

BUSINESS INTEGRATION PROGRAM

(TC-95-03-32-8-PR)

EXECUTIVE SUMMARY

EXECUTING AGENCY: Unión Industrial Paraguaya [Paraguayan Industrial Union] (UIP)

OBJECTIVES: The main objective of the program is to help build business links between small and large companies and promote the use of clean technologies. The program has two technical components for the direct support of small businesses, which will be strengthened individually or collectively through specialized training in productivity enhancement, technological development, loss minimization techniques, and strategic and marketing alliances; it also provides for institutional support to the UIP and the Bolsa de Subcontratación [Subcontracting Exchange] (SE) of Paraguay in terms of technical-managerial infrastructure for program execution.

BENEFITS: The business performance and competitive position of beneficiary companies are expected to improve. The program will help organize associations, strengthen the chain of production, promote inter-firm assistance, and encourage the use of clean technologies. It will also help strengthen the UIP and ES as tools to promote effective business integration and a cleaner environment.

FINANCING:	Modality: grant (Window III)	(US\$)	
		<u>MIF</u>	<u>Local counterpart</u>
	Business support:	780	320
	UIP and SE support:	420	200
	Total:	1,200	520

SPECIAL CONTRACTUAL CONDITIONS: As a condition precedent to the first disbursement an agreement must be reached on the selection and hire of the program manager (paragraph 3.8). The agreement must provide assurances of proper programming and monitoring, the application of Bank policies for the procurement of goods and consulting services, the presentation of audited financial statements, and the evaluation of the program.

EXCEPTIONS TO BANK POLICY None

I. ELIGIBILITY

- 1.1 On September 15, 1994, the Donors Committee of the Multilateral Investment Fund (MIF) declared the Republic of Paraguay eligible for all MIF financing modalities.
- 1.2 The project fulfills the criteria established for the eligibility of operations to be financed with nonreimbursable MIF resources in terms of: (i) the innovative character of the project in support of the collective activities of small businesses; (ii) its contribution to improving the competitive position of Paraguay's private sector, better positioning small businesses within the chain of production through activities to improve quality and efficiency, reduce operating costs, and minimize pollution; (iii) its demonstrator effect; and (iv) the introduction of new nonfinancial services open to potential program beneficiaries.

II. BACKGROUND

A. The Small and medium-sized enterprise (SME) sector

- 2.1 Industrial activity in Paraguay is geared mainly to products with little added value directly tied into primary production activity. Products with higher added value are brought into the country by a large number of importers.
- 2.2 There are approximately 9,000 micro-, small, medium-sized, and large industries situated in Asunción, Central Department, and the main cities in the departments of Alto Paraná, Itapúa, Guairá, Caaguazú, and Concepción. Of these, an estimated 3,000 have more than seven employees. In the industrial sector, 66.7% are microenterprises, 32.1% small and medium-sized businesses, and the remaining 1.2% large companies.
- 2.3 The country's SMEs have developed directly in step with the economy, entrepreneurial activity, and the opportunities generated within MERCOSUR. In addition, the regional agreements and changes in international trade policy call increasingly for products and processes in the member countries to meet quality and environmental standards. In some sectors, there has been an explosion of growth and expansion, as in the case of plastics, while others, such as metal processing, are in recession.
- 2.4 The consumers of products and services offered by SMEs represent a captive market, with protection against competition resulting from various factors, such as the market size and the purchasing power of the population. Accordingly, with the exception of companies exporting products with high technological content, Paraguayan

industry has remained on the sidelines in terms of international competition and quality standards.

- 2.5 The need to introduce new technologies, clean industrial processes, and new products leaves subcontracting and supply companies in a relatively uncompetitive position. This in turn makes for a less than attractive climate for business investment in producers of finished goods. Consequently, to return to the subject at hand, there is a need to improve business management, technological know-how and application, and clean, modern industrial processes (loss minimization) through the appropriate training.

III. THE PROJECT

A. Objective and strategy

- 3.1 The **objectives** of the program are to: (i) promote cooperative alliances between large- and small-scale companies; (ii) encourage the development of associations for technical, managerial, and technological improvement; and (iii) motivate businesses constantly to improve the quality of their products, increase their efficiency, and reduce environmental pollution by means of information campaigns in support of technological innovation (loss minimization).
- 3.2 The program will be based on the core-satellite (C-S) manufacturing model developed in Taiwan with considerable success over the past 15 years. The C-S system consists of a "cooperative alliance" between one "core" company and a number of "satellite" companies. The C-S system is used mainly by assembly and part manufacturing operations, such as the automotive, electronics, home appliance, and furniture industries. The C-S system originated in Japan from the "Keiretsu" system, which consists of company networks. The aim is to strengthen suppliers and enable them to improve the quality, price, and delivery of their products. In the area of loss minimization, the program will provide continuity for UIP's "Pollution Prevention Program", which has received support from USAID for an experimental stage soon to be completed.
- 3.3 The kinds of service packages for each type of cooperative alliance will be designed according to the characteristics of each company and group of companies so as to ensure effectiveness and sustainability. In principle, there will be three kinds: (a) upstream vertical integration, a system consisting of a central firm receiving component parts from supplier firms; (b) downstream vertical integration, consisting of a central firm selling products to countless other firms; and (c) horizontal integration, consisting of several firms selling their products to a distribution or export company.

B. Description of the components

- 3.4 The program has two components: one to provide direct support to the companies and the other to provide institutional support to the UIP and SE.

1. Direct support component (US\$1.1 million)

- 3.5 This component would consist of two subcomponents (C-S support and loss minimization support). These two subcomponents would be mutually complementary, in that the efficiency of companies participating in C-S would be improved through association, in terms of the quality, cost, and delivery of their products. At the same time, the technique of input loss minimization would be used to lower costs. Program resources would be used to hire consulting services and finance training.

2. Institutional support component (US\$500,000)

- 3.6 The **strategic courses of action** under the C-S model are based on: (a) "networking" - the disadvantages of SMEs in terms of scale will be minimized through collective projects; (b) inter-firm assistance - solutions will be developed for professional, organizational, marketing, financial, and production management weaknesses, particularly as regards productivity and quality control - through group assistance to improve firms; and (c) cooperation versus competition - a cooperative alliance transforming fragmented production units into stronger cooperative alliances to create a system for the exchange of ideas, resources and technical skills in a context of constructive interdependence. The industrial pollution control component would emphasize: (a) best practices and technological change - by means of diagnostics to identify areas in which better processes produce economic and environmental benefits; (b) assistance with the establishment of environmental management systems - through technical training for manufacturing personnel to establish process controls in terms of quantity/type/costs of inputs so as to minimize and/or recycle waste; and (c) awareness heightening - courses and workshops for various selected industrial sectors on the benefits of clean production techniques and measures to improve quality with the aim of enhancing profitability and competitive position.

- 3.7 Financing would be provided under this component for program management (manager, deputy manager, and overhead).

C. Program execution

1. Organization

- 3.8 Program execution will be entrusted to the UIP, which will enter into an agreement with the Subcontracting Exchange for execution of the core-satellite system subcomponent. UIPs environmental department will execute the loss minimization subcomponent. The program manager will be selected and hired prior to the first disbursement. The program manager will be responsible for: organizing the activities and services; preparing methodologies; representing the program in economic and national policy matters; and developing national and international business relations.

2. Status of program preparation

- 3.9 UIP has a small structure and already performs functions inherent in the program. For design of the C-S system, SE received international technical cooperation and has an engineer within its management who participated in a specialized course on C-S systems. The groups of companies to be participating in the program have been pre-selected, and training and technical assistance requirements for execution have been defined. Under the loss minimization subcomponent, the UIP has gained experience from conducting environmental diagnostic assessments of more than ten companies, which may be among the program's clients. In addition, it already has a list of possible participants in the program and has technical staff trained in the diagnostic assessments conducted.

3. Beneficiaries

- 3.10 The direct beneficiaries of the program are the small supply companies comprising the C-S systems and those requiring clean production processes. The secondary beneficiaries will be the consulting firms and institutions providing services to companies participating in the program.

4. Eligibility

- 3.11 Small industrial firms will be eligible for cofinancing. The small companies must have legal capacity and a technical, administrative, and financial/accounting organization commensurate with the needs of the program. They must have, or acquire, the operational and financial capacity necessary to carry out the proposed projects within the specified time frames. Consulting firms interested in participating in the program must have qualified human resources (technically and in terms of experience and quality), be financially solvent, have performed similar work in a satisfactory manner, and be free of any conflict of interest.

5. Environmental impact

- 3.12 At its meeting of July 6, 1995, the Environmental Committee classified this project as a category II operation. The services providing technical support to the small companies in connection with production processes will promote, as appropriate, the adoption of measures to neutralize any negative environmental impact. The program execution monitoring report referred to above will provide an evaluation of the results of program activities in terms of production and environmental impact.

D. Cost and financing

- 3.13 The cost of the program comes to US\$1.72 million, of which US\$1.2 million will be in the form of nonreimbursable MIF resources and US\$520,000 will be resources contributed by UIP/SE and bilateral sources. A table summarizing the budget by category and use of resources is found in the program technical files. This table provides a detailed description of program disbursements. Program resources will be disbursed through a revolving fund to be set up in an amount of up to 10% of the financing.

PROGRAM COSTS in thousands of US\$			
	MIF	LOCAL COUNTERPART	TOTAL
I. DIRECT SUPPORT TO COMPANIES	780	320	1,100
Core-satellite component (64 consultant-months; 24 specialized courses and 8 internships)	480	320	800
Loss minimization component (24 environmental audits, 20 technical assistance operations, and 12 specialized training programs)	300	-	300
II. INSTITUTIONAL SUPPORT	308	192	500
Program management	120	-	120
UIP: management of loss minimization	-	96	96
Overhead (instal., prom. and adm. support)	94	-	94
SE: management of C-S system	-	96	96
Overhead	94	-	94
III. OTHER	112	8	120
Information dissemination	12	8	20
Consultation, evaluation, audit, contingencies	100	-	100
TOTAL	1,200	520	1,720

- 3.14 The program is experimental in character and will be executed over a period of four years, following which two C-S systems are expected to be operating and two more in the process of consolidation. During this period it is also expected that at least 20 companies within the individual C-S systems will be trained in loss minimization techniques.
- 3.15 Goods and services will be procured and external audits conducted in accordance with procedures established by the Bank.

E. Implementation phases (C-S)

- 3.16 **Introductory phase.** The program will be organized through SE, an execution strategy will be developed, and groups of experts from government, the private sector, and academic circles will be set up to support the program. One or two groups of companies will be selected to initiate the work, for the purposes of motivation and preparation for participation in the program. The program will use a system of diminishing incentives (consulting and training costs) justified by its innovative character and the need to promote demand for these activities. It is not expected that costs will be recovered for the first two years, but an effort will be made to recover part of the costs in the last two years.
- 3.17 **Structural organization phase.** The responsibilities and obligations of the large (or core) company and the small (or satellite) companies and the goals for improvement will be agreed upon. The process of improving individual and group management and the quality of products will be initiated by applying uniform quality specifications, lowering production costs, and promoting individual and group growth.
- 3.18 **Managerial improvement.** Management policy for the core and satellite companies system will be implemented. Market information will be exchanged, and production, sales, and purchasing activities will be coordinated to reduce costs and improve quality standards. Cooperation will also be promoted to improve production operations through interaction between management, technical personnel and staff in the C-S system.
- 3.19 **Self-sustainability.** Success will be measured in terms of the benefits derived from increased sales and profitability, improvement of competitive position, reduced input costs, faster development of new products, etc. During this phase, the program's demonstrator effect will encourage the formation of other groups of companies with the aim of establishing alliances between large companies and smaller supply companies.

IV. JUSTIFICATION AND RISKS OF THE PROGRAM

- 4.1 The business development strategy recently discussed with the country's authorities and private sector has emphasized the need for support services and the advantages of coordinating the activities of small businesses to improve their performance. The feasibility of the program will depend essentially on: (i) the potential demand for support services among small businesses needing to enhance their competitive capacity. In response to increased demand, UIP/SE is also expected to offer specialized technical assistance with services, methodologies, and prices adapted to the needs of small business, covering the new niches created in that market. Wider use of business diagnostics and structural improvements in service providers will also make it easy for companies to interact directly with other service providers, generating their own market dynamic; and (ii) the interaction between a national, private business organization and local affiliated organizations, highly representative in character and experienced in providing services.
- 4.2 A risk inherent in the program is that businesses may not be responsive in hiring consulting services at or near their current market prices. This risk will be addressed through promotion and information dissemination activities and regular program review in order to analyze the results obtained and introduce the changes needed to fulfill program objectives.

V. EXPECTED RESULTS, MONITORING, AND EVALUATION

- 5.1 The program will strengthen UIP/BS as a private institution providing support for the chain of production. This pilot project will serve to encourage the formation of other business groups for the same purpose of strengthening small suppliers and enabling the private sector to assume responsibility for improving production processes, a greater portion of which will be absorbed by C-S systems. Policies will be promoted to strengthen the competitive position of small businesses and the encourage the use of loss minimization techniques.
- 5.2 **Monitoring.** UIP will be required to submit the following within six months of the effective date of the agreement and prior to September 30 of each year during program execution: (a) an annual work plan indicating the projects and activities to be conducted that year, the cost (program contribution and beneficiary counterpart) and form of execution; and (b) a report on the results of the aforementioned work plan, providing detailed information on cost recovery and problems arising during the period concerned and measures taken to solve them.

- 5.3 **Evaluation.** During program execution, annual evaluations will be conducted by external consultants who will analyze the rate of advance and the objectives accomplished, proposing adjustments as necessary. These evaluations will take into account information received from the executing agency and SE, and actions will be taken, as appropriate, to obtain the basic data for analysis. UIP will also prepare semiannual progress reports for submission to the Bank, covering the same subjects as the external evaluations. The results accomplished will be described and changes in the activity plans will be proposed as appropriate.

BUSINESS STRUCTURING PROGRAM

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MONITORING AND EVALUATION INDICATORS DURING PROGRAM EXECUTION

INDICATOR/YEAR	1ST YEAR	2ND YEAR	3RD YEAR	4TH YEAR
1. Support provided directly to companies				
<u>Core-satellite component</u>				
- Core-satellite system <u>1/</u> (consultant/months)	4	4	4	4
- Internships in Taiwan (courses or technical visits) <u>1/</u>	2	2	2	2
- Marketing, total production management (TPM), technology (consultant/months)	12	12	12	12
- Management follow up, quality cycles, ISO 9000 (courses/year)	6	6	6	6
<u>Loss minimization component</u>				
- Environmental audit (by company)	6	6	6	6
- Technical assistance (by company)	5	5	5	5
- Loss minimization training (courses/year)	3	3	3	3
2. Institutional support				
Budget execution (MIF/UIP) (US\$ thousands)	429	429	431	431
Annual work plan	1	1	1	1
Progress reports	2	2	2	2
Audited financial statements	1	1	1	1
Program evaluations	1	1	1	1

1/ Technical cooperation provided by the Government of Taiwan.

PLANNING FOR THE BUSINESS INTEGRATION PROGRAM			
SUMMARY OF OBJECTIVES	INDICATORS (see following table)	MEANS OF VERIFICATION	ASSUMPTIONS
AIM: To promote integration between small and large companies and promote the use of clean technologies.	Four or five core-satellite systems ^{2/} functioning and at least 20 companies using loss minimization techniques.	a) Semi-annual progress reports. b) Final execution report.	a) UIP/SE will remain committed to continuation of the program; and b) UIP/SE will give priority to preparing small businesses for strategic alliances.
PURPOSE: Improve the supply of, and demand for, specific support services to facilitate the integration of small and large companies.	Upon completion of the program, the number of small businesses using program services are as follows: a) more than 50 specialized in C-S; b) more than 50 specialized in loss minimization.	a) Progress reports b) Project inspection c) Scheduled evaluation; and d) sample surveys	a) There is demand for collective activity; b) Small companies are willing to participate on a continuous basis in the program; c) UIP/SE has the institutional infrastructure required to administer a program of this nature.
COMPONENTS: 1. Direct support for small companies; and 2. Institutional support	a) Annual plans and budgets itemized by activity; and b) Management of the program.	a) Operation progress reports; b) Scheduled evaluation; and c) reviews of the annual plans.	
MAIN ACTIVITIES: 1.a Specialized training in core-satellite systems 1.b Specialized training in loss minimization 1.c UIP/SE strengthening		a) Operation progress reports; b) Beneficiary accounting records; and c) Financial statements on the operation evaluated by external auditors.	

^{2/} The indicators for the formation of core-satellite systems will be developed during the program as the program activities are conducted. These will be reviewed by the Bank in periodical reports.

PROPOSED RESOLUTION

PARAGUAY. NON REIMBURSABLE TECHNICAL COOPERATION FOR A BUSINESS INTEGRATION PROGRAM

The Donors Committee of the Multilateral Investment Fund

RESOLVES:

1. That the President of the Inter-American Development Bank, or such representative as he shall designate, is authorized, on behalf of the Multilateral Investment Fund, to enter into such agreements as may be necessary with the Unión Industrial Paraguaya (UIP) and to take such additional measures as may be pertinent for the execution of the plan of operations incorporated in the donors memorandum referred to in Document MIF/AT-_____ with respect to a technical cooperation program, for a Business Integration Program.
2. That up to the amount of US\$1.200.000, or its equivalent in other convertible currencies, is authorized for the purpose of this resolution, chargeable to the resources of the Small Enterprise Development Facility of the Multilateral Investment Fund.
3. That the above mentioned sum is to be provided on a non-reimbursable basis.