

## Japan Special Fund (JSF) Project Profile

### I. Basic project data

<b>Beneficiary Country/ Region</b>	Peru/RE3	
<b>Project name:</b>	Studies for the Olmos Irrigation Project	
<b>Project number:</b>	PE-T1026	
<b>Project team:</b>	L. Victor Traverso, Team Leader (RE3/EN3); Arcile Brewster (COF/CPE), Geronimo Frigerio (LEG/OPR) Ricardo Vargas del Valle, Fernando Bretas, Geoffrey Cannock, Leonardo Corral, and Giovanna Mahfouz (RE3/EN3).	
<b>Executing agency:</b>	Ministry of Economics and Finance (MEF) through <i>ProInversión</i>	
<b>Beneficiaries:</b>	The community served by the Olmos Irrigation Project.	
<b>Date of request:</b>	October 27, 2005	
<b>Financing plan:</b>	IDB (JSF):	US\$1,280,000
	Local counterpart:	<u>US\$ 320,000</u>
	Total:	US\$1,600,000
<b>Tentative dates:</b>	Programming Committee:	February 2006
	Bank Approval	March 2006
<b>Execution period:</b>	18 months	
<b>Disbursement period:</b>	24 months	

### II. Background and problem statement

- 2.1 The Olmos Integrated Project works are located in the departments of Cajamarca and Lambayeque, approximately 850 km from Lima, in the extreme Northwest of Peru. The project involves the completion of a hydroelectric and irrigation complex to harness a 2,050 million m<sup>3</sup> volume of water that would be diverted towards the Pacific Ocean from the Huancabamba River and other rivers in the Amazon basin.
- 2.2 The Olmos Integrated Project is divided into three components: a) water diversion works, b) hydroelectric generation works, and c) irrigation water conveyance and distribution works.
- 2.3 In the early 20<sup>th</sup> Century, Peruvian technical specialists conceived the idea of diverting waters from the Amazon basin, and specifically the Huancabamba River, to irrigate the flat dry lands of the Olmos district, which is considered to have the most fertile soil on the Peruvian coast. Building on that idea, in 1924, Charles Sutton outlined the fundamental aspects of diverting water through a trans-Andean tunnel, for a multivalley irrigation project. In the 1940s and 1950s, the vision was expanded to include the project's hydroelectric potential, which led to preliminary feasibility studies performed between 1964 and 1966.
- 2.4 Those studies estimated the generation capacity of the Olmos hydroelectric and irrigation project to be 4,000 GWh, in addition to irrigating approximately 150,000

hectares of high quality lands that currently are underexploited because they are located in an area where water is always scarce.

- 2.5 To meet those objectives, the goal of the project's first stage is to build the infrastructure for storage and diversion of water, essentially by means of an impoundment and regulation reservoir in the Limón area, and building a 19.3 km trans-Andean tunnel. This storage and water diversion structure is currently under construction at a cost of approximately US\$242 million, through a concession, partially funded with the Andean Development Corporation (CAF) with two loans: to the concession holder and to the Government of Peru, in a total amount of US\$127 million. The second stage is the diversion of waters from other rivers (Chunchuca and Chotano).
- 2.6 For the first phase, in addition to the storage and water diversion works, the project includes the specific hydroelectric generation and irrigation works. The irrigation works has two phases, the first one are the storage and irrigation system to irrigate approximately 45,000 hectares of very fertile land with an approximately cost of US\$80 million. The second phase would provide the irrigation works for further land development. The proposed technical-cooperation project would fund the feasibility and private participation studies in component "c" for the construction, operation, maintenance, and management of the irrigation component of the Olmos project for the first stage and first phase. Furthermore, the technical-cooperation project will study: a) institutional aspects of water management and b) social inclusion and participation issues relating to farmers in the project area. The value added by the operation comes from designing an investment project that will increase the income of the beneficiary population, by increasing agribusiness production in the Olmos valley, an extremely arid area where the soil is extremely fertile but there is no irrigation system to farm the land.
- 2.7 In the context of fiscal restraint and the current economic environment that encourages private investment, the Government of Peru has formulated a new strategy for private participation in infrastructure projects through innovative schemes to attract private investment in new sectors. These new short- and medium-term private participation projects will be executed as public-private partnerships (PPPs). Furthermore, the Peruvian government has consulted with the community and affected regions, under a "Licencia Social" arrangement, which means that the community's favorable opinion and support is required for the projects. The Olmos Integrated Project and the Olmos irrigation "sub-project"—for the conveyance and distribution of water for irrigation—are part of this strategy and are innovative PPP projects, insofar as this would be the first irrigation and drainage project to be concessioned in Peru, establishing the basis and models for future operations. The programming mission report of April 2005 indicates that the government requested an ambitious program for water resources at a cost of approximately US\$800 million. In subsequent missions the government indicated that it was seeking integrated water resources management and therefore, the investment project that results from this technical cooperation should be an operation to be considered for Bank's financing (PE-L1014).

### III. Program objective and description

- 3.1 The purpose of the technical-cooperation project is to improve the quality of life for residents of valleys in the area of the Olmos project, by supplying water for irrigation in order to increase agricultural activity in the new lands covered by the Olmos project. It would also improve irrigation in areas already under cultivation in the Cascajal and Olmos valleys, which in turn will increase agricultural productivity and competitiveness, particularly of exports.
- 3.2 The components of the operation are: a) a **feasibility study** for the overall infrastructure for irrigation in order to determine the best option for creating a water impoundment, regulation, conveyance, and distribution system for irrigating the lands of the Olmos project. These studies would include the updating of pre feasibility studies, all geological, topographic and engineering studies, as well as the **socioeconomic evaluation**; b) **Integral Management Plan for the Olmos watershed or hydrologic region**, which includes the Cascajal, Olmos, Motupe, and La Leche basins en Lambayeque; c) **environmental studies including due diligence** and updates of existing environmental and social impact assessments performed in 1999 and 2000 to comply with the IDB's policies and procedures specially the involuntary resettlement, public disclosure of information, environmental and indigenous peoples policies (the last two are to be approved by the Board) and the preparation of an environmental impact assessment of the proposed irrigation system and the respective environmental and social management plan for the Olmos Integral Watershed Management Project ; d) **Public consultation** and awareness campaign to promote social stakeholder participation in the Project, including participation of the benefits; e) **Design and preparation of the institutional framework** for the integral management of the Olmos watershed or geographic region , in such a way that it provides for the long term sustainability of the Project. The new institutional framework will be thoroughly discussed and approved by the stakeholders; f) **lessons learned** – studies of local and international experiences with private agricultural investment, such that the development of the Olmos Integrated Project would benefit of those experiences. These lessons learned will be applied in the development of the whole project; and g) **private sector promotion through investment bank** to due diligence the studies and prepare the bidding documents for the public private partnership of the Olmos irrigation system and for the sale of lands newly reclaimed by the Olmos Project.

### IV. Cost and financing

- 4.1 The table of costs and funding is presented below:

**Table 1. Costs and Financing (US\$)**

<b>Component</b>	<b>JSF</b>	<b>Local</b>	<b>Cost in US\$</b>
1. Feasibility Study for concession of the irrigation infrastructure works	380,000	20,000	400,000
2. Integral Management Plan for the Olmos watershed or hydrologic region (Cascajal, Olmos, Motupe, and La Leche basins)	100,000	20,000	120,000
3. Due diligence and Updating of the environmental impact assessments and preparation of the environmental and social management plan	180,000	20,000	200,000
4. Public consultation and awareness campaign	70,000	10,000	80,000
5. Institutional framework for management of the basins within the Olmos project area	100,000	0	100,000
6. Investment Bank for due diligence and promotion	320,000	180,000	500,000
7. Studies of experiences with private agricultural investment in state assets.	50,000	50,000	100,000
8. Auditing, evaluation and contingencies	80,000	20,000	100,000
<b>Total Amount</b>	<b>1,280,000</b>	<b>320,000</b>	<b>1,600,000</b>

## **V. Executing agency and execution structure**

- 5.1 The executing agency will be the Ministry of Economy and Finance (MEF) through *ProInversión*. The local counterpart will be the responsibility of *ProInversión*. The authority responsible for establishing the policies of private participation in infrastructure and for the preparation, promotion, and awarding of projects with private participation, is *ProInversión*. In compliance with the Decentralization Law, the regional government of the Department of Lambayeque (GRL) and *ProInversión* signed an Interagency Cooperation Agreement, wherein the parties committed themselves to jointly organize and promote the process of awarding the concession for the Olmos project, within their respective jurisdictions. Once the pertinent analyses were performed, and with prior authorization by *ProInversión*'s board of directors, *ProInversión* added the private investment promotion plan, and has begun the process of designing the public bidding framework.
- 5.2 *ProInversión* will be responsible for overall administration, promotion of the program to its beneficiaries, and the program execution and oversight. *ProInversión* is a Peruvian government agency that has the authority to promote private participation projects. *ProInversión* is attached to the MEF, enjoys budgetary and administrative autonomy, and is governed by private law. As a condition precedent to the first disbursement, *ProInversión* will sign an agreement with the MEF, defining its obligations in implementing the operation. The members of *ProInversión*'s board of directors are eight sector ministers and the Minister of Economy and Finance, who chairs the board.
- 5.3 The executive agency's financial administration responsibilities are the following:  
a) keeping separate and specific bank accounts for handling Bank and local counterpart funds; b) submitting timely requests for disbursement and supporting

documentation justifying eligible expenditures; c) implementing and maintaining proper information systems for administration of the agreement, and administration of finances and internal controls for managing Bank and local counterpart funds, in accordance with Bank requirements; d) preparing and submitting program reports, including the Revolving Fund and progress reports, and submitting the program's financial statements, audited by a firm of independent public auditors, and e) maintaining a proper filing system for documentation supporting eligible expenditures, for verification by the Bank and the external auditors.

## **VI. Major issues**

- 6.1 The issues associated with this operation are that the benefits identified for the investment project could fail to materialize in time due to several factors. A major risk is the potential illegal settlers in the future irrigated lands. The Bank will discuss with the GOP the best measures to be undertaken to mitigate this risks. Components 2 and 4 will address this issue. A second risk is that the water diversion works, now under construction and partially funded by the CAF, may not be finished in time. These risks may derive from complementary funding by the national government and from technical problems encountered during construction of what is a technologically complicated structure. Construction is being done through a BOT-type concession contract. The technical viability of the Olmos project—Phase I Water Diversion Works—is undergirded by the concession contract with the *Consorcio Traspase Olmos S.A.*, which is made up of prominent international companies of recognized expertise in executing this type of project.
- 6.2 A third risk arises if a private builder/operator cannot be found for the public-private partnership to execute and operate the Olmos irrigation water conveyance and distribution project. Structuring this project with safeguards to improve the risk profile will be essential for a timely completion. The Bank will monitor the studies' findings closely to ensure that they point to the project's success.

## **VII. Action Plan**

- 7.1 The preliminary pre feasibility studies were prepared in 1979 and refined in 1981-1983, resulting in the outline of an irrigation and hydroelectric project conceived using criteria for intensive and maximal use of available water resources, which should be executed as a public works project. The present operation builds upon those studies and will seek private-sector participation in the project, through a PPP. Once the profile is approved, the detailed terms of reference and a detailed budget for procurement of consulting services will be prepared.