

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PARAGUAY

SOCIAL ENTREPRENEURSHIP PROGRAM

**“COCONUT OIL-BASED RENEWABLE FUEL.
PILOT BIODIESEL PROJECT IN PARAGUAY”**

(PR-S1003)

FINANCING AND TECHNICAL COOPERATION PROPOSAL

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ABBREVIATIONS

CBC	Centro de Acopio para el Coco [coconut bulking center]
CESI	Committee on Environment and Social Impact
NGO	Nongovernmental organization

I. PROJECT OVERVIEW

A. Executing agency and beneficiary

Executing agency: Seltz S.A.
Beneficiary: Seltz S.A.

B. Amount and source of financing

DESCRIPTION	<u>IDB (US\$)</u>	<u>Local (US\$)</u>	<u>Total (US\$)</u>
Financing component	550,000	145,000	695,000
Technical cooperation component	<u>250,000</u>	<u>268,000</u>	<u>518,000</u>
Total	800,000	413,000	1,213,000

Resources will be drawn from the net income of the Fund for Special Operations.

C. Terms and conditions for the financing

Amortization period: 10 years
Grace period: 2 years
Interest rate: 3% real annual
Currency: United States dollars

- 1.1 The Bank's reimbursable financing of US\$550,000 will be executed over 36 months, and will have a disbursement period of 42 months. The technical cooperation via the Bank's nonreimbursable contribution of US\$250,000 will likewise be executed over 36 months, with a disbursement period of 42 months. Disbursements will be made by the Country Office in Paraguay.
- 1.2 The loan will bear interest in dollars at the rate of 3% per annum which, although low in comparison with that charged by the local financial system for long-term industrial projects (approximately 6%), is justified for the following reasons: (i) the project involves a great deal of work with poor segments of the population, such as those living in the rural areas of the Department of Misiones, and will therefore require a major effort by the executing agency to provide additional technical assistance and education beyond what is already called for under the technical cooperation included in this project; (ii) biodiesel fuel is still in the initial experimental and promotional stage, so that the executing agency will have to devote additional resources and efforts to awareness and marketing campaigns in order to ensure that the final product is well received; and (iii) since this project involves industrial production of a new product, there are likely to be unanticipated added costs in the startup stage which, again, will have to be assumed by the executing agency in order to move the project ahead.

D. Statement of nonobjection

- 1.3 Seltz S.A. has submitted a request for a reimbursable loan and technical cooperation funding under the Social Entrepreneurship Program. The Government of Paraguay issued its statement of nonobjection to the loan for this project pending final approval of same.

E. Problem to be addressed

- 1.4 The project seeks to aid the families of small rural producers in the Department of Misiones, which is estimated to have some one million Paraguayan coconut palm trees (*Acrocomia totai*, Mart.), called *mbokaja* in the Guaraní language. These rural families, which engage primarily in small-scale farming and hiring out individual members as laborers, earn very little income. A typical family has three hectares of cotton, yielding a net annual income of US\$80 per hectare, not counting labor. Most also have half a hectare of sugarcane which adds a further US\$120 to the family's annual income. Finally, the typical family has an additional seven hectares on which it rotates cattle grazing and agricultural crops for its own consumption, including beans and cassava as well as *mbokaja* coconut palm trees. Altogether, a campesino family living in Misiones can expect to earn approximately US\$850 per year, which is well below average per capita income for Paraguay.
- 1.5 Accordingly, coconut production offers good opportunities for boosting the income of these families through greater and more effective utilization of the coconut. The coconut palm is a member of the Palmaceae family which grows naturally and in abundance (with 50 to 200 or more trees per hectare) on the lands of small producers, alongside their other crops. Harvesting is a simple, low-cost process in that the farmer has only to collect the coconuts once they have ripened and fallen to the ground. At present there are no expenditures required for planting or purchasing seeds, nor for application of fertilizers or pesticides. The coconut palm has a useful life of 70 to 90 years during which it regularly produces between 12 and 25 kilograms per tree each year.
- 1.6 Despite the tree's abundant production and the opportunities it offers for expansion, small coconut producers face a number of characteristic problems. For example, **coconut productivity at the farmgate level is very low**. The small farmers of Misiones have on average two to seven hectares of coconut palms, with around 200 trees per hectare. Their stands are scattered and receive little in the way of maintenance, and coconut palms are often located on degraded or marginal land. Since they are seen as a "traditional" product of no great commercial value, little has been done to improve the coconut, or to investigate good cultivation practices to produce higher yields per tree.
- 1.7 In addition, **the small rural producers in Misiones are not well organized and lack the minimum necessary knowledge of management methods and administration**. The disjointed nature of the coconut marketing system has

prevented efforts to organize the production, collection and storage of product as a first step toward establishing linkages with industry and other buyers. This has the effect of keeping the price of coconuts at a very low level. Given their very small holdings, farmers are unable to offset high costs and low selling prices through economies of scale. Nor are there any sources of permanent off-farm employment.

- 1.8 Lastly, **there are no viable marketing outlets for coconut production.** The coconut marketing chain is very weak, with few distributors and low levels of technological sophistication. Apart from domestic use of coconut trees and their fruit, the producers in Misiones are occasionally able to supply a distant oil plant, which pays very low prices and the transport costs for which are on par with the cost of the raw materials. Although Paraguay currently has several initiatives aimed at identifying commercial uses for the country's abundant supply of coconuts, there is clearly a lack of familiarity with the technical aspects required for processing the raw materials to take great advantage of their industrial and commercial potential.
- 1.9 Added to the need for promoting more efficient use of coconuts is Paraguay's dependence on imported fuel. Not only does Paraguay import 100% of the oil it consumes (1.1 billion liters of diesel oil per year at a cost of some US\$300 million), but as a landlocked country it is forced to pay higher costs than its neighbors. Its lack of policies for promoting alternative fuels and ensuring better use of economic and natural resources means that the country will continue to be dependent on imported diesel oil. There are few specific examples of economic proposals for making use of alternative fuels that are at the same time accompanied by the necessary technical support for their adaptation.
- 1.10 **Beneficiaries.** For several years Pastoral Social [Pastoral Mission] of Misiones, in cooperation with community leaders and local farmers, and with technical advice from industry experts, have been studying the possibility of revitalizing coconut production with a view to industrial applications and commercialization. By mid-2004 their initiatives led to a formal proposal for incorporation of a company, Seltz S.A., to head a project in search of a commercially viable means of meeting local and regional needs in the areas of employment, agricultural production and generation of renewable fuel. The direct beneficiaries of this project are the 550 or so rural families in the Department of Misiones, who grow coconuts on farms located within the municipalities of San Miguel, San Juan Bautista, San Ignacio, Santa Rosa, San Patricio, Santa María and Ayolas. The families participating in the project have between five and six members each, with average annual family incomes of less than US\$850, which is less than half of Paraguay's minimum wage.
- 1.11 In addition to its direct beneficiaries, the project will provide economic and environmental benefits for the country as a whole. Like its neighbors, Argentina and Brazil, Paraguay is looking for real solutions to its energy supply problems in the form of sustainable sources of energy. The present pilot project for production of biodiesel is an effort in this direction, and one which incorporates and puts several sectors of society to work in solving a national problem.

II. THE PROJECT

A. Objectives

- 2.1 The general objective of the project is to help raise the standard of living and boost the incomes of producers of the Paraguayan coconut or *mbokaja* in Misiones by building a plant that will use vegetable oils—coconut oil in particular—as a base for producing biodiesel fuel. The secondary objective is to develop a model for producing fuel from renewable sources that can be replicated in other parts of the country, in order to provide economically and environmentally viable alternative fuel for use in Paraguay.
- 2.2 The specific objectives are: (i) to improve production and productivity levels of existing coconut plantations in order to make better use of soil and water resources, and provide farmers with new and improved production methods; and (ii) to promote the organization of coconut production at the departmental level in Misiones and strengthen the systems for collection and marketing of this product by establishing coconut bulking centers (CBCs).

B. Description

- 2.3 The project will provide funding for the startup of an industrial coconut oil and biodiesel plant, as well as development and formation of small producer coconut supply chains. The industrial plant will be run by a newly created company in which Seltz S.A. and the producers will hold shares. Because of its experience, Seltz S.A. will be responsible for management for the initial years. Given the small volume of production expected from the project initially, the first biodiesel product scheduled for marketing will be BIO2, which is a diesel fuel containing a 2% mixture of biodiesel that can be burned in existing diesel engines without requiring adaptation. Moreover, the technical specifications under which this biodiesel product is to be sold for the first few years will list it as an additive for use with normal diesel, thus avoiding the need to amend existing fuel regulations or draft new ones and, in effect, ensuring steady demand. It should be noted that the mixture of diesel and biodiesel fuel is not expected to have a preferential price, but rather to offer the public a cleaner and more environmentally friendly alternative—this will be the incentive for commercial users and individual consumers alike. Similarly, additional byproducts produced by the plant—such as expellers, shells, husks and glycerin—will be marketed locally in accordance with current standards and based on an analysis of demand as set out in detail in Annex III.
- 2.4 To achieve these objectives the project will have two components: a reimbursable loan in the amount of US\$695,000 (IDB: US\$550,000 and Seltz S.A.: US\$145,000), and nonreimbursable technical-cooperation funding of US\$513,000 (IDB: US\$250,000 and Seltz S.A.: US\$263,000)—both to be executed by Seltz S.A.

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- 2.5 The **reimbursable financing component** will be used for (i) construction of the physical plant and appurtenant works, and installation of the tanks and silos for storage of raw materials and processed products—total cost: US\$248,000 (IDB: US\$192,000; local counterpart: US\$56,000), part of which is for purchase of the site where the industrial plant will be built; (ii) procurement of the machinery and equipment necessary for operation of the plant—total cost: US\$208,000 (IDB: US\$208,000); and as (iii) working capital for collection and transporting coconuts, industrial processing and marketing of finished biodiesel products—total cost: US\$239,000 (IDB: US\$150,000; local counterpart: US\$89,000).
- 2.6 Seltz S.A. will provide all of the resources necessary for management of construction of the plant, including: (i) conducting the prefeasibility and the final feasibility studies; (ii) drawing up construction, electrical and engineering plans: submitting these to the municipal authorities and following up to ensure approval; (iii) submitting electrical interconnection plans to the Administración Nacional de Electricidad [National Electricity Administration] (ANDE); (iv) conducting an environmental impact assessment to obtain the required permit from the Ministry of the Environment (SEAM); and (v) directing and managing the works, including startup of the industrial plant and administration of all activities.
- 2.7 Seltz S.A. was selected to carry out the project because of the company's focus on the environment and its preservation as demonstrated in its operations and establishment of a foundation dedicated to the conservation of natural resources. In addition, the sound financial and technical capacity of the company and its foundation will enhance the execution mechanism.
- 2.8 The industrial plant is expected to be ready for operation in the second year of the execution period. The first year will be devoted to construction, technical assistance and work carried out at the farm level to organize coconut producers who will supply the bulking centers.
- 2.9 The **technical cooperation** will have the following subcomponents: (a) technical assistance at the farm level—total cost: US\$313,500 (IDB: US\$127,500; local counterpart: US\$186,000); (b) organization of coconut producers to supply bulking centers and marketing—total cost: US\$104,400 (IDB: US\$54,800; local counterpart: US\$49,600); (c) technical assistance for biodiesel industry—total cost: US\$18,000 (IDB: US\$18,000); and (d) administration and monitoring—total cost: US\$82,100 (IDB: US\$49,700; local counterpart: US\$32,400).
- 2.10 The principal activities under the technical cooperation component are designed to: (i) support efficient organization of 30 coconut producers committees in the Department of Misiones; (ii) create 10 coconut bulking centers (CBCs) to collect and store coconuts for processing in the biodiesel plant; (iii) provide business administration and management training for committee representatives and CBC managers; (iv) provide technical assistance to help producers increase planting density in their coconut stands, and improve collection methods for this product;

(v) grow and maintain 500,000 coconut palm seedlings as part of the densification process to be carried out on 550 hectares of coconut plantations (one hectare per beneficiary for the five years it takes to produce a new coconut tree); (vi) train 60 mechanics to promote and service diesel engines that operate on biodiesel alone, or on a mixture of biodiesel and diesel oil; and (vii) monitor and evaluate the project.

- 2.11 The funds contributed by Seltz S.A. under the technical cooperation component will cover, inter alia: (i) the costs for maintaining coconut seedlings in a nursery; (ii) part of the cost of growing seedlings; (iii) part of the cost for promotional and training workshops; (iv) part of the cost for organizing producers; and (v) part of the cost of hiring a technical coordinator.

C. Sustainability and results of the financial analysis

- 2.12 The sustainability of the project rests upon three fundamental factors: (1) At the level of individual coconut producers, the project will have a direct positive effect by improving the standard of living, raising productivity and ensuring a stable source of increased earnings. The end result will be a permanent increase in the incomes of the 550 families participating in the project. The formation of producers committees and the creation of a network of coconut bulking centers are designed to encourage participation by producers (See document 1 in the technical files). (2) Providing professional and technical management of the industrial plant by drawing on the experience of Seltz S.A. is another crucial factor for guaranteeing the viability of the operation during its startup phase, and ensuring growth and long-term success. Good management of all aspects of the plant—from handling inputs to managing its operations, supervising personnel and overseeing relations with suppliers and final sale of its products—is another key to the sustainability of the project. (3) Lastly, all of the parties involved in the project, including small producers, local leaders and civil society in the region, the company and Pastoral Social, have demonstrated their commitment by forming a commercial enterprise that will be responsible for managing the plant and marketing the biodiesel products. This enterprise will have as its principal shareholders the company Seltz S.A., Pastoral Social, the coconut producers, the NGO Alter Vida, and a fuel marketing firm, thus guaranteeing the long-term viability of the project (See details in Annex II.)

- 2.13 **Results of the financial analysis.** The financial feasibility of the project is based on the rate of return for coconut producers and the performance of the industrial plant. At present there are only some 200 farmers producing approximately 16,800 kilograms of coconuts per year, with each producer receiving US\$135 for a total of US\$27,000. With the project, it is expected that there will be 550 farmers able to sell their production at a farm gate price of US\$325 per year—thanks to rising prices and productivity gains—for a total of US\$179,000. In addition to this amount, close to US\$51,000 will be received in payments to the coconut bulking

centers and for transport to the industrial plant, giving a total of approximately US\$230,800 in earnings that will remain in the region as a result of the project.

- 2.14 Projections of earnings versus operating costs of the industrial plant show that the project will have an internal rate of return of 7.2% over a 15-year period, and an internal rate of return of 49% for shareholders beginning in the second year of the project, which is when construction of the plant is expected to be completed. Given the close relationship between the cost of oil and the prices of the fuel products produced in this project, an increase of 10% in the price of a barrel of oil would raise the project's rate of return to 9%. These profit levels are achieved with annual sales of US\$585,000 in the third year of the project: US\$316,000 from the sale of biodiesel fuels and the rest from byproducts. Meanwhile, total costs in the third year will be US\$505,000, and profits will reach US\$77,000. These projections are included in the financial statements of Seltz S.A., which are analyzed in Annex II.
- 2.15 **Financial risk to the Bank.** The Bank's financial risk is mitigated by the fact that the project will be led by a dependable Paraguayan firm which offers the following advantages: (i) Seltz S.A. has a record of sustained growth in sales and return on investment in its industrial sector; (ii) the company maintains a dominant position in the marketing of mineral and natural water distribution; (iii) its shares are held by highly respected investors and recognized professionals active in Paraguay; and (iv) it will retain its strong financial position even after taking on the indebtedness represented by this project.

D. Expected results and benefits

- 2.16 The project will produce the following results: **(1) For the producers:** (i) 550 producers will have the planting density of coconut plantations increased to 400 trees per hectare on one hectare per participating family (with 200 trees producing until the 5th year, and 400 trees in production from the 5th year onwards); (ii) average yield for 550 producers will increase from 12 kilograms to over 20 kilograms per tree; (iii) average annual incomes of the 550 producers will rise by US\$272 from the sale of coconuts; (iv) 30 coconut producers committees will be organized and registering sales of 8,000 tons of coconuts in the third year of the project; (v) 10 coconut bulking centers (CBCs) will be created in key areas of the municipios covered by the project; (vi) 60 biodiesel mechanics will receive training and begin providing services in the region; and (vii) access to training programs and technical assistance will be provided without discrimination as to gender. **(2) For the industrial plant:** (i) a biodiesel and coconut oil plant will be built and operating at 80% of capacity in the first year, and turning a profit at capacity of 2.2 m³ per day; (ii) annual sales by the plant will reach US\$350,000 beginning in the first year of operation; (iii) return on investment of 12% will be achieved beginning in the 4th year of operation by the plant; and (iv) a coconut bulking, storage and supply system will be purchasing coconuts worth US\$230,000 annually from the 550 participating families beginning the second year that the plant is in operation.

- 2.17 The project performance indicators show the expected results under the project (Annex I).

E. The Bank's strategy and the project

- 2.18 The Bank's country strategy with Paraguay makes reference to various key crosscutting elements, including economic revitalization and job creation within a sustainable development model based on agroindustry, among other sectors. The strategy also refers to the importance of supporting programs that combat poverty and generate employment. This project has as its primary beneficiaries small rural producers who are among the country's most vulnerable groups, and those most in need of increasing family incomes.

F. Summary of the environmental and social review

- 2.19 At its meeting of 18 March 2005, the Committee on Environment and Social Impact (CESI) reviewed this operation and made the following recommendations: (i) describe the treatment that effluents will undergo and include measures to reduce emissions, if necessary; (ii) clarify how occupational health and safety issues related to the construction and operation of the biodiesel plant will be dealt with; (iii) indicate the species of coconut and the nature of the production process to be used, and describe the environmental impact of the latter and the respective protective measures to be taken; (iv) explain what measures will be taken to avoid providing support for nonforestry or nonsustainable use of potential woodland areas during expansion of coconut plantations, which could otherwise be an indirect result of the present operation; and (v) clearly identify potentially adverse environmental effects that may result from the oil milling process, together with the corrective measures that will be taken to mitigate these effects. The actions taken in response to these observations are described in Annex VI, and presentation of evidence that they have been carried out has been added as a condition precedent to the first disbursement of the loan.
- 2.20 At its meeting on 6 May 2005, the CESI also recommended that an environmental analysis be carried out, followed by submission of an environmental and social management report, which has been prepared and is also presented in Annex VI. That report presents a summary of the context and background of the project, information concerning its environmental risks, and a plan for the prevention, mitigation, compensation and monitoring of key adverse social and environmental effects.

G. Special conditions

- 2.21 As a condition precedent to the first disbursement of US\$192,000 under the *reimbursable financing component*, Seltz S.A. must present to the satisfaction of the Bank: (i) evidence that it has obtained legal possession, easements and other property rights to the land and facilities where the biodiesel plant is to be built;

(ii) formal approval of the plant's construction plans by the municipality of San Ignacio, and evidence that it has obtained all of the licenses and (environmental) authorizations necessary to begin construction from the competent authorities in accordance with the laws of Paraguay; (iii) evidence of implementation of the recommendations in the environmental impact assessment requested by the Ministry of the Environment with regard to the construction of the industrial plant; (iv) evidence that the new company that will manage the biodiesel plant has been legally constituted in accordance with the pertinent Paraguayan legislation and is complying with the capital requirements, objectives and restriction on the sale of shares as indicated in Annex II; and (v) evidence that a professional with the required technical qualifications has been hired to manage the industrial plant, and will remain throughout project execution. Should this person need to be removed or replaced, his/her successor must have equal or better qualifications.

- 2.22 As a condition precedent to the second disbursement of US\$358,000 under the *reimbursable financing component*, Seltz S.A. must present to the satisfaction of the Bank: (i) evidence of the cash contribution by Seltz S.A. in the amount of US\$89,000; (ii) the contract for purchase of equipment for the plant; and (iii) a copy of the regulations governing the use of working capital.
- 2.23 As conditions precedent to the disbursement of resources under the *technical cooperation* component, Seltz S.A. must present to the satisfaction of the Bank: (i) the terms of reference of the consultants and advisers to be paid with technical cooperation resources during the first six months of the project; (ii) evidence that the project coordinator has been selected; and (iii) a project execution plan that includes annual targets for fulfilling the project's objectives and outcomes. The execution plan must include a timetable for attainment of the performance indicators established in the project, which will permit monitoring and supervision of the progress of the operation.
- 2.24 For disbursement of funds exceeding 60% of resources under the *technical cooperation* component, Seltz S.A. must present to the Bank evidence that the plant and CBCs have the necessary working capital and are operating with equipment and machinery for processing coconuts.

H. Reports, evaluations and audits

- 2.25 **Reports.** Seltz S.A. will submit *progress reports* to the Bank's Country Office within 60 days after the completion of each six-month period, with a final report to be presented within 60 days following completion of the period for the last disbursement. These reports will analyze the degree to which performance indicators have been met and the progress achieved in executing the work plan, including: (i) application and administration of the resources from the loan component, with emphasis on progress in construction of the biodiesel plant and utilization of working capital; (ii) information from the monitoring of indicators of

technical aspects and quality control in the industrial process; (iii) status of the training program for biodiesel mechanics, and technical assistance for coconut producers; (iv) report on the operation of the CBCs; (v) degree to which plans for organizing coconut producers committees and integrating CBCs have been carried out; (vi) the number of beneficiaries that have received technical assistance and participated in training; (vii) information on purchases and prices paid by the plant, and sales figures on its products; (viii) information on the monitoring of indicators of increased coconut planting density; (ix) information on the monitoring of indicators of efforts to protect the environment; and (x) a summary of the total contribution made by Seltz S.A. at the time of the report, in cash and in kind.

- 2.26 **Evaluations.** Using technical cooperation resources, the Bank will hire consultants to carry out a mid term and a final evaluation of the project. The consultants will be required to submit these two evaluations, respectively: within 24 months following the date on which the financing and technical cooperation agreement takes effect or the plant is placed in operation, whichever occurs first; and within 36 months after the date on which the financing and technical cooperation agreement takes effect or when 90% of the resources have been disbursed, whichever occurs first. The midterm evaluation of the project will measure: (i) the degree to which the objectives and project performance indicators have been met; (ii) the progress achieved in improving the incomes of coconut producers, in comparison with their initial income levels; (iii) the level of participation of beneficiaries; and (iv) lessons learned and recommendations for improving the project. In measuring each of these areas, consultants will take into account the indicators set out in the logical framework and the table of project performance indicators, as well as the progress reports. In addition, consultants will be expected to obtain baseline data on the beneficiaries in order to be able to measure the project's impact upon its completion.
- 2.27 The final evaluation report on the project will measure and document: (i) the level of participation by, and the impact of the project on, the groups investigated in the initial evaluation; (ii) the results obtained in fulfilling the project's objectives; and (iii) the lessons learned from the project.
- 2.28 **Audits.** Annual audits will be conducted on the loan component at 12, 24 and 36 months following the date on which the financing and technical cooperation agreement takes effect, using technical cooperation resources. In addition, Seltz S.A. will cover the cost of a final audit of the technical cooperation to be carried out upon completion of its execution period.

I. Risks

- 2.29 The most important risk is that there might be no demand for the biodiesel product being supplied to the market. While Seltz S.A. has set marketing targets for the project based on its prior experience, market studies, negotiations with potential buyers and conservative projections, there is the possibility that estimated demand

might fail to materialize. This risk will be mitigated by the project's strategy of enlisting as a partner in the new enterprise—responsible for administering the biodiesel plant—a national distributor of petroleum products (COPETROL) with a mandate for supplying new and “environmentally friendly” energy products. Moreover, Seltz S.A., will purchase 14% or more of the plant's production for use in its own transport fleet. Lastly, the type of biodiesel product to be marketed, BIO2 (for 2%), is easily mixed with regular diesel, with no need to modify engines for its use.

- 2.30 A second risk would be the effects of possible fluctuations in diesel prices, due either to a sharp drop in the price of crude oil, or to changes in the taxes levied on this fuel. The industrial plant's profitability is susceptible to a drop in the price of diesel fuel since the price charged for biodiesel will be the same as that for regular diesel. This risk is mitigated by the option of selling coconut oil through channels other than biodiesel. Bearing in mind that the selling price of coconut almond oil has remained at US\$599 per ton (free on board) in Paraguay for the last 30 years, and that this oil is a premium product in the fine coconut oil soap industry, with various plants in Paraguay and elsewhere, if—in the event of a drop in petroleum prices—the plant's raw material were sold for use in the production of almond oil instead of being processed into biodiesel fuel, and if at the same time the pulp oil (which represents 50% of coconut oil production) could be processed, then the internal rate of return of the plant would remain in positive figures allowing for repayment of the present loan even if petroleum prices were to fall to the virtually impossible level of US\$15/barrel or less.
- 2.31 A third risk is attributable to lack of experience producing biodiesel at the industrial level. In this connection, an ad hoc mutual interest technical group has been formed in the last two years to discuss and study the use of biodiesel fuel, with representatives from the recently created Biodiesel Chamber, engineers and experts, and business leaders from the chemical industry and the trade sector. The promoters of this project, as well as the executing agency itself, have been part of this group and have observed firsthand the operation of a pilot biodiesel plant in Asunción where they have had the opportunity to analyze the quality and volume of its production. The project also calls for hiring a manager with over 25 years of experience in the oil milling industry, along with other experts who will guarantee compliance with the technical aspects required for optimal biodiesel production.
- 2.32 The fourth risk has to do with the makeup of the new company that will be in charge of the production and marketing of the biodiesel fuel. As with all startups, the firm will have to go through difficult stages such as building confidence among the new shareholders, making business decisions, arranging agreements with producers and launching normal operations under the technical assumptions of the study. It is important in this case to note that the different parties involved have already been cooperating on this initiative for almost a year. The prefeasibility studies have been prepared, the parties have agreed on a possible site for the plant,

preliminary agreements have been reached with the producers, and a good level of cooperation has already been established.

J. Recognition of prior expenditures

- 2.33 The Bank may recognize expenditures of up to a total of US\$56,000 as part of the local counterpart contribution under the reimbursable financing component, provided they were incurred no more than 18 months before approval of the project. This recognition may include expenditures under the prefeasibility, feasibility, miscellaneous studies and production infrastructure headings, provided that they were made subject to requirements substantially similar to those established by the Bank in this area.

K. Exceptions to Bank policy

- 2.34 None.