

PROGRAM FOR EFFICIENCY AND COMPETITIVENESS IN THE CONSTRUCTION INDUSTRY

(TC-99-06-03-3)

EXECUTIVE SUMMARY

Executing agency:	Cámara Paraguaya de la Industria de la Construcción (CAPACO) [Paraguayan Construction Board of Trade]	
Beneficiaries:	The direct beneficiaries of the program will be the 2,400 workers of an estimated 70 participating companies. Generally speaking, businesses and all the workers in the Paraguayan construction sector will benefit from the program through the implementation of a proven methodology and development of a replicable action plan.	
General objective:	The general objective of the proposed program is to lay the foundation for increasing the efficiency and productivity of construction companies in the country by promoting the professional development of workers at all levels in the industry and strengthening construction companies and training institutions involved in the sector.	
Specific objectives and components:	The specific objectives of the proposed program are to (i) strengthen the basic and technical skills of industry workers through practical training, for which new methodologies, such as occupational family skills and on-site training, will be introduced; (ii) enhance the planning, management, and evaluation capacities of middle managers and subcontractors, as well as executive and managerial staff; (iii) develop lines of action to improve the quality as well as expand and strengthen the supply of training services for the construction industry; and (iv) establish indicators that will serve as the foundation for the ongoing training and accreditation systems in the sector.	
Amount and source:	MIF: (Facility II)	US\$ 840,000
	Local:	US\$ <u>472,000</u>
	Total:	US\$1,312,000
Terms:	Execution period:	36 months
	Disbursement period:	42 months
Exceptions to Bank policies and procedures:	None.	

**Environmental
and social
review:**

The proposed program was reviewed and approved by the Committee on Environment and Social Impact at its meeting on 7 April 2000.

**Special
contractual
conditions:**

The first disbursement will be subject to fulfillment of the standard contractual conditions of the Bank and the following special conditions: (a) entry into force of the Operating Regulations; (b) establishment of the program coordination; (c) notification of the first meeting of the Technical Advisory Committee (TAC); and (d) opening of separate specific banks accounts for administration of the MIF contribution and the local counterpart funding.

I. COUNTRY AND PROGRAM ELIGIBILITY

- 1.1 The Donors Committee declared the Republic of Paraguay eligible for all forms of financing from the Multilateral Investment Fund (MIF) at its meeting on 16 September 1994. In addition, the program is consistent with the provisions of the Human Resources Facility in that it will help improve training in the construction sector in the country.

II. BACKGROUND

- 2.1 Economic growth in Paraguay over the past 10 years has been discouraging. Per capita income has dropped since the mid-1990s, unemployment is high, especially among young people and women, and the underemployment rate among the economically active population has reached 50%. Structural changes in the country's economy, driven by its participation in the Southern Common Market (MERCOSUR), have exerted growing pressure on the private sector to increase workplace productivity. This is the current situation in the construction sector in Paraguay.
- 2.2 Since the nominal costs of labor are relatively low in the region, the Paraguayan economy could have a comparative advantage over its MERCOSUR partners. But it cannot exploit that advantage in the construction sector until it resolves the problem of low productivity, which is due in large part to the lack of training for workers and professionals in the sector.
- 2.3 The construction sector overall currently employs a total of 120,000 workers and 7,000 professionals (engineers and architects), and there are opportunities to employ more. Over the next 10 years, an estimated 460,000 homes may be built and road construction may increase as a result of MERCOSUR integration. There are also opportunities in service infrastructure development, such as housing and building construction for the Yacyretá hydroelectric project development of the Asuncion coastal strip (for which a Bank loan is being processed under project no. PR-0043), the construction of the bridge over the Paraná River, a new building for Congress, and the Corpus hydroelectric dam. However, it should be noted that Paraguayan construction firms find it difficult to compete with international firms in bidding on contracts for the construction of infrastructure, and their low productivity often prevents them from participating as subcontractors in such projects.
- 2.4 The low productivity contributes to the high real costs of the Paraguayan construction industry. It stems from certain special sector characteristics. Apart from the three large conglomerates that have their own construction companies and are not members of the Paraguayan Construction Board of Trade (CAPACO), the overwhelming majority of construction companies are small and medium-sized. Moreover, the construction sector continues to be held back and marginalized by

the use of obsolete technology, inadequate standards, outdated environmental regulations, and above all, low productivity and high wastage of materials resulting from the low level of education among sector workers. As a result of these features, the Paraguayan construction sector is at least 40% more expensive than that of its MERCOSUR neighbors, and this seriously damages its competitiveness.

- 2.5 The lack of labor force training constitutes a key problem for the competitiveness of the country. The problem is particularly severe in the construction sector, where 70% of the workers have not had any type of vocational training. CAPACO surveys have shown that there is unmet demand for workers with more skills. In particular, the companies surveyed identified the lack of workers trained to use new materials and new tools and machinery. At the managerial and executive levels, they identified shortcomings in management and in procurement procedures.
- 2.6 The current public and private supply of vocational training services does not meet the demand. The main provider of much services in Paraguay is the National Professional Development Service (SNPP), a public agency that is financed through a 1% payroll tax. However, most of its services are concentrated in rural areas and especially microenterprises. Given the short supply of training services, the Paraguayan government, through the Ministry of Justice and Labor, is starting to turn towards the private sector. While training has been promoted at the national level, there is almost no training for the construction industry. Some of the private vocational centers offer training in various sector occupations, but the curricula, infrastructure, and the duration of these courses do not address sector needs.
- 2.7 The proposed program is consistent with the general purpose of the MIF's and with the Bank's country strategies in terms of modernizing the labor market and improving competitiveness. It also supplements other Bank and MIF programs to strengthen occupational training in the country, such as the occupational training and education program (851/OC-PR and the corresponding MIF operation ATN/MH-4760), under which the SNPP is being restructured and a new national training system is being established. In addition, a training program for middle managers and supervisors (ATN/MH-5355) is being financed. It should be noted that the mid-term evaluation of the latter project recommended that greater emphasis be placed on practical training time and that more personalized services be provided so that the training would have more impact. These lessons learned have been taken into account in the proposed operation.
- 2.8 The proposed program specifically addresses the needs of the construction industry and the methodology focuses on on-site training, which will afford more personalized services. In addition, the proposed program will train all staff levels (professionals, technicians, workers) and cover technical subjects as they relate to construction, such as operations, management, ISO standards, and legal issues affecting the industry. The methodology and the course subjects were selected by the beneficiaries, in order to ensure that worker skills meet employer needs.

III. THE PROGRAM

A. Objectives

- 3.1 The general objective of the program is to lay the foundation for increasing the efficiency and productivity of construction companies in Paraguay by promoting the professional development of workers at all levels in the industry and strengthening construction companies and training institutions involved in the sector.
- 3.2 The specific objectives of the program are to (i) strengthen the basic and technical skills of industry workers through practical training, for which new methodologies, such as occupational family skills (training focusing on skills common to groups of related occupations or positions) and on-site training, will be introduced; (ii) improve the planning, management, and evaluation capabilities of middle managers and contractors, as well as executive and managerial staff; (iii) develop lines of action to improve the quality as well as expand and strengthen the supply of training services for the construction industry; and (iv) establish indicators that will serve as a foundation for the ongoing training and accreditation systems in the sector.

B. Description

- 3.3 The program will be carried out in four components. Improving quality and workplace safety conditions and creating an adequate framework for implementing new techniques, technology, and methods of organizing work will be a central focus throughout the program. A methodology will be developed to help establish a skill identification, standardization, training, and certification system that is in line with company and worker needs.

1. Practical training component

- 3.4 As part of this component, approximately 2,400 sector workers from the 70 participating enterprises will receive training. Participation in the program will be open to all companies that are members of the CAPACO, as well as those that are not, but wish to participate. The workers who participate in the program will be selected by the companies that pay for their participation. No more than 70% of training activities will take place in the metropolitan area of Asuncion. The rest will be carried out mainly in Ciudad del Este and Encarnación and the surrounding areas. This component will consist of the four activities that are described below.
- 3.5 **Curriculum development.** An educational development team will be assembled to establish basic curricula, organize training paths, develop training modules, and identify instruments for accrediting participants. Depending on demand, curricula will be developed for a minimum of eight occupational profiles during program

execution.¹ In addition, the curriculum will incorporate training in the social and environmental aspects of construction.

- 3.6 **Trainer training.** This activity will be carried out in three stages. First, a basic team of two instructors who specialize in training will be selected to work with the curriculum design team to develop materials and teach the first courses in basic skills, which will constitute a pilot test of the curricula and methodology. The pilot test will allow the instructors and design team to make any necessary adjustments in the program methodology and design. Second, once the eight occupational profiles have been confirmed, a team of approximately 30 instructors specialized in various subjects will be hired to carry out training activities for workers. Two mobile units will be equipped so that the trainers can carry out on-site training and training in areas outside of Asuncion. And third, the team of instructors will train a group of approximately 60 middle managers (specialists, contractors, foremen, and/or project managers) as tutors who will provide follow-up, given the limited number of trainers, and to reinforce ongoing training. The team of instructors will select the middle managers with the most experience and/or best teaching skills to become tutors.
- 3.7 **Assessment of participants.** Based on individual assessments, a specific training plan will be developed for each beneficiary according to the accredited skills for each occupational family, and the training module in which the beneficiary should participate will be selected.
- 3.8 **On-site training.** The courses will be conducted on-site and will be held according to the workers' and companies' schedules. Each course will have one instructor and one tutor who will determine the training plan and adjust it according to the realities of the project. Whenever necessary and possible, training will be held in areas that have been specifically adapted to the purpose.
- 3.9 The courses will be short; an average of eight weeks. Approximately 1,300 **employed workers** will first be trained in the basic skills required for various types of activities, such as calculation of materials and teamwork. The technical, cognitive, and attitudinal skills identified under the beneficiary's occupational profile will also be developed, including competence in the use of new technology and techniques. At the **middle management level**, 240 specialists, contractors, and project managers will be trained. Training at this level will cover the aforementioned skills and will also emphasize construction safety, planning, human resource management (teamwork, conflict resolution, etc.), and methodologies to improve the process of continuous on-the-job training. Approximately 500 **unemployed workers** will also be trained. Since the majority of them are expected to be classified as manual laborers, the training activities for this group will focus

¹ The following profiles have tentatively been identified: masonry, reinforced concrete construction, electrical systems, plumbing, road construction, drywall, ceramic tile installation, and painting.

on the acquisition of manual skills. The courses will be held in fixed areas that have been adapted for the courses.

- 3.10 The MIF resources will be used for curriculum development, the hiring of trainers, and participant assessment. The local counterpart contribution will be used mainly to cover materials, the participation of middle managers and workers, and grants for the unemployed. It should be noted that since the fixed costs of the training (curriculum design, trainer training, etc.) will be covered by the program, more participants may be trained if demand is higher than the 2,400 participants planned, provided that the enterprises are willing to cover the variable costs (materials, time away, etc.).

2. Executive and managerial staff training component

- 3.11 The goal of this component is to improve the ability of senior executives to organize and manage the activities of their respective companies. Under this component, training will be provided for approximately 140 executives, 140 managers, and 80 microentrepreneurs. To carry out this component, the activities described below are proposed.
- 3.12 **Executive training program.** The executive and managerial staff of the 100 companies that are most active in the CAPACO will be evaluated to assess their management skills and knowledge. The curriculum of this program will be based on the results of the assessment. The program will be implemented as a pilot program, under which groups of 20-25 executive and managerial staff will be trained for 6-7 weeks each. The goal is not only to impart new information and knowledge, but also to teach the participants how to implement human resource systems, strategic planning, company organization, and financing. Courses will be designed so as not to interfere with business activities and will probably be held on Saturdays with homework to be done during the week. The program will finance the preparation of materials and the participant assessments, and the participants will cover the variable course costs.
- 3.13 **Pilot program for microentrepreneur subcontractors.** Most concrete, plumbing, and electrical work done on buildings is contracted out to skilled workmen who are microentrepreneurs. They possess varying degrees of knowledge in the areas needed to “formalize” the management of their microenterprise. The pilot program will focus on about 80 individuals/businesses that provide services to companies participating in the program and will gradually help them improve their businesses. Emphasis will be placed on strategic planning, human resource management (especially for small teams), and cost and cash flow analysis. The program aims to enhance the experience of several microentrepreneurs who have participated in SNPP programs, but only on an ad hoc basis, without any medium-term planning of their needs. The MIF financing will be used to develop the pilot program and to evaluate the participants. The goal is to make the component sustainable over the

medium term in coordination with existing programs for microentrepreneurs in the country.

3. Training service provider support component

- 3.14 Under this component, financing will be provided to lay the foundation for designing a system for the supply of training services based on the curricula and competencies identified under the occupational families that were defined in the first component. In particular, lines of activity will be developed for enhancing the quality of, expanding the supply of training services offered by the public and private institutions associated with the construction industry.
- 3.15 **Adoption of occupational family competencies.** Under this component, activities will be financed to promote the adoption of the new curriculum and to train teachers from training service providers (training institutions, faculties of engineering, NGOs, individual trainers, etc.). These activities will include an assessment of training providers, which will entail identifying organizations and individuals that currently provide training services to the sector and that are able to create and implement new courses to address the growing demand in the sector. The activities planned under this component will target at least 10 public and/or private training institutions, selected through a competitive process. Up to four participants will be selected from each institution's executives, specialist trainers and teachers to attend specialized courses in the new methodologies. The MIF contribution will be used to cover the assessment and design of the system foundations.
- 3.16 **Professional internships.** The purpose of this component is to improve the existing internship program in the six technical schools in the country. As part of their studies, the students at these schools work as interns in construction companies, but the internships only last for a few weeks during the last semester of study. The companies therefore cannot involve the students in important company activities and demonstrate their skills. As a result, the internships do not help young graduates effectively enter the industry, and the most skilled graduates seek employment in other economic sectors.
- 3.17 This component will try to reverse this trend by extending the internships to a period of up to a year. Accordingly, the internships for 160 students in their last year of technical studies in construction will be coordinated for two years. The participants will be selected through a competition to identify those best qualified. Special attention will be paid to the participation of women, given the increase in recent years in the proportion of female students enrolled. The technical schools will assign a mentor/trainer to each participating student and the mentors must submit monthly reports to the authorities of the technical school, the enterprise, and the program coordination unit.

- 3.18 To stimulate demand for the internships, their costs will be shared by the program and the participating enterprises, with the MIF contribution being gradually phased out in the second year. In the first year, 60 students will participate and in the second, 100. Subsequently, the contributions by the enterprises will increase, starting in the second year. It should also be noted that directors of government training programs have expressed interest in contributing to the financing for this component, once it reaches the implementation phase, which will help ensure the sustainability of the program.

4. Certification, information, and dissemination component

- 3.19 This component will be carried out as an essential supplement to the other ones. A Certification, Information, and Dissemination Center (CCID) will be established in the CAPACO, which will carry out the activities described below.
- 3.20 **Public information campaign.** A public information campaign targeting various sector stakeholders will be launched to promote the program and raise awareness about important issues in the sector, such as competitiveness and the need for continuous training. The campaign calls for the following activities: (i) preparation of appropriate information materials, which will be distributed in a timely fashion; (ii) six seminars/conferences/workshops held to disseminate available information to sector participants; and (iii) development of an Internet site to disseminate and provide access to various types of information.
- 3.21 **Training and work register.** An expert will be hired to design a database for the training and work register (RFT). The register will compile information on the qualifications of beneficiary workers in demonstrating the competencies acquired during the proposed training program. The register will also include information about the training providers, independent teachers and instructors, the quality of training services, and all related information to help coordinate the supply and demand between training providers and construction companies.
- 3.22 **Certification.** The long-term objective of the program is to have a system in which training is certified and recognized in the marketplace. The first step will be to establish a certification system for CAPACO members and later for the entire construction industry. The CAPACO system will be used to establish the requirements for certification of the workers trained and the quality of the training service providers. For the worker certification, the RFT will be used to record the results of worker testing demonstrating that the workers meet the requirements for each professional family module in which they were trained, thereby earning certification by the CAPACO. The CAPACO will also use the RFT to register training service providers in the sector that have adopted the curricula and methodologies developed and tested under the proposed program and to certify the ones that meet the quality standards to be established under the program by the CAPACO, in association with the Technical Advisory Committee (TAC) and the

team of trainers. The CAPACO certification system will lay the groundwork for a national competency certification system.

- 3.23 **Program replication strategy.** The information compiled and the activities carried out under this component will help the CAPACO, program coordinators, and TAC develop a strategy for replicating the program and its methodology throughout the entire sector. During its last year of execution, the program will be reviewed, lessons learned and conclusions drawn, and recommendations made. A short- and middle-term action plan will be developed for transfer of the experience to companies and training service providers in the sector. The MIF resources will be used to support the design of the program replication strategy. The CAPACO will be responsible for its implementation in the sector.

IV. PROGRAM EXECUTION

A. Executing organization

- 4.1 The Paraguayan Construction Board of Trade (CAPACO) will be responsible for executing the program. Founded in 1967, the CAPACO is a legally created, non-profit institution with a membership of over 400 construction companies. Its headquarters are in Asuncion and it has another office in Ciudad del Este that serves its members outside of the capital. As part of its mandate to protect the interests of construction companies, the CAPACO also works for the technical improvement of construction systems for the purpose of securing lower costs, better quality, and increased productivity, and furthers the economic and professional development of professionals and business leaders in the construction industry. The CAPACO is a representative organization. Its president, vice president, and other members of the executive board are elected by the general assembly. CAPACO members who have been members for at least one year are eligible to become candidates.
- 4.2 The organization of CAPACO is adequate to the task of serving the needs of the sector. It has the personnel, physical resources, and infrastructure necessary for performing its functions for its members and the sector in general. The CAPACO also maintains a close relationship with governmental agencies, training centers, universities, and other entities associated with the sector.
- 4.3 A program coordination unit will be created to execute the program. It will operate during the 36-month program execution period and will be staffed by three professionals: the Program Director, the Practical Training Component Coordinator, and the Certification, Information, and Dissemination Component Coordinator. (The terms of reference for the coordination unit can be found in the Operating Regulations.)

- 4.4 The coordination unit will be responsible for developing and implementing the program. Its main activities will be to: (i) prepare a training, technical support, and information plan, as well as a course schedule; (ii) disseminate information about the program and the training and research activities and promote them; (iii) hire the design team and trainers; (iv) maintain contacts with other organizations, especially to coordinate agreements with technical schools for professional internships; (v) establish the requirements the works must meet in order to be selected for on-site training; and (vi) monitor fulfillment of program performance indicators and objectives, as set forth in the logical framework (Annex I). The coordination unit will also be responsible for ongoing monitoring of emerging demand for training and the supply of training services in order to coordinate training requirements.
- 4.5 The coordination unit will work under the general guidance of the TAC to expedite technical implementation of the program. TAC members will be: (i) a CAPACO representative; (ii) a representative from the School of Engineering; (iii) a trade union representative; (iv) an international expert in educational development with experience in instructor training models (Inter-American Vocational Research and Documentation Center- CINTERFOR); and (v) the Program Director, who will serve as the chairman of the committee. If needed, more committee members may be added during program execution. In addition, the TAC will work with the Labor and Education Ministries, especially in the development of a strategy to implement the model throughout the sector and possibly in other sectors.
- 4.6 The TAC will meet at least every six months and its responsibilities will include: (i) reviewing the Operating Regulations and the corresponding annual operating plans before submitting them to the Bank for approval; (ii) developing criteria for resource allocation; (iii) approving training materials for curricula; (iv) suggesting and approving the criteria for selection of the various program beneficiaries and contractors; (v) devising the lines of activity to develop a methodology for certifying occupational competencies; and (vi) identifying a strategy to extend the program throughout the sector.

B. Beneficiaries

- 4.7 The program will directly benefit the 2,400 workers in the estimated 70 companies that will participate in the program. The workers include: (i) unemployed workers who wish to enter the industry and have the attitude needed to develop their skills; (ii) workers at all levels currently employed by construction companies; (iii) construction specialists, contractors, and microentrepreneur subcontractors; (iv) company executives and professional staff; (v) managers of construction companies; and (vi) students studying construction at technical schools. Generally speaking, businesses and all the workers in the Paraguayan construction sector will benefit from the program through the implementation of a proven methodology and development of a replicable action plan.

C. Status of program preparation

- 4.8 Program preparation is well under way. The reports that served as inputs for this memorandum were written with CAPACO representatives. These reports contain the details needed to develop an Operating Regulations that will set forth the basic guidelines for administering the program and the selection and eligibility criteria for companies and individual participants. Completion and use of the manual will be a condition precedent to the first disbursement of the MIF resources. All the terms of reference for the program have also been prepared. The CAPACO has worked closely with the Bank to design the program, which will help expedite the signing of the agreement with the Bank.

D. The program and environmental issues

- 4.9 Pursuant to suggestions made by the Committee on Environment and Social Impact at its meeting on 7 April 2000, environmental and social considerations have been incorporated into the design of the methodology and terms of reference for the proposed program. The training activities to be carried out under the program will include: (1) measures to mitigate any negative impact, with emphasis on safety and accident prevention; (2) awareness of local legislation and regulations and information sources, so that construction standards are respected; (3) mechanisms to help identify risk factors and preventive measures, with emphasis on the environment; and (4) human resource management.

V. PROGRAM COST AND FINANCING

- 5.1 The estimated cost of the program is US\$1,312,000 equivalent. The MIF will contribute US\$840,000 of the total and the local counterpart will contribute US\$472,000, with no more than half of that amount in kind.

BUDGET TABLE (in thousands of U.S. dollars)

ACTIVITIES	MIF	LOCAL COUNTERPART	TOTAL	%
1. Practical training component	402,200	295,400	697,600	53
2. Executive and managerial staff training component	76,000	28,000	104,000	8
3. Training provider support component	95,300	24,200	119,500	9
4. Certification, information, and dissemination component	119,000	51,600	170,600	13
5. Program management (program coordination unit)	85,000	60,800	145,800	11
6. Evaluation and auditing	40,000	7,000	47,000	3.5
7. Contingencies	22,500	12,000	34,500	2.5
TOTAL	840,000	472,000	1,312,000	100
%	64	36	100	

5.2 The local counterpart will finance the materials needed to develop the courses, the scholarships for the unemployed, compensation for the workers for the time they are in training, and the participation of executives/professionals in the executive training program.

5.3 MIF resources will mainly be used to hire international and local consulting and technical assistance services for curricular design and trainers and to design the RFT system and the foundations for the job competency system. Standard Bank procedures will be followed for the procurement of goods and the hiring of consulting services to be financed with the proceeds of the proposed technical-cooperation funding.

A. Execution and disbursement schedule

5.4 The program execution period will be will be 36 months, and the disbursement period for the MIF resources, 42 months. Given estimated program needs, a revolving fund equivalent to 10% of the MIF contribute will be established, to that the funds necessary to carry out the various program activities are available on a timely basis.

B. Accounting and auditing

- 5.5 As part of its accounting and auditing responsibilities, the CAPACO will:
- (a) establish and maintain proper internal, financial and accounting oversight and a records system that details the source and application of the program funds. The program records must indicate: (i) the amounts received from the various sources; (ii) program expenditures, distinguishing those made with the MIF contribution from the others; and (iii) a detailed account of the goods procured and services hired; (b) open separate, specific bank accounts for administration of the MIF and local counterpart contributions, as a condition precedent to the first disbursement of the MIF financing; (c) process Bank disbursement requests; and (d) prepare and submit to the Bank the audited annual financial statements of the program and semiannual reports on the revolving fund.

C. Sustainability

- 5.6 The purpose of the program is to design and test new curricula and training methodologies that will adequately meet the needs of the construction industry. Once the courses have been tested and deemed satisfactory, they will be outsourced to qualified providers through the competitive selection process, with the CAPACO (through the CCID) in charge of coordinating supply and demand in the sector and certifying the quality of the courses. In the long term, the sustainability of the system will depend on the companies' commitment to continued direct investments in training and use of CAPACO services. This commitment and the steps already taken by the Board are good indicators of the sector's intention to continue with training. In addition, the program will attempt to forge a formal agreement with the government if, as part of the SNPP restructuring program, a reimbursement system (or any other subsidy for demand, such as vouchers) can be established, and financed through a one percent payroll tax. Executing government programs focus on rural areas and, especially, on microenterprises, and offer few training services to the construction industry. A reimbursement system would provide an important incentive to companies and would help ensure ongoing investment, especially in the training program for microentrepreneur subcontractors. The agreement will seek to ensure that CAPACO-certified public and private programs are eligible under any reimbursement system.

VI. JUSTIFICATION, BENEFITS, AND RISKS

A. Justification

- 6.1 The proposed program not only gives the Bank and the MIF an opportunity to help modernize and improve the efficiency and competitiveness of the construction sector, but also to lay the groundwork for modernizing the occupational training system for the entire country. It has been designed as a pilot program to test the new

methodologies and conduct initial research, with the goal of establishing quality guidelines for the sector and a sector-wide system of training and certification based on occupational competencies. Because the construction sector is instrumental to the economic development of a country, the program is timely for Paraguay and regional integration, since it will improve sector competitiveness.

- 6.2 Based on the analysis of the prospects for growth in the sector in relation to the situation of the workforce at all levels, the CAPACO has taken the initiative to organize training activities and enhance the quality of the processes, products, and services that it offers to the industry, thereby improving efficiency and competitiveness. As a result of the CAPACO's leadership, sector companies are involved in the program and motivated to complete it. The MIF support will help intensify sector efforts and lay the foundation for a modern, quality training system.
- 6.3 In addition, the proposed program will enhance donor country efforts to implement development strategies based on sound economic policies that boost private investment and increase the participation of workers and small business owners in the economy through training activities.

B. Benefits

- 6.4 The chief benefit of the program will be the development and testing of new training models that will help construction companies devise and implement training programs. Upon program completion, an action plan will have been developed to replicate the results achieved throughout the sector and thus help construction companies become more efficient and competitive.

C. Risks

- 6.5 The limited supply of training services presents the greatest risk to the program. Program sustainability depends on significantly increasing the supply to better meet current demand. To mitigate this risk, the program calls for activities specifically aimed at increasing the public and private supply of training services by introducing new methodologies and course subjects in a wide range of providers (universities, technical schools, and construction companies), so that they are better able to meet the long-term needs of the construction sector.
- 6.6 Another possible risk to the program stems from the fact that because the training activities and informational and teaching materials are directly tied to the business sector, they could lack a broader vision of the requirements of other sector participants. Specifically, manual laborers may think that the program will only benefit the business leaders, which may lead them to decline or be reluctant to participate. To mitigate this risk, training will be provided at no cost to the participating workers, and program activities will undergo a thorough external review by the TAC. As the program grows, benefits will be derived from the

experiences gained and from the perspectives of all the participants. In addition, a selection process will be instituted in which the workers must demonstrate their desire for personal and professional development. Recruitment and promotion activities will be carried out to attract the target population.

- 6.7 Lastly, it should be noted that there is a risk that the training costs could represent a barrier to long-term participation, even if there is interest in such services, especially on the part of microenterprises, small businesses and the unemployed. In such cases, some sort of long-term subsidy system could help meet the demand. The proposed program does not involve any subsidies, however, because it is financed by private companies, but other government programs, such as the SNPP, may cover this need in the future. With the restructuring of the SNPP, it was difficult to reach a formal agreement a priori. During program preparation, meetings were held with representatives of the SNPP, the Ministry of Justice and Labor and the Ministry of Education, at which the government officials indicated their interest in supporting the proposed activities. In addition, the terms of reference of the coordination unit call for it to arrange agreements with other programs and to conduct evaluations to ensure progress in execution.

VII. PROGRAM MONITORING AND EVALUATION

A. Monitoring

- 7.1 A description of program execution, monitoring, and evaluation is presented in the logical framework (Annex I).
- 7.2 The CAPACO will be responsible for monitoring and for preparing semiannual progress reports. The reports must document the activities carried out during the respective six-month period, and must include a work plan and disbursement schedule for the following period. They are to be submitted to the Bank's Country Office for approval within 30 days after the end of the respective six-month period. The Country Office will use the reports to monitor program implementation.

B. Evaluation

- 7.3 The program calls for three outside evaluations to be conducted by an institution and/or professionals specializing generally in training and specifically in on-site training, selected and hired by the Bank with resources from the technical-cooperation funding. The first evaluation will be performed once the training pilot program is completed (as described in paragraph 3.6), the second at the end of the second year, and the third and final evaluation upon program completion. The information compiled will be analyzed using the indicators previously stipulated by the program coordination unit (subject to nonobjection by the Bank) and using a

control group of companies whose workers did not participate in the program. A comparative analysis will measure any improvements in production by the companies that participated in the program, especially in terms of their adoption of new techniques and technologies.

- 7.4 The first evaluation will be a review of the activities carried out during the pilot program 60 days after completion of the pilot phase of the training. The purpose of the evaluation will be to: (i) study the needs assessment activities carried out under each component and make recommendations; (ii) develop the methodology that will be used in the final evaluation; and (iii) design the evaluation tools that will be used to compile information during the activities. In addition, progress in formal agreements with other relevant government programs will be evaluated. If none have been arranged, the evaluation will include recommendations on how to achieve them. Implementation of the recommendations will then be reviewed in the second evaluation. The first evaluation will be a summarized, instructive review of the efficiency of the institutional mechanisms and their impact on the program, as well as an assessment of what has been accomplished to date. It will include recommendations on changes to be made in the proposed organization of the coordination unit. Even more importantly, though, it will serve as a guide for preparing the activity plan.
- 7.5 The second evaluation, which will be conducted at the end of the second year of program execution, has the following objectives: (i) review coordination unit operations in terms of productivity and internal capacity; (ii) review the activities carried out under each component and make recommendations that will include the location of the participating companies and measures to ensure that no more than 70% of the program activities are concentrated in the metropolitan Asuncion area; (iii) measure the impact of the program in relation to the control group; and (iv) if the mid-term evaluations of other Bank projects in the construction sector are available (such as TC-0004021 for Guatemala and ATN/MH-6717 for Nicaragua), identify any lessons learned that could be relevant to the proposed program.
- 7.6 The final evaluation will be conducted three months after program completion and will cover: (i) fulfillment of the general and specific objectives of the program and program goals; (ii) effective use of budgetary resources; (iii) the quality of services; (iv) program impact on those who participated in training activities; (v) program capacity to extend the services to other productive sectors; (vi) the sustainability of CAPACO activities in terms of the continuity and extension of program objectives; (vii) program impact assessment composed with the control group; and (viii) concrete recommendations for ensuring program continuity after MIF financing is exhausted.

VIII. EXCEPTIONS TO BANK POLICY

- 8.1 No exceptions to Bank policy are proposed.

IX. SPECIAL CONTRACTUAL CONDITIONS

- 9.1 The first disbursement of the MIF funding will be subject to fulfillment of the Bank's standard contractual conditions and the following special conditions: (i) entry into force of the Operating Regulations agreed on with the Bank; (ii) establishment of the program coordination unit; (iii) notification of the first TAC meeting; and (iv) opening of separate specific banks accounts for administration of the MIF contribution and the local counterpart funding.

PROGRAM FOR EFFICIENCY AND COMPETITIVENESS IN THE CONSTRUCTION INDUSTRY
LOGICAL FRAMEWORK

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
Increased efficiency and productivity of construction companies in Paraguay	Increased competitiveness and productivity of companies in the sector	National statistics on the construction industry	Macroeconomic conditions remain stable
Foundation for training systems for all levels in the construction sector, strengthening the capacities of companies and the institutions involved in the sector	<ul style="list-style-type: none"> At least eight occupational profiles identified and the basic curricula for the occupational training of workers in the sector designed Methodology developed for two training programs for executives and managerial personnel 	<ul style="list-style-type: none"> Final program report Program evaluations 	The entrepreneurs remain committed to developing the proposed programs and encouraging their workers to participate in training
RESULTS:			
Training of workers	<p>The following people trained by program completion:</p> <ul style="list-style-type: none"> 60 middle managers as tutors 1,300 employed workers 500 unemployed workers 240 specialists, contractors, and project managers/foremen <p>By program completion, a total of US\$697,550 will have been invested, including counterpart funding.</p>	<ul style="list-style-type: none"> Final program report Program evaluations Opinion polls and interviews 	The workers believe that they will benefit from the program and, as a result, are inclined to participate actively throughout the entire training process

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
Executive and managerial staff	<p>The following people trained by program completion:</p> <ul style="list-style-type: none"> • 280 executive and managerial personnel • 80 microentrepreneur subcontractors <p>By program completion, a total of US\$104,000 will have been invested, including counterpart funding.</p>	<ul style="list-style-type: none"> • Final program report • Program evaluations • Opinion polls and interviews 	<ul style="list-style-type: none"> • The executive and managerial staff believe that the program benefits them and they devote necessary time to the course • An agreement with the SN to monitor the microentrepreneur pilot program over the medium term is reached
Service provider	<ul style="list-style-type: none"> • 10 educational institutions adopt curricula that is based on occupational families • 160 young specialists participate in vocational internships • 2 mentors hired to coordinate internship program <p>By program completion, a total of US\$119,500 will have been invested, including counterpart funding.</p>	<ul style="list-style-type: none"> • Final program report • Program evaluations 	<ul style="list-style-type: none"> • The training institutions in the country remain committed to integrating the new methodology and curriculum into their existing programs • The entrepreneurs believe they will benefit from the internship program and, therefore, involve students in important company activities
Design, information, and communication	<ul style="list-style-type: none"> • Design of the training and work register • Creation of a preliminary certification system • Development of a strategy to replicate the program <p>By program completion, a total of US\$170,650 will have been invested, including counterpart funding.</p>	<ul style="list-style-type: none"> • Final program report • Program evaluations 	<ul style="list-style-type: none"> • The planned program activities that serve as inputs for the register are executed • The TAC works systematically to determine the lines of activity for certification and for the strategy to replicate the methodology of the program

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
Program design Training Participants assessment Training	<p><u>First year:</u></p> <ul style="list-style-type: none"> • Curriculum guidelines designed • Team of 30 trainers assembled • 40 tutors trained • Two mobile training units equipped • Assessment performed, course schedule and list of participants determined • 100 unemployed workers participate in 4 courses • 250 employed workers participate in 10 courses • 80 specialists, contractors, and project managers participate in 4 courses <p><u>Second year:</u></p> <ul style="list-style-type: none"> • 20 additional tutors trained • 250 unemployed workers participate in 10 courses • 650 employed workers participate in 26 courses • 80 specialists, contractors, and project managers participate in 12 courses <p><u>Third year:</u></p> <ul style="list-style-type: none"> • 150 unemployed workers participate in 6 courses • 400 employed workers participate in 16 courses • 80 specialists, contractors, and project managers participate in 8 courses 	Semiannual program progress reports	
Training program Program for Entrepreneur Contractors	<p><u>First year:</u></p> <ul style="list-style-type: none"> • Assessment performed, course schedule and list of participants determined • Training institutions selected • 40 managerial employees participate in 4 courses • 40 executives participate in 4 courses • 20 microentrepreneur subcontractors participate in a pilot program 	Semiannual program progress reports	

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
	<p><u>Second year:</u></p> <ul style="list-style-type: none"> • 80 managerial employees participate in 8 courses • 80 executives participate in 8 courses • 40 microentrepreneur subcontractors participate in 2 courses <p><u>Third year:</u></p> <ul style="list-style-type: none"> • 20 managerial employees participate in 2 courses • 20 executives participate in 2 courses • 20 microentrepreneur subcontractors participate in 1 course 		
of occupational competencies professional internships	<p><u>First year:</u></p> <ul style="list-style-type: none"> • 60 young specialists participate in professional internships <p><u>Second year:</u></p> <ul style="list-style-type: none"> • an additional 100 young specialists participate in professional internships • 20 executives and/or teachers from at least 5 training institutions participate in 1 course on the new methodology and competency certification <p><u>Third year:</u></p> <ul style="list-style-type: none"> • second group of 20 executives and/or teachers from another 5 training institutions participate in 1 course on the new methodology and competency certification 	Semiannual program progress reports	
ion and ation campaigns and work register tion replication strategy	<p><u>First year:</u></p> <ul style="list-style-type: none"> • Database/training and work register established • Web page designed for the Internet • Lines of activity defined for implementing the CAPACO certification system • 2 seminars/conferences/workshops held to disseminate available information <p><u>Second year:</u></p> <ul style="list-style-type: none"> • 2 seminars/conferences/workshops held to disseminate available information 	Semiannual program progress reports	

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
	<p><u>Third year:</u></p> <ul style="list-style-type: none"> • 2 seminars/conferences/workshops held to disseminate available information • Action plan developed for replicating the program over the short and middle terms 		

PROPOSED RESOLUTION

PARAGUAY. NONREIMBURSABLE TECHNICAL COOPERATION PROGRAM FOR
EFFICIENCY AND COMPETITIVENESS IN THE CONSTRUCTION INDUSTRY

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, in the name and on behalf of the Multilateral Investment Fund, to enter into such agreements as may be necessary with the Cámara Paraguaya de la Industria de la Construcción (CAPACO), of the República del Paraguay, and to adopt such other measures as may be pertinent for the execution of the donors memorandum referred to in Document MIF/AT-____ with respect to a technical cooperation for a Program for Efficiency and Competitiveness in the Construction Industry.
2. That up to the amount of eight hundred forty thousand dollars of the United States of América (US\$840,000), or its equivalent in other convertible currencies, is authorized for the purpose of this resolution, chargeable to the resources of the Human Resources Facility of the Multilateral Investment Fund.
3. That the above-mentioned sum is to be provided on a nonreimbursable basis.