Camisea Project Benefits
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The Camisea Project provides Peru with a supply of natural gas, increases the country’s energy independence, and channels significant economic benefits directly to local communities. The IDB participated in Camisea to ensure adherence to the principles of sustainable development, with a specific objective to promote actions and initiatives that will create enhanced benefits for local populations and the environment. A summary of the significant benefits associated with the project is presented below.

The development of Camisea is a central component of the Peruvian government’s energy strategy, with the potential of producing $4.1 billion in energy cost savings in present value terms over a 30-year period. In developing a stable, low-cost source of energy, Camisea will provide direct benefits to the Peruvian population and increase the competitiveness of Peruvian industry. During the last four years, Camisea has had a direct effect on the electrical tariffs, allowing over $1.2 billion of savings. Air pollution in Lima will decrease over time by virtue of the conversion to the use of natural gas, the cleanest of the fossil fuels. The project is expected to add eight-tenths of a percent to Peru’s gross domestic product (GDP) for each year of the project’s life, improving Peruvians’ standard of living, adding to GDP growth and helping to alleviate poverty.

Additional economic benefits include improved trade balance, increased tax revenue, greater national income through the payment of royalties, new employment opportunities and long-term foreign direct investment. While Camisea’s economic impact will be experienced nationwide, the Department of Cuzco, where a portion of the Camisea Project is located, will realize additional benefits that will foster further economic development in this important tourist and historical area of Peru.

Overall Impact

The Camisea Project is providing benefits to local communities through its overall impact on the economy. The cumulative economic impact, at approximately $14.2 billion (NPV) is equivalent to 18 percent of Peru’s 2005 GDP. This includes:

- 30 percent reduction in marginal cost of energy generation resulting in $3.3 billion (NPV) in direct benefits to electricity end-users;
- Substitution of expensive fuels for natural gas by industrial users will generate $640 million (NPV) in savings
- Gas supplied to 2,595 residential & commercial customers, generating another $150 million (NPV) in savings
- Conversion of vehicle engines from gasoline fuel to CNG representing $30 million (NPV) in savings (3 CNG stations in Lima)
- Approximately $500 million per year reduction in hydrocarbon trade deficit representing approximately $3.2 billion (NPV)

Forecasts show the marginal cost of producing electricity with Camisea would be on average 30 percent lower than without Camisea over the concession period. Given the lower marginal cost of electricity generation and including the cost of transmission and
distribution, the estimated final prices for households should be reduced on average by 10 percent for the first ten years and on average by 6 percent over the concession period. The replacement of more expensive fuels like diesel and residual oil by natural gas is expected to reduce system-wide marginal generation costs, resulting in electric power generation savings of $3.3 billion over the concession period. Other estimated savings from the replacement of more expensive fuels by gas have been estimated to reach $642 million for industrial users, mainly in energy-intensive industries such as cement and steel. The conversion of vehicle engines from gasoline fuel to compressed natural gas may add another $30 million, and $91 million could be further saved by households. Overall, the present value of energy cost savings is estimated at $4.1 billion.

The project is also expected to create a multiplier effect across the Peruvian economy. Estimates indicate the development of the Camisea Project will increase output by approximately $5.4 billion in net present value terms during the operating phase. Furthermore, the development of Camisea, by reducing the need to import diesel for electricity generation and expanding the supply of hydrocarbon products for export, is expected to reduce the fuel trade deficit by almost $500 million on average each year, representing approximately $3.2 billion in present value terms, strengthening Peru’s balance of payments in the medium and long term.

Local Communities

There are two principal means of returning project benefits to local communities: (1) significant employment, economic growth and improved road infrastructure due to construction activities; and (2) specific local projects and activities implemented using financial resources associated with the allocation of royalty payments from the Upstream project.

The construction of the Camisea Project created significant employment, economic growth and improved road infrastructure. Related to TGP, the manpower contracted during the course of the construction reached 8,600 at peak construction, with a total of approximately 14,000 workers and 35 million man-hours expended. Of this total, in fulfillment of the project’s commitment to maximize the use Peruvian workers, approximately 90 percent were locally hired national employees. Approximately 82 percent of the Peruvians hired were from the five departments crossed by the pipeline. Total salaries and benefits paid by the EPC contractor amounted to approximately $60 million. Local goods and services purchased by the EPC were approximately $270 million. The total goods, services and salaries paid by TGP (other than via the EPC) have been approximately $69 million, of which approximately $3.2 million was for salaries and benefits.

Associated with Pluspetrol construction works in Block 88, more than 2,900 workers (of which 455 were from native communities) were hired and an additional 160 people were trained. A total of 22 native communities benefited from the local employment program. For the works in the Pisco area, 300 people were trained, and the project has employed more than 2,000 people, of whom approximately 50 percent were local workers.
According to the License Agreement established in 1999 between PeruPetro and a consortium of companies lead by Pluspetrol Peru Corporation for the exploration and development of gas in Block 88 (typically called the upstream component of the Camisea Gas Project), the private sector consortium is obligated to pay royalties to the Government of Peru equivalent to 37.24 percent of the upstream component gross revenues. This License Agreement establishes that 50 percent of the royalties are assigned to the municipalities and regional government of the Department of Cuzco, for use by the department, provinces and districts of Cuzco. As of March 2007, the Upstream Project has made royalty payments of approximately $542.9 million, and thus $296.2 million have been assigned to Cuzco. Estimated total payments for 2007 are approximately $220.4 million.

As part of its involvement, the IDB in 2002 and 2003 strongly encouraged the Government of Peru to improve the sharing of Camisea Project benefits with the local population in the direct and indirect area of influence of the project. In this context, the Government of Peru, working with the IDB and Peruvian civil society, designed a potential mechanism known as the Camisea Fund. The proposed fund would have used 3.5 percent of the royalties from the Upstream Component (Block 88) to finance specific environmental, social and economic development projects in the area of the Camisea Project and was to have been managed by an independent entity.

However, in December 2004, the Peruvian congress passed a law, referred to as FOCAM, which while returning project royalties to the project area did not meet all the objectives established in the draft Camisea Fund. On the positive side, FOCAM provides for revenue sharing of a portion of the royalties not only from the Upstream Block 88, but also future royalties from Block 56 (presently envisioned to provide natural gas to a proposed liquefied natural gas project, for export). Specifically, FOCAM requires that 13.25 percent of the total royalties from both Block 88 and 56 be directly distributed to local and regional governments in the area of influence of the Camisea project. Thus FOCAM will provide substantially more resources to local governments than had been proposed in the original Camisea Fund (e.g., approximately $17 million/year from Block 88 and approximately $40 million once both Blocks 88 and 56 are in operation). However, FOCAM does not provide for an independent entity to administer the fund, resources are available only to local governments and not other private or community organizations, and does not allow for financing productive projects or federal environmental protected areas created in association with the Camisea Project. (Financing of these protected areas was subsequently incorporated into the federal budget, however.)

Specific data on the transfers authorized and accredited under FOCAM (and gas royalties) to regional and local Governments can be accessed at the Ministry of Economy and Finance’s website for economic transparency [http://transparencia-economica.mef.gob.pe/](http://transparencia-economica.mef.gob.pe/). While some limited specific projects have been implemented, a significant number of projects are at various stages in the process for approval as part of the National Public Investment System (known as SNIP).
Both Cuzco and FOCAM resources are being facilitated by a series of actions including development of regional sustainable development plans, in a participatory manner, for the departments of Cuzco, Ayucucho and Huancavelica, and the province of La Convencion. These plans identify potential specific projects, and training has been provided to local government personnel. Additionally, training programs on public sector investments, the Peruvian budget and appropriation regulations have been implemented for local governments.

Other Benefits

A key environmental benefit will be the improvement of air quality in industrial centers of Lima and Callao through the reduction of air emissions generated by fuel combustion, such as carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxide (SO₂), hydrocarbons (HC), and carbon dioxide (CO₂) gases. The project is estimated to reduce significantly the level of air pollution in Lima and Callao, by making available natural gas (a clean, low-cost source of energy) as a substitute to present liquid fuel-based combustion sources in a number of industrial facilities and electricity generation plants. This could have direct economic benefits for residential and industrial electricity end-users and improve the competitiveness of Peruvian industry, raising Peru’s standard of living. In the medium to long term, it is envisaged that natural gas will be used to fuel public transportation, thus increasing the positive benefits in air quality.

Other significant direct benefits to local communities associated with the project, based on the IDB’s involvement, include:

- Implementation of vaccination programs (over 2300 persons) and development of additional, enhanced governmental health protection plan for indigenous communities in the Lower Urubamba
- Creation of increased protection for the Nahua-Kugapakori indigenous area (indigenous peoples living in voluntary isolation), which is the first and only time in Peru such enhanced legal protection has occurred, and subsequent development of protection plan.
- Creation of new protected areas in the rainforest area totaling approximately 925,000 hectares, including Otishi National Park, Ashaninka and Machiguenga Communal Reserves, and Megatoni Sanctuary and their respective management plans and financial resources to implement the plans.
- Implementation of various public and private sector initiatives to improve Paracas Bay, an important resource that has suffered from years of contamination and impacts from other sources. This includes development of a strategic plan and creation of specific organization to implement it, designation of significant resources (over $24 million) to properly manage the national marine park, monitoring programs and implementation of remedial projects.
- Land titling program for properties along the pipeline right-of-way (over 16,000 properties).
An important indirect benefit, though one not easily quantifiable, is the enhanced institutional capacity of local civil society organizations in terms of participation in large infrastructure projects. Similarly, while challenges still remain, the GOP’s institutional capacity to develop environmentally and socially sustainable oil and gas projects in Peru has unquestionably progressed relative to the point at which the IDB’s involvement in the project began.