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**PRIORIZATION FOR INVESTMENT IN THE PERUVIAN
MOUNTAIN RANGE**

(PE-T1012)

PLAN OF OPERATIONS

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BASIC SOCIOECONOMIC DATA

For basic socioeconomic data, including public debt information, please refer to the following address:

<http://www.iadb.org/RES/index.cfm?fuseaction=externallinks.countrydata>

Priorization for Investment in the Peruvian Mountain Range (PE-T1012)

EXECUTIVE SUMMARY

Beneficiary:	The Republic of Peru (GOP)	
Executing agency:	The Ministry of Economy & Finance (MEF)	
Financing:	IDB: (JSF)	US\$600,000
	Local:	US\$200,000
	Other sources:	<u>US\$100,000</u>
	Total:	US\$900,000
Objective:	The Objective is to support the GOP in the implementation of a strategy for rural poverty reduction. The project has four components: (i) A regionalized simulation model of the Peruvian economy; (ii) Market chain analysis of the activities and products with potential comparative advantage; (iii) Database of alternative solutions for the different types of microregions; (iv) Preparation of a plan for the implementation of the relevant solutions found in component three in three specific regions in the country.	
Execution timetable:	24 months execution and 30 months for disbursement.	
Special contractual conditions:	None	
Exceptions to Bank Policies and Procedures:	None	
Environmental and social review:	The operation was reviewed by CESI on September 23, 2005, and it was agreed that no negative social or environmental impacts are foreseen from it. The operation will generate positive impacts by the involvement of the communities in the prioritization and design of the proposed solutions for its region. Furthermore, component four – “ <i>Preparation of 3 regional rural development plans</i> ” has a specific subcomponent on local capacity strengthening for local government and civil society organizations. To insure that the foreseen positive impacts occur, besides ample consultation with the local population, special attention will be given to gender issues and the inclusion of women in the consultation process.	
Coordination with other donors:	CAF will participate in the financing. Fieldwork will be coordinated and information shared with JBIC and FIDA.	

I. BACKGROUND AND JUSTIFICATION

- 1.1 The stubborn persistence of rural poverty in the *Sierra* (Mountain Region) and *Selva* (Jungle) is one of Peru's most pressing social, political and economic problems. The country made some progress in poverty reduction in the 1990s, but virtually all of that took place before 1997 and was concentrated in urban areas and on the coast. In 2002 over half the Peruvian population was poor and almost one-fourth was in extreme poverty. This poverty problem is concentrated in the rural areas of the Sierra and Selva where 57% and 43% respectively of their populations are living in extreme poverty and 81% and 71% in poverty altogether.
- 1.2 This would not be so serious a problem for the country as a whole if the population in these areas were small. But it isn't. The rural Sierra and Selva contain 30% of the population of the country, which is why their rural sectors contain 68% of the extreme poverty and 43% of total poverty in the country as a whole. These figures imply a very serious problem of malnutrition. The situation is particularly serious for children. In 1999, the Ministry of Education estimated that 48.5% of children in the Sierra suffered from chronic malnutrition. Not only does this directly affect the future human capital potential of these children, but the broadening of social inequalities are also psychosocial stressors and are related to the predominance of alcoholism and violence (domestic, criminal or even terrorism) in the affected households.
- 1.3 Governments, past and actual have spent a significant amount of money to alleviate the poverty problem in the Sierra and Selva (approximately 0.9% of GDP, i.e. US\$460 million per year). Projects with support from both the IDB and JBIC¹ have been or are still in execution, but those programs are either safety nets such as temporary work programs like "Trabajar" and nutrition programs such as "Vaso de Leche" or loosely targeted like FONCODES. The latter program finances small infrastructure works in education, health, rural roads, etc. that help the poor in the short run, but do little to overcome the structural causes of poverty. That requires making the poor more productive so that they can earn their own way out of poverty. This could be done only through investment programs targeted to the whole spectrum of activities that supports economic growth. The transfer approach is essentially a band-aid approach that uses government revenues from the modern sector on the coast to alleviate poverty in the highlands.
- 1.4 There are several serious problems with the transfer-based strategy. First, Peru is still a poor country. Most poor countries cannot eliminate or even significantly reduce poverty by transfer programs. The problem is too big and the resources available are too small. Poor countries have to grow their way out of poverty by productive investment that increases the earning capacity of the poor. Or in other words, the transfer-based strategy can only be a stop-gap solution, and only a target investment

¹ JBIC has also financed PRONAMACHS in the Sierra Region. This project is targeted to natural resources management, but will finance small productive investments when they contribute to improve the environment.

approach will be able to permanently reduce poverty by increasing the amount or the value of assets owned by the poor.

- 1.5 Unfortunately, in spite of the recovery in Peru since 2000, there is no sign that the rural poverty picture in the Sierra and Selva is improving. A recent paper (Escobal and Valdivia, 2004) estimated that rural poverty in the Sierra has risen from 72.5% (68.1% according to LSMS) in 1997 to 78.5% in 2002. Poverty in the rural Selva over the same time period has grown from 55.7% to 71.8%. It is to be expected that an increase in poverty between 1997 and 2000 when Peru was in recession. But what is striking is the difference in poverty trajectory between the Sierra and the urban sector, in particular Lima. Urban poverty is highly sensitive to the rate of economic growth. Poverty in the Sierra and Selva isn't.
- 1.6 This has two important implications. First the poor in the Sierra and the Selva are not well linked into the modern economy of the coast. Whatever it is that has generated growth in the past in Peru does not generate growth in income for the poor in those two areas. Second, and as a result of the lack of linkage, it is not reasonable to expect that Peru will be able to solve its rural poverty problem simply by generating a rapid rate of growth. If there ever was a case where growth does not trickle down to the poor, Peru is it. Some sort of intervention or change in the growth strategy will be required to change this situation. This proposal lays out a framework for developing such a strategy.
- 1.7 Smallholder farmers within Peru differ significantly according to where they live, and the assets available to them, in particular, land, climate, education, water and transportation to local or regional markets. It is possible to identify small farmers who could be competitive in world markets, others who produce only for home consumption or the local urban market, and others who have access to off-farm activity and finally those who are marginalized even from their local economy. The key constraints that need to be addressed to enhance their development differ among these heterogeneous groups. Given such heterogeneity, it is unlikely that a "one-size-fits-all" development strategy will be successful in overcoming poverty in the Sierra and Selva regions; rather an approach reflecting this heterogeneity is needed.
- 1.8 Recognizing this fact, the MEF, requested the Bank's support to study the issue of targeting productive investments in the highlands of Peru (Sierra region). The Bank's initial response was to hire the International Food Policy and Research Institute – IFPRI to study the issue. IFPRI produced a concept paper on the existing programs in Peru. As a follow up IFPRI designed a conceptual framework and a proposal to develop a set of tools, which would allow the Peruvian Government to prioritize

PHASE 1

TYPOLGY OF MICROREGIONS OF THE SIERRA

This phase consists of collecting geo-referenced data for geographic areas at the most disaggregated scale possible in Peru. This data will consist of indicators on geography, poverty and inequality, production, access to infrastructure, access to markets, nearness to regional urban centers, off farm employment opportunities, population density, and presence of institutions. This information will be analyzed using factor and cluster analysis techniques to develop a typology of rural areas and rural households. We will then make a complete mapping of the Sierra and Selva into the typologies developed in the econometric analysis.

investments in the Sierra region. Both documents were presented and discussed at a Seminar in Lima. After this, IFPRI has started the development of the first of a set of development “tools”. The first of the tools being developed is a “Typology of Microregions of the Sierra”. This typology takes into account different dimensions: geography, poverty, and inequality, regional ethnic characteristics, production, access to infrastructure, access to markets, nearness to regional urban centers, off farm employment opportunities, population density, and presence of institutions. The full study, using resources of this TC, will build on this knowledge, with the final objective being the preparation of “A Framework for Development of the Rural Economy in Sierra of Peru”.

- 1.9 Specifically, this TC will contribute to the GOP efforts to reduce rural poverty by developing a “Peruvian regional tool box of solutions” for the different bottlenecks faced by the different “types” of microregions”. This tool box will be transferred to each of the regional and local governments, to be incorporated in their strategies for rural development. In addition, this toolbox will be used for the designing and preparation of investment projects in three regions of the Sierra. This strategy will be designed in collaboration with MEF, the Ministry of Agriculture, and the regional and local governments. Finally, capacity building of local institutions will be implemented. This will result in the prioritization of strategies and developing regional rural development plans based on the results identified in the projects. These regional plans will include concrete investment projects and will be done in collaboration with the regional and local governments and the MEF in such a way that the investment projects are in accordance with the national system of public investment.
- 1.10 Another important contribution of the TC is that it will provide the technical and information framework to start the preparation of a potential operation in the rural sector. This new operation will probably use the new approach called Sector Wide Approach Program (SWAP). On different Bank missions the Government of Peru has mentioned their interest in designing an operation in the rural sector coordinating the efforts of the several international organizations involved in the development of the rural sector. The SWAP and this TC can help in providing a long-term strategy in the rural sector and harmonize the agendas of the donor community.

II. PROGRAM DESCRIPTION

A. Program goal and purpose

- 2.1 The objective of this TC is to support the GOP in the development and preparation of a strategy for rural poverty reduction. The project will develop a knowledge base for prioritizing public and private investments based on the characteristics of different microregions in the rural Sierra as well as their economic potential and the bottlenecks that impede increases in production. With this information for three specific regions in the country the project will design and implement pilot projects using the best practice operations found elsewhere or proposing new solutions to observed problems.

B. Components

- 2.2 A regionalized simulation model of the Peruvian economy: This model will be developed to for use in simulations of alternative development pathways under assumptions about public and private investment and policy reforms in the Sierra. A critical component of the regionalized model is the specification of household demand and the links between the rural sector and regional urban centers. It will be important to distinguish between products which are traded goods with a national market and other products and activities that are produced and consumed locally but not traded nationally. The working hypothesis is that this latter class of activities will be far larger in the Sierra than is the case for the coastal region because of the transportation barrier.
- 2.3 Market chain analysis of the activities and products with potential comparative advantage: Consists of the systematic identification of the bottlenecks that arise in each of the different types of microregions and the design of strategies or experimental pilot solutions to overcome these bottlenecks. The work will concentrate on three major aspects: (i) identifying commodity investment and possible prioritization of commodities; (ii) identifying the main bottlenecks within the market chain generated by market and government failures; and (iii) evaluating possible public investment decisions proposed as solutions to bottlenecks, taking into consideration eventual environmental constrains and adjusting the proposed solutions to then. Within the market chain analysis, the study will pay close attention to environmental constraints and how they may limit production of potentially profitable commodities.
- 2.4 Database of alternative solutions for the different types of microregions: This component will concentrate on an exhaustive review of existing best practices both local and in other countries to identify a menu of possible solutions that can be implemented as pilot projects. This effort will involve close consultation with local policy makers, leaders of farmer organizations and technical assistance organizations, and other key stakeholders to identify options that are politically and socially feasible as well as economically advantageous. It is important to note that when looking for technical solutions to the bottleneck, the project does not aims to substitute traditional way of organization of local communities, but will try to capture the different ways the micro regions are organized and will try to improve their efficiency by eliminating the bottlenecks they are currently facing.
- 2.5 Preparation of a plan for the implementation of the relevant solutions found in component three in three specific regions in the country: This will include specific investment projects; institutional capacity building of the regional and local governments and civil society organizations in the areas of the projects and monitoring and evaluation. This should lead to regional rural development plans based on the results identified in either the pilot projects or the best practice solutions. The challenge here is to interface the inherent top-down decisions associated with many public investments with the bottom up interests of local people. These regional plans will be done in collaboration with the regional governments, local governments and the MEF in such a way that the investment projects are in accordance with the Sistema

Nacional de Inversión Pública (SNIP). One of SNIP requirements is the inclusion of a socio-environmental evaluation, and a consultation process with local stakeholders. This project will follow these requirements. The inclusion of both institutional capacity building of local institutions and civil society and an impact evaluation methodology module will increase the ability of local stakeholders to understand why they are prioritizing certain investments and use evaluation results to improve future performance. Results of the previous phases and consultation with stakeholders will determine the selection of the three regions.

- 2.6 The detailed final products of the TC are listed in section IV-E. The main ones are: (i) a report summarizing the results of component one, that is the characterization of the main microregions in the Sierra; (ii) a report identifying bottlenecks at the level of the region and microregion; (iii) a report analyzing the complementary policy interventions for eliminating the main bottlenecks in a sample of the different microregions; (iv) a sequenced and prioritized plan to address these bottlenecks, including a clear role of the public and private sectors, and investment estimates for each intervention; (v) a road map to link these proposed investments to the investment programming matrix for rural areas of the Ministry of Finance; (vi) capacity building for regional and local government, with special attention to inter-institutional coordination; and (vii) support in the preparation of rural development plans for three specific regions off the Sierra.

III. COST AND FINANCING

TABLE 1: Estimated cost (U.S. Dollars)

CATEGORY	BID-JSF	CAF	LOCAL	TOTAL
1. Administration & Supervision	50,000	0	50,000	100,000
a. Administration.	0	0	50,000	50,000
b. Supervision & Evaluation.	50,000	0	0	50,000
2. Direct Costs	550,000	100,000	150,000	800,000
a. Regionalized simulation model of Peru.	120,000	0	0	120,000
b. Market Chain Analysis.	180,000	100,000	0	280,000
c. Database of alternative solutions for different types of microregions.	100,000	0	50,000	150,000
d. Preparation of plan for implementation of solution for bottlenecks in three microregions.	150,000	0	100,000	250,000
Total	600,000	100,000	200,000	900,000
% from sources	66.67%	11.11%	22.22%	100.00%

A. Description and composition of financing

- 3.1 The estimated total cost of the Project is US\$900,000, of which the Japan Special Fund (JSF) will finance US\$600,000. Counterpart funds of US\$200,000 will be provided by the MEF and US\$100,000 will be provided by CAF. Counterpart Funds

provided by MEF will be part in-kind, and part as cash contribution. Regional Governments from the 3 regions where plans would be developed will also contribute. As mentioned in ¶1.8, IFPRI is spending a total of US\$150,000 to complete what can be considered a first phase of this work, which is the “Typology of Microregions of the Sierra”. This sum is not being considered as counterpart.

B. Sustainability

- 3.2 Sustainability of the work being developed with TC resources will be provided by the selection of executing agency, which is the Dirección General de Programación Multianual del Sector Público (DGPM) at the MEF. This unit of MEF has legal responsibility over the evaluation and prioritization of all investment projects executed by all levels of government in Peru. The methodologies developed by the TC will be incorporated in the “Sistema Nacional de Programación y Inversiones. Furthermore, the DGPM with support from the Bank is initiating the establishment of a system of monitoring and evaluation of the investment of projects²”.

IV. EXECUTING AGENCY AND MECHANISM

A. Executing Agency

- 4.1 Execution will be under the responsibility of the *Dirección General de Programación Multianual del Sector Público* (DGPM) of the Ministry of Economy and Finance (MEF). DGPM is the institution in charge of the orientation, integration, monitoring and evaluation of the Multiyear Strategic Plans of the public sector, including public investment and the promotion of the development of zones with less relative development. Furthermore, DGPM also has the responsibility of evaluating the feasibility of investment projects and to recommend their execution as public projects or as public projects with private sector participation. The Dirección General de Programación Multianual will also be the Bank’s legal counterpart within the GOP.
- 4.2 The DGPM team appointed by the beneficiary to coordinate the project will include the following staff: (i) a professional responsible for project coordination; (ii) a professional specialist in agriculture and rural development (Mr. Miguel Priale); and (iii) a professional specialist in economics and rural development (Ms. Milagros Villa García).
- 4.3 This professional team will be assisted by support staff trained in each of the project activities. These will be drawn from DGPM and other ministries involved in the TC. This professional staff, who will have access to all information, in order to replicate knowledge acquired and help the institution to better address the problem of being addressed by the TC in different geographic zones of the country. The professional

² PE-T1022 Strategy and Action Plan for Development Effectiveness.

will be drawn from the Ministry of Agriculture, and the Presidency of the Ministerial Council. Professionals from the Regional Administrations will also participate, along with professional staff assigned from the Ministry of Agriculture regional offices in the three regions to be selected for the preparation of a plan for the implementation of the relevant solutions found in component three of this project.

B. Executing mechanism

- 4.4 The GOP has requested that the Bank directly manage the funds in order to engage the consultancy services as soon as possible. Responsibility for the coordination of the work of the consultants within the Bank will be with the Project Team, supported by COF/CPE. The Project Team with the GOP will jointly review and approve the consultants' reports.
- 4.5 The TC will be developed by IFPRI, acting as a consulting firm. The contract will be done in agreement with MEF following Bank procedures for direct contracting, under the concept of "when only one firm is qualified or has the experience of exceptional value for this specific service." Costs for this direct contracting have been estimated for up to US\$600.000; this will cover national and international consultants in addition to research assistants, travel and per diem expenses, together with materials and services.
- 4.6 The operation will use DGPM as the focal point for coordinating project execution, with local supervision from the specialist at the Bank's Country Office in Peru, and since IFPRI is headquartered in Washington, RE3/EN3 will be direct responsible for managing the operation and authorizing payments to the consulting firm, subject to prior technical review from DGPM and submission of a report containing opinions and recommendations on the quality of the reports presented by the consulting firm.

C. Project Implementation

- 4.7 Implementation will take place in two phases. In phase I, corresponding to component 1, 2 and 3 of the project. This phase will involve the first 18 months of the timetable, the detailed planning stage of the work plan will be prepared (stage 1), after which work will begin on developing the CGE model as such; this will culminate in its calibration and linkage to household surveys through micro simulation exercises. The component two of market chain analysis will be implemented for eleven months of the timetable. The chain analysis will identify different bottlenecks. The first three activities of component three will start implementation before component two ends, resulting in a parallel execution of both components for about four months, and will result in a database of alternative solutions to the different bottle necks.
- 4.8 In phase II, technology transfer and training activities will take place, with concentrated periods to hold programmed events (courses, seminars and workshops).

D. Execution Period and disbursement schedule

TABLE 2: Execution timetable

Phases	Months																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	PHASE I												PHASE II											
Preliminary Work Plan		+																						
1. Component 1: A regionalized simulation model of the Peruvian economy																								
a Develop a regionalized social accounting matrix for Peru					+																			
b Develop the regionalized CGE model for the Sierra of Peru								T,S	+															
c Link the CGE model to household surveys-microsimulations										+														
2. Component 2: Market chain analysis of the activities and products																								
a Review of previous work on market chains																								
b Identifying and prioritizing promising commodity investments																								
c Implementing market chains and identification of the main bottlenecks													+											
3. Component 3: Database of alternative solutions to bottlenecks																								
a Review of existing best practices																								
b Identify existing pilots that could solve some of the identified bottlenecks																								
c Evaluate possible public investment decisions																								
d Design pilots that can be implemented																								
e Develop proposal for the implementation of the pilots																	+							
f Develop a Tool box of alternative solutions																					T,S	+		
4. Component 4: Preparation of a plan for the implementation in three regions in the country																								
a Institutional capacity building of the regional and local governments																				T	T	T	T	T,S
b Institutional capacity building of the Ministries involved																				T	T	T	T,S	T
5. Final Report																								PF

Delivery of products: (+) interim (PF) final

The activities to be carried out in each component of the project are described below. The execution period is 24 months and the disbursement period is 30 months.

4.9 Component 1: A regionalized simulation model of the Peruvian economy

- Develop a regionalized social accounting matrix for Peru
- Develop the regionalized CGE model for the Sierra of Peru
- Link the CGE model to household surveys through micro simulations or representative household methods.

4.10 Component 2: Market chain analysis of the activities and products with potential comparative advantage

- Review of previous work on development domains carried out in Peru. – Various agencies in Peru have identified and designed development strategies for various areas known generally as “corredores economicos or microcorredores.” For a sample of these microcorredores, the study will review the programs that have been applied, make an evaluation, and draw conclusions from these experiences. At the same time the Project will attempt to complete the mapping of the different microregions for the entire Sierra and Selva using the household surveys and mapping techniques developed by IFPRI.

- b. Identifying and prioritizing promising commodity investments. This will imply two major activities:
 - i. Assessment of the potential and actual activities in each of the microregions using community and household level surveys, local technical experts and simulation results from the regional CGE model.
 - ii. Identification through household and community surveys of the investments and other actions necessary to help private sector agents, including farmers, realize the benefits from activities identified as being potentially profitable.
- c. Identification of the main bottlenecks within the market chains for priority commodities caused by market and government failures.
 - i. Identify and document already known bottlenecks that in general affect the regions under study.
 - ii. Develop 12 to 15 market chain analyses in selected micro-regions. This will include household and community surveys.
 - iii. In each of the market chain analysis the consultancy will identify strengths and weaknesses in: markets and institutions, infrastructure (capital intensive infrastructure, post-harvest technologies) production constraints, and quality and reliability issues.

4.11 Component 3: Database of alternative solutions for the different types of microregions

- a. Review of existing best practices both local and in other countries to identify a menu of possible solutions that can be implemented
- b. Identify existing pilots that could solve some of the identified bottlenecks over which the project can intervene and implement an appropriate design and impact evaluation methodology.
- c. Evaluate possible public investment decisions proposed as solutions to bottlenecks.
- d. Design pilots that can be implemented to implement and evaluate alternative cost effective solutions to the different bottlenecks identified. The design will include a detailed impact evaluation component to identify the weakness and strengths in each of the pilot studies so that later on they can be recommended to be replicated in similar micro regions facing similar problems.
- e. Develop proposal for the implementation of the pilots
- f. Develop a toolbox of alternative solutions based in the best practices identified and the pilots that could be implemented. The toolbox of remedies for the bottlenecks will be specific for the different types of microregions.

- 4.12 Component 4: Preparation of a plan for the implementation of the relevant solutions found in component three in three specific regions in the country

At the level of the community

- a. Review the development plans of the communities in which the market chain analysis were carried out.
- b. Involve local governments and communities in decisions about what, where and how to invest based on the results of the market chain analysis. This will imply community workshops in which results are explained and presented.
- c. Support local government and communities in implementing through their development plans the proposed the kinds of development options or livelihood strategies proposed for each of the different microregions.
- d. Each development plan will include specific investment projects following the requirements of the Ministry of Finance and of the specific potential funding institutions.
- e. Design and transfer to local policy makers through our capacity building program a methodology to evaluate the impact of the recommended projects. This will allow the scaling up of the solutions to regions that face similar problems based on the design typology of microregions.

At the central government level

- f. Transfer the regional CGE model to both: Ministry of Agriculture and Ministry of Finance. This will give the Ministry a tool to evaluate the regional impacts of the different proposed investment projects.
- g. Collaborate with the Ministry of Finance in linking the Tool box of alternative solutions for bottlenecks to the investment programming matrix for rural areas of the Ministry of Finance.
- h. Linking the regional development plans and the specific investment projects with the investment-programming matrix of the Ministry of Finance.

E. Procurement – Disbursement Schedule

- 4.13 The consultant firm will be paid according to the following schedule and conditions:
- a. 20% against contract signing.
 - b. 25% upon delivery of preliminary work plan, product 1. (a) and 1 (b) of this terms of reference (see products in the execution timetable).
 - c. 25% upon delivery of product 1 (c), .2 (c), 3 (d) and 3(e) of this TOR.

- d. 20% upon delivery of product 3(f) and workshops reports under activity 4(a) and 4(b) of this TOR.
- e. 10% upon delivery and acceptance by the Bank of final report of product 4(a) and 4(b) and final report of project.

V. MONITORING AND EVALUATION

A. Monitoring

- 5.1 Monitoring and evaluation activities will be carried out throughout the project, integrated into the technology transfer and training activities. Workshops and/or working seminars are expected to be held at the end of each stage. Interim products will be analyzed and discussed by MEF professional staff, together with a variety of experts from the consultative and support and cooperation groups.

B. Progress reports

TABLE 3: Progress Reports*

Deliverables	Month
Preliminary work plan	2
Component 1: A regionalized simulation model of the Peruvian economy	
a) Regionalized social accounting matrix for Peru.	5
b) Regionalized CGE model for Peru.	9
c) Report on regional development strategy using outputs (a) and (b).	10
Component 2: Market chain analysis of the activities and products	
a) Review of previous work on market chains.	
b) Identifying and prioritizing promising commodity investments.	
c) Report on market chains and identification of the main bottlenecks.	12
Component 3: Database of alternative solutions to bottlenecks	
a) Review of existing best practices.	
b) Identify existing pilots that could solve some of the identified bottlenecks.	
c) Evaluate possible public investments decisions.	
d) Design pilots that can be implemented.	
e) Proposals for the implementation of the pilots.	18
f) Tool box of alternative solutions.	19
Component 4: Preparation of a plan for the implementation in 3 regions in the country	
a) Institutional capacity building of the regional and local governments.	24
b) Institutional capacity building of the Ministries involved.	24
Final Project Report	24

* IFPRI is expected to prepare 7 interim reports and one final product following this schedule.

C. Description of proposed evaluations

- 5.2 Monitoring and evaluation activities will be carried out throughout the project. Workshops and/or working seminars will be held at the conclusion of each phase of the project. Interim reports will be evaluated by outside experts as well as Bank staff and GOP officials. Three important objective indicators of success for this project will be i) the number of specific pilot projects designed and, if funding is found,

implemented; ii) the involvement of local communities and governments in the implementation of the project in three microregions; and iii) capacity building in local or regional governments to implement pilots and projects.

VI. PROGRAM BENEFITS AND RISKS

A. Program benefits and developmental impact

- 6.1 This TC will support the Bank's strategy of rural poverty reduction in Peru and the efforts of the GOP to reduce poverty in the Sierra by developing for the GOP a toolbox of solutions" designed to address the different bottlenecks faced by the different "types" of microregions" in that area. This tool box will be transferred to each of the regional and local governments, to be incorporated in their strategies for rural development. In addition, this toolbox will be used for the designing and preparation of investment projects in three regions of the Sierra. This strategy will be designed in collaboration with MEF, the Ministry of Agriculture, and the regional and local governments. Finally, capacity building of local institutions will be implemented. This will result in the prioritization of strategies and developing regional rural development plans based on the results identified in the projects. These regional plans will include concrete investment projects and will be done in collaboration with the regional and local governments and the MEF in such a way that the investment projects are in accordance with the national system of public investment.
- 6.2 Another important contribution of the TC is that it will provide the technical and information framework to start the preparation of a potential operation in the rural sector in the Sierra. This new operation will probably use the new approach called Sector Wide Approach Program (SWAP). On different Bank missions the Government of Peru has mentioned their interest in designing an operation in the rural sector of the Sierra coordinating the efforts of the several international organizations involved in the development of the rural sector. The SWAP and this TC can help in providing a long-term strategy in the rural sector and harmonize the agendas of the donor community.

B. Program Beneficiaries

- 6.3 The beneficiaries of this project will be first and foremost the rural poor in the Sierra since the main objective of the project is to increase the value of what they can produce in either farm or non-farm activity. Local governments, regional offices of the GOP and the Bank will also benefit from the information base, potential solutions and pilot project results developed by the project. These should be an important input to the Bank and the GOP in designing future operations to reduce rural poverty in the area.

C. Program Risks

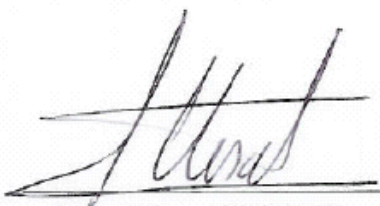
- 6.4 In addition to the unavoidable technical risks involved in a project of this sort, there are political risks. There will be a change of government in 2006, and the new government may be uninterested in the objective of rural poverty reduction in the Sierra. While this may be true, the information base produced by the project will be of great and lasting value to any future government that decides to address the problem of severe rural poverty in Peru.

VII. ENVIRONMENTAL AND SOCIAL REVIEW

- 7.1 The operation was reviewed by CESI on September 23, 2005, and it was agreed that no negative social or environmental impacts are foreseen from it. It was also agreed that the operation is a study without direct investments that could endanger the environment or the communities. It will generate positive impacts by the involvement on the communities in the prioritization and design of the proposed solutions for each region. Furthermore, component four – “Preparation of 3 regional rural development plans” has a specific subcomponent on local capacity strengthening for local government and civil society organizations. At this step there will be ample consultation with local civil society organizations. Later on, the preparation of specific investment projects will be in accordance with the requirements of the financial institutions and the SNIP.
- 7.2 To insure that the foreseen positive impacts occur, CESI has recommended that the ToRs for hiring the consulting firm be strengthened in the Market Chain Analysis & Preparation of Region Rural Development Plans components in terms of the environmental variable for the first and local population consultation process in the second. Furthermore, when addressing the “Tipología de Microregiones de la Sierra” the operation will give special attention to gender issues and that women are included in the consultation process.

VIII. RECOMMENDATION

- 8.1 Alvaro Llosa, Chief of the RE3/EN3 Division, recommends approval of this operation and the use of up to US\$600.000 (Six hundred thousand dollars) drawn from the Japan Special Fund (JSF).



Alvaro Llosa, RE3/EN3

23-11-05

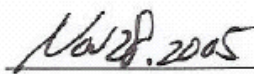
Date

IX. CERTIFICATION

- 9.1 The undersigned hereby certifies that there are sufficient resources available in the Japan Special Fund (JSF), to provide funding up to US\$600,000 (Six hundred thousand dollars) for the activities described and budgeted for in this document. The commitment and disbursement of funds corresponding to this certification, will cover remuneration and payments to consultants, other than local consultants working in their own country, who will receive their remuneration and contracted payments in the currency of that country. No JSF resources will be made available to cover amounts exceeding those officially assigned for implementation of this Operations Plan. Amounts in excess of those authorized may arise from commitments established in contracts denominated in a currency other than that of the Fund, and may result in exchange-rate differences in currency conversion, for which the Fund accepts no responsibility whatsoever.



Goro Matsuura, RE2/FSS



Date

**DEVELOPMENT OF THE RURAL ECONOMY IN THE SIERRA OF PERU
(PE-T1012)**

ANNEX I - TERMS OF REFERENCE FOR CONSULTING FIRM

I. BACKGROUND

- 1.1 The stubborn persistence of rural poverty in the Sierra and Selva is one of Peru's most pressing social, political and economic problems. The country made some progress in poverty reduction in the 1990s, but virtually all of that took place before 1997 and was concentrated in urban areas and on the coast. In 2002 over half the Peruvian population was poor and almost one-fourth was in extreme poverty. This poverty problem is concentrated in the rural areas of the Sierra and Selva where 57% and 43% respectively of their populations are living in extreme poverty and 81% and 71% in poverty altogether.
- 1.2 This would not be so serious a problem for the country as a whole if the population in these areas were small. But it isn't. The rural Sierra and Selva contain 30% of the population of the country, which is why their rural sectors contain 68% of the extreme poverty and 43% of total poverty in the country as a whole. These figures imply a very serious problem of malnutrition, particularly in children. In 1999, the Ministry of Education estimated that 48.5% of children in the Sierra suffered from chronic malnutrition. Not only does this directly affect the future human capital potential of these children, but the broadening of social inequalities are also psychosocial stressors and are related to the predominance of alcoholism and violence (domestic, criminal or even terrorism) in the affected households.
- 1.3 Unfortunately, in spite of the recovery in Peru since 2000, there is no sign that the rural poverty picture in the Sierra and Selva is improving. A recent paper (Escobal and Valdivia, 2004) estimated that rural poverty in the Sierra has risen from 72.5% (68.1% according to LSMS) in 1997 to 78.5% in 2002. Poverty in the rural Selva over the same time period has grown from 55.7% to 71.8%. It is to be expected that poverty would have increased between 1997 and 2000 when Peru was in recession. But what is striking is the difference in poverty trajectory between the Sierra and the urban sector, in particular Lima. Urban poverty is highly sensitive to the rate of economic growth. Poverty in the Sierra and Selva isn't.
- 1.4 This has two important implications. First the poor in the Sierra and the Selva are not well linked into the modern economy of the coast. Whatever it is that has generated growth in the past in Peru does not generate growth in income for the poor in those two areas. Second, and as a result of the lack of linkage, it is not reasonable to expect that Peru will be able to solve its rural poverty problem simply by generating a rapid rate of growth. If there ever was a case where growth does not trickle down to the poor, Peru is

it. Some sort of intervention or change in the growth strategy will be required to change this situation. This proposal lays out a framework for developing such a strategy.

- 1.5 Smallholder farmers within Peru differ significantly according to where they live, and the assets available to them, in particular, land, climate, education, water and transportation to local or regional markets. It is possible to identify small farmers who could be competitive in world markets, others who produce only for home consumption or the local urban market, and others who have access to off-farm activity and finally those who are marginalized even from their local economy. The key constraints that need to be addressed to enhance their development differ among these heterogeneous groups. Given such heterogeneity, it is unlikely that a “one-size-fits-all” development strategy will be successful in overcoming poverty in the Sierra and Selva regions; rather an approach reflecting this heterogeneity is needed.
- 1.6 In the first Phase of this Project, a typology of microregions of the Sierra is under development¹. This second Phase will build on this knowledge, with the final objective being the development of “A Framework for Rural Development and Poverty Reduction Strategies in Sierra of Peru”. This framework will imply:
 - a. Developing a "Peruvian regional tool box of solutions for the different bottlenecks faced by the different "types" of microregions in the Sierra of Peru". This toolbox will be linked to the public investment matrix so that new investment projects for rural development are consistent with the bottlenecks and the solutions identified. This toolbox will also be transferred to each of the regional and local governments so that it is incorporated in their strategies for rural development.
 - b. The toolbox will be linked to an strategy or road map for promoting the designing and preparation of investment projects to scale up the successful experiences validated through the pilots to microregions that face the same type of bottlenecks and which are part of the "Peruvian regional tool box of bottleneck solutions"². This strategy will be designed in collaboration with MEF, Ministry of Agriculture and the regional and local governments. As part of developing the strategy, emphasis will be given to capacity building in local and regional governments to implement the road map.

¹ This phase is being financed with administrative funds from IFPRI. It consists of collecting geo-referenced data for geographic areas at the most disaggregated scale possible in Peru. This data will consist of indicators on geography, poverty and inequality, regional ethnic characteristics, production, access to infrastructure (roads, electricity, telephone and water for irrigation), access to markets, nearness to regional urban centers, off farm employment opportunities, population density, and presence of institutions. This information is analyzed using factor and cluster analysis techniques to develop a typology of rural areas and rural households. We will then make a complete mapping of the Sierra into the typologies developed in the econometric analysis. This framework will therefore assure the potential scaling up of the results of the second phase within the similar typologies of microregions.

² Specifically it will provide the technical and information framework to start the preparation of investment plans for a potential operation in the rural sector. An alternative operation could be the new approach called Sector Wide Approach Program (SWAP). The SWAP can help in providing a long term strategy in the rural sector and harmonize the agendas of the donor community".

- c. Finally, this will result in the preparation of prioritized regional rural development plans based on the results identified in the projects. These regional plans will include concrete investment projects and will be done in collaboration with the regional governments, local governments and the Ministry of Finance in such a way that the investment projects are in accordance with the national system of public investment.

II. OBJECTIVES AND DESCRIPTION

A. Objectives

- 2.1 The main objective is to support the GOP in the development and implementation of a strategy for rural poverty reduction in the Sierra of Peru. To accomplish this the project will first develop a knowledge base and instruments (toolbox) for prioritizing public and private investments taking into account the heterogeneity of the rural Sierra as well as its economic potential and the bottlenecks that impede increases in production. The second step to accomplish the objective will be the preparation of regional rural development plans, in which a series of specific investment projects will be prepared. This will be done through the development of four components:
 - a. A regionalized simulation model of the Peruvian economy.
 - b. Market chain analysis of activities and products with potential comparative advantage.
 - c. Database of alternative solutions for the different types of microregions.
 - d. Preparation of regional rural development plans for three specific regions.

B. Component description

1. A regionalized simulation model of the Peruvian economy

- 2.2 A regionalized model of the economy will be developed that can be used to simulate alternative development pathways under alternative assumptions about public and private investment and policy reforms in the Sierra. A critical component of the regionalized model that we will develop is the specification of household demand and the links between the rural sector and regional urban centers. It will be important to distinguish between products which are traded goods with a national market and other products and activities that are produced and consumed locally but not traded nationally. The working hypothesis is that this latter class of activities will be far larger in the Sierra than is the case for the coastal region because of the transportation barrier. This characteristic will increase the second-round effects of government spending in the region or any other stimulus to production particularly with respect to off-farm activity in regional urban centers.

2. Market chain analysis of activities and products with potential comparative advantage

- 2.3 A framework to identify the main bottlenecks for each type of microregion within a market chain analysis of the activities and products with potential comparative advantage, particular attention being paid to overcoming market and government failures.
- 2.4 This component consists of the systematic identification of the bottlenecks that arise in each of the different types of microregions and the design of strategies or experimental pilot solutions to overcome these bottlenecks. The work will concentrate on three major aspects: (i) identifying commodity investment and possible prioritization of commodities; (ii) identification of the main bottlenecks within the market chain generated by market and government failures; and (iii) evaluating possible public investment decisions proposed as solutions to bottlenecks.

3. Database of alternative solutions for the different types of microregions

- 2.5 A database of alternative solutions for these different types of microregions based on international best practices and proposals for pilot projects for suggested solutions where necessary ("Peruvian regional tool box of solutions for the different bottlenecks faced by the different "types" of microregions in the Sierra of Peru").
- 2.6 Having identified major bottlenecks for each type of micro regions in Component 2, this component will concentrate on an exhaustive review of existing best practices both local and in other countries to identify a menu of possible solutions that can be implemented as pilot projects. In the case best practices are not identified, pilot projects will be proposed where necessary. This effort will be demand-driven, and will involve close consultation with local policy makers, leaders of farmer organizations and technical assistance organizations, and other key stakeholders to identify options that are politically and socially feasible as well as economically advantageous.

4. Preparation of regional rural development plans for three specific regions

- 2.7 Preparation of regional rural development plans for 3 specific regions in the country. These plans will include specific investment projects; institutional capacity building of the regional and local governments and civil society organizations in the areas of the projects and monitoring and evaluation.
- 2.8 The implementation of the solutions developed for different microregions needs to ensure that investments come together in ways that: are appropriate to local conditions, that fit with the development strategies that make sense to local people, and that are implemented in specific investment plans. The challenge of Component 4 is to interface the inherent top-down decisions associated with many public investments with the bottom up interests of local people. This reconciliation depends fundamentally on three sequential factors:

- a. Involving local governments and communities in decisions about what to invest in, where and how. This should result in the prioritization of strategies and developing regional rural development plans based on the results identified in the projects.
- b. Building local capacities to include in these regional plans concrete investment projects in collaboration with the regional governments, local governments and the Ministry of Finance in such a way that the investment projects are in accordance with the SNIP.
- c. Including in these investment-plans a program for an impact evaluation methodology that will allow us to obtain credible and transparent estimates of the impacts of the proposed solutions to the bottlenecks identified. It will also increase the ability of local stakeholders to understand and use evaluation results to improve future performance.

III. METHODOLOGY

A. A regionalized simulation model of the Peruvian economy

- 3.1 This component will follow the methodology developed by IFPRI for regional and dynamic models (Lofgren and Robinson (1999) and Lofgren et.al (2001), Diao and A. Somwaru, (2001).
- 3.2 A critical step of the regionalized model that will be developed is the specification of household demand in the Sierra and the links between the rural sector and regional urban centers. It will be important to distinguish between products which are traded goods with a national market and other products and activities that are produced and consumed locally but not traded nationally.
- 3.3 IFPRI and GRADE in cooperation with the UNDP have already developed and applied a national CGE model for Peru (Segura and Carpio (2003) that, amongst other things, projects national and agricultural GDP growth, rural and urban per capita income growth, agricultural production and trade, food consumption and the incidence of poverty. The model will be regionalized using household surveys and other regional information so that it reflects regional differences in consumption behavior and it will contain a poverty simulation module. This model will be used to estimate the effects on output, employment and poverty at both the regional (Sierra) and national level of different sorts of exogenous shocks, including regional government spending, improvements in transportation and increases in farm or non-farm productivity.

B. Market chain analysis of activities and products with potential comparative advantage

- 3.4 In the first phase of this project (See paragraph 1.6) a classification or typologies of all the microregions in the Sierra was produced. For a sample of the microregions in each

of the typologies, a survey will be conducted to identify priority activities, bottlenecks, and economic potential and productive assets.

- 3.5 Identification of the main bottlenecks within the market chain generated by market and government failures Assessing the constraints to productivity growth and changes in livelihood activities is essential to identifying the interventions necessary to raise productivity of any of the key commodities or non-farm activities within each microregion. The consultancy will begin by considering bottlenecks in agriculture, reviewing and analyzing the set of agronomic and infrastructure constraints affecting the production of key commodities within each zone can do this. Naturally, the overriding set of constraints will differ both by and within each of the different types of microregions. Types of bottlenecks to analyze will potentially include: market and institutional (market information systems; policies; access to finance and credit); infrastructure (transportation costs and roads); quality issues (grades and standards, food safety); production constraints (natural resource degradation, conflicting rights to resources, land tenure insecurity, farmers' lack of information about or confidence in promising technologies, farmers' resource constraints) and post-harvest technologies (processing, storage, bulking).
- 3.6 Identifying commodities and activities to increase household income in each microregion. There are two components in the analysis. The first is to make an assessment of the potential and actual activities in each of the microregions using community and household level surveys, local technical experts and simulation results from the regional CGE model. The second step is to determine the investments and other actions necessary to help private sector agents, including farmers, realize the benefits from activities identified as being potentially profitable:
 - a. A commodity or activity approach to selecting investments makes sense for many trade and market oriented interventions and for many investments in technology development and dissemination. Even when more thematic lines of investment are to be considered, it is still useful to anticipate the potential value of additional commodities and activities that may result. To help narrow down the search to a set of commodities for priority investment, a sequence of both quantitative and qualitative criteria is used to answer the following broad sets of questions in a rough sequential order. Community and household surveys will be conducted to help answer the following questions:
 - i. Which commodities within agriculture (e.g. food and cash crops; livestock; dairy; tree crops, etc) have the most promising demand opportunities in domestic, regional, and international markets? Which non-agricultural activities have potential?
 - ii. What are the costs of producing and marketing the promising commodities, and what is their potential profitability relative to current commodities or activities?

- iii. Does the Sierra-Selva rural area have a comparative advantage in producing these promising commodities, and if so, in which microeconomic regions?
 - iv. Is there significant agronomic potential to increase production of these commodities?
 - v. Would increased production of these commodities have adverse environmental effects? What tradeoffs must be considered?
 - vi. Could the production of these commodities benefit the poor and malnourished? What tradeoffs are there between income enhancement and food security objectives for the poor and how can these be ameliorated?
 - vii. Are there significant non-farm activities, which could be exploited to increase the income of the poor? To what extent are such activities dependent upon agricultural development?
 - viii. Which are the off-farm activities that hold most potential for providing employment and income opportunities for the poor? How important is the distance of small holders from regional urban areas in determining the amount and the type of this off-farm activity?
- b. Assessing the potential to profitably increase agricultural production is an important criterion to identify where the opportunities are for raising productivity. A yield gap analysis assesses such potential. In particular, potential yield gains under improved management can be examined (e.g. adoption of improved varieties, natural resource management). Of course, technical potential is necessary but not sufficient to imply that economic potential exists to profitably increase productivity. For this, investigation of input and output market prices and the functioning of these markets will also be required.
- c. The issue of land use systems will be a key area for further examination. Spatial analysis tools will be used to identify areas where commodity production expansion could benefit many poor and malnourished people. For each of the commodity groups and microregions, examination of the potential effect on the incidence of poverty and malnutrition of land use changes will be estimated using econometric analysis of community and household surveys and microsimulation techniques described earlier. This analysis involves determining the incidence and the characteristics of poor and malnourished households in the various development zones and estimating the potential gains the poor and malnourished might achieve through participating in the production or marketing of select commodities. Impacts of changes in land use systems on natural resource degradation can also be predicted using available natural science models (such as the revised universal soil loss equation).
- d. Poverty and hunger profiles—assessing key household characteristics of poor or malnourished households—can be developed to identify potentially vulnerable

groups. Through poverty mapping methods, spatial analysis can be used to identify areas where commodity production expansion could benefit many poor and malnourished people.

- 3.7 With respect to the environmental variable, during the market chains analysis, the consulting firm will look to environmental constraints and how they may limit production of potentially profitable commodities. Specifically, land degradation resulting from production on steeply sloping areas of the Sierra, declining use of fallow and limited application of inorganic or organic sources of soil nutrients, loss of vegetative cover due to practices of slash and burn in the Selva forest margins and other practices undermine the ability to increase production. Degradation of watersheds resulting from these problems can undermine the returns to investments in irrigation and water systems by causing problems of sedimentation and flooding. Contributing to these problems are problems of competing property rights to land and water in common lands and insecurity of land tenure. Most small farmers in the Sierra lack access to adequate technical assistance concerning profitable and sustainable technologies and land management practices. Even when adequate information is available, farmers are often constrained by limitations of land, labor, capital or other requisites for productivity-enhancing investments. For example, investments in improved fallows and leguminous cover crops are often found to increase productivity substantially; yet small farmers often cannot afford to fallow a significant amount of land even for one cropping season. Intensive technologies such as use of manure, compost and mulch may be constrained by farmers' lack of access to labor or to such organic materials, especially if they do not own livestock. Technologies are needed that are suited to small farmers' resource constraints as well as being profitable and environmentally sustainable. The research will build upon the work of CIP and other partners to identify best-bet technologies to increase agricultural productivity and address land degradation in the selected microregions, linked to the commodities identified by the market chain analysis as having potential comparative advantage.

C. Database of alternative solutions for the different types of microregions

- 3.8 An exhaustive review of existing best practices both local and in other countries will be carried out to identify a menu of possible solutions that can be implemented. This effort will be demand-driven, and will involve close consultation with local policy makers, leaders of farmer organizations and technical assistance organizations, and other key stakeholders to identify options that are politically and socially feasible as well as economically advantageous. In this phase special consideration should be given to gender issues and to the inclusion of women in the consultation process.
- 3.9 Where best practices are not present, pilot projects will be implemented. Examples could include implementing strategies for diffusion of technology such as fertilizers or improved seeds; pilots to provide access to infrastructure such as rural telephones and electricity, or to design mechanisms to maintain rural roads; information centers to reduce market asymmetries; community banking experiences to mobilize saving and increase credit; strategies to improve water management; etc. In some cases the

solutions may be simple and therefore easily implemented, but in most of the cases they won't be simple and alternative experimental solutions need to be developed. In these cases proposals for these pilot studies will be developed and we will search for funding to carry out and evaluate those pilots³. This set of solutions will constitute a menu from which we can select the solution or the combination of solutions for each micro region that we believe need to be implemented in order to solve the major bottlenecks inhibiting microregion development.

- 3.10 Linked to this tool box the project will prepare a strategy or road map for promoting the designing and preparation of investment projects to scale up the successful experiences validated through the pilots to microregions that face the same type of bottlenecks and which are part of the "Peruvian regional tool box of bottleneck solutions". This strategy will be designed in collaboration with MEF, Ministry of Agriculture and the regional and local governments.
- 3.11 The activity approach to identifying investments outlined above may highlight some common bottlenecks that constrain a number of different production activities. For example, if lack of roads and weak marketing institutions constrain growth of one promising commodity in a region then they probably also constrain most other commodities grown in the same region as well as local manufacturing and other non-farm activities. Investments that release these constraints can therefore have a broader impact than just for the priority commodities or activities considered, and hence fall in the category of thematic investments. Some investments also enhance broader development options, including opportunities in the non-farm economy. These include investments in roads, education, health and rural finance. Analyzing these kinds of thematic investments requires a cross section econometric analysis of household surveys including complementary interaction effects.

D. Preparation of regional rural development plans for three specific regions

- 3.12 The approaches outlined above should help inform the selection, by development domain, of priority activity-oriented and thematic investments, and provide some assurance that if appropriately implemented, key strategic goals will be achieved at the national and regional levels. The challenge is to interface the inherent top-down decisions associated with many public investments with the bottom up interests of local

³ In the proposed pilot projects an impact evaluation framework will be implemented to validate the results obtained to allow for potential scaling up in similar regions. The intervention will be design based on random assignment to treatment and control groups from the potential population of beneficiaries is envisaged to allow us to construct an appropriate counterfactual by ensuring that, on average, those who are exposed to the program are no different than those who are not. This would allow us to avoid the selection problems that plague quasi-experimental studies, particularly important for looking at technology adoption since there are likely to be important unobservable differences between users and non-users. The randomization will take place at different levels according to each of the different interventions. Of course, the ability to pursue such a randomized design will require the active support of local policy makers and other key stakeholders for this approach. This will be build upon the involvement of these stakeholders in identifying and implementing the set of options to be tested, but will also require capacity building to increase the understanding of key stakeholders of issues affecting program evaluation and why a randomized design is desirable.

people. This reconciliation depends fundamentally on involving local governments and communities in decisions about what to invest in, where and how. But some a priori guidelines can also be obtained for planning purposes by analyzing the kinds of development options or livelihood strategies that are available to communities located in different microregions. Therefore this research will utilize results of community focus groups and community and household surveys, as well as drawing upon technical research being conducted in the study regions. In organizing the community focus groups and consultations, the consulting firm will make sure that gender issues are considered and that a representative and balanced group of women is included in the consultation process. With this objective the project will carry out activities on capacity building to regional and local government to help them in the implementation of the strategy or road map for the prioritization of investment within their regional rural development plans based on the results identified in the projects.

3.13 Capacity strengthening activities will be implemented in three sequential steps:

- a. Strategies to involve local governments and communities in decisions about what to invest in, where and how.
- b. Develop local capacities to implement regional plans with concrete investment projects in accordance to the requirements of the financial institutions and the SNIP.
- c. Capacity building in impact evaluation of the impacts of the proposed investment plans⁴.

3.14 In each of these three sequential steps we will follow seven steps: (i) Assessment of training needs; (ii) Development of capacity strengthening plans; (iii) Development of training materials (modules); (iv) Training of trainers; (v) Production and delivery of training materials; (vi) Implementation of training activities by regional and national trainers; (vii) Identify clear outputs as a result of the training. For example: development of concrete investment projects.

⁴ A monitoring and evaluation framework is key to a needed learning process in development strategy. It serves to assess progress against stated goals, and also to help identify weaknesses and strengths in past approaches and hence what might be improved in the future. For these purposes, the selection of indicators has to be linked to the analytical framework used in the strategizing process. This is particularly critical for providing a basis for analyzing cause and effect relationships, and for identifying *why* goal indicators (such as poverty) changed the way they did, how much of the change was due to plan interventions, and what could be done better in the future.

IV. ACTIVITIES

A. A regionalized simulation model of the Peruvian economy

4.1 Activities for this component include:

- a. Develop a regionalized social accounting matrix for Peru.
- b. Develop the regionalized CGE model for the Sierra of Peru.
- c. Link the CGE model to household surveys through micro simulations or representative household methods.

B. Market chain analysis of activities and products with potential comparative advantage

4.2 Activities for this component include:

- a. Review of previous work on development domains carried out in Peru. – Various agencies in Peru have identified and designed development strategies for various areas known generally as “corredores economicos or microcorredores.” For a sample of these microcorredores, the study will review the programs that have been applied, make an evaluation, and draw conclusions from these experiences. At the same time the Project will attempt to complete the mapping of the different microregions for the entire Sierra and Selva using the household surveys and mapping techniques developed by IFPRI.
- b. Identifying and prioritizing promising commodity investments. This will imply two major activities:
 - i. Assessment of the potential and actual activities in each of the microregions using community and household level surveys, local technical experts and simulation results from the regional CGE model.
 - ii. Identification through household and community surveys of the investments and other actions necessary to help private sector agents, including farmers, realize the benefits from activities identified as being potentially profitable.
- c. Identification of the main bottlenecks within the market chains for priority commodities caused by market and government failures;
 - i. Identify and document already known bottlenecks that in general affect the regions under study.
 - ii. Develop 12 to 15 market chain analyses in selected micro-regions. This will include household and community surveys.

- iii. In each of the market chain analysis the consultancy will identify strengths and weaknesses in: markets and institutions, infrastructure (capital intensive infrastructure, post-harvest technologies) production constraints, and quality and reliability issues.

C. Database of alternative solutions for the different types of microregions

4.3 Activities for this component include:

- a. Review of existing best practices both local and in other countries to identify a menu of possible solutions that can be implemented.
- b. Identify existing pilots that could solve some of the identified bottlenecks over which the project can intervene and implement an appropriate design and impact evaluation methodology.
- c. Evaluate possible public investment decisions proposed as solutions to bottlenecks.
- d. Design pilots that can be implemented to implement and evaluate alternative cost effective solutions to the different bottlenecks identified. The design will include a detailed impact evaluation component to identify the weakness and strengths in each of the pilot studies so that later on they can be recommended to be replicated in similar micro regions facing similar problems.
- e. Develop proposal for the implementation of the pilots.
- f. Develop a Toolbox of alternative solution based in the best practices identified and the pilots that could be implemented. The toolbox of remedies for the bottlenecks will be specific for the different types of microregions.

D. Preparation of regional rural development plans for three specific regions

4.4 Activities for this component at the level of the community include:

- a. Review the development plans of the communities in which the market chain analysis was carried out.
- b. Involve local governments and communities in decisions about what, where and how to invest based on the results of the market chain analysis. This will imply community workshops in which results are explained and presented.
- c. Support local government and communities in implementing through their development plans the proposed the kinds of development options or livelihood strategies proposed for each of the different microregions.

- d. Each development plan will include specific investment projects following the requirements of the Ministry of Finance and of the specific potential funding institutions..
 - e. Design and transfer to local policy makers through our capacity building program a methodology to evaluate the impact of the recommended projects. This will allow the scaling up of the solutions to regions that face similar problems based on the design typology of microregions.
- 4.5 Activities for this component at the central government level include:
- a. Transfer the regional CGE model to both: Ministry of Agriculture and Ministry of Finance. This will give the Ministry a tool to evaluate the regional impacts of the different proposed investment projects.
 - b. Collaborate with the Ministry of Finance in linking the Tool box of alternative solutions for bottlenecks to the investment programming matrix for rural areas of the Ministry of Finance.
 - c. Linking the regional development plans and the specific investment projects with the investment-programming matrix of the Ministry of Finance.

V. QUALIFICATIONS

- 5.1 Type of consultancy: international consulting firm.
- 5.2 Starting date and duration: The project will be carried out over a 24-month period during 2006 and 2007. Level of effort: 2480 person days of professional technical assistance.
- 5.3 Place of work: Principally in Peru and Washington DC.
- 5.4 Qualifications: All consultants must be fluent in reading, writing, speaking and understanding the Spanish language.
- a. Project Director is required to have an advanced university degree in economics (preferably Ph.D. in agriculture economics or similar field) with at least 15 years of international experience working in rural development research and projects.
 - b. Senior Economist is required to have an advanced university degree in economics, development economics or agricultural economics with at least 15 years of professional experience in rural development in Latin America.

- c. Economist is required to have a university degree in economics, rural development or related field with at least 10 years professional experience in rural development projects or research projects.
- d. Rural Development specialist is required to provide guidance and advise in the development of the typology of the microregions with an advanced university degree (preferably PhD) in economics, development economics or related field. The candidate should have at least 10 years professional experience in rural development economics in developing countries.
- e. Local Team is required to gather, run and analyze the data for identifying the micro-regions in the Sierra and Selva. The team will be composed by professionals with advanced university degrees and research assistants with university degrees in economics or related field.

VI. OUTPUTS

- 6.2 All reports must be in English and Spanish. The results will be widely disseminated through the following activities:
 - a. National Working Groups will be formed composed of policymakers at the national and local level, academicians and researchers, private sector, and farmer and producer groups.
 - b. Meetings of the National Working Groups will be convened.
 - c. Issue-oriented papers, briefs, and announcements will be prepared and debated within National Working Groups.
 - d. Workshops, seminars, and forums will be held, based on issues raised in the National Working Groups.
 - e. Project results will be published and disseminated through various media, including newspapers, magazines, newsletters, policy briefs an email listserv, and websites.

A. A regionalized simulation model of the Peruvian economy

- 6.2 A regional CGE model for the Sierra and Selva of Peru. This deliverable will include a manual for the use of the model as well as a document with the main results from the model including a estimates of the effects on output, employment and poverty at both the regional (Sierra and Selva) and national level of different sorts of exogenous shocks, including regional government spending, improvements in transportation and increases in farm or non-farm productivity. This report will be delivered at the end of the first year of the project.

B. Market chain analysis of activities and products with potential comparative advantage

6.3 Outputs for this component include:

- a. A report summarizing how the typology of microregions implemented in the first phase is being used in the second phase of the project. This report will be delivered after the first three months of the project.
- b. A review of previous work on development domains carried out in Peru. This report will be delivered after the first six months of the project.
- c. A document identifying and prioritizing promising commodity investments in each microregion identified in phase 1. This will be based on the information collected through community and household level surveys, local technical experts and simulation results from the regional CGE model. This report will be delivered at the end of the first year of the project.
- d. A document identifying bottlenecks at the level of the region and at the level of the microregion.
- e. First draft including only the first 6 to 8 market chain analysis will be delivered at the end of the first year.
- f. Final report including all the microregions analyzed will be delivered on the 15th month of the project.

C. Database of alternative solutions for the different types of microregions

6.4 Outputs for this component include:

- a. A report analyzing the complementary policy interventions that are likely to eliminate the main bottlenecks that limit current growth prospects in a sample of the different microregions;
 - i. First draft including only the first 6 to 8 market chain analysis will be delivered at the end of the first year.
 - ii. Final report including all the microregions analyzed will be delivered on the 18th month of the project.
- b. A toolbox of best practices related to the typology of microregions. This will be delivered on the 20th month of the project.
- c. A sequenced and prioritized strategy plan or road map to address these bottlenecks provide recommendation of the mix of policy interventions that eliminate their particular bottlenecks, which will include a clear role of public and private sectors,

and investment estimates for each intervention. This report will be delivered in the 20th month of the project.

1. Preparation of regional rural development plans for three specific regions

6.5 Outputs for this component include:

- a. A manual of capacity building for local governments. This manual will include an impact evaluation module and also a guide on how to implement the market chain analysis to identify bottlenecks. This will be delivered on month 22 of the project.
- b. A document explaining the ways to link the prioritized plan to address bottlenecks and the mix of recommended policy interventions with the investment-programming matrix for rural areas of the Ministry of Finance. This will be delivered on month 23 of the project.
- c. In addition during the project several workshops and brainstorming workshops with major stakeholders will be carried out.
- d. Development plans for 3 regions of the Sierra of Peru with their specific investment projects.

VII. SCHEDULE OF PAYMENTS

7.1 The consultant firm will be paid according to the following schedule and conditions:

- a. 20% against contract signing.
- b. 25% upon delivery of product 6.1(a) and 6.1(b) of this TOR.
- c. 25% upon delivery of product 6.1(c), 6.1(d), 6.1(e.i) and 6.1(f.i) of this TOR.
- d. 20% upon delivery of product 6.1(e.ii), 6.1(f.ii), and 6.1(g) of this TOR.
- e. 10% upon delivery and acceptance by the Bank of product 6.1(h) of this TOR.

VIII. SUPERVISION/COORDINATION

8.1 The consultant firm will be answerable to the Bank's project team leader and will work in close collaboration with the government-appointed staff.

Development of the Rural Economy in the Sierra of Peru (PE-T1012)

Annex II - Logical Framework

OBJECTIVES	VERIFICABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS AND RISKS
The main objective is to support the GOP in the development and implementation of a strategy for rural poverty reduction in the Sierra of Peru.	<ul style="list-style-type: none"> Transfer of CGE and toolbox to Ministry of Finance Use of tool box by regional and local governments Involvement of local communities and governments in the implementation of the project in three microregions 	<ul style="list-style-type: none"> Transfer the regional CGE model to both: Ministry of Agriculture and Ministry of Finance by month 13th of the project. Use of the Ministry of Finance of the toolbox of alternative solutions for bottlenecks to the investment-programming matrix for rural areas. This should be accomplished by month 23 of the project. Linking the regional development plans and the specific investment projects with the investment-programming matrix of the Ministry of Finance. This should be accomplished by month 24th of the project. 	<ul style="list-style-type: none"> Technical risks in the implementation of the project. There are political risks because of the change of government in 2006, which could change the priorities of the government. There is also a financial risk if funding is not obtained for the identified pilots.
REASON			
Support the Bank's strategy of rural poverty reduction in Peru and the efforts of the GOP to reduce poverty in the Sierra by developing for the GOP a tool box of solutions" designed to address the different bottlenecks faced by the different "types" of microregions" in that area.	<ul style="list-style-type: none"> The number of specific pilot projects designed and funded. Implementation of the Toolbox. Agreements of three microregions for the involvement of local communities and governments in the implementation of the project in three selected microregions. Number of Capacity building workshops and seminars at the Central, local and regional governments to implement pilots and projects. 	<ul style="list-style-type: none"> Proposals of 4 pilot projects by month 16th, and at least 4 additional proposals by month 19th. Success in at least funding 4 of the proposed pilots by month 24th of the project. At least 10 solutions implemented in the toolbox. This includes solutions from best practices of from implemented pilot projects. Agreements with three microregions to collaborate with the project in the design of their regional plans by month 24th of the project. 10 capacity building workshops and 2 seminars with major stakeholders will be delivered by month 24th of the project. 	<ul style="list-style-type: none"> There is a financial risk on obtaining the funding to implement the pilot projects. There is a political risk if local and regional governments will be receptive to proposed strategy of development.
LOGICAL FRAMEWORK TO FOLLOW EACH OF THE COMPONENTS			
COMPONENTS			
A regionalized simulation model of the Peruvian economy	<ul style="list-style-type: none"> A regionalized social accounting matrix for Peru A regionalized CGE model for the Sierra of Peru 	<ul style="list-style-type: none"> Regionalized social accounting matrix for Peru to be ready by month 6th of the project. Regionalized CGE model for Peru to be ready by month 9th of the project. 	

OBJECTIVES	VERIFICABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS AND RISKS
	<ul style="list-style-type: none"> Link the CGE model to household surveys through micro simulations or representative household methods. 	<ul style="list-style-type: none"> Report on CGE model developed by month 10th of the project. 	
Market chain analysis of the activities and products with potential comparative advantage	<ul style="list-style-type: none"> Inventory of previous work on development domains carried out in Peru. GIS map at the level of microregion identifying the prioritized commodities in each microregion. 12 to 15 market chain analyses in selected micro-regions. This will include household and community surveys. Inventory of main bottlenecks identified within the market chains caused by market and government failures. 	<ul style="list-style-type: none"> Document with a detail review of previous work on market chains. This will be done by month 4th of the project but will be part of the report on market chains to be delivered on month 12 of the project. Document detailing methodology and results obtained in the identification & prioritization of promising commodity investments. This will be part of the report on market chains to be delivered on month 12 of the project. Report on market chains and identification of the main bottlenecks for the Sierra of Peru. This will be delivered on month 12 of the project. 	<ul style="list-style-type: none"> There is a technical risk if the assumption that bottlenecks identified for each type of microregion will also exist on other microregions of the similar type.
Database of alternative solutions for the different types of microregions	<ul style="list-style-type: none"> Inventory of existing best practices both local and in other countries to identify a menu of possible solutions that can be implemented Inventory of existing pilots that could solve some of the identified bottlenecks over which the project can intervene and implement an appropriate design and impact evaluation methodology. Designed pilots that can be implemented to implement and evaluate alternative cost effective solutions to the different bottlenecks identified. Tool box of alternative solutions based in the best practices identified and the pilots that could be implemented. The tool box of remedies for the bottlenecks will be specific for the different types of microregions. 	<ul style="list-style-type: none"> Report detailing the review of existing best practices. This activity will be finished by month 10 and will be part of the final report to be delivered in month 24 of the project. Report detailing the existing pilots that could solve some of the identified bottlenecks. This activity will be finished by month 11th of the project. Report of Impact evaluation framework by month 22nd of the project. Number of proposal of pilots to be implemented. First 4 proposals will be presented by month 16th of the project and a minimum of 4 additional proposals by month 19th. Number of pilots implemented by month 24th of the project. Number of solutions to bottlenecks by microregion included in the Toolbox. This toolbox will be delivered by month 22 of the project. 	<ul style="list-style-type: none"> There is a financial risk if funding is not obtained for the identified pilots. There is a risk of not being able to access to existing pilots to join efforts with institutions in charge. There is a technical risk that practitioners in charge of implementing the pilots won't accept to implement an impact evaluation framework.

OBJECTIVES	VERIFICABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS AND RISKS
Preparation of a plan for the implementation of the relevant solutions found in component three in three specific regions in the country	<p><u>At the level of the community</u></p> <ul style="list-style-type: none"> Development plans for the three selected regions that incorporate in their development the proposed development options or livelihood strategies identified in the toolbox. Investment projects proposed following the requirements of the Ministry of Finance and the identified bottlenecks. Use in the investment projects of the transferred impact evaluation framework <p><u>At the central government level</u></p> <ul style="list-style-type: none"> Operative regional CGE model at the Ministry of Agriculture and Ministry of Finance. Operative Tool box of alternative solutions for bottlenecks linked to the investment programming matrix for rural areas of the Ministry of Finance. 	<ul style="list-style-type: none"> A manual of capacity building for local governments. This manual will include an impact evaluation module and also a guide on how to implement the market chain analysis to identify bottlenecks. The manual will be produced and delivered through a series of workshops by month 23 of the project. A document explaining the ways to link the prioritized plan to address bottlenecks and the mix of recommended policy interventions with the investment-programming matrix for rural areas of the Ministry of Finance. This will be delivered by month 23 of the project. 10 workshops and 2 seminars with major stakeholders will be delivered by month 24th of the project. 	<ul style="list-style-type: none"> There is a political risk because of the change of government in 2006 which could change the priorities of the government. There is also a political risk because of the change in regional presidents. There is a political risk that the three selected regional governments won't agree to implement the proposed framework in their design of their regional plans.

**Development of the Rural Economy in the Sierra of Peru
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PE-T1012 - Annex III

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Annex III - Detailed Budget

Category/Item	Cost
Consultants¹	\$541,990.00
Coordinator/Economist	\$28,420.00
Economist	\$68,160.00
Modeling	\$19,970.00
Rural Development Specialist	\$90,000.00
Local Development Specialist	\$15,000.00
National Specialists (2)	\$160,000.00
Pos Doctoral Researcher (2) (DC Level)	\$55,440.00
Research Assistant (2) @ Local Level	\$105,000.00
Travel	\$84,000.00
International flights; (14 to Lima @ US\$1,000)	\$14,000.00
Field Travel (20 trips to the interior/5 persons each)	\$40,000.00
Per Diem in Lima (200 days @ US\$150)	\$30,000.00
Field Survey	\$220,000.00
Field work (Survey in Microregions)	\$200,000.00
Field materials and equipment	\$20,000.00
Other Direct Costs	\$54,010.00
Publications / Communications	\$16,500.00
Service Center/Supplies/Material	\$37,510.00
Contingencies	0,000
TOTAL	\$900,000.00
1/ Daily rates are calculated at US\$500/day for international consultants and US\$ 280/day for national consultants.	

Proposal Budget							
Title of Proposal:							
Contract Amount:							
Activity 1							
Cost Categories	Unit			IDB	IFPRI	TOTAL	
	IDB	IFPRI	US\$/Hour				
Labor (w / overhead)	Hours						
<i>On-Site (D.C.) Staff:</i>							
Maximo Torero	IDB	200	\$71.00	\$14,200.00	\$7,100.00	\$21,300.00	
John Pender	IDB	100	\$98.00	\$9,800.00	\$4,900.00	\$14,700.00	
Post Doctoral Researcher	IDB	300	\$42.00	\$12,600.00	\$6,300.00	\$18,900.00	
Total Labor				\$36,600.00	\$18,300.00	\$54,900.00	
Field Costs	Months			\$47,000.00	\$0.00	\$47,000.00	
- Collaborator Fees							
International Consultant (Sam Morley)		1	\$10,000.00	\$10,000.00	\$0.00	\$10,000.00	
Country Team (2 persons)		4	\$7,000.00	\$28,000.00	\$0.00	\$28,000.00	
Research Assistant (2 persons)		6	\$1,500.00	\$9,000.00	\$0.00	\$9,000.00	
Travel				\$12,000.00	\$0.00	\$12,000.00	
- Airfare (3 trips for 3 researchers)		3	\$1,000.00	\$3,000.00	\$0.00	\$3,000.00	
- Per Diem (20 days each for 3 researchers)		60	\$150.00	\$9,000.00	\$0.00	\$9,000.00	
- Other							
External Publication				\$0.00	\$4,000.00	\$4,000.00	
Communication / Postage				\$0.00	\$1,000.00	\$1,000.00	
Service Centers Charges	Hours		US\$/Hour	\$0.00	\$11,970.00	\$11,970.00	
- Computer Services		900	\$4.20	\$0.00	\$3,780.00	\$3,780.00	
- Library		900	\$2.10	\$0.00	\$1,890.00	\$1,890.00	
- Facility Services		900	\$7.00	\$0.00	\$6,300.00	\$6,300.00	
Total Direct Costs				\$95,600.00	\$35,270.00	\$130,870.00	
Indirect Costs							
Contingencies				\$4,400.00	\$14,730.00	\$14,730.00	
Total Project Costs				\$100,000.00	\$50,000.00	\$150,000.00	

Proposal Budget							
Title of Proposal:							
Contract Amount:							
		TOTAL Phase #2					
Cost Categories		Unit			IDB	IFPRI	TOTAL
		IDB	IFPRI				
Labor (w / overhead)		Hours		US\$/Hour			
On-Site (D.C.) Staff:							
Maximo Torero	IDB	960	0	\$71.00	\$68,160.00	\$0.00	\$68,160.00
John Pender	IDB	290	0	\$98.00	\$28,420.00	\$0.00	\$28,420.00
Xinshen Diao	IDB	280	0	\$71.32	\$19,970.12	\$0.00	\$19,970.12
Post Doctoral R	IDB	1320	0	\$42.00	\$55,440.00	\$0.00	\$55,440.00
Total Labor					\$171,990.12	\$0.00	\$171,990.12
Field Costs		Months			\$330,000.00	\$40,000.00	\$370,000.00
- Collaborator Fees							
International Consultant (Sam M		9	0	\$10,000.00	\$90,000.00	\$0.00	\$90,000.00
International Consultant (Local		1	0	\$15,000.00	\$15,000.00	\$0.00	\$15,000.00
National Consultant (2 persons)		24	8	\$5,000.00	\$120,000.00	\$40,000.00	\$160,000.00
Research Assistant (2 persons)		70	0	\$1,500.00	\$105,000.00	\$0.00	\$105,000.00
Travel					\$44,000.00	\$40,000.00	\$84,000.00
- International							
Airfare (# trips for 2 researchers		14	0	\$1,000.00	\$14,000.00	\$0.00	\$14,000.00
Per Diem (# of days)		200	0	\$150.00	\$30,000.00	\$0.00	\$30,000.00
- In country							
Field Travelling for Surveys (Te		0	20	\$2,000.00	\$0.00	\$40,000.00	\$40,000.00
Field Survey					\$0.00	\$220,000.00	\$220,000.00
- Field Work (# of surveys in microregions)		0	20	\$10,000.00	\$0.00	\$200,000.00	\$200,000.00
- Field Materials (1 set per survey/# of survey)		0	20	\$1,000.00	\$0.00	\$20,000.00	\$20,000.00
External Publication					\$11,000.00	\$0.00	\$11,000.00
Communication / Postage					\$5,500.00	\$0.00	\$5,500.00
Service Centers Charges		Hours		US\$/Hour	\$37,520.00	\$0.00	\$37,520.00
- Computer Services		2800	0	\$4.20	\$11,760.00	\$0.00	\$11,760.00
- Library		2800	0	\$2.20	\$6,160.00	\$0.00	\$6,160.00
- Facility Services		2800	0	\$7.00	\$19,600.00	\$0.00	\$19,600.00
Total Direct Costs					\$600,010.12	\$300,000.00	\$900,010.12
Indirect Costs					\$89,101.50	\$0.00	\$89,101.50
Contingencies					\$0.00	\$0.00	\$0.00
Total Project Costs					\$689,111.62	\$300,000.00	\$989,111.62

Proposal Budget									
Title of Proposal: Contract Amount:				Component #1					
Cost Categories				Unit			IDB	IFPRI	TOTAL
				IDB	IFPRI				
				Hours		US\$/Hour			
Labor (w / overhead)									
On-Site (D.C.) Staff:									
	Maximo Torero	IDB	0	0	\$71.00	\$0.00	\$0.00	\$0.00	
	John Pender	IDB	0	0	\$98.00	\$0.00	\$0.00	\$0.00	
	Xinshen Diao	IDB	280	0	\$71.32	\$19,970.12	\$0.00	\$19,970.12	
	Post Doctoral Researcher	IDB	240	0	\$42.00	\$10,080.00	\$0.00	\$10,080.00	
Total Labor							\$30,050.12	\$0.00	\$30,050.12
Field Costs				Months			\$60,000.00	\$0.00	\$60,000.00
- Collaborator Fees									
	International Consultant (Sam Morley)		2	0	\$10,000.00	\$20,000.00	\$0.00	\$20,000.00	
	International Consultant		1	0	\$15,000.00	\$15,000.00	\$0.00	\$15,000.00	
	National Consultant (2 persons)		2	0	\$5,000.00	\$10,000.00	\$0.00	\$10,000.00	
	Research Assistant (2 persons)		10	0	\$1,500.00	\$15,000.00	\$0.00	\$15,000.00	
Travel							\$9,500.00	\$0.00	\$9,500.00
- International									
	Airfare (# of trips for 2 researchers)		2	0	\$1,000.00	\$2,000.00	\$0.00	\$2,000.00	
	Per Diem (# days for 2 researchers)		50	0	\$150.00	\$7,500.00	\$0.00	\$7,500.00	
- In country									
	Field Travelling for Surveys (Teams)		0	0	\$2,000.00	\$0.00	\$0.00	\$0.00	
Field Survey							\$0.00	\$0.00	\$0.00
- Field Work (# of surveys in microregions)				0	0	\$15,000.00	\$0.00	\$0.00	\$0.00
- Field Materials (1 set per survey/# of surveys)				0	0	\$1,000.00	\$0.00	\$0.00	\$0.00
External Publication							\$1,000.00	\$0.00	\$1,000.00
Communication / Postage							\$0.00	\$0.00	\$0.00
Service Centers Charges				Hours		US\$/Hour	\$6,700.00	\$0.00	\$6,700.00
	- Computer Services		500	0	\$4.20	\$2,100.00	\$0.00	\$2,100.00	
	- Library		500	0	\$2.20	\$1,100.00	\$0.00	\$1,100.00	
	- Facility Services		500	0	\$7.00	\$3,500.00	\$0.00	\$3,500.00	
Total Direct Costs							\$107,250.12	\$0.00	\$107,250.12
Indirect Costs							\$15,926.64	\$0.00	\$15,926.64
Contingencies							\$0.00	\$0.00	\$0.00
Total Project Costs							\$123,176.76	\$0.00	\$123,176.76

Proposal Budget		Componente # 2					
Title of Proposal:							
Contract Amount:							
Cost Categories		Unit			IDB	IFPRI	TOTAL
		IDB	IFPRI				
Labor (w / overhead)		Hours		US\$/Hour			
<i>On-Site (D.C.) Staff:</i>							
Maximo Torero	IDB	530	0	\$71.00	\$37,630.00	\$0.00	\$37,630.00
John Pender	IDB	150	0	\$98.00	\$14,700.00	\$0.00	\$14,700.00
Xinshen Diao	IDB	0	0	\$71.32	\$0.00	\$0.00	\$0.00
Post Doctoral Researcher	IDB	500	0	\$42.00	\$21,000.00	\$0.00	\$21,000.00
Total Labor					\$73,330.00	\$0.00	\$73,330.00
Field Costs		Months			\$167,000.00	\$0.00	\$167,000.00
- Collaborator Fees							
International Consultant (Sam Morley)		3	0	\$10,000.00	\$30,000.00	\$0.00	\$30,000.00
International Consultant		0	0	\$15,000.00	\$0.00	\$0.00	\$0.00
National Consultant (2 persons)		16	0	\$5,000.00	\$80,000.00	\$0.00	\$80,000.00
Research Assistant (2 persons)		38	0	\$1,500.00	\$57,000.00	\$0.00	\$57,000.00
Travel					\$18,000.00	\$40,000.00	\$58,000.00
- International							
Airfare (# of trips for 2 researchers)		6	0	\$1,000.00	\$6,000.00	\$0.00	\$6,000.00
Per Diem (# days for 2 researchers)		80	0	\$150.00	\$12,000.00	\$0.00	\$12,000.00
- In country							
Field Travelling for Surveys (Teams)		0	20	\$2,000.00	\$0.00	\$40,000.00	\$40,000.00
Field Survey					\$0.00	\$220,000.00	\$220,000.00
- Field Work (# of surveys in microregions)		0	20	\$10,000.00	\$0.00	\$200,000.00	\$200,000.00
- Field Materials (1 set per survey/# of surveys)		0	20	\$1,000.00	\$0.00	\$20,000.00	\$20,000.00
External Publication					\$0.00	\$0.00	\$0.00
Communication / Postage					\$1,500.00	\$0.00	\$1,500.00
Service Centers Charges		Hours		US\$/Hour	\$16,080.00	\$0.00	\$16,080.00
- Computer Services		1200	0	\$4.20	\$5,040.00	\$0.00	\$5,040.00
- Library		1200	0	\$2.20	\$2,640.00	\$0.00	\$2,640.00
- Facility Services		1200	0	\$7.00	\$8,400.00	\$0.00	\$8,400.00
Total Direct Costs					\$275,910.00	\$260,000.00	\$535,910.00
Indirect Costs					\$40,972.64	\$0.00	\$40,972.64
Contingencies					\$0.00	\$0.00	\$0.00
Total Project Costs					\$316,882.64	\$260,000.00	\$576,882.64

Proposal Budget		Component # 3					
Title of Proposal:							
Contract Amount:							
Cost Categories		Unit			IDB	IFPRI	TOTAL
		IDB	IFPRI				
Labor (w / overhead)		Hours		US\$/Hour			
<i>On-Site (D.C.) Staff:</i>							
Maximo Torero	IDB	290	0	\$71.00	\$20,590.00	\$0.00	\$20,590.00
John Pender	IDB	140	0	\$98.00	\$13,720.00	\$0.00	\$13,720.00
Xinshen Diao	IDB	0	0	\$71.32	\$0.00	\$0.00	\$0.00
Post Doctoral Researcher	IDB	240	0	\$42.00	\$10,080.00	\$0.00	\$10,080.00
Total Labor					\$44,390.00	\$0.00	\$44,390.00
Field Costs		Months			\$49,000.00	\$0.00	\$49,000.00
- Collaborator Fees							
International Consultant (Sam Morley)		1		\$10,000.00	\$10,000.00	\$0.00	\$10,000.00
International Consultant		0		\$15,000.00	\$0.00	\$0.00	\$0.00
National Consultant (2 persons)		6		\$5,000.00	\$30,000.00	\$0.00	\$30,000.00
Research Assistant (2 persons)		6		\$1,500.00	\$9,000.00	\$0.00	\$9,000.00
Travel					\$5,000.00	\$0.00	\$5,000.00
- International							
Airfare (# of trips for 2 researchers)		2	0	\$1,000.00	\$2,000.00	\$0.00	\$2,000.00
Per Diem (# days for 2 researchers)		20	0	\$150.00	\$3,000.00	\$0.00	\$3,000.00
- In country							
Field Travelling for Surveys (Teams)		0	0	\$20,000.00	\$0.00	\$0.00	\$0.00
Field Survey					\$0.00	\$0.00	\$0.00
- Field Work (# of surveys in microregions)		0	0	\$15,000.00	\$0.00	\$0.00	\$0.00
- Field Materials (1 set per survey/# of surveys)		0	0	\$1,000.00	\$0.00	\$0.00	\$0.00
External Publication					\$0.00	\$0.00	\$0.00
Communication / Postage					\$1,500.00	\$0.00	\$1,500.00
Service Centers Charges		Hours		US\$/Hour	\$8,040.00	\$0.00	\$8,040.00
- Computer Services		600	0	\$4.20	\$2,520.00	\$0.00	\$2,520.00
- Library		600	0	\$2.20	\$1,320.00	\$0.00	\$1,320.00
- Facility Services		600	0	\$7.00	\$4,200.00	\$0.00	\$4,200.00
Total Direct Costs					\$107,930.00	\$0.00	\$107,930.00
Indirect Costs					\$16,027.61	\$0.00	\$16,027.61
Contingencies					\$0.00	\$0.00	\$0.00
Total Project Costs					\$123,957.61	\$0.00	\$123,957.61

Proposal Budget		Component # 4					
Title of Proposal:							
Contract Amount:							
Cost Categories		Unit			IDB	IFPRI	TOTAL
		IDB	IFPRI				
Labor (w / overhead)		Hours		US\$/Hour			
<i>On-Site (D.C.) Staff:</i>							
Maximo Torero	IDB	140	0	\$71.00	\$9,940.00	\$0.00	\$9,940.00
John Pender	IDB	0	0	\$98.00	\$0.00	\$0.00	\$0.00
Xinshen Diao	IDB	0	0	\$71.32	\$0.00	\$0.00	\$0.00
Post Doctoral Researcher	IDB	340	0	\$42.00	\$14,280.00	\$0.00	\$14,280.00
Total Labor					\$24,220.00	\$0.00	\$24,220.00
Field Costs		Months			\$54,000.00	\$40,000.00	\$94,000.00
- Collaborator Fees							
International Consultant (Sam Morley)		3	0	\$10,000.00	\$30,000.00	\$0.00	\$30,000.00
International Consultant		0	0	\$15,000.00	\$0.00	\$0.00	\$0.00
National Consultant (2 persons)		0	8	\$5,000.00	\$0.00	\$40,000.00	\$40,000.00
Research Assistant (2 persons)		16	0	\$1,500.00	\$24,000.00	\$0.00	\$24,000.00
Travel					\$11,500.00	\$0.00	\$11,500.00
- International							
Airfare (# of trips for 2 researchers)		4	0	\$1,000.00	\$4,000.00	\$0.00	\$4,000.00
Per Diem (# days for 2 researchers)		50	0	\$150.00	\$7,500.00	\$0.00	\$7,500.00
- In country							
Field Travelling for Surveys (Teams)		0	0	\$2,000.00	\$0.00	\$0.00	\$0.00
Field Survey					\$0.00	\$0.00	\$0.00
- Field Work (# of surveys in microregions)		0	0	\$15,000.00	\$0.00	\$0.00	\$0.00
- Field Materials (1 set per survey/# of surveys)		0	0	\$1,000.00	\$0.00	\$0.00	\$0.00
External Publication					\$10,000.00	\$0.00	\$10,000.00
Communication / Postage					\$2,500.00	\$0.00	\$2,500.00
Service Centers Charges		Hours		US\$/Hour	\$6,700.00	\$0.00	\$6,700.00
- Computer Services		500	0	\$4.20	\$2,100.00	\$0.00	\$2,100.00
- Library		500	0	\$2.20	\$1,100.00	\$0.00	\$1,100.00
- Facility Services		500	0	\$7.00	\$3,500.00	\$0.00	\$3,500.00
Total Direct Costs					\$108,920.00	\$40,000.00	\$148,920.00
Indirect Costs					\$16,174.62	\$0.00	\$16,174.62
Contingencies					\$0.00	\$0.00	\$0.00
Total Project Costs					\$125,094.62	\$40,000.00	\$165,094.62