financing under the project's Sustainable Rural Development Fund (described in more detail in Annex 4, Appendix 2). The subproject proposals will be reviewed and screened by the MDCs and IAs which provide their recommendations to the project's Rural Investment Service which finalizes grant decisions according to criteria and guidelines specified in the project Operational Manual. Once awarded, grant funds will be transferred directly to

beneficiaries through their legal associations. Implementation of subprojects will be carried out by the beneficiaries, with project technical assistance.

28. In addition, there will be three types of mixed governmental and civil society steering committees: (i) Municipal Steering Committees (MSC) to be comprised of at least 50% members who are members of the target beneficiary groups or their representatives and which will act as a forum for local participation; (ii) Departmental Development Committees (CODES); and (iii) the National Coordination Committee (NCC) to be comprised of representatives from the federal, departmental and municipal agencies involved in the project, as well as micro-catchment and indigenous representatives. The MSCs' major functions will be to: (i) monitor and evaluate general project implementation performance in their respective municipalities; (ii) consolidate requests from MDCs and set priorities for municipal subprojects within the context of Micro-catchment Development Plans; and (iii) monitor the implementation of approved municipal subprojects.

29. It is expected that this combination of executive and beneficiary deliberative organs, in addition to help maximizing local participation, decision-making and project accountability to the lowest practical implementation levels, will also be a major factor for achieving sustainability of benefits after the project terminates.

30. Broad Access to Project Information and Participatory Monitoring. The project design will also promote social accountability and transparency by means of: (i) a detailed results-based framework for project monitoring detailed in Annex 3; (ii) monitoring of main social, environmental and economic impacts; (iii) the project Management Information System (MIS); and (iv) the project's communication and dissemination strategy detailed in Annex 4, Subcomponent 5.3. The entire participation strategy pursued by the project, based on the social assessment and indigenous peoples strategy (Annexes 13 and 14), is designed to allow for a permanent feedback process between the project staff and the beneficiary population.

31. First, a results-focused decentralized M&E system (detailed in Annex 3) to support project planning and management will be implemented by the project. Specific objectives of the system will include: (i) tracking changes towards the project objectives, outputs and inputs, to facilitate making changes as needed during project implementation, hence providing a basis for more informed and effective project-related decision-making while promoting greater accountability for resource use against objectives and work plans; and (ii) providing and receiving feedback from stakeholders and generating inputs for dissemination of project results and lessons learned.

32. Second, the beneficiary perception of project performance and impacts will be monitored closely. Extension agents from MAG's Directorate of Rural Extension (DEAG), as well as from the project, will train MDCs and IAs in both understanding and monitoring perceptions. Such activities will include periodic workshops with project participants to assess project implementation and plan future actions, and quarterly and semi-annual evaluation meetings of MDCs and MSCs, respectively.

33. Third, transparency and accountability will be further served by the project Management Information System that will incorporate records of project implementation progress, procurement, accounting, auditing and other information. Information about producers benefited, status of requests for support and proposals, and general implementation progress will be public.

34. Fourth, the project communication and dissemination strategy will support project information dissemination, and sharing experiences and results both within and outside the project. It is designed to both provide project stakeholders with systematized knowledge for the management of natural resources and rural poverty reduction, as well as to facilitate monitoring of project progress and expenditures by beneficiaries thus enhancing long-term sustainability. In addition to a project home page, printed materials and use of print, radio and television media is planned to promote project transparency and accountability.

#### **D. Improved Governance Supervision Approach**

35. The Bank team has formulated an improved governance supervision approach that will entail more intensive than usual supervision on the part of the Bank. Lessons learned in numerous operations world-wide indicate that it is especially critical for the Bank to maintain close supervision in situations of weak overall governance as is the case in Paraguay. The successful implementation of the proposed project is critically linked to the implementation of the improved governance framework outlined above, and is especially critical during the start-up period of the project when training, capacity building, establishment of improved management and monitoring systems, and the set-up for improved public accountability needs to be made operative. Hence, a multi-disciplinary Bank team will supervise initially on the average during the first year of the project at least three times a year, and subsequently two to three times a year depending upon project performance.

## **Annex 13: Summary of Social Assessment**

### **PARAGUAY: Sustainable Agriculture and Rural Development Project**

#### **1. Introduction**

1. A social assessment was carried out in the two target departments<sup>29</sup> during project preparation. Its focus was on determining: (i) the principal socio-economic issues of the area with specific attention to poverty and the environment; (ii) the primary concerns and demands of the target population; (iii) the causes of the principal socio-economic issues of the target area; and (iv) possible options to address them. Prior to the initiation of investment activities, a participatory diagnostic will be carried out in each of the 84 micro-catchments and the 73 indigenous communities targeted by the proposed project to ascertain more closely the specific demands of each community and how best to address them in a manner consistent with the project's philosophy. The full Social Assessment can be found in the Project Files.

2. The Social Assessment was based on workshops with focus groups, in-depth interviews, as well as a review of relevant secondary sources. Field research centered around: (i) visits with municipal authorities and public and private development institutions in the area; (ii) general surveys of communities in the study area; (iii) community meetings to inform and involve communities and raise their awareness of the characteristics and objectives of the work; and (iv) identification of leaders in communities (producers, youth).

#### **2. Socio-economic Issues**

3. Overview. Paraguay is home to an estimated 5.9 million inhabitants, 97% of whom live in the country's Eastern Region, and has a population density of 12.7 inhabitants per km<sup>2</sup>. In 2006, the population growth rate was estimated to be 2.45%<sup>30</sup>. Of the country's total population, 56.7% lives in urban areas and 43.3% lives in rural areas. The country has the highest rate of population growth and is the most rural in South America.

4. Paraguay is a Multicultural and Bilingual Country. Its official languages are Spanish and Guarani. In 82.5% of rural households, the predominant language is Guarani compared to 8.5% for Spanish. In urban areas, Spanish is commonly spoken in 54.9% of households. The current indigenous population is 85,674, representing 1.6% of the country's total population<sup>31</sup>. At 7.8%, the illiteracy rate is one of the highest in Latin America<sup>32</sup>. The infant mortality rate is 19 per thousand births, and the childhood mortality rate is 25 per thousand. The maternal mortality rate is 163 per thousand births.

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<sup>29</sup> An initial social assessment was carried out in five departments: Caaguazú, Caazapá, Canindeyú, Concepción and San Pedro, with follow-up attention to the two departments targeted for this operation, Caaguazú and San Pedro. The other three departments would be considered for possible future scaling-up.

<sup>30</sup> CIA World Factbook, 2006 estimates, last updated 19 September 2006.

<sup>31</sup> General Bureau of Statistics, Surveys and Censuses. 2002 Indigenous Census. Fernando de la Mora, August 2003.

<sup>32</sup> For population age 10 and over. DGEEC, op. cit. 2004.

5. Economy. Paraguay's economy is highly dependent on agricultural and livestock production, which account for close to 25% of the GDP, generate nearly 85% of exports and employ 45% of the country's labor force. Nearly 84% of all export goods fit into five categories: cotton, soy bean, vegetable oils, meat and wood; a significant part of the national industry is based on the processing of these commodities. Sixty-five per cent of total exports correspond to just two categories: soy and cotton (either unprocessed or with some degree of processing)<sup>33</sup>. However, in recent years there has been a marked shift away from cotton and towards soy.

6. Poverty. One of the most noteworthy characteristics of the country's social situation has been the worsening of poverty in recent years. The population living in poverty has been steadily increasing since 1995. In 2005, 32% of the total population lived below the poverty line, and in rural areas that number reached 40.1%. At the same time, 17.1% of the total population lived in extreme poverty, and 22.8% of the rural population lived in extreme poverty. In concrete terms, this means that in rural areas over 1.0 million people lived in poverty, including virtually all of Paraguay's 85,674 indigenous people, with one in every 3.5 rural inhabitants living in conditions of extreme poverty.

7. Income Distribution and Land Tenancy. Closely linked to poverty are the country's severe inequality in income distribution and land tenancy. In 2002, the Gini coefficient for income was 0.58<sup>34</sup> making Paraguay one of Latin America's most inequitable countries. Moreover, according to the 2006 UNDP Human Development Report, Paraguay ranked below the world average of human development, placing 91<sup>st</sup> in a ranking of 177 countries and dropping two places from the previous measurement<sup>35</sup>. With regard to land tenancy, vast tracts of land are concentrated in the hands of a few owners while the average size of small landholdings continues to shrink. Indeed, 1.1% of rural landholdings account for 84% of the land, while 30% of the rural population owns no land at all.

8. In the Eastern Region, where 97% of all Paraguayans live, 84% of rural farms have fewer than 20 hectares. Of these, nearly half have fewer than 5 hectares. Added to this situation is the fact that approximately 60% or more of small-scale farms in the Eastern Region lack title deeds. This lack of land tenure regularization creates insecurity and a consequent lack of incentives for investments both in farm and home improvements, as well as difficult access to formal credit. Without legal security of land, it is difficult to make on-farm investments to increase land productivity and promote the sustainable use of natural resources.

9. Agriculture. Paraguay's agricultural development has been characterized by the exploitation of natural resources and a dynamic change in land use, where the constant has been the replacement of forest ecosystems with agricultural crops and pastures that have eliminated vast forest zones and affected the environment, in turn limiting options for possibilities of future use. Deforestation and the incorporation of new lands for agriculture, together with the application of inappropriate technologies and unsustainable crop practices, have contributed to the deterioration of natural resources. The loss of a significant part of forest wealth is one of the most negative features of the country's environmental deterioration.

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<sup>33</sup> UNDP, 2003, "National Report on Human Development: Paraguay."

<sup>34</sup> UNDP, 2006, *Human Development Report*, Table 15: Inequality in Income or Expenditure.

<sup>35</sup> Ibid, Table 1: Human Development Index.

10. Environmental Resources. Paraguay is home to part of the Atlantic Forest, which is regarded as one of the most threatened ecosystems in the world with only 7% of its original area still extant. Despite its ecological importance, Paraguay suffers from severe environmental degradation. This includes accelerated erosion, loss of soil fertility, loss of biological diversity, decreased quantity and quality of water resources and severe deforestation.

11. The Eastern Region possesses forest ecosystems with very rich biodiversity, represented by varied and extensive plant communities that are appreciated around the world. These constitute national assets that must be conserved, due to their enormous capacity to generate economic, social, and environmental benefits for the entire population. It is worthwhile to mention the presence in the region of an important part of the Guarani Aquifer, one of the world's largest underground reserves of fresh water, which requires rational management to sustainably supply drinking water to the population.

12. The current forest cover of the Eastern Region is approximately 3,500,000 hectares of which only 765,000 hectares correspond to productive forests. Unless these environmental deterioration processes are corrected, they will increasingly affect the population's well-being and will be felt even more harshly by the very poor, particularly in terms of their quality of life and their sources of employment.

### **3. The Rural Population in the Eastern Region**

13. Most of the rural population in this region, which includes the project's target group, are poor small-scale farmers who use traditional production methods including intensive use of family labor.

14. The region has a total of 255,573 landholdings with fewer than 20 hectares, 4,370 "farm" units (between 50 and 200 hectares), 354 large-scale agricultural enterprises (over 200 hectares) and 4,627 livestock units (over 500 hectares).

15. The project's concentrated area of operation includes a large presence of what various authors have called the "colonization region," corresponding to the development of uncultivated lands from the late 1950s to the mid-1980s, which involved around 120,000 families in total and enabled the migration of a large contingent of peasant families from the old stagnant communities of the Central Region to new settlements or colonies.

16. The most numerous settlements of these families are located in the Departments of San Pedro and Caaguazú, and in large zones of Concepción. Basically, the classic peasant production model was constructed there: a productive strategy based on the combination of some five to eight average agricultural categories, chiefly manioc (cassava), cotton, corn (maize) and beans (in that order).

17. Another important aspect of this type of production is the weakening of the historical matrix of combining agricultural and livestock production. There are fewer small-scale farms with beef and dairy cattle than in other departments and regions, which may indicate a

weakening in the reproductive capacity of traditional small-scale farming. Meat and dairy production was always a source of food security and the possibility of monetary income from the sale of products or animals in times of poor harvests or low agricultural prices.

18. Another regional context is that of “non-inclusive agricultural modernization” which corresponds to the Department of Canindeyú. Under this context, small-scale farmers are encountering greater obstacles to production because they cannot compete with medium-scale agricultural enterprises.

19. Finally, another regional scenario is the “traditional context” with the predominance of a bimodal classic agrarian structure composed of large cattle ranches and small-scale farmers on which peasant communities in most cases hold remote historical claims. This is present in Caazapá and in the more traditional zones of Concepción.

20. The Eastern Region is also the traditional territory of an indigenous population of 44,135 distributed among ethnic groups belonging to the Tupí-Guaraní linguistic family. Similar to the non-indigenous population, they live in conditions of extreme poverty with severe degradation of their natural resources and, in many cases, lack of legal title to their lands. Contemporary Guarani production is characterized by four main systems: (i) vegetable gardens, (ii) hunting and fishing, (iii) gathering; and (iv) salaried work and sale of artesanal goods. See Annex 14 for more information on the indigenous population in the project area.

#### **4. Definition of Target Population**

21. The target population consists of some 16,800 small-scale farmer households and approximately 2,030 indigenous households in the Departments of Caaguazú and San Pedro, which were identified for project actions in accordance with the national PLIPEX<sup>36</sup> index.

22. The following prioritization indicators were considered: (i) density of rural poor (in terms of UBN by subsistence capacity); (ii) land use conflicts (percentage of annual crops on soils inappropriate for crops); and (iii) loss of forest cover between 1999 and 2003 (percentage deforested in 2003 compared to 1999).

23. In the two project departments, the following were used to select the targeted municipalities: (i) maps of the survey of deforestation between 1999 and 2003 classified in four levels of deforestation; (ii) soil use maps (1995); (iii) maps of land use conflicts, classified in four levels of conflict; and (iv) map of poverty density per km<sup>2</sup>, indicating four levels of priority. This data was used to distribute the municipalities among four priority groups is described in Table 1 below.

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<sup>36</sup> The PLIPEX index, proposed in 2004 by Paraguay's Secretariat for Social Action, is a method for targeting and prioritizing territorial areas in which to implement social investments aimed at the reduction of extreme poverty. Its values derive from a combination of income levels and UBN.

**Table 1: Distribution of Micro-catchments According to the Established Level of Priority**

Priority Level	Number of Municipalities	Micro-catchments Assisted	Total Micro-catchments Assisted
High	3	up to 5	
Medium High	11	up to 4	
Medium Low	12	up to 3	
Low	12	up to 2	
<b>TOTAL</b>	<b>38</b>		<b>84</b>

24. Two types of criteria will be considered in the identification of the specific 84 micro-catchments to be assisted by the project: (i) a poverty criterion with a weight of 60%, utilizing the housing map by micro-catchments (fewer than 150, up to 250, and over 250 houses), UBN, and the presence of INDERT settlements/colonies; and (ii) environmental criteria with a weight of 40% considering deforestation, soil use conflicts, and the existence of micro-catchment located in the headwaters of river basins.

25. As an initial requirement for project involvement in a micro-catchment, at least 70% of its residents must agree to participate, and the corresponding municipality must provide its support.

## 5. Principal Results of the Social Assessment

26. Key Social Issues. The social assessment and the diagnostic carried out by the project preparation team highlight the principal problems facing Paraguay's rural region: (i) deepening poverty in the country's rural sector in recent years; (ii) the low quality of housing, lack of sanitary facilities, and contamination of water sources, which have negative effects on the rural population's quality of life; (iii) degradation of natural resources, which negatively affects the productivity of small-scale farmers' lands and worsens poverty; (iv) lack of resources and technical information among the rural population to provide the necessary equipment and information on productive practices and conservation measures; (v) insufficient understanding and implementation of participatory methods by rural project technicians and beneficiaries; (vi) insufficient implementation of local development policies and programs; and (vii) the absence of market opportunities for small production, especially the need to introduce alternatives for beneficiaries, accompanied by proper marketing support.

27. Cultural Features of the Rural Population. Several social aspects that relate to small-scale farmers' culture may have a positive or negative impact for development should be considered in the project. These include:

- (a) The cultural features of Paraguayan small-scale farmers include the isolation of rural communities from nearby cities and especially from modern, globalized world markets. This population, the largest social group in the country, is characterized by cultural features that may be called "conservative."; and

(b) The *Guarani-mestizo* culture is part of the country's heritage and is thus an asset that must be retained to promote sustainable development by transforming the small-scale farmers from a passive, manipulated object to the protagonist of his own development. This cultural heritage is of an essentially community-oriented, participatory, supportive, and spiritual nature.

28. Women. Women, who comprise 49% of the population in rural areas, play an important role as agricultural producers. Moreover, studies have shown that women are much more receptive than men to adopting technological innovations, especially when presented with a positive relationship between such innovations and improvement of the situation of the family. Despite this, little effort has been made to directly and differentially target women with technical and financial assistance. The project will work to build capacity of local women, promote the establishment of Women's Associations, and will ensure that they play a role in the day-to-day functioning of the project through representation on the Community Development Groups (CDG) and Micro-catchment Development Committees (MDC). In addition, through technical assistance and assistance in obtaining land titling, it will work to increase awareness of a recent law requiring that the titling of landholdings be in the name of both husband and wife, even in the cases of common-law marriages.

29. Youth. Few efforts have been made to effectively integrate youth into development. Youth organizations, while present at the secondary school and university levels, are sorely lacking in capacity. Thus, the project will work to integrate youth into regional development by working to increase their capacity with specific focus on improving their employability in the agricultural and livestock sectors. Moreover, young people will have representation in the organizations responsible for the basic management of the project, CDGs, MDCs and Municipal Steering Committees (MSCs). In addition, the project will promote the formation of Youth Associations in the micro-catchments.

30. Indigenous Peoples. Approximately 2,030 indigenous people living in 73 communities will benefit from project activities. Similar to the non-indigenous population of the targeted population, they live in conditions of extreme poverty with severe degradation of their natural resources. However, in addition to this, they are faced with a number of problems specific to their status as indigenous communities. Of the 73 communities, only 24 hold legal title to their lands, although even in these cases the size of the landholding is often not sufficient to meet the needs of the community (nor commensurate with the number of hectares dictated by law). Moreover, inadequate attention has been given to addressing the concerns of Paraguay's indigenous communities, especially in a manner consistent with their traditional beliefs and organizational structures. Thus, the proposed project will work with all 73 communities located in the two target departments to mainstream them in all of the project's components. They will receive the same project benefits as their non-indigenous counterparts but these will be prepared and implemented in such a way as to respect their specific cultural characteristics, including language and community leadership structures.

31. Principal Social Challenges in the Project Area. Some of the principal social challenges in the departments surveyed during field work for the social assessment may be summarized as follows:

- (a) The lack of representation by poor rural communities in citizens' and demographic participation bodies, and the lack of a social structure for participation and accountability in municipal and government agencies. Some organizations have little capacity for management and participation in decentralization and local development processes. Most poor small-scale farming communities lack community or social organization;
- (b) Food security problems in most poor rural households;
- (c) The fragmentation of families and communities in relation to their support networks and economies and the ongoing exodus of youth and middle-aged adults to cities and other countries;
- (d) Lack of basic infrastructure in small-scale farms and communities: poor quality of sanitation services, absence of serviceable roads to transport production, etc.;
- (e) Lack of productive skills development and training for small-scale farmers and their families to design and execute a sustainable farm plan and a family business plan strengthened by means of a methodological and unified intervention strategy;
- (f) Progressive deterioration of the environment and degradation of the soils of small-scale farms which steadily decrease their productivity; and
- (g) Land tenure problems, lack of titling and of land tenure regularization, and lack of security as a result of land-related conflicts.

32. **Principal Demands and Concerns of Beneficiaries.** Consultation workshops were held with beneficiaries and other actors in all five departments initially considered for the project area and included the following participants: representatives of small-scale farms and indigenous communities, the Rural Association of Paraguay, cooperatives, universities, NGOs, departmental governments, municipalities, government institutions such as MAG, DEAG, SENACSA, and INDERT, representatives of programs working in the zone such as GTZ, PROCESAL, PROAGRO, and representatives of the media. Follow-up consultations were also held in the two departments targeted for the initial phase of the operation: Caaguazú and San Pedro.

33. **Indigenous Peoples' Needs and Demands.** At the consultation workshops, representatives of all ethnic groups in the project zone stated that their principal concerns and needs are related to: (i) support to the regularization of land tenure; (ii) reinforcement of communities' food security by improving subsistence farming; (iii) technical assistance in agricultural production, project administration and management, recovery and conservation of communities' natural resources; (iv) development of income-generating activities; (v) improvement of housing and sanitary conditions; (vi) provision of appropriate mechanisms for indigenous representation in the public arena in general and within the project; and (vii) the need to strengthen indigenous organizations so that their demands are heard in the public sphere and duly met.

34. They expressed great interest in technical assistance and investment funds to support the self-sufficiency of communities and the preservation of their natural resources.

35. With regard to work with the indigenous population, one of the project's basic principles will be to use a participatory methodology that respects the indigenous development process, based on the principle of cultural pluralism and respect for the environment. No separate indigenous component is envisaged, rather the indigenous population's participation in all project components, with differentiated actions determined according to their demands, taking into account their cultural, organizational, and economic characteristics.

36. Needs and Demands of Small-scale Farmers and Other Stakeholders. Some of the principal demands of small-scale farmers and other stakeholders refer to: (i) the development of a comprehensive socioeconomic model that includes small-scale farmer organizations and reinforces the sustainable production of small-holdings and income generation; (ii) the development of a comprehensive technical assistance intervention model that includes the training and active participation of beneficiaries, technical assistance for agricultural production and for the recovery and conservation of natural resources in communities and on farms; (iii) the establishment of conflict resolution strategies and the regularization and titling of land; and (iv) the need to establish clear mechanisms for participation in and social control of the project, and the strengthening and training of community organizations and neighborhood associations.

## **6. Lessons Learned From PARN and Built Into Project Design**

37. The project's aim is to make use of the lessons learned from PARN's implementation, learning from its experiences and integrating those lessons into the design and implementation of the proposed project. Lessons learned with specific relevance to social issues include:

- (a) *The micro-catchment is a particularly appropriate physical unit for land use planning, since it reflects all the problems occurring on a larger scale with natural resources and economic and social systems. As in PARN, the new project will prepare micro-catchment development plans following a participatory diagnostic that defines the communities' objectives regarding sustainable development;*
- (b) *The participation of local and civil society organizations is crucial for project sustainability. As was done in PARN, the proposed project will promote their participation in diagnostic and participatory planning work and, later, in project implementation and M&E;*
- (c) *Some of the lessons learned from PARN's Indigenous Component and integrated in the design of the proposed project are: (i) the need to provide proper technical assistance to indigenous communities, with staff trained to work with different cultures and with the sensitivity to respect cultural features. In this regard, both technicians who worked with PARN are being contracted to train project staff to work with indigenous peoples; (ii) the need to respect indigenous development processes, adapting the project to the needs and demands arising from the communities themselves, without imposing pre-established agendas or working*

- paces and modalities that are foreign to these communities; and (iii) the importance of working with indigenous organizations, respecting the decision-making mechanisms of each ethnic group and promoting the active participation of indigenous organizations in project implementation; and
- (d) Finally, to preempt some of the difficulties experienced by PARN, the project will: (i) promote greater participation of beneficiaries in project decision-making mechanisms; (ii) work with technicians trained to jointly handle social, productive, and environmental aspects; and (iii) through its highly participatory approach and extensive beneficiary training, promote community empowerment and social capital, thereby encouraging broader project acceptance by beneficiaries.

## **7. The Project's Participatory Approach**

38. The work methodology will be based along three lines: (i) except for in indigenous communities, the project planning and implementation units will be the micro-catchment or sets of adjacent micro-catchments, as the socio-environmental land unit for planning and intervention, with a view to its inclusion in a broader strategy and operation that involves the rural area; (ii) emphasis will be placed on the active participation of beneficiaries in project implementation, on training for technicians and beneficiaries in participatory methodologies, and on the inclusion of beneficiaries in project decision-making; and (iii) special care will be taken to implement programs that are culturally appropriate for indigenous communities. In this regard, special emphasis will be placed on the proper training of technicians who will work with these communities, and on careful monitoring of project actions by anthropologists. In addition, activities in indigenous communities will be planned around the physical and leadership structure of the communities in conjunction with their respective Indigenous Associations.

39. The project will focus on various social issues or obstacles to development and empowerment. These include beneficiary mistrust of development assistance programs and a general lack of awareness of development opportunities. Second, the paternalistic relationship between poor small-scale farmers and indigenous communities and other sectors of society is a major obstacle to the establishment of programs that promote self-management. Changes will be introduced through the project's highly participatory focus. In this regard, a change in the rural extension paradigm will be sought, aimed at replacing the traditional paternalistic focus with one of mutual learning and empowerment of beneficiaries. A wide-ranging training program and the creation of decision-making bodies among beneficiaries will be some of the means by which the project will try to change the prevailing social perception and create trust between project beneficiaries and technicians.

40. An intensive, wide-ranging project dissemination and communication program is envisaged, aimed at the population in the two departments that form the project area. Through this dissemination program, the project's objectives, strategies, and procedures will be explained to all levels of rural society, including potential beneficiaries, executors, cooperators, local and department governments, and other stakeholders. Second, the training and mobilization of stakeholders will begin long before and continue throughout project implementation. The

content, place, and duration of training sessions, courses, and information events will be adjusted to the various types of audiences: small-scale farmers, indigenous communities, local and departmental governments, NGOs, etc. Third, there will be different levels of decision-making, ranging from the community level to municipal, departmental, and national levels. Beneficiaries or their representatives will be included at each level. Fourth, the project's operational procedures will be geared toward ensuring that decisions are made democratically and that consensus is sought.

41. Stakeholder Involvement. Community organization will empower project beneficiaries to express their opinions and participate in decision-making. Organizational strengthening for self-management will support the development of social capital in micro-catchments. All of the project's components will be undertaken in highly participatory manner and micro-catchment and indigenous communities will play a key role in the planning and execution of management and investment plans for sustainable development.

## **8. Design Implications of the Social Assessment**

42. Lessons learned both from previous projects and the Social Assessment have been carefully considered and constitute an important contribution to project design. Thus, the project's work methodology and participatory approach (outlined above) are reflected in the design of the project's components, including:

43. Component 1 – Community Organization Development and Capacity Building. This component will support training for the management of sustainable rural development in community organizations and local institutions in the area of intervention and will promote the creation of CDGs and MDCs in each micro-catchment, as well as deliberative and consultative agencies at the municipal and departmental levels. It will promote the creation and strengthening of beneficiary networks and associations and will promote their operation and self-management. These community organizations will play an important role in the formulation of community diagnostics and plans and in project monitoring and evaluation.

44. Subcomponent 2.1 – Rural Extension. Through this subcomponent, beneficiaries will prepare development plans and implement eligible investment subprojects with the assistance of project extensionists (financing will be provided through the Sustainable Rural Development Fund under Component 3). This subcomponent will contribute to the establishment and improvement of trust between project beneficiaries and technicians, responding to the social demands of communities as well as their technical and financial assistance demands.

45. Component 3 – Sustainable Rural Development Fund (FDRS). This subcomponent will fund approved beneficiary subprojects. It will be the instrument used in encouraging the adoption of the project strategy in the beneficiary micro-catchments and indigenous communities. These funds will be used in accordance with the Micro-catchment Development Plan or Indigenous Community Development Plan prepared by the relevant community. In this regard, the Investment Fund will seek to respond to the needs felt by communities and individual families, rather than imposing pre-established projects.

46. Subcomponent 5.3 – Monitoring and Evaluation. The M&E system will be highly participatory and will include a wide range of stakeholders, especially beneficiaries and their representatives at different levels. The results will be widely disseminated, especially among beneficiary communities. Regular meetings and workshops will be held so that participants can identify the project's obstacles and problems, especially if difficulties arise in achieving the project's objectives.

47. Monitoring of Main Social Impacts. The beneficiary perception on the project performance will be monitored closely through a number of events that will be encouraged by the project extensionists. They include annual meetings with project participants to assess project implementation and plan future actions; and quarterly and half-year evaluation meetings of MDC and MSC respectively. In addition, the entire participative strategy pursued by the project will allow for a permanent feed back process between the project staff and the beneficiary population.

## **Annex 14: Summary of Indigenous People's Strategy<sup>37</sup>**

### **PARAGUAY: Sustainable Agriculture and Rural Development Project**

#### **1. Introduction**

1. According to recent census data<sup>38</sup> there are 85,674 indigenous people (IP) in Paraguay (1.5% of the country's total population) who are divided into 17 ethnic groups and five linguistic families: Guarani, Lengua-Maskoy, Matako, Guaicurú, and Zamuco. Thirteen of the 17 ethnic groups live in the Chaco and four in the Eastern Region.
2. In the two departments of the Eastern Region selected for project implementation, there are slightly more than 9,700 IP (2,030 households) in the 73 communities. The ethnic groups living in the selected departments belong to the Guarani linguistic family: the Mbya, the Pai Tavytera, the Ava Guarani, and the Aché (see Attachment 1).
3. These Guarani peoples currently live by carrying out a combination of economic activities including subsistence farming, hunting, fishing, gathering, occasional paid labor, and handicrafts (see Attachment 2). It is important to note that the lands currently occupied by these aboriginal people no longer provide sufficient natural resources traditionally needed for the communities' survival due to the widespread exploitation of their territories by others.
4. The IP population in Paraguay is grouped in communities that are legally recognized according to Law 904/81 on "Indigenous Communities." of the 73 communities existing in the proposed project area, 24 have lands titled in their names and 49 occupy lands belonging to third parties (see Attachment 3 on land tenure).
5. The IP who inhabit the proposed project implementation area, similar to their poor small-scale farmer neighbors, live in a state of extreme poverty and with considerable degradation of their natural resources. Considering that the proposed project's fundamental objectives are strengthened community organization, poverty reduction and the sustainable management of natural resources, indigenous people, one of Paraguay's most vulnerable populations, were naturally considered as project beneficiaries. The proposed project has been designed to incorporate IP concerns that focus primarily on food security, the protection of their environment and lands, and the strengthening of their community organizations. It is not anticipated that the proposed project will generate any negative effects on IP that will need to be mitigated.
6. It is important to note that this will be the first large-scale sustainable development project targeting the indigenous population ever undertaken by the Paraguayan Government. However, the Ministry of Agriculture and Livestock has already carried out initial work with indigenous communities through a previous Bank operation, PARN, in the departments of Alto Paraná and Itapúa Norte, specifically an extension and technical assistance program to improve communities' production activities and to protect and conserve their natural resources. The

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<sup>37</sup> The complete stand alone project Indigenous Peoples Development Plan is available in the project files in Spanish and English.

<sup>38</sup> Paraguay National Census of Population and Housing, 2002.

proposed project will build on the PARN experience and lessons learned and expand the geographic scope to the five poorest departments in the Eastern Region.

7. Some of the lessons learned from PARN's Indigenous Component were the importance of: (i) appropriate technical assistance to indigenous communities, with staff trained to work with different cultures and with the sensitivity to respect unique cultural aspects; (ii) respecting the processes of indigenous development, adapting the project to the needs and demands that may arise from the communities themselves without imposing pre-established formulas or paces and modalities of work that are foreign to the communities; (iii) working with indigenous organizations, respecting the decision-making mechanisms of each ethnic group and promoting the active participation of organizations in project implementation; and (iv) actively involving communities in the development and implementation of community development plans.

8. One of the proposed project's basic principles is to work with the beneficiary indigenous population in a participatory manner, respecting the indigenous development process and based on the principles of cultural pluralism and respect for the environment. Rather than create a separate indigenous component (as was the case in the previous operation, PARN), the proposed project considers the indigenous groups as beneficiary populations for all project components, with appropriate differentiated activities specifically for or adjusted to indigenous people as needed, taking into account their cultural, organizational, and economic characteristics.

9. The present project will offer various types of support to beneficiary IP, including: (i) assistance to strengthen community organization (Component 1); (ii) specific studies and diagnostics and community development plans (Component 2); (iii) technical assistance for the implementation of specific community development plans in each indigenous community (Component 2); (iv) communities' access to the Sustainable Rural Development Fund (FDRS) to finance activities to increase production, protect environmental resources, improve housing and health and promote income generation and the regularization of land tenure (Component 3); and (v) IP participation in project management and monitoring (Component 5).

10. During project preparation consultations were held in 2005 and 2006 with 13 indigenous organizations representing the four ethnic groups who live in the initially proposed project area. Interviews were also held with agricultural technicians who worked in PARN's indigenous component, technical staff of the National Indigenous Institute (INDI) and representatives of NGOs. Based on the 2002 Indigenous Census database, recent data was also collected on the economic, social, and land tenure status of IP. Follow-up consultations were held with indigenous organizations in Caaguazú and San Pedro in 2007.

11. During the National Indigenous Congress held in March 2005 in Asunción, sponsored by the Inter-American Development Bank (IDB) and INDI, the project preparation team held a workshop to consult with indigenous leaders from the Eastern Region about the proposed project.

12. The consultations with IP revealed the strong interest of indigenous leaders in actively participating in project implementation and assembled the beneficiary communities' principal demands and needs which have since been incorporated in project design.

13. The indigenous leaders expressed their interest in receiving technical assistance in areas such as the sustainable management of natural resources, increasing production to ensure food security and income generation, assistance in regularizing lands and strengthening their organizations. At various times during consultations, the IP expressed that they were pleased with the proposed project's participatory methodology and emphasized their desire that the project's decision-making structures include the participation of indigenous organizations. They also expressed their interest in working with MAG, particularly in technical assistance.

14. The project's action strategy for indigenous communities is conceived as a process that seeks to maximize IP's access to and incorporation in the project's various activities by making the necessary adjustments so that indigenous socio-cultural values and political organization are respected and strengthened during project development. It will especially keep in mind the protection of indigenous communities' natural resources, and measures will be taken to implement specific monitoring of project activities related to IP. Annual plans will be established with specific targets and activities that will be monitored and evaluated to ensure compliance.

15. During project preparation the demands presented by indigenous communities have been taken into account and these coincide with the objectives of the project (i.e., to improve the quality of life of small-scale farmers and indigenous communities in the project area in a sustainable manner, by supporting actions that will strengthen community organization and self-governance, improve natural resources management and enhance the socio-economic condition of the target population).

### **The Indigenous Population of Paraguay in General**

16. Paraguay's IP, affected by a persistent series of problems, comprise the most impoverished segment of the population. They lack adequate health assistance with only 26% of communities having access to a health post or center. Child mortality totals 93.9 per thousand. 94.1% of the population over the age of 15 is illiterate. There are 331 schools and 314 teachers for a total of 496 communities. Ninety-three percent of dwellings lack sanitation facilities or drinking water.

17. Out of a total of 394 communities surveyed in the 2002 Indigenous Census, 247 own and have title to their land, 56 own lands but lack titles, and 91 communities own no land. Considering that land is the basis for ethnic and economic development, it may be stated that the basic condition for the survival of nearly half of Paraguay's indigenous communities is not guaranteed.

18. These results are alarming when one considers that only a small number of the indigenous communities has land of sufficient quality and quantity. Innumerable anthropological and other studies carried out among Paraguay's diverse ethnic groups conclude that most indigenous communities with assured lands are overpopulated and their environment does not allow the practice of traditional economic strategies for subsistence, nor do they guarantee, in many cases, agricultural practices that can support basic nutritional needs.

19. The habitat occupied by many communities in recent years has been undergoing deforestation and consequent environmental deterioration, and in many cases cannot provide communities with a significant part of their sustenance. There have also been cases of the occupation of indigenous lands by landless peasants who have then extracted timber and cleared forests.

20. As a consequence of the problems mentioned above, many indigenous people migrate to cities and settle in marginal zones, often living by begging. Alcohol and drug abuse problems, especially by children and adolescents, are increasing.

### **Ethnic Groups Residing in Selected Departments**

21. There are four traditional ethnic groups in Paraguay's Eastern Region: the Aché, Pai Tavytera, Mbya Guaraní, and Ava Guaraní or Chiripá. In addition, other ethnic groups from the Chaco have inhabited the Eastern Region for several decades: the Maka, a Chiriguano group, and several Chamacoco families, but with the exception of the Maka who live near Asunción, the other groups are limited to a small number of families.

22. The first four ethnic groups mentioned above speak four different and distinct languages all of which belong to the Tupí Guaraní linguistic family<sup>39</sup>. This linguistic family is composed of a population of 46,215 individuals throughout the country. The Mbya, Avá Guaraní, Pai Tavytera, and Aché ethnic groups, originally from the Eastern Region, and the Guarayo and Guaraní Ñandeva, originally from the Chaco, also belong to this linguistic family. The Aché, whose language is the most different from those of the other three ethnic groups, were until the early 1970s nomadic hunters and gatherers who suffered major persecution; only a small population has survived and they are becoming farmers. The other three Guaraní-speaking ethnic groups were organized in small groups that practiced hunting, gathering, and horticulture in a vast territory. Many of these groups also speak Paraguayan Guaraní. The groups from the Chaco who migrated to the Eastern Region, especially the Maka and the Chamacocos, have adapted to urban life and the Chiriguano group lives in an indigenous colony in the department of Canindejú.

23. Despite their lengthy contact with the Paraguayan population, all these ethnic groups maintain their own culture, languages, social and political organization, economy, and especially their religion, which are different from those of the majority population. The Guaraní emphasize the need to maintain their culture and establish peaceful relationships of cooperation, respect, and equality with Paraguayan society.

24. The Mbya. The current population of this ethnic group totals 14,324. The Mbya are known in the ethnographic literature as *Caagua*, or inhabitants of the rainforest. They occupy a vast territory from north to south in the Eastern Region. Until about 30 years ago, the Mbya in Paraguay were divided into about six geographic and sociopolitical units. Each unit had a zone

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<sup>39</sup> Many erroneously assume that in Paraguay the national version of Guaraní (Paraguayan Guaraní) is the same language as the languages spoken by all IP and all Gauraní groups. However, this is not the case. Each ethnic group speaks a separate and distinct language. For example, during one visit to an Aché community, it was observed that the community leader was fluent in three languages: Aché, Paraguayan Guaraní, and Spanish.

leader and its territories were well delimited. Currently, with the disappearance of the older leaders and the loss of their traditional lands, the Mbya are divided into three geographic and sociopolitical units: the Mbya of the north who mostly inhabit the departments of San Pedro, Concepción, and Canindejú; those of the central region, living in the departments of Caaguazú, Alto Paraná, and Guaira; and those of the south, living in the departments of Caazapá and Itapúa.

25. The Avá Guarani. Their current population is 13,419. The Avá are also called Chiripa, Avá Katuete or “true men” in the ethnographic literature. They move within an area of approximately 10,000 km<sup>2</sup>. Their traditional territorial boundaries encompass the Jejuí River to the north, the Acaray River to the south, the Paraná River to the east, and the Corrientes River to the west.

26. Their communities have maintained a distinct ethnic identity and social organization, despite their ongoing and occasionally intense relations with national society. Currently the largest Avá Guarani population is concentrated in the departments of Canindejú and Alto Paraná, although there are also some Avá communities in Caaguazú and San Pedro.

27. The Aché. Their current population is 1,190. The Aché were pejoratively called Guajakí by the Paraguayan population which has persecuted them since Paraguay’s independence. Traditionally, they occupied the high hills of the Eastern Region, a zone measuring approximately 5,000 km<sup>2</sup>. These IPs speak a language related to the Guarani linguistic family but their traditional economy and culture are based on hunting and gathering.

28. The Aché formerly avoided all contact with national society and lived a nomadic life, scattered in small groups. Since the 1950s they have been systematically persecuted by various sectors of the national society until finally being reduced to a handful of settlements. This constant persecution, which sometimes resulted in terrible slaughter, explains their low numbers. They have had to abandon their life of hunting and gathering to become sedentary farmers and paid laborers on large farms. There are Aché communities in Canindejú, Alto Paraná, and Caaguazú.

29. The Pai Tavytera. Their population totals 13,132. The Pai Tavyterá, a name that means “dwellers of the center of the Earth,” is one of the most traditional Guarani peoples. Their communities are found from north of the Jejuí River to the Amambay mountain range. A noteworthy cultural characteristic is their community organization. To date, despite multiple pressures from the national society, they continue to organize themselves around a handful of principal communities whose political and religious leadership not only organizes life within the communities but who also act as liaisons with the outside world.

30. Ethnic Groups from the Chaco in the Eastern Region. The ethnic groups from the Chaco who reside in the Eastern Region (the Toba and the Maskoy) are mostly rural workers. With the exception of several Toba Qom families who have formed relatively stable agricultural communities, the other families have come to the Eastern Region as a result of the bankruptcy of tanneries at the end of the 1970s and work mostly as occasional paid laborers in agricultural and livestock companies or in the city of Concepción, and in the sale of handicrafts. The Maskoy population totals approximately 250, while the Toba population totals 133.

## Socioeconomic Status of the Guarani

31. Social Organization. The basis of the social organization of three Guarani groups (the Mbya, Pai Tavytera, and Avá Guarani) is the extended family headed by a male elder. Various leaders of extended families meet in an assembly or *Aty Guasu*, with consultative and deliberative functions. This assembly is headed by a chief or leader who traditionally acted also as the religious leader and who has broad influence.

32. Long ago, each Guarani ethnic group in the Eastern Region was grouped around five or six zone leaders. Each zone leader had his permanent residence in a *Tekoha Guasú* (large village), around which were located various *Tekoha* (small villages). These *Tekoha* (a word that means "the place where we live according to our culture"), formed by groups of extended families, were sometimes located several kilometers from the principal village. Each small village also had its own political and religious leaders.

33. Although the large zone leaders have disappeared, their former function is currently replaced by the various indigenous associations which bring together the political and religious leaders of each *Tekoha* in regional assemblies or meetings (*Aty Guasu*) who carry out the former duties of traditional zone leaders. There are numerous indigenous associations among the Mbya, such as Ñogueroi Pavei which brings together the indigenous peoples of Caaguazú, Caazapá, and Guaira; among the Pai the Pai Reta Joaju Association which brings together most of the Pai Tavytera communities; the Avá Guarani are organized under the Noovusú Association and two other regional organizations. Thirteen of these indigenous organizations were consulted during project preparation.

34. The political-religious leadership is related to a determined geographic area. The concept of territoriality for the Guarani Indians is closely linked to the *Tekoha Guasú*, which has physical, geographic, sociopolitical, religious, and economic connotations. The size and characteristics of the *Tekoha Guasú* formerly permitted full economic subsistence based on hunting, fishing, gathering, and horticulture.

35. The *Tekoha* often used to occupy geographic areas with determined features: high forest, swamps, rivers, and streams suited for hunting, gathering, and fishing; forest, suited for clearing and planting, and the place allocated for houses and the ceremonial house (*opy*). This form of geographic occupation was and continues to be the principal point of interethnic conflict between the Guarani and Paraguay's national society whose concept of land is very different.

36. Although political and religious leadership traditionally coincide, at present there is a division between both authorities in most communities. This may be due to the fact that religious leaders remain distanced from national society, causing political leaders to be strengthened so as to become liaisons with Paraguayan authorities. However, religious leaders continue to play an important role as the principal executors of religious ceremonies and hold great prestige and power in Guarani society. Thus, at the same time that indigenous organizations were formed, bringing together political leaders, associations were also formed to

bring together the different religious leaders and both types of organizations work in coordination.

37. In the case of the Guaraní it is essential to understand the role of religion in this people's way of life<sup>40</sup>. Otherwise, any type of collaboration with these ethnic groups may fail. Religion plays a predominant role at all levels of Guaraní life. All economic and social activities are subordinate to it. According to Shaden<sup>41</sup>, the annual economic cycle is basically and primarily a cycle of religious life, a type of "ecclesiastic year" that accompanies the principal subsistence activities, especially the various phases of corn (maize) cultivation. Among the Guaraní, the planting, weeding, and harvesting of agricultural products, a cooperative work festival, departure for travel, and initiation rites all serve as motives for prayers and ritual dances<sup>42</sup>.

38. Economy. The Guaraní are forest dwellers, small-scale farmers whose principal products are corn and sweet manioc; hunting and gathering are important complements. The contemporary Guaraní economy is characterized by four fundamental systems: (i) subsistence swidden horticulture with average size plots of half a hectare; (ii) hunting and fishing, undertaken exclusively by men; (iii) gathering of forest resources ranging from yerba mate to medicinal plants to fibers for handicrafts<sup>43</sup>; and (iv) sources of cash income which include paid labor (usually temporary) and the sale of handicrafts.

39. The current status of indigenous territories, now reduced to very small areas, makes it impossible to carry on the traditional practices of hunting, fishing, and gathering and to enjoy the natural wealth of biodiversity. The destruction of the ecosystem surrounding communities results in extreme nutritional need in Guaraní families and directly influences their state of physical deterioration, the consequences of which are endemic diseases.

40. Despite the economic changes that these societies are experiencing, they continue to uphold certain values that greatly differentiate them from small-scale farming societies. Land and natural resources belong to the community, rather than being owned by individuals, although all members have use rights. However, it should be noted that the household production and consumption unit is the nuclear family.

41. Land Tenure. Access to land and natural resources is vital for the life and cultural survival of indigenous peoples, although half of the indigenous communities in the project area lack legalized lands. Other communities whose lands have been demarcated and titled have

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<sup>40</sup> Well documented in many ethnographic studies, as well as some studies focusing on their mythology and their messianic movements.

<sup>41</sup> Shaden Egon. Aspectos fundamentais da cultura Guaraní. São Paulo. 1974. P. 44.

<sup>42</sup> Shaden Op. Cit.: 45.

<sup>43</sup> These gathering activities have been characterized as "extensive extraction," organized around the biotic resources of natural harvests scattered throughout the rainforest. Three important aspects characterize the resources exploited. First, natural growth is spread throughout the rainforest. Second, these forest resources are renewable. Third, their production requires only rudimentary processing. Indigenous peoples have carried out this type of work for decades, probably for centuries, without destroying the rainforests that they use for hunting and crops. See Reed, Richard: Perspectivas ecológicas de las relaciones de fronteras en el Paraguay. Suplemento Antropológico. Vol XXIV, N° 1, Asunción 1989.

insufficient lands or do not know what to do with them because they have not received technical assistance related to agricultural, as opposed to horticultural, practices.

42. Of the 73 communities existing in the project area, 24 have land titles in their name and 49 occupy lands belonging to third parties (see Attachment 3). The land tenure status of those communities occupying land without titles in their name is highly varied: 25 communities occupy lands that are titled to the Paraguayan Institute for Indigenous Peoples (INDI) or INDERT, while the rest live on lands belonging to farms or ranches, churches, NGOs, etc. (see Attachment 4).

43. The proposed project includes specific activities for IP land titling, described in detail in the Section entitled “Targets for Activities with Indigenous Communities”.

44. Legal Framework for Indigenous Lands in Paraguay. The International Labour Organization’s Convention 169 and Paraguay’s 1992 National Constitution recognize the right of indigenous peoples to their traditional lands and to the development of their own cultures and forms of organization. Article 64 of the Paraguayan National Constitution recognizes that: *“Indigenous peoples have the right to own land in sufficient quantity and quality for the conservation and development of their unique ways of life. The State shall freely provide them these lands which will be non-attachable, indivisible, non-transferable, inalienable, non-leased, and tax exempt. The removal or transfer of their habitat without their express consent is prohibited.”*

45. Article 1 of Law 904/81, the “Statute of Indigenous Communities,” guarantees land tenure to indigenous communities; Article 14 specifies that the settlement must be on land traditionally occupied by indigenous peoples; Article 20 specifies that the land title shall be communal; and Article 18 stipulates a minimum of 20 hectares per family in the Eastern Region and a minimum of 100 hectares per family in the Western Region<sup>44</sup>.

46. Law 904/81 establishes the mechanisms for titling lands in the name of indigenous communities and creates the Paraguayan Institute for Indigenous Peoples (INDI) as the institution in charge of ensuring compliance. Although years have passed since this law was enacted, INDI and INDERT still hold in their name a good number of property titles that have not yet been transferred to the communities, even though the Law obliges them to do so once the communities have been legally recognized.

47. Taking the context into account, the proposed project will collaborate closely with INDI to complete the regularization of indigenous lands. Eligibility and activities are described in detail in the Sections entitled “Project Targeting with Regard to Indigenous Communities” and “Targets for Activities with Indigenous Communities”.

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<sup>44</sup> Prieto, Esther. 1987. Algunas consideraciones sobre el Estatuto de las Comunidades Indígenas. National Mission Team. Paraguayan Episcopal Conference. Asunción. 15ff.

## **Project Targeting with Regard to Indigenous Communities**

48. Taking into consideration the status of indigenous communities as described above, all 73 indigenous communities in the project area are considered high priority due to the high incidence of poverty and the high level of degradation of their natural resources upon which they depend for their survival. Therefore, all of them may be beneficiaries of the proposed project. However, each indigenous community's access to the project's various types of support (diagnostic, development and implementation of Indigenous Community Development Plans, training activities, land titling, etc.) will be different depending on the application of the Indigenous Peoples Land Access and Natural Resources Use Index.

49. This index will be applied to all indigenous communities in the first year of the project and will be updated in its third and fifth years. The communities with the highest rankings on this index will be able to access more of the project's activities determined according to each community's Indigenous Community Development Plan. This index will be prepared jointly with the communities and their associations so that all who are involved in the project clearly understand the selection criteria and may access the project's benefits in the best possible manner.

50. The Indigenous Peoples Land Access and Natural Resources Use Index will be generated as a result of information obtained in each indigenous community, in response to the following questions:

51. Questions which, if affirmative, will generate points: (i) Does the community know where its lands are located? (ii) Are the community's lands delimited and surveyed? (iii) Does the community have legal status? (iv) Does the community have title to its lands? and (v) Does the community live on and utilize the land that is in its name?

52. Questions which, if affirmative, will subtract points: (i) Are there conflicts on the use of land in terms of physical occupation? and (ii) Are there problems with regard to litigation or other types of claims?

53. If, after the index is applied, it is detected that a community needs assistance to regularize its lands, it will benefit from the activity related to Support to Land Titling, under Component 3 of the Project. If the community has resolved its land problem, it will then be able to access the participatory planning activities (participatory diagnostic and preparation of Indigenous Community Development Plans, Subcomponent 2.1) and the implementation of community investments (Component 3). With regard to training activities, all communities will be beneficiaries of training programs (Subcomponent 1.1).

54. Targets for Activities with Indigenous Communities. The following targets have been established for project activities related to indigenous communities:

<b>Activities/Year</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Total</b>
Application Indigenous Peoples Land Access and Natural Resources Use Index	73	73	-	73	-	73
Completion of titling process (Comp. 3)	6	9	9	6	-	30

Specific training activities (Subcomponent 1.2) for indigenous communities*	12	15	15	15	5	62
Planning and participation (diagnostic and Indigenous Community Development Plans) (Subcomponent 2.1)	15	20	20	5	-	60
Implementation of Subprojects (Comp. 3)	-	15	20	20	5	60

\*These calculations for the training activities refer to training aimed specifically at indigenous communities (see the section on Training). These targets do not include more general training under the project which will also benefit indigenous communities.

### **Project Design Considerations for IP Land Tenure Activities**

55. The major challenges related to indigenous land tenure are: (i) the need to acquire and/or expand lands for indigenous communities; (ii) the titling of lands in the name of indigenous communities; and (iii) land conflicts which are often related to the occupation of indigenous lands by third parties, survey problems, insecurity with regard to the boundaries of indigenous lands, etc.

56. Acquisition or expansion of indigenous communities' lands is outside the scope of the proposed project. However, with 24 of the project communities occupying lands whose titles are held by other parties (see Attachments 3 and 4), the proposed project will support activities to address the second and third challenges, namely titling and conflict resolution.

57. Land Titling Activities under the Project. The project has formulated a target to complete the process of titling in a total of 30 communities. It will first address the titling of those lands that are in the name of INDI/INDERT (25 communities) and those in the name of NGOs/churches (6 communities) which, in accordance with Law 904/81, should be transferred to the name of indigenous communities. At project start-up, plans are to carry out a study to evaluate access to land and the use of natural resources by the 73 communities and to prepare a list of those communities that will need assistance in the titling process. Given previous experiences, it is expected that the target of titling six to nine communities per year during the project's five-year period is attainable. The hiring of a lawyer to supervise the process is also proposed. Detailed steps for titling are summarized in Attachment 5 to this Annex.

58. Given INDI's responsibilities for indigenous land titling, the project will collaborate with INDI to implement this activity. Under the project's management structure, INDI forms part of the National Coordination Committee. The project will also collaborate with the Bank-funded Indigenous Land Regularization Project financed by a grant from the Japanese Social Development Fund, to be carried out in the department of Caaguazú and involving INDI and the NGO Oguasu. It is anticipated that IP annual work plans and targets for land titling will be jointly prepared by the project, INDI, and Oguasu for the department of Caaguazú. In addition, the two projects will also collaborate on updating information on indigenous lands in Caaguazú and in the other four project departments. This information will be uploaded on a web page to facilitate access by indigenous peoples, NGOs, state and international agencies, and other interested parties. This will be a way of making transparent and disseminating all information related to indigenous land tenure in Paraguay.

59. Conflict Resolution. A study will be carried out at the beginning of the project on the most frequent conflicts and their possible solutions. This study will serve as a basis for evaluating proposed project conflict resolution activities. The project will support the establishment of forums for dialogue on conflict situations and training for indigenous leaders on conflict resolution.

### **Project Design Considerations for IP-Related Training Activities**

60. While IP will be eligible for general project-sponsored training, it has been agreed that the project will also support: (i) special training for technicians who will work with indigenous communities; and (ii) trainings requested by and/or adapted to the situations and realities of indigenous communities.

61. Training of Technicians. The Project Management Unit will select and train an adequate number of project technicians as well as firms and/or NGOs selected to work or provide services to indigenous communities. At the same time, it is expected that these technicians will train indigenous promoters working at the local level. At project start-up a training course will be offered for all technical staff working in the project's indigenous or small-scale farmer communities. This one-day course will consist of an introduction to Guarani culture and an introduction to appropriate forms of intervention in indigenous communities. For those technicians who will work with indigenous communities, more specific training will be provided to ensure that technicians, firms and/or NGOs have: (i) understanding of the project objectives and participatory methodology, and (ii) sufficient knowledge and understanding to work with different cultures and are able to work in an environment of mutual respect. Curriculum details have been prepared and will be included in the project Operational Manual.

62. Training for Indigenous Communities. During preparation, seven specific training areas were identified and requested by indigenous communities. In addition, IP will be eligible for other training activities under the project (for more details, see Annex 4). Briefly summarized, the seven training areas specifically for IP, to be described in more detail in the Operational Manual, are: (i) Legal training on land issues; (ii) Forming and legalizing indigenous associations; (iii) Administration and finance for associations and communities; (iv) Carrying out community diagnostics and planning; (v) Formal and on-the-job training for indigenous agricultural and environmental promoters; (vi) Citizenship and conflict resolution methods; and (vii) Computer skills.

63. Project Design Considerations for Indigenous Community Development Plans (ICDP). The project will assist communities in the preparation and implementation of 60 ICDPs. The ICDPs will be carried out once the Indigenous Peoples Land Access and Natural Resources Use Index has been applied to define the criteria for whether or not is eligible for the project planning activities and the implementation of the ICPDs.

64. The preparation of the ICDPs will be carried out by the indigenous communities in the following manner:

- (a) An indigenous community and a project technician will hold information meetings on the project and prepare a prior, comprehensive diagnostic of the community's situation. These meetings and broad discussions will help to identify and prioritize the community's economic, social, and environmental concerns;
- (b) Based on this community diagnostic, several alternative solutions to the problems will be identified and discussed at community meetings. Based on these alternatives, priority activities and actions on social, economic, and environmental issues will be identified. The proposed solution, the necessary steps, responsible parties and a timetable will be identified for each priority action. All this information will be included in the ICDP. The ICDP will also include a basic map, the identification of the technician and community leaders and a budget;
- (c) The micro-catchment's Association of Indigenous Communities, which will be associated with the micro-catchment's Community Development Groups (CDGs), will review and approve the ICDP. This type of organization must be discussed in accordance with each local situation. In some cases the indigenous associations are strong enough to participate on equal footing with the other micro-catchment associations. In other cases, an Indigenous Micro-catchment Association may need to be formed to strengthen indigenous participation. These CDGs receive and handle requests for financing that are reviewed and approved by the central technical staff;
- (d) The objective of these ICDPs is to formulate an appropriate plan for beneficiaries. It is a flexible document that may be utilized as well to monitor problems and actions and may be periodically revised and updated;
- (e) Based on an ICPD, the indigenous community will develop activities that may be financed by the project in areas such as environmental education, training, organizational strengthening, and technical assistance under Components 1 and 2. They may develop subprojects for financing under Component 3. Subprojects will be reviewed and approved by the CDG and endorsed by the PMU (each of these levels is specified in the Operational Manual). Special care will be taken to ensure that the committees studying the ICPDs have sufficient indigenous representation. If this is not possible, measures will be taken to ensure that these decisions are made at a higher level of the project;
- (f) For Indigenous Community Development Plans financing in the form of a project grant will cover up to 90 percent of the cost. The indigenous community must contribute at least 10 percent of the cost;
- (g) Indigenous community projects will be executed and administered by the Micro-catchment Development Committee or its equivalent Association of Indigenous Communities, as well as by the beneficiary communities themselves, depending on their administrative management capacity; and

- (h) The exact contents of each Indigenous Community Development Plan will depend on the respective community diagnostic. However, during consultations with IP, the following priority areas were identified: (i) food security of communities through improvements to subsistence farming; (ii) rehabilitation and conservation of communities' natural resources; (iii) development of income-generating activities; and (iv) improvement of housing and environmental protection in the communities.

## **Implementation Arrangements**

65. The Ministry of Agriculture and Livestock (MAG) is the government entity responsible for project execution with regard to: (i) assistance to strengthen community organization (Component 1); (ii) specific studies and diagnostics and Micro-catchment Development Plans (Component 2); (iii) technical assistance for the implementation of specific Indigenous Community Development Plans in each indigenous community (Component 2); and (iv) communities' access to the FDRS to finance activities such as the improvement of production, the environment, housing, as well as environmental protection, income generation, and regularization of communities' land tenure (Component 3). MAG has had some experience working with IP during the previous operation, PARN. For the proposed project, the PMU will include a specialist in indigenous issues (anthropologist) who will be in charge of coordinating, monitoring, and supervising project actions with regard to indigenous peoples. In addition, firms, NGOs and consultants will be contracted as needed.

66. Project implementation will facilitate cooperation and partnerships with local and regional governments and with NGOs that work in the area and have experience working with indigenous communities. In fact, during the preparation of this project several NGOs expressed their desire to establish future cooperation. Local governments, especially several departmental governments, have established Secretariats of Indigenous Affairs that operate with varied success. One positive experience is the collaboration of the PARN indigenous component with the Secretariat of Indigenous Affairs of Itapúa and with indigenist NGOs in Alto Paraná.

67. Under Law 904/81 on indigenous communities, the institution responsible for indigenous issues is the Paraguayan Institute for INDI. INDI has the specific function of land regularization and should also coordinate the actions carried out by other government institutions and NGOs with indigenous peoples. INDI is currently receiving support from the IDB for institutional strengthening which is expected to yield positive results in the future.

68. The project will seek to coordinate its actions with INDI. A General Agreement on Project Coordination and Execution is expected to be signed. This will include MAG and various government institutions, including INDI. Some of the objectives of the Agreement will be to facilitate knowledge and understanding of the project, clarify institutional responsibilities and commitments for project execution, define management mechanisms, etc.

69. Most of the IP living in the project area are organized in Indigenous Associations (IAs) whose coverage varies. Some are departmental organizations; others are small and limited to a group of neighboring communities. The project will work closely with these associations during

its implementation. It should be noted that prior to working with these associations the project will evaluate their representativeness, administrative capacity, legal status and other aspects.

70. The project will also collaborate closely with the Indigenous Land Regularization Project in the department of Caaguazú financed by the Japanese Social Development Fund.

### **Indigenous Participation in the Project**

71. Indigenous Participation during Project Preparation. The Indigenous Peoples Development Strategy was developed to respond to World Bank Operational Directive 4.20 and to maximize effective indigenous participation in the project. The project preparation team held consultations in 2005 and 2006 with indigenous leaders, INDI technical staff, technicians working in the PARN indigenous component, and representatives of indigenist NGOs working in the area. Information and consultation workshops on the project were held with representatives of 13 indigenous associations in the project area<sup>45</sup>. In addition, follow-up consultations were held in Caaguazú and San Pedro in 2007.

72. Needs and concerns identified during the consultations focused on: (i) land tenure problems; (ii) strengthening the food security of the communities through improvement of subsistence farming; (iii) technical assistance in agricultural production, project administration and management, recovery and conservation of communities' natural resources; (iv) development of income-generating activities; (v) improvement of housing and environmental protection in communities; (vi) ensuring appropriate mechanisms for indigenous representation in the general public arena and within the project; and (vii) the need to strengthen indigenous organizations, ensuring that their demands are heard in the public arena and are duly met.

73. The leaders consulted expressed their wish that the project take place while respecting the cultural, political, and social characteristics of indigenous peoples and serve to strengthen ethnic identity. They expressed great interest in technical assistance and investment funds to support the self-sufficiency of communities and the preservation of their natural resources. During consultations it was explained to the leaders that the project will not be able to purchase lands for indigenous communities but it could facilitate and support land regularization programs.

74. Indigenous Participation in the Project. The project is designed to ensure the participation of beneficiaries, including indigenous peoples, in the process of planning, execution, monitoring, and evaluation of actions. The participation of indigenous peoples in the project will signify a mutual learning experience for technical staff and for the indigenous peoples. It should be noted that each one of the ethnic groups living in the project area has its own unique characteristics. These IP are not a homogenous population and therefore appropriate methodologies and processes must be developed for each particular group. The aim will be to minimize

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<sup>45</sup> Association of Indigenous Peoples of Caazapá: "Jeka'ha Yma Pave"; Association of Leaders of the Yacy Cañy District; Association of Avá Guaraní Indigenous Communities of the Alto Canindejú Zone; Association of Indigenous Communities of San Pedro (ACISPE); Association of Guaraní Communities of Alto Paraná; Organization of Indigenous Peoples of the North; Encuentro Hacia la Tierra sin Mal Organization; Pai Tavytera People's Association; Association of Pay Tavytera Educational Leaders of the Department of Amambay; Mbya Guaraní Association of Caaguazú; Mbya Reko Katu; Association of Aché Communities; Aché Organization: "Linaje"; Ñogueroi Pavei Association of Caaguazú.

intermediaries between beneficiaries and the project, to maximize local indigenous participation, and to utilize existing organizations and mechanisms that have proven to be effective.

75. The project's action plans will be consulted annually with the indigenous communities and associations and annual targets will be established jointly with these communities and associations, taking into account the project objectives as a whole. At the same time, a joint annual evaluation of activities will be carried out. These evaluations will involve representatives of the various indigenous communities and/or associations that are beneficiaries of the project.

76. The project's philosophy is aimed at favoring the involvement of beneficiaries in all areas of the project and in a transparent management system that fosters mutual trust between project technicians and indigenous communities and associations. According to the project's design, it is expected that all 73 indigenous communities in the project area will benefit, depending on their needs and priorities. Thus, some communities will receive support for the titling of their lands, other communities will be trained in various areas, and others will receive support in the preparation and implementation of Indigenous Community Development. The criteria used so determine what kinds of benefits each community receives will be transparent and widely disseminated.

77. The technicians working with IP will be properly trained in the use of a participatory and inclusive methodology, and especially in respect for the cultural forms of indigenous participation, such as community decision-making mechanisms, types of community leadership, the role of women in decision-making, etc. This will help to ensure, to the extent possible, that indigenous participation is really effective.

78. The project's organizational structure includes an organization at the level of the micro-catchment or indigenous area, and organizations at municipal, departmental, and central government levels. Measures will be taken to ensure that IP are represented at the micro-catchment level as well as at municipal and departmental levels. Indigenous communities will also be represented on the project's National Coordinating Committee.

### **Monitoring and Evaluation**

79. The project's annual participatory evaluation will include beneficiary indigenous communities and associations as well as the project's technicians and anthropological adviser. At these annual meetings, the work carried out in accordance with the project's objectives will be evaluated, and the year's targets for work with indigenous peoples will be set. These meetings will also define which communities will be beneficiaries of certain project activities. These targets will be clear to all involved and the mechanisms used to determine targets will be disseminated among beneficiaries in order to provide greater transparency in management and the active participation of the indigenous communities themselves.

80. The Indigenous Community Development Plans and related subprojects will also be monitored and evaluated annually by means of a participatory process by project beneficiaries and technicians. Financial and results monitoring will be implemented at the same time.

81. The staff and agencies that carry out project activities will be trained in basic monitoring systems and evaluation techniques. Based on these evaluations, the technicians working with IP will regularly submit reports on project implementation to the PMU. These reports will be reviewed by the project's indigenous adviser.

82. An independent evaluation of activities with indigenous communities will also be carried out for the project's midterm and final evaluations.

83. Project evaluation and monitoring for IP will include:

- (a) Periodic evaluation of project implementation to ensure that it is suited to the targets and timetables planned for indigenous communities. This evaluation should also include suggestions for modifications or adaptations to improve activities and will be based on technicians' reports and on community evaluations, as well as on field visits if needed;
- (b) Financial evaluation: The flow of the project's financial resources and the financial management of resources will be monitored to ensure adherence to project regulations;
- (c) Participation: Indigenous participation at different levels of the project will be continuously monitored and possible modifications will be proposed if needed;
- (d) Evaluation of staff working with indigenous peoples, technicians, extensionists, anthropologists;
- (e) Collection of reliable data for the regularization of indigenous lands in the five departments;
- (f) Studies of land use and environmental challenges in the indigenous communities of the five departments. This study will be performed at the project's start-up and completion to measure its impact; and
- (g) Baseline additional studies needed: socioeconomic and social organization indicators, etc.

84. Studies and Research. The proposed project also includes studies needed to ensure the success of work with indigenous communities (Subcomponent 2.2)<sup>46</sup>. See Subcomponent 2.2 Studies and Research for more details on these studies and their timetable.

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<sup>46</sup> The proposed studies are: (i) a study to create a database on the status of indigenous lands in the two departments; (ii) data collection to focus on and select the communities in the project area; (iii) a study of the types of conflicts over land and natural resources existing in indigenous communities and their possible solutions (this study will be performed at project start-up and completion as a means of measuring the project's progress on this issue); (iv) technical studies of possible markets for indigenous products such as handicrafts or medicinal plants; and (v) the study of ways to improve the traditional subsistence economy.

## Annex 14 Attachments

### Attachment 1: Indigenous population and housing in the selected departments

Department	No. of Communities	Houses	Population		
			Men	Women	Total
Caaguazú	54	1,468	3,674	3,251	6,925
San Pedro	24	562	1,438	1,324	2,762
<b>Subtotal</b>	<b>73</b>	<b>2,030</b>	<b>5,112</b>	<b>4,575</b>	<b>9,687</b>
<b>Country Total</b>	<b>412</b>	<b>17,309</b>	<b>45,031</b>	<b>42,068</b>	<b>87,099</b>

Source: General Bureau of Statistics, Surveys and Census, "II National Indigenous Population and Housing Census, 2002."

### Attachment 2: Economic Activities of Indigenous Communities by Department

CAAGUAZÚ	SAN PEDRO
54 communities	24 communities
<b>Hunting:</b> 91.0%	<b>Hunting:</b> 92.3%
<b>Gathering:</b> 89.4%	<b>Gathering:</b> 92.3%
<b>Handicrafts:</b> 4.5%	<b>Handicrafts:</b> 73.1%
<b>Agriculture:</b> 90.3%	<b>Agriculture:</b> 90.8%
<b>Farm workers:</b> 7.6%	<b>Farm workers:</b> 10.3%

**Explanation:** Data on the first three activities (Hunting, Gathering, and Handicrafts) were obtained from the Community Questionnaire of the 2002 Indigenous Census. The others (Agriculture, Farm Workers, etc.) were obtained from the Individual Questionnaire.

Source: Prepared by the project preparation team based on the 2002 National Indigenous Population and Housing Census, DGEEC: 2003.

### Attachment 3: Land Tenure Status in the Selected Departments

Department	Total Communities	Communities w/o titled lands	Communities w/ titled lands
Caaguazú	54	40	7
San Pedro	24	9	17
Total	73	49	24

Source: DGEEC, 2002 National Indigenous Population and Housing Census.

### Attachment 4: Institutions that Own Lands Occupied by Indigenous Peoples (Number of communities)

	INDI/ Fiscal	NGO	Farm/ Ranch	Church	Other	Unknown/ no response	Total
Caaguazú	21	1	12	5	1	–	40
San Pedro	4	–	3	–	2	–	9

Source: 2002 National Indigenous Population and Housing Census.

### **Attachment 5: Steps for Titling Indigenous Lands**

1. Regularization of the status of indigenous communities for land titling
  - Periodic updating of data on the indigenous population
  - Survey of data in indigenous communities
  - Recognition of leaders
  - Preparation and submission of documentation on changes or recognition of leaders
  - Field work to verify requests for changes in leaders
  - Monitoring of document processing in INDI until the resolution is issued
  - Issuance of the resolution
  - Delivery of the resolution to those affected.
2. Achievement of legal status by the indigenous community
  - Preparation and submission of documentation on legal status
  - Field work to verify requests for legal status
  - Monitoring of document processing in INDI until the resolution is issued
  - Monitoring of document processing in the Ministry of Education and Culture and other institutions until the decree is issued.
3. Titling of lands in the indigenous community's name
  - Exemption from real estate tax
  - Administrative survey and identification and definition of property lines
  - Administrative processing of documentation in INDI for the issuance of the transferal resolution
  - Document processing and monitoring in the Government's Notary Office
  - Travel by leaders to Asunción to sign the transferal document
  - Transferal of title in the community's name.

**Annex 15: Documents in the Project File**  
**PARAGUAY: Sustainable Agriculture and Rural Development Project**

**1. Project Implementation Plan**

*Evaluación Ambiental* (Project's Environmental Assessment). October 2005.

**2. Bank Staff Assessments**

**OTHERS**

World Bank and United Nations Food and Agriculture Organization. *Paraguay: Rural Sector Assessment*. April 4, 2007.

Víctor Hugo Zúñiga Rodríguez. *Contribución al Diseño Institucional Para la Ejecución del Proyecto de Desarrollo Rural Sostenible (PRODERS)*. Febrero 2007.

Comisión Económica para América Latina (CEPAL). *Paraguay: Resultados de las Reformas (2003-2005) y sus Perspectivas*. Enero 2007.

*Paraguay, Fiscal Space. García, Valeriano*. August 2005.

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World Bank. *Country Assistance Strategy for Paraguay*. Report No. 27341. November 26, 2003.

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*PRODERS: Medidas para Estimular la Transparencia y Gobernabilidad.*

*Plan de Fortalecimiento Institucional de la DINCAP basado en recomendaciones del Análisis SECI.*

*Paraguay Biodiversidad* : Documento del Proyecto

*Documentos de los Consultores Dr. Luis Acuna e In. Agr. Diego Payssé*: Fortalecimiento de SENACSA y Vice Ministerio de Ganadería y Plan Piloto de Sanidad Animal para las 84 microcuenca del PRODERS

### **3. Background Studies/Documents**

#### **GOVERNMENT OF PARAGUAY'S REPORTS**

#### **GOVERNMENT OF PARAGUAY'S LAWS, REGULATIONS AND DECREES**

República del Paraguay, Poder Legislativo. Ley No. 2530, Ley de Presupuesto General de la Nación para el Ejercicio Fiscal 2005. Diciembre 30, 2004.

República del Paraguay, Poder Legislativo. Ley SIVIPAR (Sistema de Infraestructura Vial del Paraguay), 2003.

Ministerio de Hacienda. Decreto No. 4810 reglamentando la Ley No. 2530/2004 de Presupuesto General de la Nación para el Ejercicio Fiscal 2005. Enero 28, 2005.

Ministerio de Hacienda. Decreto No. 7070 reglamenta la Ley No. 2869/2005 de Presupuesto General de la Nación para el Ejercicio Fiscal 2006.

Decreto No. 8225, 27 Septiembre 2006.

#### **OTHERS**

Banco Interamericano de Desarrollo (BID) - Instituto Paraguay del Indígena (INDI). *Resumen de las Políticas para Pueblos Indígenas del Paraguay*. Noviembre 2004.

The Economist Intelligence Unit (UK). *Country Report Paraguay at a Glance 2006-2007*.

**Annex 16: Statement of Loans and Credits**  
**PARAGUAY: Sustainable Agriculture and Rural Development Project**

Project ID	FY	Purpose	Original Amount in US\$ Millions						Difference between expected and actual disbursements	
			IBRD	IDA	SF	GEF	Cancel.	Undisb.	Orig.	Frm. Rev'd
P082026	2007	PY Road Maintenance	74.00	0.00	0.00	0.00	0.00	74.00	15.09	0.00
P073526	2004	PY- EDUCATION REFORM PROJECT	24.00	0.00	0.00	0.00	0.00	8.98	8.98	0.00
P069269	2002	PY Pilot Community Development Project	9.00	0.00	0.00	0.00	0.00	1.07	1.07	0.24
		Total:	107.00	0.00	0.00	0.00	0.00	84.05	25.14	0.24

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

FY Approval	Company	Committed				Disbursed							
		IFC		IFC		Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
2005	Telecel Paraguay	15.00	0.00	0.00	0.00	15.00	0.00	0.00	0.00	15.00	0.00	0.00	0.00
	Total portfolio:	15.00	0.00	0.00	0.00	15.00	0.00	0.00	0.00	15.00	0.00	0.00	0.00

<b>Approvals Pending Commitment</b>					
FY Approval	Company	Loan	Equity	Quasi	Partic.
	Total pending commitment:	0.00	0.00	0.00	0.00

## Annex 17: Country at a Glance

### PARAGUAY: Sustainable Agriculture and Rural Development Project

POVERTY and SOCIAL	Latin America & Carib.	Lower-	Income		
		Paraguay			
<b>2006</b>					
Population, mid-year (millions)	6.0	556	2,276		
GNI per capita ( <i>Atlas method</i> , US\$)	1,400	4,767	2,037		
GNI ( <i>Atlas method</i> , US\$ billions)	8.4	2,650	4,635		
<b>Average annual growth, 2000-06</b>					
Population (%)	2.0	1.3	0.9		
Labor force (%)	3.3	2.1	1.4		
<b>Most recent estimate (latest year available, 2000-06)</b>					
Poverty (% of population below national poverty line)	..	..	..		
Urban population (% of total population)	59	78	47		
Life expectancy at birth (years)	71	73	71		
Infant mortality (per 1,000 live births)	20	26	31		
Child malnutrition (% of children under 5)	5	..	13		
Access to an improved water source (% of population)	86	91	81		
Literacy (% of population age 15+)	93	90	89		
Gross primary enrollment (% of school-age population)	104	118	113		
Male	106	120	117		
Female	103	115	114		
<b>KEY ECONOMIC RATIOS and LONG-TERM TRENDS</b>					
	1986	1996	2005	2006	
GDP (US\$ billions)	3.5	8.7	7.3	9.1	
Gross capital formation/GDP	25.0	25.5	22.1	21.3	
Exports of goods and services/GDP	26.5	50.3	49.9	50.1	
Gross domestic savings/GDP	19.5	13.6	15.1	4.2	
Gross national savings/GDP	18.6	18.9	17.1	9.0	
Current account balance/GDP	-5.4	-4.0	2.4	-3.7	
Interest payments/GDP	2.5	0.8	1.5	..	
Total debt/GDP	58.9	29.3	42.6	..	
Total debt service/exports	213	5.1	10.9	..	
Present value of debt/GDP	..	..	42.2	..	
Present value of debt/exports	..	..	68.8	..	
	1986-96	1996-06	2005	2006	2006-10
<i>(average annual growth)</i>					
GDP	3.9	12	2.9	3.9	3.4
GDP per capita	11	-0.8	10	19	14
Exports of goods and services	14.1	0.0	2.7	14.2	2.9

#### STRUCTURE of the ECONOMY

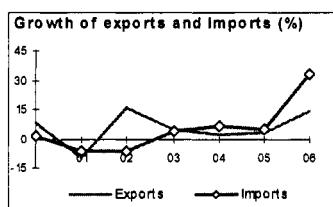
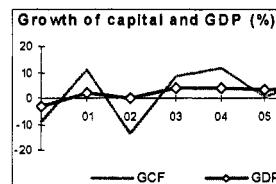
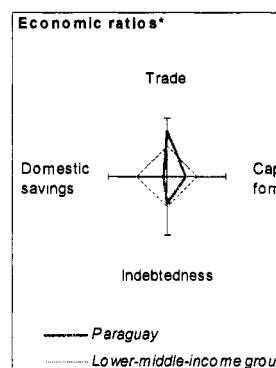
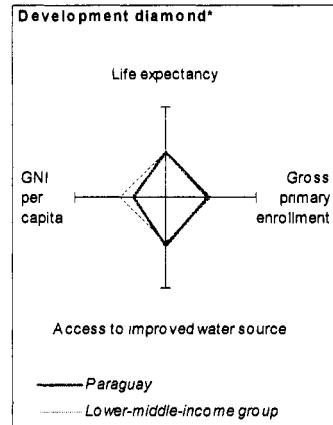
	1986	1996	2005	2006	
(% of GDP)					
Agriculture	27.2	20.6	22.1	21.3	
Industry	22.6	23.3	19.3	18.7	
Manufacturing	14.2	16.0	12.4	12.0	
Services	50.2	55.2	58.6	60.0	
Household final consumption expenditure	73.8	75.6	74.5	87.0	
General govt final consumption expenditure	6.6	10.8	10.4	8.8	
Imports of goods and services	32.0	62.2	53.9	67.2	
	1986-96	1996-06	2005	2006	2006-10
<i>(average annual growth)</i>					
Agriculture	4.7	3.3	0.1	3.5	
Industry	4.1	0.2	3.1	3.5	
Manufacturing	-0.7	0.2	2.6	3.5	
Services	3.5	0.7	4.3	4.3	
Household final consumption expenditure	3.7	0.5	4.2	15.7	
General govt final consumption expenditure	11.1	-15	7.6	-9.1	
Gross capital formation	6.8	-18	0.5	6.4	
Imports of goods and services	15.5	-2.7	4.6	33.3	

Note: 2006 data are preliminary estimates.

This table was produced from the Development Economics LDB database.

\*The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

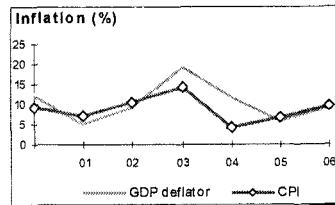
**Development diamond\***



Paraguay

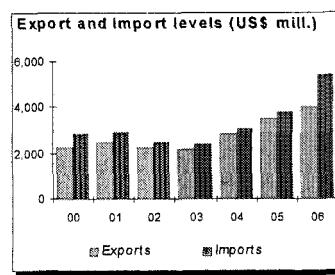
**PRICES and GOVERNMENT FINANCE**

	1986	1996	2005	2006
<b>Domestic prices</b>				
(% change)				
Consumer prices	317	9.8	6.8	9.6
Implicit GDP deflator	316	13.1	5.9	9.1
<b>Government finance</b>				
(% of GDP, includes current grants)				
Current revenue	..	16.3	18.6	18.8
Current budget balance	..	2.0	4.8	4.9
Overall surplus/deficit	..	-11	0.7	0.3



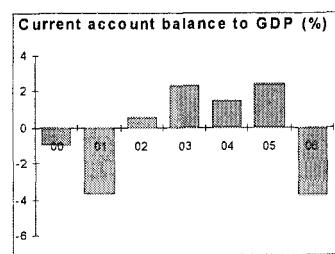
**TRADE**

	1986	1996	2005	2006
(US\$ millions)				
Total exports (fob)	752	3,797	3,493	4,026
Soy products	46	324	815	977
Cotton	81	218	40	30
Manufactures	519	2,753	1,805	1,500
Total imports (cif)	916	4,382	3,788	5,383
Food	..	1,532	1,367	1,415
Fuel and energy	97	235	510	765
Capital goods	..	921	1,077	2,077
Export price index (2000=100)	..	..	..	..
Import price index (2000=100)	..	..	..	..
Terms of trade (2000=100)	..	..	..	..



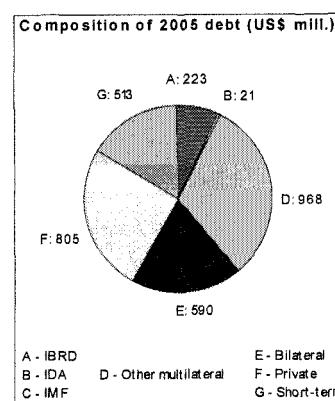
**BALANCE of PAYMENTS**

	1986	1996	2005	2006
(US\$ millions)				
Exports of goods and services	978	4,397	4,274	4,926
Imports of goods and services	1,134	5,042	4,238	5,705
Resource balance	-156	-645	36	-779
Net income	-48	110	-81	23
Net current transfers	11	182	223	415
Current account balance	-192	-353	177	-341
Financing items (net)	107	314	-329	268
Changes in net reserves	86	39	152	73
<b>Memo:</b>				
Reserves including gold (US\$ millions)	460	1,061	1,297	1,370
Conversion rate (DEC, local/US\$)	517.4	2,057.0	6,178.0	5,635.5



**EXTERNAL DEBT and RESOURCE FLOWS**

	1986	1996	2005	2006
(US\$ millions)				
Total debt outstanding and disbursed	2,087	2,565	3,120	..
IBRD	315	138	223	234
IDA	45	34	21	19
Total debt service	223	247	489	..
IBRD	47	45	35	38
IDA	1	2	2	2
Composition of net resource flows				
Official grants	14	21	20	..
Official creditors	101	65	-33	..
Private creditors	29	54	2	..
Foreign direct investment (net inflows)	1	149	64	..
Portfolio equity (net inflows)	0	0	0	..
World Bank program				
Commitments	0	22	15	6
Disbursements	27	27	17	32
Principal repayments	22	35	27	28
Net flows	5	-8	-10	4
Interest payments	26	12	10	12
Net transfers	-21	-19	-20	-7



Note: This table was produced from the Development Economics LDB database.

9/28/07

**Annex 18: Map IBRD 35799**

**PARAGUAY: Sustainable Agriculture and Rural Development Project**

**MAP SECTION**



