

PILOT SKILL STANDARDS AND CERTIFICATION PROJECT

(TC-95-09-37)

EXECUTIVE SUMMARY

EXECUTING AGENCY: Consejo de Normalización y Certificación de Competencia Laboral [Skill Standards and Certification Council] (CNCCL)

BENEFICIARIES: Mexican industry, business and labor.

OBJECTIVES: The general purpose is to help make Mexican business and labor more productive and competitive by supporting industries' efforts to identify measurable skill and certification standards that are competitive at the international level. This would be achieved by supporting demonstration activities in strategic industrial sectors initially, that would guide the participation of other industries in the establishment of job skills.

The project's specific objectives are to help private industrial groups to: (i) gear training in industry to job skills; (ii) introduce skills into the production systems and operating practices of private business and industry; and (iii) boost the capacity of industrial groups to guide the development of a standardized skills system.

DESCRIPTION: The objectives will be achieved by setting up pilot projects conducted by private industrial groups to identify skill standards. Each industrial group will involve businesses, workers, training providers and other participants in activities to support the development of standards relating to the abilities, skills and knowledge that an individual must command and apply in a variety of job scenarios. This innovative process will make Mexican enterprise more competitive and the labor market more responsive.

The components of the project are: (i) technical assistance in designing and developing skill standards; and (ii) support for pilot projects by industries to develop standards. A group of projects has been initially identified in private industries such as the hotel industry, construction, retail sales, the trucking industry, and telecommunications. (See Annex I for a description of the activities.) Funds have also been included to identify and develop

other pilot projects while the original projects are in progress.

The pilot groups will help to expand the process of identifying standards and will have a demonstration effect that will make it easier to establish standards in other industries and develop a national standards system driven by the private sector's needs. The CNCCL will provide each industry with technical and methodological support to ensure that the projects are consistent with each other. For its part, each pilot group will design and finance the development of new standards and take steps to encourage their adoption in the sector as a whole. This will include means to ensure that standards are used in recruitment, hiring, training, and promotion in the beneficiary businesses and industries.

FINANCING:	Modality:	Grant
	Beneficiary:	US\$2,000,000
	MIF:	<u>US\$3,000,000</u>
	Total:	US\$5,000,000

SCHEDULE OF EXECUTION:	The project will be carried out over a 36-month period, while disbursements will be made over 42 months, save for one additional payment to the consulting firm that will perform the ex post evaluation of the program, requiring 24 additional months. Annex III, available in the project files, contains a timetable of project activities.
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ENVIRONMENTAL CLASSIFICATION:	The Environment Committee, at its meeting of February 27, 1996, classified this as a Category II operation.
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BENEFITS:	Establishment of a skills system arises from the need of private business to improve its competitiveness and productivity. The system will help to make more information available to the benefit of: (i) private companies, which will have access to objective information on workers' skills, reducing the costs associated with recruitment and retraining; in addition, by valuing superior performance and demanding skilled workers, the system will result in increased competitiveness within the companies; (ii) workers, who will be able to raise their added value in terms of competitiveness, thanks to the skills they accumulate on the job and the elimination of barriers to entry into jobs and formal training programs; and (iii) society in general, since the system will make for more fluid and effective linkage between job qualifications or functions and skills.
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RISKS: The main risk is that the pilot projects may not produce the results expected by industry in the time frame envisaged, which could mean that they would not further the standardization process on the national level. To forestall this risk, the project includes funds for the dissemination and promotion of the standardization and certification process during execution, to ensure that industry in general internalizes the process.

SPECIAL CONDITIONS: Prior to the first disbursement from the Bank's contribution, the CNCCL will submit evidence satisfactory to the Bank that the following special conditions have been met: (i) the executing unit's coordinator has been hired in accordance with the terms of reference approved by the Bank; and (ii) a plan of action has been submitted to the Bank that includes a timetable of activities, an itemized budget, mechanisms for financial sustainability, the terms of reference for the executing unit and its staff, and the terms of reference for the consultants who will be hired under the project.

A special condition precedent to disbursement of funds earmarked for specific projects will require that each industry responsible for a pilot project enter into a Bank-approved agreement with the CNCCL.

I. COUNTRY ELIGIBILITY

- 1.1 On January 23, 1994, the Donors Committee declared Mexico eligible for all modalities of the Multilateral Investment Fund (MIF), based on the eligibility memorandum prepared by the Bank.

II. BACKGROUND

A. Introduction

- 2.1 Mexican business is very aware that a highly-skilled and adaptable workforce is the most strategic factor that will enable it to compete on the international market, particularly in view of recent trade agreements. It is also aware that an open economy demands major changes in industrial profiles that will increasingly require advanced technology and more efficient productive capacity. The companies that adapt best to these changes will be able to respond most quickly to consumer needs and preferences, and will therefore be able to retain and expand their markets.
- 2.2 An open economy must have industries, workers, and training programs capable of responding swiftly to changes in technology and productive processes. This fact is the root cause of deep changes in the labor exchange and training systems. The challenge for employers and for trainers is to link training more closely to transformations in the production structure.
- 2.3 In a dynamic labor market, private businesses need workers with general skills applicable to more complex functions and specialized technical abilities. Since specialized training is increasingly being acquired in plants and industries, training programs will become even more diverse than at present. In these circumstances, employers require reliable information on the work skills required in the productive sector.
- 2.4 Mexico already has a critical mass of companies and industries interested in obtaining ISO 9000 certification, 1/ which will permit them to qualify as suppliers of goods and services on the international market. These companies are promoting the establishment of skill standards that will provide them with more objective tools to evaluate the competitiveness of their employees and with more responsive indicators for transformation,

1/ ISO 9000 is a service and product quality certification issued by the International Organization for Standardization (ISO). This certification is recognized internationally by over 80 countries as a quality indicator. The system has been operating in Mexico since 1986.

restructuring, or reengineering to maintain their levels of competitiveness. There are also a number of industries that depend on independent contractors and are demanding more objective ways of measuring the skills of those workers.

B. Development of skills systems geared to the production apparatus: international experience and lessons learned

- 2.5 The lack of suitable ways of measuring skills limits the possibility of evaluating a worker's qualifications and the quality of training programs. Many countries have traditional job certification systems, but even in such cases, certification tends to reflect studies and past practical experience, but fails to give a precise idea of a worker's capacity to use skills.
- 2.6 There is a new trend in industrialized countries (including the United States, Japan, England, France, and Australia) which is also beginning to appear in developing countries (Jamaica, Honduras, and Trinidad and Tobago) towards opting for certification systems based on *skill standards* which describe the abilities, skills, knowledge and operations that an individual should be capable of handling. ^{2/} The main features of these systems are: (i) stress on results, i.e. rewards for results expressed in the ability to perform productive functions; and (ii) identification of standards is done from the ground up and is highly participative since it stems from the demand side and involves first-line production and service workers and supervisors from various firms in a particular industry and a highly empirical functional analysis.
- 2.7 Job skills systems stress verification of the performance of a series of functions which demonstrate that an individual possesses the level of competence required for a specific occupation, an industrial process, or a given technological application. The form in which the skills were acquired is less important than the ability to perform the desired skill competently.
- 2.8 A skills system makes more information available on the skills and qualifications of workers, which benefits companies, workers and society as a whole. For companies, the system provides objective information on workers' skills, reducing the costs associated with recruitment. In addition, by valuing superior performance and demanding skilled labor, the system will result in greater competitiveness within the companies. The system allows **workers** to increase their added value in terms of competitiveness, thanks to the skills they accumulate on the job, and also eliminates barriers to new jobs or transfers to other jobs and formal training

^{2/} In this document the words "standard", "job skills" and "skills" are used interchangeably to refer to the concept of skills standards defined here.

programs. The process of analyzing skills related to international standards of excellence helps boost productivity and competitiveness in industry in general. For society as a whole, better information on the skills of workers makes for more fluid and effective linkage between employment and job skills. To achieve a system of this kind, sweeping changes are required in existing structures and practices in industry, training systems, and labor market information systems.

- 2.9 In undertaking a reform of this type, coparticipation and comanagement by the government and the private sector are of prime importance, since the former acts as catalyst and coordinator of the system while the latter makes it viable. Through dialogue and coordinated actions it is possible to: (i) define methods for identifying and validating specific standards on the national level; (ii) prepare instruments for systematically checking skill levels and the results of training processes; (iii) develop a common language for identifying skill levels and establish viable mechanisms for rating labor by skill level; and (iv) introduce skills-oriented criteria in production, general and technical education, and employment.
- 2.10 The experience of other countries shows that, to encourage the incorporation of these processes in business, it is important for strategic and highly visible industries to start the process of identifying job skills, acting as showcases and promoting the development of such systems in the business sector in general. Given this reality, leading industries should be encouraged to participate in order to generate a demonstration effect that will help to develop the system. The impact of the system in its early stages will be driven by the critical mass of industries that have significant economic incentives and an urgent need to become more competitive. The consolidation of these business-sector-driven systems does not depend on the complete coverage of all the country's industries but rather on the participation of the majority of the industries and on their impact on a critical mass of the labor force and occupational sphere.

C. Establishment of a skill standards and certification system in Mexico

- 2.11 The definition and introduction of skill standards and the establishment of a skill certification system are the keys to structural reform in human-resource training and education in Mexico. Mexican industry has shown interest in supporting the establishment of a system of this kind. There is general awareness that it will require a sweeping process of change that will take time, and therefore coparticipation by the private sector and the government is important.

- 2.12 The Mexican government launched this reform with support from the private sector and a loan (3805-ME) from the IBRD, whose chief objective is to improve the quality, relevance, and flexibility of technical education and training to meet the key needs of the production sector. The program includes: (i) establishment of a national frame of reference for skill standards; (ii) transformation of the training system to incorporate skill-based training techniques with several training institutions; and (iii) stimulation of the demand for standards and certification through subsidies for individual microenterprises and small and medium-sized businesses (SMEs) to cover the costs of introducing training geared to on-the-job proficiency and/or to finance certification of their workers once the standards have been established.
- 2.13 In the specific area of establishing a standardization and certification system, the IBRD project is financing: (i) the establishment and development of the Consejo de Normalización y Certificación de Competencia Laboral [Skill Standards and Certification Council] (CNCCL) (US\$6.6 million); and (ii) the design of a skill certification and testing system (US\$11.2 million) to be introduced once the standards have been established. See Annex II for more details on the program financed by the IBRD, available in the project's files.
- 2.14 One of the first actions in initiating this transformation was the establishment in August 1995 of the CNCCL. It is an independent trust, initially financed mainly from public funds and to a lesser extent from private contributions, although in the medium term it will come to depend more on private funds and will be in a position to generate its own income. Its structure was based on an analysis of international experience. Mexico opted for a formula similar to that used in countries such as Japan, the United States, New Zealand, and Denmark in that it promotes coparticipation between the government, employers, and employees, but ensures that control remains largely in the hands of these last two groups.
- 2.15 The Council's general function is to coordinate the creation of a national standards and skills system, and establish the certification procedures that will support the system. The Council's task will be to: (i) direct and steer the reforms needed to ensure the system's quality, relevance, and equity; and (ii) help the productive sectors identify and implement the skill standards.
- 2.16 International experience indicates that to provide impetus for the system and include a significant number of industries in the process from the outset, it is necessary to share the initial costs with business. Subsequently the industries can take over the responsibility of financing the periodic updating of standards as an integral part of their training costs. The success of the Mexican skills system depends on the speed with which the system

can be incorporated into the business dynamic and is able to expand participation by the majority of industries.

- 2.17 While the IBRD program establishes the general framework and pilot projects for stimulating demand within the training system and SMEs, the project presented to the MIF for consideration will focus on encouraging groups of companies and organizations affiliated with strategic industries to participate in pilot projects with a demonstration effect, which is crucial for promoting the introduction of these processes throughout industry in general.
- 2.18 The pilot projects to be financed by the MIF will predate the formalized standardization system in which other industrial groups would participate. The CNCCL will use the experience and know-how acquired through the pilot projects to develop criteria to facilitate the inclusion of other industries in the process and to devise suitable procedures for approving and publishing standards issued by other industries through formal mechanisms, as they are established.

D. Bank and MIF strategy

- 2.19 The strategy for the labor market and job training agreed upon by the Bank and the Mexican government for the 1995 to 1997 period is to boost productivity, with stress on support for labor training initiatives, job security, and technical education. These activities will improve the quality of the workforce and the capacity of microenterprises and small and medium-sized businesses to raise their productivity and adjust to external competition.
- 2.20 In support of this strategy, at the request of the government, the Bank, in conjunction with the IBRD, is preparing a second stage in the labor markets modernization program, PMMT II (ME-0186), which includes employment programs to boost company competitiveness by supporting training and comprehensive technical advisory plans. The proposed skill standards and certification project will contribute to the efficiency of employment programs and boost the competitiveness of PMMT II, since it introduces objective yardsticks.
- 2.21 **MIF participation** complements the government's larger modernization program, since it would speed up and expand Mexican industry's participation in improving training and employment systems, by providing companies with the tools they need to incorporate these processes into their operating practices, thereby ensuring the success and sustainability of this effort.
- 2.22 The MIF proposal is also an integral part of the **facility II strategy for Mexico**, which is intended to respond to two key requirements: (i) **in the short term**, to cushion the impact of the economic crisis on jobs and on private initiatives to improve the

quality of the workforce; and (ii) in the long term, to help develop systems for the training, evaluation, and certification of workers, driven by the private sector and encouraged by market incentives. The proposed project responds specifically to long-term needs since it will foster the construction of targeted human-capital development systems steered by private enterprise, production requirements, and market dynamics.

- 2.23 In accordance with the principles and operating procedures of the MIF (Article III, Section 5, of the Agreement), the MIF grant will also act as a catalyst for increased private sector investment.
- 2.24 The MIF will provide nonreimbursable financing to support a group of projects in strategic industries, thereby accelerating the consolidation of the private sector as the agent that guides this process. MIF funding will support: (i) demonstration activities in selected industries rather than in individual companies, so that these processes can be fully internalized at the sector level; and (ii) consolidation of these processes within such industries by establishing permanent mechanisms to update the standards and certification processes. The industries participating in the project's demonstration activities will play a strategic role in establishing the future system and their experiences will serve as models for other industrial groups that join the system as the experience spreads.
- 2.25 It should be noted that, in initiatives such as this, the impact on technical training and the competitiveness of the workforce is felt in the medium and long terms. By way of example, in countries that already have skills-oriented training systems, it has taken from 10 to 20 years to consolidate the process. The MIF project will help to launch the process on the production sector side.

III. THE PROJECT

A. Objectives

- 3.1 The general purpose is to help make Mexican business and labor more productive and competitive by supporting industries' efforts to identify measurable skill and certification standards that are competitive at the international level. This would be achieved by supporting demonstration activities in strategic industrial sectors initially, to guide the participation of other industries in the establishment of job skills.
- 3.2 The project's specific objectives are to: (i) encourage industrial groups to play an active role in promoting skill-based training in industry; (ii) facilitate the introduction of skills into the production systems and operating practices of private business and

industry; and (iii) boost the capacity of industrial groups to guide the development of a skill standards system.

- 3.3 When it is completed in three years, the project is expected to have produced: (i) methods for skills standardization valid for a representative group of private industries in Mexico; (ii) demonstration lessons and tools showing how standards can be incorporated into the process of recruiting, hiring, promoting, training, and certifying workers; and (iii) a group of industries that have introduced skill standards into their productive processes and have expanded their investments in human resources with the introduction of such standards. Another expected result will be quicker transformation of the vocational training and education system in general.

B. General description

1. General activities

- 3.4 The project will support two interrelated lines of action: (i) development of a standardization and certification system, and (ii) development of methods for identifying standards in specific industries. This will chiefly be done through pilot standardization projects organized by selected industries. The pilot projects will help to develop key elements for the skill standards system, such as: (i) verification of priority functional areas for the development of standards; (ii) identification and validation of preliminary standards; (iii) development of methods and instruments to verify proficiency levels; (iv) promotion of these experiences among businessmen, human resource specialists, employees, and trainers; (v) identification of cost-recovery mechanisms to fund the periodic updating and establishment of standards; (vi) identification of savings made or the cost-effectiveness of investments in training; and (vii) an evaluation of certification systems. Annex I describes the pilot projects initially identified.
- 3.5 Each industry that conducts a pilot project will, with methodological support from the Council, design a process for identifying and validating standards that take account of the specific needs of that industry. Mechanisms will also be devised to enable that industry to adopt the standards. The pilot projects will design updated curricula based on the standards, performance tests, and strategies for the creation of certification mechanisms. The industries will not reach the stage of certifying their employees during project execution since the goal in this initial phase is to define the best strategies and mechanisms for certification.

2. Sectors and subsectors

- 3.6 Some 15 strategic sectors and subsectors were initially identified by the Council to develop skill standards. They include electronics, metal working, metallurgy, automotive repair, electromechanical maintenance, telecommunications, tourism, construction, commerce, transportation, and agroindustry, and were identified on the basis of their relevance for economic development, number of employees, future employment projections, and their contribution to GDP and the trade balance.
- 3.7 During preparation of this project, the Bank evaluated proposals presented by several industrial groups in these strategic sectors and chose a series of pilot projects that comply with the inclusion criteria. The following four criteria were used: (i) belong to a priority industry identified by the Council; (ii) include a broad range of the principle agents in the industry (associations, leading employers, labor); (iii) commit themselves to providing the counterpart funds required for the project and demonstrate the capacity and willingness to adopt and sustain the activities over the long term; and (iv) have a strategy for analyzing job skills with the greatest impact on the most critical productive functions or occupations in the sector and the highest likelihood of being transferred with ease to other branches.
- 3.8 The pilot groups that qualified included the hotel industry, construction, retail sales, the trucking industry, and telephones. All these industries are undergoing an adjustment process and are very interested in developing a workforce that is better qualified to compete on the international market. In the case of the hotel and retail industries, for example, a change from a culture of standardized service to service that focuses on individual client satisfaction is essential.
- 3.9 Taken as a whole, these industries have a critical mass of employees and occupations typical of the Mexican labor market, which will provide the Council and the participating industries with broad input and dissemination. If a significant demonstration effect is to be produced, it is important to have a good number of industries participate, and the project will therefore support the inclusion of other industries if the Bank and the Council find that their proposals meet the above-mentioned criteria and funds are available.

3. Institutional participants

- 3.10 Participation by a leader group that is broadly representative of its industry is the most crucial element for ensuring that the pilot projects will be sustainable and their lessons assimilated. That group will take responsibility for promoting the spread of the standards and experiences acquired to the other companies in its branch of industry. Each pilot group should ensure the inclusion

of: (i) both large and small companies that will participate with their employees, allowing the concept and methodology of skill standards to be applied to their staff; (ii) business organizations such as boards and associations; (iii) labor representatives such as unions, labor groups, and highly-specialized employees; (iv) training institutions linked to industry; and (v) other institutions associated with the industry such as foundations, research centers, and organizations that set product standards for the sector.

4. Special areas: SMEs and occupational safety and health

- 3.11 Each pilot project, depending on the situation in its industry, will attempt to enlist small and medium-sized enterprises (SMEs) in the process of identifying and adopting standards. To facilitate their participation, the project creates certain economies of scale by grouping companies of all sizes together. Under this scheme of collaborating groups in each branch, a significant part of the initial costs has already been assumed by the large companies, which can share their experiences and support the efforts of smaller companies in their field. The Ministry of Labor and Social Security, under the project supported by the IBRD, is already supporting the adaptation of job skill frameworks to a sizable group of SMEs, whose relevant experiences will be included in this project. The mid-term evaluation will examine the SMEs' experiences with the pilot projects and recommend any adjustments that might be needed to encourage those businesses to adopt skill standards.
- 3.12 Given the growing importance of **occupational safety and health** in job training, the project will also support a special line of action proposed by the construction industry. The pilot project in the construction industry will carry out an innovative experiment that includes labor organizations in the process of introducing health, safety, and environmental protection into training programs in the industry.
- 3.13 These activities were originally suggested to the MIF as a separate project. However, the diagnostic studies done in preparing the two projects suggested that it would be better to merge them, which would ensure that any Bank-supported, training-related activity would tie in with the standards being introduced and that the standardization process would include labor initiative and the principles of health, occupational safety and environmental protection.
- 3.14 The features of the construction industry lend themselves particularly well to this type of pilot project. Some 90% of the construction firms in Mexico are small and the sector has very modern training programs. The Builders' Association provides training programs to its members through the training institute it

operates nationwide. The project will adapt relevant standardization experiences in the United States that have already incorporated these aspects into skill standards and have successful training programs managed by labor organizations. Mexico's construction industry will receive additional support to implement this activity. The experience gathered under this pilot project will be shared with other pilot groups.

C. Components

Component 1: Technical assistance in designing and developing standardization procedures (US\$985,000)

- 3.15 This component will finance technical assistance and study preparation by the Council's team in order to: (i) design methods for identifying and validating standards, including a functional analysis and surveys; (ii) design skill-based training activities, including methods, materials, and guides; (iii) design and prepare methods and instruments for testing performance, including an analysis of methods already in use and the adaptation of instruments and personnel training; (iv) disseminate and introduce standards, including workshops that bring the participating industries and international experts together to discuss common issues; and (v) identify and develop cross-over skills. The component also includes administrative costs for execution of the above.

Component 2: Support for development of the industries' pilot projects (US\$1,240,000)

- 3.16 The following activities will be financed in each pilot project: (i) identification of standards; (ii) training; (iii) performance tests; (iv) dissemination and implementation; (v) promotion of occupational and environmental safety in the construction industry; and (vi) administrative costs for execution. Financing will be used principally to cover investment costs and initial technical advisory services for each of these activities, but each industry will also make a significant counterpart contribution. A timetable for pilot project activities is presented in Annex III, available in the project's technical files.
- 3.17 The **identification of standards** is based on actions to be carried out inside each industry and involving participation by employers and employees participating in the production process. The process generally includes: (i) an analysis of the strategic functions of the industry; (ii) compilation of the standards of leading companies in this field and preexisting national and international standards for that industry in the areas selected; (iii) verification of performance areas with representative groups working in the productive apparatus; (iv) validation of the results of these identification exercises through field tests and surveys

of larger numbers of managers and workers most familiar with the production process; and (v) once the standards have been established, instruments are designed to measure skills. Although the instruments for certification stem from the standards validation process, the establishment of certification systems takes longer since they must be negotiated by the government, industry, and labor, to safeguard independence and transparency.

- 3.18 The skill-based training programs to be designed under each pilot project will include the development of curricula, preparation of teaching materials, training for instructors, and pilot training courses to test the new methods. Depending on the needs of each pilot project, materials may be obtained from other countries to support the process.
- 3.19 This component will also provide training for personnel in each pilot project in the use, adaptation, and preparation of tools to measure performance on different skill levels. It will also involve performance tests for significant groups of workers in the participating companies. Personnel will be trained in validation techniques that are suited to business environments. The technical assistance will be aimed at introducing expeditious methods of simplifying the integration of these processes into the production dynamics of each industry.
- 3.20 This component will also finance the promotion and dissemination of the pilot experiences. Each pilot group will develop the institutional capacity to assist firms of all sizes in the respective industry in adopting the standards as tools for recruiting, hiring, promoting, and training workers. Specialized advisory services will be hired to prepare marketing plans, operational guidelines, and information workshops including presentations to associations, industry meetings, seminars, commercial exhibits, publications, and information pamphlets.
- 3.21 Technical support will also be provided to enable each pilot project to prepare a strategic plan to institutionalize the standards in its industry and to prepare financial sustainability plans based, for example, on the sale of educational materials, direct provision of training for individual firms or groups of firms, and other income-earning products and services that can be used to sustain the activities of the industrial groups. One important input in designing the strategic plans will be the exchanges to be organized between the members of the different pilot groups and counterpart industries in other countries that already have experience in these processes.

D. Cost and financing

- 3.22 The project's total estimated cost is US\$5 million. The MIF contribution will be US\$3 million, while the local counterpart

contribution will be US\$2 million, which will come mainly from the direct contributions made by businesses (37%) in each participating industry and, to a lesser extent, from the Council's resources (3%). MIF financing will be distributed as follows: (i) 25% for assistance in developing standardization systems; (ii) 31% for the pilot projects in the industries; (iii) 11% for evaluation of the results and impact analysis; (iv) 10% for supporting additional pilot projects; and (v) 18% for administrative costs. The project's costs are summarized in Table 1.

Table 1				
Budget summary (US\$)				
Category	MIF	CNCCL	Business	Total
I. Component I: Technical assistance in developing standardization processes	985,000	115,000		
(a) Design of the methodology for identification and validation of standards	90,000			90,000
(b) Design of skill-based training activities	75,000			75,000
(c) Design of model methods and instruments for performance tests	200,000			200,000
(d) Support for dissemination and implementation (exchanges, traineeships, publications)	150,000		50,000	200,000
(e) Support for the identification and development of skills (cross-over models)	230,000		80,000	310,000
(f) Administrative costs	240,000	115,000		355,000
II. Component 2: Support for development of pilot projects in industries	1,240,000	30,000	1,610,000	2,880,000
(a) Standardization	85,000	18,000	200,000	303,000
(b) Training	65,000	9,500	275,000	349,500
(c) Performance testing	300,000		400,000	700,000
(d) Dissemination and implementation	200,000		75,000	275,000
(e) Promotion of occupational and environmental safety	300,000		75,000	375,000
(f) Administrative costs	290,000	2,500	585,000	877,500
III. Evaluation	325,000			325,000
(a) Evaluation of project results	75,000			75,000
(b) Impact analysis	250,000			250,000
IV. Support for additional pilot projects	300,000		115,000	415,000
V. Contingencies	150,000			150,000
TOTAL	3,000,000	145,000	1,855,000	5,000,000

E. Financial sustainability

- 3.23 The MIF grant will only serve as a catalyst to finance the technical assistance required at the outset of the process to reshape training to reflect the skill standards system. From the start, the industries will finance much of the proposed project, for example, the salaries of personnel in the work groups engaged in functional analysis, identification, and validation of standards. In addition, a large part of the costs of developing the training programs, producing educational materials, dissemination, and all the training and evaluation will be financed by business associations, training institutions, and entrepreneurs in each branch of industry.
- 3.24 The long-term costs of periodically updating the standards, which must generally be done every five years, will be lower since the necessary mechanisms will have been established with the initial investment. These costs could be financed in later stages with contributions from users and beneficiaries of the certification and registration services, which will ensure the sustainability of the processes. The plan of action to be presented by the Council to the Bank for approval prior to the first disbursement will include mechanisms and arrangements for financial sustainability.
- 3.25 This project facilitates the financial sustainability of activities on two levels: (i) the pilot projects will have a demonstration effect that will serve to efficiently incorporate standardization and certification processes into companies' existing spending on training to receive services from their industrial associations and training institutions, and (ii) each pilot group will design cost-recovery mechanisms to finance the additional costs entailed in updating the standards for each industry.

F. Organization and execution

- 3.26 Although the Skill Standards and Certification Council will be the executing agency and will be answerable to the Bank for overall project development, the pilot projects will be executed directly by the participating industries, with advice from the Council.
- 3.27 **Organization.** The Council will sign an agreement with the group directing each pilot project, which will be composed of senior representatives of participating industries. Each group will have a chairman elected from among the members and a technical secretary proposed by the group or the Council.
- 3.28 The pilot projects will have work groups composed of experts in the industry, including workers, supervisors, professionals, businessmen, clients, and suppliers. The Council will provide facilitators or specialized technical advice on standardization, training, and certification of job skills.

- 3.29 **Execution.** The Council will be answerable to the Bank for the pilot projects' development. Although the Council is a relatively new entity, its staff has ample experience in administering projects conducted with international financing. The Council will hire a project coordinator and accountant satisfactory to the Bank, in accordance with terms of reference approved by the Bank. The preliminary terms of reference of the executing unit and its staff are available in the project files. The final versions of these terms of reference are to be included in the plan of action that must be submitted to the Bank prior to the first disbursement.
- 3.30 The coordinator will establish an informal advisory group, which will include representatives of industry, executives and technical staff from both the Council and from the Ministry of Labor and Social Security (STPS) and the Ministry of Public Education (SEP), to confer on various aspects of the project. The coordinator will be answerable to the Bank for the administrative aspects of the project.
- 3.31 The ministers of the government departments that guide economic, labor, and educational policies are members of the Council's board of directors, which also includes business and labor leaders who coordinate their efforts with representative groups of each branch of industry participating in the system. These groups, formally known as technical standardization committees, are part of the Council's formal structure and are responsible for presenting standards for approval by the Council's board of directors. Although government representatives play an important role in the Council, control lies in the hands of the private sector, and consolidation of the system depends on the acceptance of standards by Mexican private industry.
- 3.32 **Service contracting.** Any services required for the project will be contracted in accordance with the procedures of the Bank and the MIF for selecting and hiring consultants.
- 3.33 **Timetable of execution.** The project will be carried out over a 36-month period and the disbursements will be made over 42 months, save for an additional payment to the consulting firm that performs the ex post evaluation of the program. The disbursement period for the additional payment will be 24 months. Annex III contains the timetable for the project's activities and is available in the project's technical files.

G. Disbursements

- 3.34 The resources from the grant will be used in accordance with Bank procedures. The technical cooperation agreement will include the standard Bank clauses relative to, *inter alia*, auditing, progress reports, inspection, evaluation, bidding and procurements. Prior to the first disbursement from the Bank's contribution, the Council

will submit evidence satisfactory to the Bank that the following special conditions have been met: (i) hiring of the executing unit's coordinator, in accordance with the Bank-approved terms of reference; (ii) presentation to the Bank of a plan of action that includes the timetable of activities, an itemized budget, financial-sustainability mechanisms, terms of reference for the executing unit and its staff, and terms of reference for the consulting firms that will be hired under the project; and (iii) approval by the Bank of the agreements reached with the pilot groups.

- 3.35 A special condition will be included in the contract to the effect that before funds for specific pilot projects are disbursed, every industry responsible for a pilot project must conclude a Bank-approved agreement with the Council, stipulating each party's responsibilities and financial obligations. Although each agreement would be concluded with an organization with legal status to represent the sector, it must also contain the signatures of the other members of the initial collaborating group that would carry out the pilot project. This condition does not mean that the membership of an executive group is closed once the agreement with the Council is concluded. Quite the contrary, the groups must grow in size as the project progresses. Nevertheless, the idea is to make certain that the pilot projects have a sufficiently representative group from the start. Minimum membership will consist of a leading association in the industry, a leading company, a labor representative of the sector or an employee selected by the workers of the participating company, and a supplier of training for that branch of industry.

H. Monitoring and evaluation

- 3.36 Within the first three months of the project, in accordance with the terms of reference approved by the Bank, the Council will hire a consulting firm to develop a monitoring and evaluation system (see paragraphs 7.1 to 7.3). That system will not only compile the data needed for the evaluation, but will also monitor the activities carried out under the project, thereby facilitating project supervision. The Council and the pilot projects will be responsible for implementing the monitoring system.
- 3.37 Due to the technical complexity of certain phases in the process of identifying standards and the need to examine other areas during the project's execution, the Bank will schedule two technical supervision visits the first year, and one every year thereafter. In the event that consultants are hired to go on these technical supervision visits, their fees and expenses will be paid out of project resources. The project will also include resources to be used at the Bank's discretion to hire such ad hoc technical assistance services as may be needed to support the project's technical supervision.

I. Reports

- 3.38 For proper control and oversight of the program while it is in progress, the Council will prepare the following reports and present them to the Bank, together with observations and recommendations: (i) semiannual progress reports detailing the activities carried out in the period; (ii) mid-term report, to coincide with the mid-term evaluation after the first 18 months of the program; and (iii) final report, to be delivered by the coordinator within 30 days of the program's conclusion.

IV. FEASIBILITY AND RISKS

- 4.1 The project is viable because of the determination of the Government of Mexico and the private business sector to develop a national skill standards and certification system. Leading businesses and associations from every sector involved will participate in the pilot projects and have undertaken to disseminate and promote the results of this program nationwide. It should be noted that in the early stages the goal is not mass but rather strategic participation by industry.
- 4.2 The main risk is that the pilot projects may not produce the results expected by the industries in the time frame envisaged, which could mean that they would not further the standardization process on the national level. To forestall this risk, the project includes funds for the dissemination and promotion of the standardization and certification process during execution, to ensure that industry in general internalizes the process.
- 4.3 There is always the possibility that companies will be competing for better trained and more highly skilled labor. However, the industries that participate in this initiative are already collaborating in determining training requirements and are investing sizable amounts in training programs that cover their whole industrial sector. The skill standards that these industries prepare will be introduced in all companies that belong to industrial associations through their sector training institutions. This should allay any fears that the companies may have. International experience also shows that the benefits of investing in worker training over the long run minimize the short-term risks of losses from investment in training.

V. COMPLIANCE WITH PROJECT ELIGIBILITY CRITERIA

A. General project eligibility criteria

- 5.1 The proposed program is consistent with the Agreement Establishing the Multilateral Investment Fund, particularly with Article I, subsections (a) and (b), which call for financing to support development strategies based on sound economic policies which encourage increased private investment and an expanding private sector, as those policies will speed up social and economic growth.

B. Eligibility criteria for the Human Resources Facility

- 5.2 The program is consistent with the financing criteria of the Human Resources Facility, one of whose goals is to provide grant funds to develop the human resource base needed for increased investment flows and an expanded private sector. The project will finance the basics of a training system (standards) that will eventually be included in all training and development systems throughout the country. The project focuses on key issues for making the labor force competitive on the world market and establishes a process to upgrade the level of the Mexican labor force to meet those standards.

VI. AVAILABILITY OF MIF RESOURCES

- 6.1 **Mode of financing.** The project will be funded through a grant by virtue of the following: (i) the Donors Committee declared Mexico eligible for all types of funding under the MIF on January 23, 1994; (ii) the agreement with Mexico stipulating the country's grant-eligibility criteria (Article III, Section 5(b), of the MIF Agreement) is detailed in section III of the country's Eligibility Memorandum; and (iii) the proposed project will have the catalytic impact on investment flows required under Article III, Section 5(a), of the MIF agreement, and its purpose is to facilitate the introduction of skills and certification systems for Mexican industry, thus helping to improve the labor force's productive capacity.
- 6.2 **Allocation of MIF funds.** No restriction is applied on the allocation of MIF funds in Mexico or for this specific project.

VII. EVALUATION

- 7.1 The evaluation method to be designed by the consulting firm hired at the start of the project (see paragraphs 3.36 and 3.37) should include participatory mechanisms such as focus groups in which experiences and reactions can be shared while the project is in progress, as well as quantitative methods and three reports: (i) a mid-term evaluation at the end of the first 18 months of the program; (ii) an evaluation at the end of the three-year life of the program; and (iii) an ex post evaluation two years after the final disbursement. The indicators to be used will take into account the logical framework presented in Annex IV. These indicators may also include the efficiency of institutional mechanisms and accomplishment of established goals.
- 7.2 While the mid-term evaluation and the evaluation upon the program's conclusion will examine its efficacy and fulfillment of the proposed objectives, the ex post evaluation will mainly look at the impact and scope of the program. The mid-term evaluation will include an analysis of the progress made toward the expected goals, such as the involvement of small businesses in the standardization process, and will allow for any adjustments needed in the project and its goals.
- 7.3 For purposes of the ex post evaluation, reference surveys will be conducted at the start of each pilot project and follow-up sample surveys will be carried out to measure the changes two years after project execution. Since the project's most important goal is to institutionalize the system at the industry level, the ex post evaluation will mainly study the extent to which companies use standards in their regular activities, such as recruitment, and the impact on the workers' competitiveness that can be measured by increases in horizontal and vertical job mobility. The following may be among the indicators that the ex post evaluation will consider: (i) productivity of participating companies; (ii) organization of work; (iii) career trajectory of the workers evaluated and the workers trained under the pilot project and then evaluated; (iv) standards developed and their degree of transferability; (v) number of areas in the company or trade association to which the experience of each pilot project has been applied; (vi) necessary adjustments to the methods used in the pilot projects; and (vii) level of acceptance among workers, companies, trade associations, unions, boards of trade, and the educational sector.

SUMMARY OF THE PILOT PROJECTS

I. HOTEL INDUSTRY

A. Sector profile

- 1.1 In 1995 tourism earned US\$7.8 billion in foreign exchange, accounting for approximately 3% of national GDP.
- 1.2 Considering the growth expected in this sector and the changes that must be made by the companies involved if they are to become more efficient and productive, the hotel industry must modernize its processes, while still maintaining the hospitable environment within more demanding competitive parameters, with a strong service orientation.
- 1.3 The hotel industry in Mexico employs over 190,962 people. To meet forecasts regarding the numbers of tourists, the private sector will have to provide 39,000 additional rooms by the year 2000, which will also mean about 25,000 new jobs. Even more importantly, the hotel industry will have to change its traditional structure for one that provides more efficient service for clients if it is to improve its productivity.

B. Participating institutions

- 1.4 The pilot project in this sector was proposed by one of the largest hotel chains in Mexico, the Posadas Group. To ensure that the project has a wide impact in the sector, the company has drawn a larger group into its project, including the Asociación de Inversionistas en Hoteles y Empresas Turísticas, A.C. [Association of Hotel and Tourism Enterprise Investors] (AIHET). This association was selected owing to its representativeness in the hotel industry and its interest in participating in the project. Other members of the executive group will include: (i) representatives of unions in the sector, the Confederación Revolucionaria de Obreros y Campesinos [Revolutionary Confederation of Workers and Campesinos] (CROC) and the Confederación de Trabajadores de México [Confederation of Mexican Workers] (CTM); (ii) the Colegio Nacional de Educación Profesional Técnica [National Technical and Vocational Education College] (CONALEP), which is one of the main providers of training and specialized manpower for the Posadas Group; and (iii) the Ministry of Tourism (SECTUR) since it is the national regulatory agency of the sector and is involved in training for the hotel industry.
- 1.5 The Posadas Group covers 20% of the hotel market and is made up of a total of 40 hotels that serve the following markets: (i) frequent business travellers who generally stay in four-star

hotels; (ii) experienced upper- and middle-class travellers who stay at five-star hotels; and (iii) hotels that serve other markets.

C. Initial proposal of skills to be standardized

- 1.6 The hotel sector is divided into six basic functions: administration, sales, human resources, engineering and maintenance, the rooms division, and food and beverages. Guest services are the most distinctive aspect of this industry, and estimates suggest that about 30% of the personnel employed in the hotel sector is involved in this activity.
- 1.7 Accordingly, the pilot project will focus on *guest services*. In this area the most important positions in the rooms division are reception manager, receptionist, assistant reception manager, reservations staff, bell boy, porter, telephone operator, head parking valet, assistant parking valet, and security staff. These are the areas in which the hotel industry urgently needs highly skilled employees to respond to client demand and the industry considers them to be strategic for its initial investment in skills.

II. CONSTRUCTION

A. Sector profile

- 2.1 The most significant aspect of the construction industry is its impact on aggregate demand and total employment owing to its downstream effect and links with many of the most dynamic sectors of the economy (38 of the 72 branches).
- 2.2 In 1994 the industry's production value was 50.122 billion new pesos, which was 1.5 times higher than in 1989. In the last five years it has contributed an average of 5.2% of GDP, although in 1995 it contributed just 4.68% as a direct result of the economic crisis.
- 2.3 In view of the downturn in the domestic economy, a series of alternatives has been studied for reactivating the industry as a whole. The Cámara Nacional de la Industria de la Construcción (Cámara) [National Association of Construction Industries] analyzed a strategic plan for the sector, whose main objective was to strengthen companies for domestic and foreign competition. This objective will be achieved through training for workers in the industry on all levels and the incorporation of cutting edge technologies.

- 2.4 The construction sector is chiefly composed of small companies. In 1995, the association had 15,313 members, 13,667 of which were small, 821 medium-sized, 469 large, and 357 giant. The industry provides 2,321,000 direct jobs (374,000 fixed and the remainder temporary).

B. Participating institutions

- 2.5 The proposed pilot project will develop two groups of standards under the supervision of an industry coalition. One group will be prepared by task forces directed by the Cámara and the other will be directed by the Organismo Nacional de Normalización y Certificación de la Construcción y Edificación [National Construction and Building Standardization and Certification Agency] (ONNCCE). The group directing the coalition in this industry will initially be composed of the Cámara, ONNCCE, and the Sociedad Interamericana de Educación y Capacitación Ambiental [Inter-American Education and Environmental Training Association] (SIECA), which bring together the main agents in the industry.
- 2.6 The Cámara represents a significant group of collaborators composed of the Instituto de Capacitación de la Industria de la Construcción [Construction Industry Training Institute] (ICIC), the Fundación de la Industria de la Construcción [Construction Industry Foundation] (FIC), the Instituto Tecnológico de la Construcción [Construction Technology Institute], SIECA, and a number of representative companies in the industry including large, medium-sized, and small-scale operations.
- 2.7 ONNCCE is a private institution whose objective is to issue voluntary standards, verify and certify products, persons, processes, and services related to construction and building standards. The founding members of ONNCCE are institutions, industrial boards and associations, professionals, and suppliers of industrial products and services which, in turn, group together companies, professionals, and technicians in the industry. This private institution represents about 60% of the entire industry.

C. Initial proposal of the skills to be standardized

- 2.8 As mentioned earlier, this pilot project includes preparation of two groups of standards. The Cámara will deal with the skills of laborers, electricians, and plasterers, who account for 70% of the workers in the construction industry. ONNCCE will prepare standards for the management of building construction projects, supervision of works in concrete, and technical supervision of laboratory concrete tests. These three areas are both representative and important in construction works management and affect improvements in quality on other levels.

D. Health, occupational safety, and environmental program

- 2.9 Given the growing importance of occupational health and safety in labor training, the project will also support a special line of action proposed by the construction industry. It will conduct an innovative pilot project that includes labor organizations in the process of incorporating health, safety, and environmental protection into training programs in the construction sector. Thus far, training in these areas has been provided by the ICIC, without the direct cooperation of labor representatives. Similar experiences in the United States and Australia have shown that if workers' awareness is raised by labor groups it is more likely that health, safety, and environmental standards can be institutionalized in the workplace. The industry will receive additional support for implementing a promotion and training program to involve more workers in promoting these issues in the industry. The experience of this pilot project will be shared with the other pilot projects.

III. RETAIL SALES

A. Sector profile

- 3.1 Commerce is an important economic activity in Mexico, and employs about 15% of the labor force. The country presently has around 25,000 commercial establishments that can be classified as self-service and department stores.
- 3.2 Retail outlets are divided into three groups: self-service, department stores, and specialized stores. **Self-service stores** provide a direct system of sales to the customer, and display their products on open shelves, classified by category and type, which are mainly groceries, perishable items, clothing, and general merchandise. These stores usually have few customer-service staff. They employ a total of 200,178 people. **Department stores** use a sales system in which products are displayed in various areas or departments, such as clothing, major and minor appliances, sporting goods, and cosmetics. They employ a total of 68,106 people. **Specialized stores** use a direct sales system (pharmacies, hardware stores, sporting goods, electronic equipment, domestic appliances, etc.). They employ a total of 9,141.

B. Participating institutions

- 3.3 The Asociación Nacional de Tiendas de Autoservicio y Departamentales, A.C. [National Association of Self-Service and Department Stores] (ANTAD) was founded in 1983 and its membership includes 107 chains and stores. It presented a proposal for a

pilot project that would introduce job skills into its 107 member companies, which would have a major impact on the industry.

- 3.4 Three leading companies that are members of ANTAD have undertaken to prepare the initial skills for the pilot project. Each represents one of the three classifications mentioned above: Aurrerá (self-service), Sears Roebuck de México (department store) and El Nuevo Mundo (specialized store). In total, the three participating companies have 183 establishments and employ over 58,000 people.

C. Initial proposal of skills to be standardized

- 3.5 A general study of the commercial establishments belonging to ANTAD showed that regardless of the type or format of a store, it has three key functional areas: (i) purchasing, (ii) sales, and (iii) distribution and storage. These three areas occupy 70% of the total workforce (194,000 employees). Five levels of hierarchy operate in these three areas - directors, managers, supervisors, department heads, and operations staff. Ninety percent of employees work in operations, with the remaining 10% distributed among the other four levels.
- 3.6 The industry believes that by including the above three functions, it will cover almost 70% of company personnel. It should also be kept in mind that these functions can be found in commerce in general and in some cases, such as distribution and storage, they apply to other production sectors. As a result, the technical standards for skills and the lessons learned will be highly transferable.

IV. TRUCKING

A. Sector profile

- 4.1 This industry has earned an important place in the country's economic activity. Over 85% of the 600 million tons that are transported annually are carried by road. The industry is closely linked to other industries, since it serves virtually all areas of the economy and purchases inputs from another 40. It includes over 5,000 companies and provides 1.2 million direct and over 2 million indirect jobs.
- 4.2 Although the trucking industry is very important in Mexico (one of the 10 main industrial activities), it faces a series of obstacles and problems that call for prompt attention and actions to solve them. With the Free Trade Agreement, Mexican freight transporters must overcome their comparative disadvantages with respect to their

competitors in the other two countries and attain the economies of scale that will allow them to be competitive in the face of the challenge of openness and foreign investment. The sector has identified the need to upgrade the level of its workforce if it is to become more competitive in the market.

B. Participating institutions

4.3 The pilot project will be led by Investigación y Desarrollo de Procesos Industriales, A.C. [Industrial Process Research and Development] (IDPI), which is involved in promotion and technological research for development and in issues related to technology teaching and education and training for and in the workplace.

4.4 IDPI will initially form part of the group directing the pilot project along with representatives of important companies in the trucking industry in Mexico (Cummins, HINMEX, Autolíneas Reglomontanas, PACCAR, Steve Knaebble, and Autotankes Estrella), the Cámara Nacional de Autotransporte de Carga [National Trucking Association] (CANACAR), the Asociación Nacional de Productores de Autobuses, Camiones y Tractocamiones [National Association of Manufacturers of Busses, Trucks, and Trailer Trucks] (ANPACT) and an expert on freight carriers from the Ministry of Communications and Transport (SCT).

C. Initial proposal of skills to be standardized

4.5 The pilot project will be targeted to operators, trailer truck mechanics, and trucking support personnel. The IDPI will promote the standards within the participating companies and in the sector in general in due course.

V. THE RAILWAY INDUSTRY

A. Sector profile

5.1 Policies to modernize the communications and transport sector include turning the railway industry into a competitive enterprise integrated into a general transportation system that is modern, efficient, and competitive, as called for by current economic conditions and the future demands of the national productive plant. Ferrocarriles Nacionales de México [Mexican National Railway Company] (FNM), which has held a monopoly in the country, is being privatized. Railway lines are being divided into five units to be let to private licensees through competitive bidding.

- 5.2 FNM's workforce has shrunk considerably in recent years (40% between 1991 and 1994). It currently has 47,000 employees, 85% of whom are directly involved in industry activities (operations positions) in the areas of transportation, engines, cars and wagons, rail infrastructure, telecommunications, and marketing. Close to 12,500 are employed in the area of transportation, with the remainder distributed among the different occupations mentioned.

B. Participating institutions

- 5.3 The pilot project will be directed by FNM, once privatized, through its Instituto de Capacitación Ferrocarrilera [Railway Training Institute] (ICF). Under the privatization process, the ICF will be separated from the railway and will continue to function as an independent entity. The Ministry of Communications and Transport, as the authority responsible for FNM, will maintain its commitment to the project during the privatization process. When each line is privatized, the new licensees will join the pilot standardization and certification project.

C. Initial proposal of skills to be standardized

- 5.4 Priority has been given to the transportation area since it is the backbone of operations. It has 12,500 employees, covers 11 specific occupations, and is the most representative branch of the industry. It will be easier to extend its experience to other areas. The pilot project will work with eight skills divided into three areas: operators, dispatchers, and engineers.

VI. SUGAR INDUSTRY

A. Sector profile

- 6.1 The industry processes the country's entire sugarcane crop, which is grown chiefly in 15 states with differing soil, climate, and socioeconomic conditions. The potential area for this crop is 650,000 hectares. The agroindustry is organized into 14 corporate groups that control 61 mills and provide over 378,000 direct jobs.
- 6.2 The industry is in the midst of a modernization process that does not yet include all the mills. There are 15 mills with modern technology, 18 with intermediate technology, while the remaining 28 use old technology. The skills of the workforce must be upgraded, particularly in the areas of new technologies and production processes, in order to complete the modernization process and make the sector competitive.

B. Participating institutions

- 6.3 This pilot project will be directed by the Cámara Nacional de las Industrias Azucarera y Alcohólera [National Association of Sugar and Alcohol Industries] (CNIAA) which is highly important in the Confederación de Cámaras Industriales de los Estados Unidos Mexicanos [Confederation of Industrial Associations of Mexico] (CONCAMIN), not simply because of the significance of the sugar industry, but also because its membership includes all the sugar mills in the country. The CNIAA will work with an executive group composed initially of five companies in the industry, the Centro de Asesoría o Impulso para Capacitación [Training Advisory and Development Center] that the CNIAA is establishing to support the companies, which provide their own training, and the Programa Nacional de Investigación en Ciencia y Tecnología de la Agroindustria de la Caña de Azúcar [National Sugarcane Agroindustry Science and Technology Research Program] (CYTCANA).

C. Initial proposal of skills to be standardized

- 6.4 The pilot project will not include agricultural aspects, but will focus instead on the following 12 standards in technical areas in the mills: boiler operator, boiler chief, mill chief, general electrician, generator operator, clarification operator, evaporator operator, filter operator, panman (filters, presses, and others), general centrifuge operator, and pump operator.

MATRIX OF PROGRAM RESULTS

PROJECT OBJECTIVES	
<p>The general purpose is to help make Mexican business and labor more productive and competitive by supporting industries' efforts to identify measurable skill and certification standards that are competitive at the international level. This would be achieved by supporting demonstration activities in strategic industrial sectors initially, that would guide the participation of other industries in the establishment of job skills.</p> <p>The project's specific objectives are to: (i) promote skill-based training in industries; (ii) introduce skills into the production systems and operating practices of private business and industry; and (iii) boost the capacity of industrial groups to guide the development of a skill standards system.</p>	
SUMMARY OF EXPECTED RESULTS	
<p>It is expected that the following will be produced by the end of the three-year life of the project: (i) methods for standardizing skills validated by a representative group of private industries in Mexico; (ii) experiences and tools demonstrating how the standards can be incorporated into the process of recruiting, hiring, promoting, and training workers; and (iii) a minimum of seven industries have incorporated skill standards into their production process and broadened the scope of their investments in human resources through the introduction of standards.</p>	
ACTIVITY	SPECIFIC RESULTS EXPECTED
I. <u>Technical assistance in designing and developing standardization procedures</u>	<ul style="list-style-type: none"> • Benchmarking mechanisms and methods for processes and standards established to permit ongoing monitoring of standardization and certification processes on the international level and between competitors in a given industry. • Refinement of policies and methods geared to industrial realities to support standards identification processes. • Improvement in the capacity of the CNCCL to provide information for industries on relevant experiences in the development of standards in other countries and establishment of formal mechanisms for the exchange of information on the development of standards and technologies relating to those industries. • Publication of thematic studies of common interest to industries. • Personnel of participating industries trained to implement activities relating to the preparation of standards, training programs in standards, and performance test instruments. • Consolidation of networks for exchanges among industries interested in skills through the organization of over 12 workshops for participating industries and international experts to discuss advances in methodologies and common problems.

ACTIVITY	SPECIFIC RESULTS EXPECTED
<p>II. <u>Support for industries' pilot projects</u></p> <p>(a) Standardization</p> <p>(b) Training</p> <p>(c) Performance tests</p> <p>(d) Dissemination and implementation</p>	<ul style="list-style-type: none"> • Over 28 sets of model standards prepared in more than seven industries and a permanent structure in each industry for the preparation of technical skill standards. • Establishment of a skill-based training culture, delivery of training programs, and production of related materials by sector training institutes in each industry for each of the standards developed in the pilot projects. These programs will include the curricula designed and the training materials prepared. • A minimum of 28 programs validated by the project through an evaluation process. • Pilot training workshops in the different industries. • A minimum of 300 instructors in the participating industries trained in the new training programs supported by the project. • Over 30 technicians and instructors in each pilot industry trained to use, adapt, and prepare instruments to measure skills performance levels. • Over 60 employees of the industries trained in validation techniques appropriate for business environments. • Over 28 sets of performance test instruments designed and validated by applying them to large groups of workers in the companies participating in the pilot projects. • Technicians and evaluators trained in use of the instruments. • The pilot experiences have been internalized in the respective industries. • Institutional capacity developed in each pilot project to support firms of all sizes within the industry in the adoption of standards as tools for recruiting, hiring, promoting, and training workers. • Cost-recovery plans and strategies established to ensure the sustainability of the process of updating standards and products related to each pilot project. • A minimum of 20 workshops and other activities to facilitate dissemination of the pilot experiences and the lessons learned on the international level. • A strategic plan prepared for each pilot project to institutionalize the standards in that industry.

PROPOSED RESOLUTION

MEXICO. NONREIMBURSABLE TECHNICAL COOPERATION
FOR A PILOT SKILL STANDARDS AND
CERTIFICATION PROJECT

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 Consejo de Normalización y Certificación de Competencia Laboral (CNCCL) and to take such additional measures as may be pertinent for the execution of the project memorandum referred to in Document MIF/AT- with respect to a nonreimbursable technical cooperation for a Pilot Skill Standards and Certification Project.

2. That up to the amount of US\$3,000,000, or its equivalent, 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.