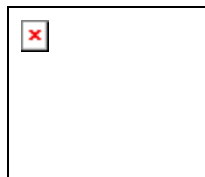


The Role of the Multilateral Investment Fund in Skills Standards and Certification

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**MILLENNIA
CONSULTING, L.L.C.**

**Christina Kappaz
Wendy Siegel**

The views and interpretations in this paper are those of the authors and should not be attributed to the Multilateral Investment Fund or the Inter-American Development Bank.

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EXECUTIVE SUMMARY

INTRODUCTION

Support for the development of skills standards and certification systems is one of the key goals within the Multilateral Investment Fund (MIF)'s overall strategy for promoting human resources development in Latin America and the Caribbean. Skills standards systems were identified as a goal because they provide many elements that address human resource needs in a competitive marketplace. Certification and credentialing systems based on skills standards focus on the competencies or outcomes required for success in the workplace. They recognize that skills and knowledge are the currency for employment and career advancement and that industry-relevant skills and knowledge can be acquired in many ways. A skills system makes more information available on the skills and qualifications of the workers, which benefits companies, workers, and society as a whole.

This report reviews the outcomes of MIF initiatives addressing skills standards and certification. The review examines the role of the MIF in piloting and demonstrating new approaches as well as its contribution in building effective standards systems in the region. Six MIF projects were reviewed: (i) Argentina Worker Skills Certification Program; (ii) Brazil Development of Skill Standards and Certification System for the Tourism Sector; (iii) Brazil Basic Skills Certification Program in Minas Gerais; (iv) Chile Labor Competency Certification Program; (v) Mexico Pilot Skill Standards and Certification Project; and (vi) Regional Credentialing System for the Caribbean Tourism Industry, based in Barbados.

ADDITIONALITY OF MIF INVESTMENTS IN THIS FIELD

The MIF has provided additionality to the development of skills standards and certification systems in Latin America and the Caribbean. In all cases studied, the level of understanding and acceptance of skills standards had grown as a result of the project. Executing agencies reported that their efforts would not have been undertaken, or in a few cases not in the same scale, without the MIF funding. Furthermore, several projects commented that the ability of the MIF to support private sector initiatives was critical to the success of their efforts, since it allowed the system to be developed with private sector leadership. As an example of specific project additionality, in the case of Chile, the expertise and experience of the executing agency is being leveraged for a public policy debate on the development of a national standards system.

The project experience to date suggests that the MIF can continue to provide additionality to the development of standards certification projects in the future. Experience has confirmed the importance of funding for private-sector led pilot initiatives to develop systems and build ownership within the market. As new countries and/or sectors are prepared to engage in this area, MIF should continue to support these efforts.

IMPACTS OF PROJECTS

The review of the six MIF projects found that progress has been made in the development of standards certification systems in each of the countries involved. There have been varied degrees of success and challenges along the way, but overall it has been a worthwhile endeavor where MIF support has made a significant impact in moving the development of these systems forward. The key outstanding issues for the future of all projects are the adoption of the systems within the marketplace and the financial sustainability of the systems over the long term.

In general terms several impacts have been achieved. Long-term institutional structures to sustain the systems beyond the pilots are beginning to be established. Mechanisms for financial sustainability are under analysis, though remains a key issue for the future. Policies that support the use of standards have been passed in some countries. Curriculum has been developed and instructors trained in the use of competency-based curriculum. Standards have been developed and workers have been evaluated and certified. Most importantly, businesses are beginning to express an interest in and demand for standards certifications.

The extent of impact in each of these areas varied across projects and the level of penetration of these results is still limited within the markets as a whole. Important lessons have been learned along the way that will help strengthen the continued implementation of these projects and the design of new projects.

LESSONS LEARNED

Several key lessons can be extracted from the experience of the MIF skills standards projects to date.

Projects must be demand-driven and foster industry commitment – The success and long-term sustainability of skills standards projects depend on the commitment of the private sector to maintain and utilize these systems. As such the projects need to engage the right industry players from the onset of a project.

Financial sustainability of certification systems needs to be addressed – The long term sustainability of standards certification systems depends on the financing of the certification. This fundamental issue is largely unresolved in most projects to date. In most cases, it is assumed that some level of government subsidy or incentive plan is needed, but the commitment of the market to financing the system must be present from the beginning.

Proper balance of Management-Labor-Government involvement is needed – Projects are most successful when they involve institutional structures that are led by the private sector, with broad representation from employers and workers that also have public sector representation. Public sector funding should support a private sector led institutional structure rather than through direct management of the system through a public institution.

Methodology should be responsive to needs of the market – The methodology should be responsive to private sector needs, which has tended to mean the process should be simple and relatively quick. However, as systems grow and standards begin to be used more broadly, the quality of the standard itself especially in terms of the level of detail needed to sustain the standard may need to be re-evaluated.

Resources needed for design and supervision – Skills standards certification is an innovative and complex topic, and as such projects require careful design with sufficient time and resources dedicated to ensuring the proper design is set in place and the right players are involved. The projects' complexity and innovative nature also call for technical supervision throughout implementation.

Pilot design should optimize demonstration effect – The actual process of piloting standards and certification should be done in such a way as to mirror as much as possible the long-term process the project hopes to establish and results should be documented and disseminated widely.

Standards certification should be linked to human resource management - Ultimately standards are most useful to the system when they are used as a measurement against which workers are certified and when they are used as part of an integrated process of human resources management. There is a need to enhance the capacity of businesses in Latin America and the Caribbean to effectively manage human resources. This is an area that requires additional training and development within the region as a whole.

Skills standards development should be seen as long-term process – The development and institutionalization of a standards certification system is a long term process. MIF funding in this area should keep in mind the realistic timeframe for the process, in terms of the development phase, and the time for the system to achieve market penetration and become sustainable.

RECOMMENDATIONS FOR FUTURE MIF OPERATIONS

The lessons learned from the MIF experience to date have concrete implications for the design of future MIF operations. These include recommendations to be taken into account during the design and implementation of projects, as well as recommendations related to the evaluation of existing and future projects.

Recommendations for Project Design

1. Ensure industry commitment during project preparation – The MIF should conduct sectoral analysis during project preparation to ensure demand for certification, and should only work in those sectors where there is a clear articulation of the reason why standards would be effective for the sector. The MIF should identify

companies within target sectors that invest in training and are willing to commit to standards and certification. These companies need to be identified during project preparation, and concrete commitments asked of them at that stage.

2. Begin to build broad stakeholder consensus in project design – Even if projects are initiated by the MIF, the preparation of projects need to involve broad consultation with stakeholders and engage key stakeholders in the actual project design.

3. Provide for sufficient promotion and dissemination – As one key means of promotion, projects should extend their pilot phase to include the initial roll-out of the system and not only the piloting of standards and evaluation as a means of testing and validating the instruments. These pilots should be well-documented and the results should be widely disseminated

4. Work with executing agencies led by the private sector – In order to ensure ownership of the process within the marketplace, the MIF should work with private executing agencies, particularly independent non-profit institutions.

5. Be explicit about mechanisms for financial sustainability – Projects should identify the existing mechanisms in each country that provide incentives for companies or individuals to invest in human resources development. Depending on existing national incentive schemes, the MIF projects should include direct subsidies in the form of matching grants as incentives to employers as well as workers. However, the certification offered under MIF pilots should not be free of charge.

6. Allocate appropriate technical assistance to key components of the process and design methodologies that are responsive to the private sector – The most important areas of technical assistance are in the development of appropriate validation systems for standards and the development and validation of evaluation instruments. Projects should ensure the integration of international experience, not reinventing the wheel in standards development and ensuring appropriate depth of methodology in other areas.

7. Support linkages with improvements in training as a supplement to standards systems – Projects should support the development of curriculum and training of trainers, but training should be a tangential aspect that supports skills standards rather than the driving force of the projects.

8. Project execution time frame should be extended – Projects should include sufficient time for development and validation of the system as well as its piloting within companies and dissemination of pilot results. Four years is likely an appropriate time frame.

Recommendations for Project Implementation

1. Provide technical supervision during implementation – The innovative and complex nature of these projects requires that the MIF provide project supervision by technical experts specialized in this field. An annual technical supervision mission is recommended.

2. Ensure integration of international experience – Skills standards and certification systems do require several fundamental changes in approach to human resources development. As such, learning from international experience is important and thus technical assistance is an important aspect of MIF projects.

3. Support institutional capacity-building – Several of the skills standards projects faced delays in execution that derived from limited understanding of MIF procedures and limited capacity to fulfill the cumbersome bureaucratic requirements of the Bank. Adequate training and orientation for the executing agencies is essential for the efficient execution of the project.

Recommendations on Project Evaluation

1. Conduct an analysis of market penetration of certification – An analysis is needed of the number of people certified to date, the number and basic characteristics (especially size and sector) of companies purchasing

certification, the number of competencies being tested, and growth in use over time, among other details. This requires that appropriate indicators be collected in data collection systems.

2. Assess the integration of safety, gender and disability issues – All MIF projects called for the integration of issues of occupational health and safety, and the inclusion of gender and disability into the definition of competencies. This study did not assess the extent to which that has occurred and a more careful review is needed.

3. Design monitoring and evaluation systems that focus on achievement of impact – While it is important to assess outputs produced and the extent to which a project is on track with its planned activities, the most important aspect to be monitored and evaluated is the extent to which projects are achieving the desired impact and complying with their general objectives. If the market does not adopt skills standards and utilize certification, the development of any number of standards will have a limited impact.

I. INTRODUCTION

A. Background on Skills Standards and Certification

Support for the development of skills standards and certification systems is one of the key goals within the Multilateral Investment Fund (MIF)'s overall strategy for promoting human resource development in Latin America and the Caribbean. Skills standards systems were identified as a goal because they provide many elements that address human resources needs in a competitive marketplace. Certification and credentialing systems based on skills standards focus on the competencies or outcomes required for success in the workplace. They recognize that skills and knowledge are the currency for employment and career advancement and that industry-relevant skills and knowledge can be acquired in many ways.

A skills system makes more information available on the skills and qualifications of the workers, which benefits companies, workers, and society as a whole. For companies, the system provides objective information on workers' skills, thus reducing the costs of recruitment and enhancing the ability to manage human resources development internally. For workers, the system helps increase their competitiveness since they can demonstrate the skills acquired in any context and not only through formal education or training, thus increasing their marketability or job mobility. The process of analyzing skills related to international standards of excellence helps boost productivity and competitiveness in the industry in general. For society as a whole, better information on the skills of workers makes for more fluid and effective linkages between employment and skills. In addition, standards provide a concrete measure for training programs and improving the demand-orientation of training courses.

B. The MIF's Unique Role in Supporting Skills Standards and Certification

The MIF structure and objectives, in many ways, make it an ideal vehicle for supporting the development of skills standards certification systems. The MIF's mission is to support the private sector and it is well-positioned to support partnerships between public and private sectors, while supporting and strengthening the private sector role. As noted in the MIF's strategy statement, MIF projects are to be innovative and create a demonstration effect.

These characteristics of the MIF align well with design needs for standards systems. International experience has shown that the development of a skills standards certification system requires support from the public and private sectors, but overall leadership should come from the private sector. Since these systems provide both social benefits and industry-specific benefits, funding is required from the public as well as the private sector at the early development stage. As systems emerge, it is important to build awareness and ownership among businesses. Design of these systems can be complex because any attempt to shift to a skills standards framework requires developing a common language and methods for defining and articulating these standards. For governments, industries or educational institutions, adopting such a system involves fundamental paradigm shifts in the way an industry views human resources development.

It is important to build from international experience, to agree quickly on nomenclature and methods and to construct from lessons learned, but it is equally important to adapt the know-how and experience gained at the international level to the specific needs of a particular country's or industry's initiative. Governments considering adopting skills standards as a public policy do best if they invest time in collaborating with associations of employers and workers. Experimenting or starting small with pilots is key in order to build buy-in among various actors, test new approaches and develop a model appropriate to the country.

C. Objectives of this Review

The MIF has based the design of its skills standards projects to date on these basic characteristics and needs of the system as articulated from international experience. It is now interested in assessing its own experience in the context of Latin America and the Caribbean. This report reviews the outcomes of MIF initiatives that have addressed skills standards and certification over the past 10 years. The review examines the role of the MIF in piloting and demonstrating new approaches as well as its contribution in building effective standards systems in the region.

This review focuses on six of the initiatives that the MIF piloted in the area of skills standards and certification. The six projects were chosen because they provide an overview of the MIF's experience in this area, have piloted new approaches to skills standards and certification and/or are sector-specific and therefore offer a distinctive view as to how skills standards help to improve industry competitiveness by bridging the gap between supply of training and demand from industry for skilled workers. The six projects reviewed are listed in the following table:

Table 1: Projects Reviewed

Country	Year Approved	Project Name	Executing Agency	MIF's Amount (US\$)	Project Total (US\$)	% Disbursed
Mexico	1996	Pilot Skills Standards and Certification Project	Consejo de Normalización y Certificación de Competencia Laboral	3,000,000	5,000,000	90.1%
Brazil	1997	Basic Skills Certification Program in Minas Gerais	Federação das Indústrias do Estado de Minas Gerais	850,000	2,850,000	77.3%
Caribbean Region	1998	Credentialing System for the Caribbean Tourism Industry	Caribbean Hotel Association	2,200,000	3,900,000	77.2%
Brazil	1998	Development of Skills Standards and Certification System for the Tourism Sector	Instituto de Hospitalidade	2,500,000	5,000,000	Completed
Chile	1999	Labor Competency Certification Program	Fundación Chile	1,900,000	3,925,000	55.9%
Argentina	1999	Worker Skills Certification Program	Ministerio de Trabajo, Empleo y Formación de Recursos Humanos	3,687,000	7,400,000	20.2%

D. Methodology

The six projects were analyzed based on a review of project documentation as well as interviews with a range of stakeholders involved in each project. Interviews were conducted during two-day site visits for five projects and via telephone for one (the regional Caribbean project). Stakeholders interviewed included employers, labor representatives, and government officials as well as project staff of the executing units and the MIF and IDB staff involved in the design and supervision of the projects. A list of persons interviewed is included in Annex A.

The remainder of this report lays out the findings of the review. Section II provides an overview of the approach taken by the MIF in each of the projects and how that approach evolved over time. Section III reviews the approach used in individual projects, highlighting the achievements and challenges encountered in the model implemented in each case. Section IV analyzes the impact of the MIF projects in key areas. Section V contains the key lessons learned from these projects and Section VI translates those lessons into concrete recommendations for future MIF operations in skills standards certification.

II. EVOLUTION OF MIF APPROACH

When the MIF began its first investments in skills standards in 1995, such systems had only recently taken shape in developed countries, and their use in Latin America and the Caribbean was brand new. From the onset, these projects represented an innovative approach to human resources development for the region. The MIF drew upon international experience in the development of its strategy, but as it gained experience with its own projects,

the approach to project design and the sophistication of projects evolved.

In general terms, all projects set out to resolve problems related to human resources development, but the specific problem addressed varied. In some cases projects were primarily intended as a means of increasing job mobility, in others of increasing productivity and competitiveness in the face of globalization. In all cases, the projects were highly innovative, developing and testing new systems. All sought to be responsive to demand from the private sector and to seek ways of enhancing private sector linkages and building demand that would sustain systems over the long-term through cost recovery. The specific means by which projects achieved this and the effectiveness of project design varied.

As of September 2002, a total of 17 projects have been financed by the MIF in the area of skills standards. The first, in 1995, was in Trinidad and Tobago and was specifically for the tourism sector. This project had the goal of developing a national framework for standards, curriculum, and certification for new entrants as well as current workers. This was followed in 1996 by two other projects in the Caribbean tourism sector – one in Jamaica and the other in the Bahamas. These projects also included a mandate to develop standards, certification, and training. In Jamaica two additional innovative features were added: the use of extension workers to reach out to small hotels and the development of a credentialing system as well as certification.

Implementation of these first projects encountered several challenges and delays in execution that resulted in their not achieving the goal of developing national certification systems. They did, however, make important strides in educating the sector about the importance of skills standards, developing standards, and modernizing training systems to align with a competency-based approach. Some of the key lessons learned from these early experiences were that projects require more time than anticipated to build consensus and awareness on this topic and that more stakeholder consultation is required during project design.

The Mexico project, approved in 1996, was the MIF's first effort at supporting the comprehensive development of a multi-sector standards certification system at a national level. Support from the Ministry of Labor and the World Bank had supported the establishment of a mixed private-public institution to implement the system. The MIF project aimed to resolve problems of industry buy-in by supporting enterprise-based pilots within the framework of sector committees. Through this project, the core components for the development of standards and certification systems in MIF projects were developed. These include: development and validation of standards within industries, development and validation of evaluation instruments, the piloting of evaluation and certification, the design of curriculum, training of trainers, and promotion and dissemination.

Although these core components developed for Mexico were maintained for most future projects, important changes in the specific ways that these were implemented and the institutional structure changed. The main lessons from the Mexico project were that the methodology had to be more agile and less complex; that the commitment to and demand for the system needed to be built up before significant institutional infrastructure was created; that projects needed to be more private sector-driven; and that the focus of efforts needed to be on the end objective of market-driven certification rather than heavily-oriented to the development of standards.

Before implementing the lessons from the Mexico project, the MIF piloted another type of project through the Basic Skills Certification project in Brazil's state of Minas Gerais. This project, approved in 1997, was based on a distinct though related system, similar to the model used in the United States^[1], that focused on the identification of cross-occupational competencies related to basic literacy, computation and behavioral skills. Understanding these basic skills serves as a complement to skills standards, and it was expected to serve as a first step for Minas Gerais in developing a skills standards system. The low educational level in the state supported the rationale for this approach. As discussed further in the next Section, this approach to basic skills was not successfully established in Brazil and the executing agency shifted its focus to develop a more traditional skills standards certification program. No other project of that nature has been funded by the MIF, and basic skills have instead been addressed within the standards developed in other projects; although the best means of doing this effectively continues to be a challenge to all projects.

Four additional projects aimed at building a national system were approved in 1998 and 1999. The first of these was the regional Caribbean project in the tourism sector, which was created in order to build upon the

experience of the national projects in the Caribbean and bring them up to scale in terms of certification and credentialing. This project invested resources into developing and piloting region-wide systems for certification and credentialing. The project was intended to coordinate with national projects and validate standards on a regional level. Several lessons were learned during the almost two year development phase of this project, that were incorporated into the next project which was the tourism project in Brazil, particularly in terms of institutional capacity and the need to build consensus.

The design of the Brazil tourism project took into account lessons learned from the other MIF projects to date. The project was managed within the private sector by a nonprofit with strong project management capacities. Stakeholder buy-in was achieved from the outset, with broad representation from employers, workers, and government. The methodology followed the same components that had been developed in Mexico, but was significantly simplified so that the time frame was shorter and the process as well as products were easy to understand by employers and workers. The concentration of efforts across components shifted, with less placed on the standards development and more on the validation of standards that built buy-in sector wide and on the end-product of certification. The importance of having change agents, as demonstrated by the extension workers in the Caribbean projects, was also adopted in this project.

The Chile project, approved in 1999, was also based on this refined model, particularly in that it was private-sector driven, with a focus on building demand for certification rather than starting off with the creation of a national infrastructure. Three sectors were chosen selectively based on their demand for certification: mining, construction, and tourism. Like the Brazil tourism project, the Chile project was led by an independent nonprofit organization.

Following a similar model in some respects, the Argentina project was also demand-driven working in four sectors that articulated demand for the project. It also aimed to build up experience and commitment to the process before building an institutional infrastructure. One important difference in the Argentina case was the execution structure. The project had five co-executing agencies: a small coordination unit set up within the Ministry of Labor and a training institute for each of the four sector pilots.

In parallel to these projects that were geared toward development of national standards certification systems, the MIF supported a number of skills standards projects over the years that were primarily sector-based and addressed training concerns. Recognizing the level of complexity required to develop national systems, the MIF supported efforts that helped initiate an understanding of and commitment to skills standards in those countries where the context was not appropriate for larger scale efforts.

In summary, the approach of the MIF has maintained several core elements over time but made important modifications based on project experience. Key changes to the MIF approach have included supporting more private sector-driven processes, piloting processes before building large infrastructure, distributing efforts within components to place more emphasis on validation and certification, and working with private organizations with strong execution capacity and ability to build consensus based on their independence.

III. PROJECT APPROACH AND RESULTS

A. Approach and Results of Each Project

1. Mexico Pilot Skills Standards and Certification Project

a. Project Overview

The MIF project in Mexico is the earliest of the six skills standards projects reviewed for this study. The project funded technical assistance to develop a comprehensive methodology and build market buy-in to the standards and certification process through industry-specific pilots led by companies who piloted the use of standards within their workplaces. A total of 13 pilot projects were implemented. The intent was for each pilot to include the development and testing of standards for job functions identified as priorities by the sector, training with standards-based curriculum, and application of performance tests, as well as the dissemination of the pilot

experience within the sector. In addition, the project financed activities in the construction sector specifically aimed at occupational health and safety. The project had a 36 month execution period that was extended by an additional 18 months.

b. Institutions Involved

The executing agency for the project is the national skills standards board, the Consejo de Normalización y Certificación de Competencia Laboral (CONOCER), a body that had recently been established when the MIF project began. CONOCER's board has management, labor, and government representation, with a majority of seats held by the private sector. For each pilot, committees were established that sought representation from business associations, labor unions, and training providers. In practice, the company-based pilots were managed separately from the sectoral committees, with separate reporting structures within CONOCER since the company-based pilot was financed by the MIF and the sectoral committees by the World Bank.

c. Project Rational and Interest in Skills Standards

In Mexico, the development of skills standards was part of a public policy effort aimed at enhancing the competitiveness of the Mexican workforce by improving the quality, relevance and flexibility of technical training and education, within the context of NAFTA. In 1993, the Secretaries of Labor and Education jointly undertook a project of modernization of technical education and training. A general education law passed in 1993 authorized the establishment of a labor certification system. In 1995, the government established CONOCER with support from a World Bank loan, with the intention of creating a national framework for a skills standards certification system and building private sector demand for the system. MIF funding responded to the need to link these efforts more directly with the private sector and build experience and ownership of the process within productive sectors.

d. Achievements

In Mexico, the combination of the MIF pilot and World Bank-financed project have resulted in the establishment of the institutional framework and infrastructure for the system, under the auspices of CONOCER. Detailed methodology has been documented for each phase of the process from standards identification and validation to certification. A total of 538 standards have been developed. Thirty-two certification agencies and 870 evaluation centers have been accredited and are selling their services to the private market. Evaluation centers are so numerous under the Mexican model because companies could develop their own in-house evaluation centers, thus enhancing the integration of standards into the human resources management processes of a company and reducing costs.

Approximately 128,000 competencies have been certified, representing about 42,000 certified individuals since on average workers are certified in 3 competencies. The standards developed by CONOCER have been used by the technical education system as part of the modernization process and the shift toward competency-based training.

The specific MIF-financed pilots had been implemented to 75% of anticipated goals by the end of the project. All pilots developed standards but training was only 77% completed and evaluation 70%. These averages reflect that some pilots achieved implementation of all phases, while others achieved relatively little, primarily in the phase of evaluation of workers.

Several companies that participated in the pilots have adapted the use of standards. Two of the best cases are the hotel chain Grupo Posadas and the food company, Bimbo. In Grupo Posadas, the manager of the specific hotel that implemented the pilot reported that his hotel had experienced significant improvements in customer satisfaction that he attributed directly to the modification of the hotel's internal training system to integrate the skills standards developed in the pilot. Grupo Posadas also used the evaluation of workers based on standards during its recruitment process when it opened a new hotel. In the case of Bimbo, the company has gone beyond the CONOCER pilot to develop additional standards and plans to implement standards-based training and certification of workers throughout the company's many locations. Other companies have also taken an active interest in standards certification, including the state-owned electricity company (Comisión Federal de

Electricidad or CFE), which is currently developing standards and plans to certify its 80,000 workers on an ongoing basis.

e. Challenges

Mexico is now past its pilot phase and is implementing the system on a national level. The key challenge facing the Mexican system is the ability of CONOCER to increase adoption of the system by the market. Even though the MIF enterprise-based pilots were aimed specifically at increasing the private sector leadership of the process, in practice the process was still very driven by CONOCER and the technical experts it provided. While some specific companies that participated in the pilots were very satisfied with their participation and are adopting standards and certification within their companies, there has been less penetration into sectors as a whole than expected. The link between company-based pilots and sectoral committees was not as strong as planned in the project design. Overall, the number of competencies certified has not been growing. It reached approximately 58,000 between 1998-2000. In 2001, 47,000 competencies were certified. But as of August 2002, only 28,000 had been certified.

Problems confronted by CONOCER in its 13 MIF pilots reflect some of the larger issues facing the Mexican system. Many employers and workers involved in the process found the process difficult to understand and the norms themselves difficult to read because of the wording required by the methodology. The CONOCER model uses the most highly structured methodology of the projects supported by the MIF. It is based largely on the model used in the United Kingdom. In theory, the methodology is sound, and possibly produces the most accurate description of what the competencies should be for any given job function. However, the process is long and complex in the perspective of companies. In the UK, the process has also been driven by the public sector.

These problems were epitomized in one pilot project in which a participating company initiated its own separate process developing standards in parallel to its participation in the CONOCER pilot. In sharp contrast to the CONOCER pilot, the other efforts within the company were implemented very quickly and the resulting standard was a brief document. The company gave its support to the simpler process rather than the one led by CONOCER.

As a result of feedback from the pilots, CONOCER has been simplifying the methodology somewhat and is developing user-friendly manuals to accompany standards. CONOCER continues to promote the standards certification system and is targeting specific companies and sectors to adapt certification. But the institutional status of CONOCER is currently under debate and will be changed in the near future. The current government administration determined that there were inconsistencies between CONOCER's operations and its legal structure as a trust (fideicomiso). Its new structure is likely to be more closely associated with the Ministry of Labor and might lose the private sector control of the Board. The implications of this change for the system is not yet clear, but the change demonstrates that the system in Mexico is thus far primarily driven by the public sector, with insufficient industry ownership built up through the pilots as to push for a more private sector institutional structure at this stage.

2. Brazil Basic Skills Certification Program in Minas Gerais

a. Project Overview

The Brazil basic skills project set out with a specific focus on developing a basic skills system but changed its focus during project execution to develop a broader skills standards certification system. The basic skills project was intended to develop, validate, and establish a testing instrument to identify the basic education, skills, and ability levels of the workforce. The activities related to basic skills did implement an instrument that resulted in an inventory of basic skill levels of workers for the state of Minas Gerais. This task was implemented by a US company, ACT, which applied a methodology developed in the US. The contract with the firm did not allow for the transfer of the methodology to the project, since it is owned by ACT. This was not anticipated during project design and hampered the ability of the project to meet its objective of creating a system within Minas Gerais to continue this basic skills analysis.

Midway through the project, the executing agency joined forces with national efforts of the training

institute for the industrial sector (SENAI) to work toward a skills standards certification program. The MIF project funds were re-directed to fund the training of project staff in skills standards, organize a seminar on skills standards, and deliver a masters level course on the development of evaluation instruments. The standards certification project involved two pilots: construction and electrician maintenance. Additionally, two other sectors approached the project and are currently developing standards: energy and mining. The project specifically aimed to be demand-driven and work only with those sectors with a clear interest and demand for certification.

In part because of the changes in basic project approach, the project was delayed three years beyond its initial time frame. The last disbursement was originally planned for July 1999 and had not yet taken place as of September 2002, though it was in process.

b. Institutions Involved

The executing agency for the project is the Federation of Industries for the State of Minas Gerais (FIEMG), which is an umbrella entity comprised of business associations. FIEMG and similar industrial federations in each state and at a national level oversee the operations of SENAI. It was primarily SENAI, under the direction of FIEMG, that implemented the project. In the various pilots, business associations and specific company management participated in the technical committees that oversaw the standards development process.

c. Project Rationale and Interest in Skills Standards

Both the initial project emphasis on basic skills and the focus on skills standards certification were addressing the need for a more productive workforce, in the context of a population with very low educational levels. In the state of Minas Gerais, the average educational level of the workforce is slightly below the national average of 4 years. The rationale for skills standards within SENAI is based on an interest in improving the services offered to the private sector in human resources development.

d. Achievements

The project met few of its initial objectives, but made progress in the development of a standards certification system. In terms of basic skills, the project produced an inventory of the skill level of the workforce in the state, which served to document and validate the need for basic skills training. A database of about 1,400 multiple choice questions related to basic skills was also produced and could be adopted in the standards certification process. Thus far, the project has developed five standards and corresponding curriculum for the construction and electricity maintenance sectors, and is in the process of developing the evaluation instruments for these standards, while also developing additional standards for other sectors. The first training course, for the construction sector, is currently underway with 16 workers. It is a 200 hour, modular, course offered primarily to new entrants rather than company-based training at this stage.

The pilot experience in Minas Gerais, together with pilots led by SENAI in other states have resulted in the development of a methodology for standards development and certification that will be used by the SENAI system nationwide. Plans are underway to establish the standards certification system within the national SENAI system. As in the case of the Brazil Tourism project (See II.A.4 below), SENAI is planning on utilizing the existing regulatory system for the ISO 9000 certification^[2] process. SENAI will present an application to the accrediting body for ISO, the National Institute on Methodology (INMETRO) to become accredited as a certification organization that certifies workers. SENAI has not yet considered presenting the standards it develops to the Brazilian National Standards Agency (ABNT) for their approval as national norms. In order to be accredited as a certification body, SENAI will need to separate its training and certification functions and demonstrate that there is no conflict of interest between the two.

e. Challenges

Since the Minas Gerais project was designed for other purposes, it did not include the levels of technical assistance and support needed in the development of methodology that were included in most skills standards

projects. The MIF funds did provide for the various training activities for project stakeholders in skills standards (the course, the seminar, and the evaluation masters). There was one international consultant contracted by SENAI's national office who had experience with the Spanish skills standards system. The Minas Gerais team was able to draw upon that consultant's knowledge, but found that the Spanish model did not meet their needs, primarily because it was seen as cumbersome. Instead, the FIEMG team developed their own modified model, which eventually was combined with the experience from other SENAI offices to create a national methodology.

In comparison with the methodology used in other countries, the one used in Minas Gerais is less sophisticated. The process of standards identification begins with a one day session with a representative group of workers. The methodology for this session combines the Spanish model and the functional analysis DACUM process^[3] that is used in many skills standards projects, but the team felt the strict DACUM process was too time-consuming and one of their principles in designing their methodology was that it be an agile, rapid process. Based on the input obtained from workers, the project team writes up a draft standard. The validation consists of presenting the draft standard to a technical committee comprised of employers and workers, though not necessarily the line workers who perform the competency but rather their supervisors. The committee reviews the draft standard and the inclusion of their comments constitute the final standard. A broader validation system is under consideration but has not yet been used.

The FIEMG project team noted that the development of evaluation instruments has proven one of the biggest challenges for the project, with theoretical tests produced by a local university not quite in line with the needs of skills standards. The FIEMG team, following the course they undertook as part of the project, is developing practical tests for the standards. But this continues to be a challenge.

The failure to implement the basic skills project as originally designed in part reflects the difficulty of applying such a model in Latin America. The use of a high-cost technology implemented by a US firm did not allow for the development of local expertise to carry on the project as intended. A new institution was actually established at the onset of the project with the specific intent of providing the long-term sustainability to the basic skills system, but the institution was not sustained. Furthermore, coordination of efforts around the more common skills standards certification seems to be more reasonable given the level of development of these systems. An appropriate means of addressing the lack of basic skills continues to be a struggle in all of the projects.

Delays in project execution were the result of several factors. The establishment of the new institution as a condition prior to first disbursement led to an initial delay of six months. The implementation of the basic skills survey took much longer than expected and caused delays at the beginning of the project. The change in the executing agency's focus re-directed its attention away from the MIF grant until a re-allocation of funds was discussed. In addition, the executing agency was unfamiliar with IDB procedures and encountered difficulties in meeting reporting requirements.

The main value-added of the MIF in this project was in the financing of the training activities and seminar that increased the knowledge of skills standards among the project team and other stakeholders.

3. Caribbean Tourism Credentialing Program

a. Project Overview

The Caribbean Tourism Credentialing Program is a regional project involving Jamaica, Bahamas, Barbados, Belize, Trinidad and Tobago, and the countries of the Organization of Eastern Caribbean States (OECS). This project aimed to provide a regional framework building upon the work initiated under MIF projects at a national level in several Caribbean countries. Two subprograms were implemented: (i) the design and development of certification and credentialing systems including the training of trainers and career awareness activities as well as the design of the system; and (ii) the implementation of demonstration projects, one in food safety, and the other in the outreach and testing of the credentialing and certification system in small hotels in the OECS. The project had a three-year execution time period that was extended for an additional year.

This is the only project of the six studied to have developed a credentialing system as well as certification.

While certification provides evidence of a worker's competency to perform specific work functions defined by skills standards, credentialing provides recognition of an individual's broader qualifications looking at a combination of work-based and academic learning as well as actual work experience. Credentialing provides a valid credential to workers who do not have traditional academic credentials.

b. Institutions involved

The executing agency for the project is the Caribbean Hotel Association (CHA). The Caribbean Development Bank (CDB) co-executed the OECS demonstration project. The Association of Caribbean Tertiary Institutes (ACTI) executed the component on the development of the credentialing system.

c. Project Rationale and Interest in Skills Standards

The specific rationale for the MIF regional project was to bring the national experiences up to scale and build more institutional capacity for the implementation of certification and credentialing. The basic problem that the regional and national projects in the Caribbean set out to address was the need for more qualified workers and increased worker mobility within the hospitality and tourism industry across the Caribbean. Tourism in the Caribbean employs 2.5 million people, 25% of the region's total employment.

Credentialing was important for mobility since historically only college and university level credentials were recognized for the mobility of professionals and skilled workers within the region. In addition, the project aimed to leverage existing efforts at the national level to create consistent skills standards and a unified certification and credentialing system for the region as a whole.

d. Achievements

Based on disbursements, the Caribbean regional project is about 77% completed. To date, the project has developed 45 standards, with corresponding curriculum modules and evaluation instruments. 146 trainers have been trained in competency-based curriculum, with a total of 600 expected to be trained by the end of 2003. Outreach programs of career awareness have thus far reached about 1500 people. A culinary demonstration project in food safety has been implemented. 146 trainers trained in competency-based training (goal of 600 by end 2003).

Through the piloting of the credentialing and certification systems, 86 individuals were credentialed and 304 evaluated for certification, with 225 of these achieving certification. The project is still working toward its goal for individuals credentialed and certified, which was originally 5,000 but was then reduced in agreement between the executing agency and the MIF to 2,000. CHA hopes to achieve half of this goal through outreach to its network of national associations and the remainder through partnerships it is building with training institutions.

The details of the institutional structures and mechanisms for implementation of the certification and credentialing systems have been designed and business plans developed. The systems will be associated with CHA but be governed by a board with representatives from the national hotel and tourism associations, labor unions, the public sector and educational institutions.

e. Challenges

Although the project has developed business plans for the credentialing and certification system, the support of the market to sustain the system has not yet been determined. The business plans themselves note the need for significant outreach and promotion in order to create demand for the systems throughout the region. The piloting of the system was not enterprise-based and did not involve any payment on the part of participants, even when they were workers from large resorts. The pilot phase is viewed as the testing of the instruments themselves and participants are thus all voluntary.

The execution of the project by CHA strengthens the link of the project to the needs of private employers who are members of the Association. However, the structure of the project did not generate concrete commitment on behalf of those employers to the use of the system. Project staff are confident they have a good product that

they will be able to sell to the market, but familiarity with the system needs to be built up. They have determined that project funding from donors will be needed for the next four to five years until the certification system can be self-sufficient.

The project continues to deal with issues related to the buy-in of the system across the region. Collaboration among the various countries and existing MIF projects was not as effective as anticipated. Some duplicative efforts have emerged in the region that will need to be sorted out within the market.

Given the difficulties encountered in coordination among the various MIF projects, the staff of the regional project contend that the regional project should have been designed first rather than national projects. However, it is not clear how commitment at the national level would have been built up had the MIF started at the regional level. This experience does indicate that the approach to regional standards projects requires significant stakeholder consultation from the beginning, proper coordination mechanisms, and a strong institutional structure.

The piloting of the credentialing system is not far enough along to determine the effectiveness of the model. But anecdotal evidence suggests enthusiastic support for the system among stakeholders. The key challenge will be building its validity in the market to create demand for the credentials. CHA is considering adding additional services to individuals who are credentialed through the system such as discounted training and networking opportunities.

Many challenges were encountered related to project execution and administration. The institutional design of the project with several participating co-executors contributed to the project delay. The appointment of a project director created delays at the outset of the project, as did the establishment of a CHA project office in Barbados rather than at CHA headquarters in Puerto Rico. Agreement with the Caribbean Development Bank for its role in the OECS demonstration project delayed that component by about a year. The resistance from national projects slowed implementation, as did problems understanding Bank procedures.

4. Brazil Skills Standards and Certification System for Tourism Sector

a. Project Overview

The Brazil tourism sector project set out to facilitate improvements in service quality and increase competitiveness by establishing the framework for a system of national, competency-based skills standards and certification for workers in the tourism sector. The project developed and piloted standards, training curricula, evaluation instruments, and certification and also developed all components for a national system including the methodology for standards identification and validation and the rules governing certification. In order to widen the impact and enhance penetration into the sector, the project included the training of change agents – multiplicadores – who were trained in the use of standards-based curriculum and in the concept of standards certification so that they could promote the use of the system and provide appropriate training within the standards framework. The project had an execution time period of three years and was completed within that time.

b. Institutions Involved

The Instituto de Hospitalidade (IH) was the executing agency for the project. IH is an independent non-profit organization established in 1997 with support from the Odebrecht Foundation, with the purpose of advancing national and regional strategies for economic and social development through tourism. From its inception, IH brought together a broad-based representative group of industry leaders, labor unions, and public sector officials to direct the Institute's activities. For this project, a National Certification Council was established by IH with representatives from 10 business associations, three labor unions, two government entities, and two educational institutions. Fifty percent of the financing for the project was provided by MIF, 20% by IH, and 30% by SEBRAE, the national small business development agency that is financed with a portion of the country's payroll tax.

c. Project Rational and Interest in Skills Standards

The Brazil tourism sector project was developed in response to industry demand for effective solutions to

the human resources constraints affecting growth in the industry. While driven primarily by businesses, the project is aligned with public policy interest in the country of fostering the growth of tourism in Brazil. Despite the country's size and natural and cultural resources, Brazil currently accounts for less than 2% of world tourism receipts. Three factors have been identified as inhibiting the growth of tourism in Brazil: infrastructure, marketing, and human resources. This project was specifically addressing the problem of the supply of qualified human resources for the sector.

d. Achievements

As a result of the pilot project supported by the MIF, the IH has developed the methodology and set a system in place for certification in the tourism sector at a national level. The project expanded beyond piloting the standards and certification in the state of Bahia and worked in many locations around the country. The project resulted in the development of 52 standards with their corresponding curriculum and evaluation instruments. A total of 12,430 workers have been certified as of September 2002.

In addition, approximately 400 trainers have been trained as multiplicadores. These multiplicadores play an important role in promoting the use of standards and certification, as well as having the capacity to implement standards-based curriculum. The market for certification is built up by the increased worker training around the standards, and the training helps to ensure a continual loop for workers who may not yet meet all requirements of the certification.

The project is now past its pilot phase and is working on several fronts to expand the use of the system. As in the case of SENAI, IH has decided that the regulatory structure for the system will be the same as that used by the ISO 9000 process. IH is the only current certification body in the tourism sector and is preparing to present its application to the National Institute on Methodology (INMETRO). The standards developed by IH will be presented for approval at the national level to the Brazilian National Standards Agency (ABNT).

The project achieved extensive participation of a broad range of stakeholders and consulted with thousands of individuals, companies, and associations around the country. The independence of IH and the respect it has within the sector allowed for the organization to pull together important representatives from management, labor, and the public sector. Dissemination of the project experience was facilitated through the networks of the various associations and institutions represented in the project. For the validation of standards, the draft standards were distributed through these networks via the internet and a total of 42,000 responses were received from across Brazil. These comments not only helped strengthen the standard but built recognition of the process.

e. Challenges

Since the project has now completed its pilot phase and the system is in operation, its main challenge is sustaining the system with sufficient demand. The key to meeting this challenge is in the financing of the certification, especially for small and medium enterprises and unemployed workers. Even though the project has involved strong participation and ownership on the part of businesses, only a few large companies have begun investing in certification. Employers and workers interviewed for the project noted the importance of public funding or subsidies to cover the cost of certification, especially in the early years of the system. As discussed below in the Section on Project Impacts, IH has a strategy for increasing adoption of certification within the market that includes working with large private companies while also channeling public resources to certify large numbers of workers. This strategy was developed after IH realized that during execution of the pilot, the project had insufficient attention to marketing and communication.

The model implemented in this project has thus far proven effective in terms of developing the standards and putting the system in place with active stakeholder participation. As it moves forward the depth and quality of the standards will need to be tested through further use. The principles behind the methodology included the development of a rapid and agile system responsive to the needs of the private sector. The standards themselves are relatively general with the details on how to achieve the standards included in the evaluation instruments.

As in the case of SENAI, IH will have to work to ensure that the separation between training and

certification is maintained over the long term so as to maintain validity of the certification. Currently, IH does not provide training in cases where it acts as the certification body. But it does support affiliated training institutions to be able to effectively train with curriculum based on the standards.

5. Chile Job Competencies Certification Project

a. Project Overview

The project in Chile set out to lay the institutional and methodological foundations for developing a national system of skills standards certification, through the implementation of pilot projects in the mining, construction, and tourism sectors. The sectors were selected because they are highly sensitive to quality problems in the product or service they supply. For each sector involved, the project developed and tested standards for priority job functions, evaluation instruments, and certification processes. In addition, the project design called for the dissemination of pilot results and design of a proposed national system. The project had a three year time frame and is being completed within that period.

Implementation of the project was organized around two pilots, one in the mining sector and the other in the tourism and construction sectors. The mining sector pilot involved strong leadership from the business association and included involvement of labor representatives. Participating companies, which included the largest mining companies in Chile, are contributing hard resources to the project and are adapting standards certification into their human resources management strategies. In the case of the other two sectors, activities were implemented under a joint pilot named Cero Falta (Zero Fault). This pilot took on a somewhat different focus since the public sector became involved when it provided funding to expand the reach of the pilot.

b. Institutions Involved

The executing agency of the project is the Fundación Chile, an autonomous private nonprofit organization. For each pilot, the Fundación staff worked with representatives from business associations. The project coordinated closely with the National Training and Employment Service (SENCE). Business associations participated actively in the technical committees overseeing the sector pilots.

c. Project Rational and Interest in Skills Standards

In the case of Chile, the project was responding to industry needs to enhance worker competitiveness in the context of the country's increasingly open economy. One of the key problems in the labor market was the information asymmetries between workers and firms that led to high transaction costs as well as entry barriers that affect worker mobility. Given the stage of development of Chile's economy, improvement of the quality and competitiveness of the country's human resources was identified as the critical factor for the country to continue growing and maintain pace with global competition. The initial impetus for the project came from the private sector rather than from a public policy initiative. Fundación Chile approached the MIF directly for support of this skills standards project.

d. Achievements

Chile has produced 271 standards. Through the pilots, a total of 3,697 people were evaluated based on skills standards, with about 1,400 of these passing the tests and receiving their certification. In the case of the mining sector, the management and labor of the participating companies have taken an active interest in the project and the use of standards and certification is becoming integrated into the existing human resources development processes within the companies. In the case of the company Codelco, evaluation and certification was used in the recruitment of workers for a new operation.

The other pilot, Cero Falta, gained government interest because it saw certification as a means of increasing worker qualifications and marketability in the face of rising unemployment. Additionally, the gas workers within the construction sector were of particular interest given the high level of accidents within that sector. The workers that were evaluated and certified under Cero Falta were identified individually by certification organizations and the cost of the certification was covered by the project. So in this case, although

employers and business associations did actively participate in the standards committee, the pilots were not enterprise-based and did not develop industry ownership in the same way as the mining sector pilot.

While the Fundación Chile was implementing its pilots and promoting skills standards, the interest in standards certification grew throughout the country and the topic was moved to the top of the public policy agenda. Discussed in more detail in the Section on impacts, there are two major public policy initiatives currently underway in Chile that are promoting the national skills standards system, including the development of a law that would set the parameters for the system. In addition, other sectors have approached the Fundación Chile expressing an interest in the program, including information technology, logistics, and agricultural sectors.

e. Challenges

Since Chile is now in the midst of negotiations on the development of the national system, the key challenge is to establish a system that manages the appropriate balance of public and private sector support that can maintain and increase the use of the system in the marketplace. While the push of standards onto the national agenda presents obvious opportunities, it also presents challenges since it took place before the experience of the pilots was complete. Nevertheless, the Fundación's expertise and its experience with the pilots is being incorporated into the debate. Specific political challenges including differences among business associations on certain key aspects of the system are currently being sorted out.

In terms of execution of the project a key challenge was to create a supply of evaluation entities. The Fundación Chile reached out to universities and provided training to assist the universities in establishing themselves as evaluators. In the future, the system will work with a broader range of evaluators, including organizations who have experience evaluating products through ISO 9000.

A unique aspect of the model that was applied in Chile was that it did not include training components but focused only on the development of standards and certification. While this did ensure the project maintained an orientation to labor certification, it posed challenges since the certification process can highlight needs for additional training. In the case of Cero Falta, SENCE provided training for some participants but not all, and therefore those workers who did not pass the first phase of the evaluation process were not provided any type of assistance. A proper link between evaluation, certification, and training needed to be developed. This is in line with the long term goal for standards systems in which certification would be used as one element of a comprehensive human resources development strategy.

Another challenge in project execution was the process of implementing the on-site evaluation of workers. While methodologically important to include practical tests of a worker's competencies, geographic barriers as well as work processes within certain companies create challenges for smooth and cost-efficient implementation of this methodology.

6. Argentina Worker Skills Certification Program

a. Project Overview

The Argentina Worker Skills Certification Program is piloting the development and use of skills standards in four sectors: printing/graphic arts, metallurgy, automobile mechanics, and confectionery trades. Of the six projects studied, Argentina is the only one at the early stage of implementation, with approximately 20% of project funds disbursed to date. At this stage the project is focused on the development of standards and standards-based curriculum for each sector, but plans to develop evaluation instruments and certification programs in later stages. The project is scheduled to have a three year execution period, which began one year after project approval due to delays in meeting first disbursement eligibility requirements.

b. Institutions Involved

The project is executed jointly by five institutions: one private institution representing each of the four sectors and a coordination unit provided by the Ministry of Labor and Social Security (MTSS). The sectoral institutions are all training institutes. Two of the institutes are managed by labor unions: the Automobile

Mechanics and Related Trades Automotive Transport Union (SMATA) and the Argentine Federation of Pastry Workers, Confectioners, Ice Cream Vendors, Pizza Makers, and Alfajeros (FATPCHPyA). The other two are training institutes affiliated with business associations: the Association of Metallurgical Manufacturers of Santa Fé Province (AIM), and the Guttenberg Foundation which serves the printing industry.

c. Project Rational and Interest in Skills Standards

In the case of Argentina, the project was primarily responding to the need to improve the quality of training within specific sectors. The MIF received separate funding requests from the four sectors involved, to assist in the modernization of their training programs. In dialogue between the MIF and the four training institutes as well as other sector stakeholders, it was agreed that the projects would join together and pursue common approaches to meeting their human resource needs through the use of skills standards. The impetus for the project in Argentina thus did not come from a national public policy debate, but rather from the needs of specific industries. While the initial project design called for the pilots to help lay the groundwork for a national system, soon into implementation the project made a conscious decision that their objective was not to build a national system but rather to experiment with methodology at a sectoral level.

The sectors each had somewhat distinct reasons for their interest in skills standards. In the metallurgy sector, many companies seek certification through ISO 9000 certification and were finding the quality of workers a barrier to achieving that certification. In printing, they had begun to explore the use of skills standards as a means for addressing the changing demands on worker skills due to the rapid technological advances of the sector. The auto mechanics training institute had identified competency-based training as a means of improving the demand-orientation and quality of their training institute, in response to the technological changes in car mechanics that came with the influx of US and European cars into Argentina during the 1990s. New cars required entirely new types of skills. The pastry sector sought a means of assisting the sector to improve productivity and modernize production.

d. Achievements

To date, the project has developed a total of 33 standards, and 18 training modules across the four sectors. The project also produced new occupational classifications, as they discovered that the process of creating standards required first substantial work clarifying and re-ordering the occupational classifications within the sectors, as a basis for developing the functional job analysis. The project has also undertaken studies and purchased technical assistance and equipment to strengthen the training institutes.

Each of the four pilot sectors are currently completing the process of developing standards and corresponding curriculum. For the most part, they are in the process of validating standards, consulting with business associations and labor unions. The level of acceptance among employers varies among the sectors, with apparent interest in the printing and metallurgy sectors. In the case of auto mechanics, 83% of the sector is comprised of small or microenterprises and thus workers and managers are closely aligned and working closely with the union-based training institute. In the case of the pastry sector, it is expected that the main support for the system will continue to be from workers rather than employers.

e. Challenges

The project in Argentina was delayed by one year from the time of approval by the MIF to the eligibility for first disbursement. The Bank's project monitoring reports note that the delays were due in large part to confusion over the role of the Ministry of Labor in providing the coordination unit for the project, when the project was really directed by the private sector.

Although the four sectors involved in the pilots have sustained their participation throughout the project, the impact of the crisis that Argentina has undergone over the last year presents a challenge for the implementation of the system over the medium term. At this stage the project is very geared toward using standards to improve training of the four sector-based training institutes participating in the project. The ability of the market to pay for certification and ongoing training will be tested as the project continues. Specific characteristics of the Argentine economy and labor-management relations will pose challenges in building support

and financing for the certification.

One technical challenge being faced in terms of methodology is the balance of defining a standard based on ideal practices versus actual practice. For example, in the pastry sector the appropriate competency using a modernized business approach for a pastry chef would be to weigh ingredients, but master pastry chefs in the sector do not do this today. This poses problems for validation of the standard at a national level. While businesses were supportive of the standard in general, they realized in the end that their own workers would not pass. The proper balance between actual and ideal practices needs to be worked out in each case, and education and awareness-raising is needed among businesses.

Another challenge identified by the executing agency was the lack of consultants in Argentina that understood the standards system to participate in the technical committees. The approach taken in Argentina was to use teams of consultants from within each sector to support the process from standards development through certification. Sector-specific technical experts and pedagogical experts were trained by the project staff for this purpose. International consultants were not used. Despite the difficulties this posed, in the long term it is resulting in a core group of actors within each sector who are well-versed in the subject and will assist in the promotion and implementation of the system.

The model applied in Argentina calls for the implementation of the full range of activities from standards identification to certification, but the ability of the project to build the market for certification will be a challenge. The fact that the pilots are led by training institutes provides for a strong orientation of the project to the improvement in the quality of training. This will be an important contribution of the project and a first step toward promoting standards within the sector. As project execution continues and moves into subsequent stages of evaluation and certification, other stakeholders will need to be brought on board and a system developed that ensures separation between certification and training.

B. Summary of Project Results

Each project faced its own set of challenges that influenced the results it achieved. In general terms, the projects have advanced the use of standards and certification in their respective countries, but few have achieved thus far the level of development expected in the project design. The fact that all but two projects experienced significant delays and requested extensions reveal that the model requires more time to be developed, tested and adopted in the market. Table 2 summarizes the numbers of standards and certifications to date in each project.

**Table 2: Standards Developed and Workers Certified
in the six MIF Projects Reviewed**

Project	Standards Developed	Workers Certified
Argentina	33	None yet
Brazil Tourism	52	15,000
Brazil FIEMG	5	None yet
Caribbean	45	146
Chile	271	1,404
Mexico	538	42,000

The aspects of project design that contributed to project success included the following:

- Selection of pilot sectors based on market demand for certification, as in the cases especially of Chile, Brazil FIEMG, Brazil Tourism, and Argentina.
- Training of skilled technicians to support the project in execution and promote and carry-on the system in the long term, as in the cases of Mexico, Brazil Tourism, and the Caribbean.
- Methodology for standards development that is responsive to the market, as in the two Brazil projects

and Chile.

- Inclusion of a broad representation of sector participants, as in the Brazil Tourism, and Mexico.
- Creation of ownership and commitment to certification through the pilots, as in the case of Chile, both Brazil projects, and to an extent Mexico.
- Development and documentation of methodology for a consistent system, as in Mexico and the two Brazil projects
- Strong institutional capacity of executing agency, as in the case of Brazil tourism and Chile

The aspects of the projects that did not work as well or caused problems included the following:

- Designs that were developed with insufficient stakeholder involvement during preparation, as in the regional Caribbean project
- Cumbersome methodology, as in the case of Mexico
- Insufficient promotion and dissemination, as occurred in all projects

A key issue in the effectiveness of projects over the long term is the quality of the methodology developed for the standards systems. MIF resources provided projects with the ability to leverage technical expertise and study international experience in the development of methodologies for their own countries. The projects utilized the experience of other countries and technical consultants to differing degrees. Each project took a somewhat distinct approach to the methodology, within some common parameters. The key differences among the methodologies are related to the complexity and length of the processes used.

As noted above, Mexico developed the most comprehensive but also complex methodology. Other countries developed methodologies that were more responsive to private sector needs, developing standards in quicker process and writing the standard itself in easy to understand language, short and to the point. Thus far the market appears to favor the shorter standard, as long as it touches upon all the major activities within the job function. The key in these cases where the standard is more general, rests upon the evaluation instruments where the specifics on how to achieve the stated competencies in a satisfactory manner are elaborated.

To be done right, skills standards really needs to be understood, and this takes time and often requires learning from programs already working in skills standards. In some cases, projects assumed they could develop standards, standards-based curriculum, and evaluation instruments based on limited international training and based instead on other types of pedagogical experience. This leads to less sophisticated and in some cases inappropriate methodology. A success factor likely to be highlighted over time is the use of sufficient international expertise to develop a sophisticated methodology that builds on experience from other countries in the region as well as elsewhere.

C. Additionality of MIF Investments in this Field

The MIF has provided clear additionality to the development of skills standards and certification systems in Latin America and the Caribbean. In all cases studied, stakeholders noted that the level of understanding and acceptance of skills standards had grown as a result of the project. Project staff reported that their efforts would not have been undertaken, or in a few cases not in the same scale, without the MIF funding. Furthermore, several projects, most notably Chile, commented that the ability of the MIF to support private sector initiatives was critical to the success of their efforts, since implementation within the private sector was an important principle driving their approach.

Specific additionality from the MIF investment existed in each project, though it's overall impact varied. A couple of instances are worth noting. For the Brazil Minas Gerais project, the participation of FIEMG in the MIF basic skills project built up familiarity with the concept of standards and had a team in place that was leveraged when the SENAI national office decided to develop a nationwide skills standards system. The pilot of FIEMG/SENAI Minas Gerais was able to take the lead in contributing to the SENAI national dialogue.

In Chile, even though the public debate on a national standards system emerged somewhat in parallel to the MIF project, the work of Fundación Chile in implementing the MIF project increased the level of

understanding within the country about standards certification. Furthermore, the expertise of Fundación Chile developed through the MIF project is being leveraged in the dialogue on the new law and in the development of the system through Chile Califica.

The project experience to date suggests that the MIF can continue to provide additionality to the development of standards certification projects. Experience has confirmed the importance of funding for private-sector led pilot initiatives to develop systems and build ownership within the market. As new countries and/or sectors are prepared to engage in this area, MIF should continue to support these efforts.

Even though private sector demand for such systems has grown, public resources are needed to help develop the system and build greater awareness in the short term. The MIF is one of the only donors filling that need. The only other donor providing significant levels of support to systems development in this area is the International Labor Organization, through its training center, CINTERFOR. That assistance has been much more limited in size and has primarily consisted of providing technical assistance and training (often under MIF-funded projects), and not in supporting large-scale project implementation.

IV. IMPACT OF MIF PILOT PROJECTS

A. General Overview of Impact

The review of the six MIF projects found that progress has been made in the development of standards certification systems in each of the countries involved. There have been varied degrees of success and challenges along the way, but overall it has been a worthwhile endeavor where the MIF support has made a significant impact in moving the development of these systems forward. The key outstanding issues for the future of all projects are the adoption of the systems within the marketplace and the financial sustainability of the systems over the long-term.

In general terms several impacts have been achieved. Long-term institutional structures to sustain the systems beyond the pilots are beginning to be established. Mechanisms for financial sustainability are under analysis, though this remains a key issue for the future. Policies that support the use of standards have been passed in some countries. Curriculum has been developed and instructors trained in the use of competency-based curriculum. Standards have been developed and workers have been evaluated and certified. Most importantly, businesses are beginning to express an interest in and demand for standards and certifications.

The extent of impact in each of these areas varied across projects and the level of penetration of these results is still limited within the markets as a whole. But the systems are moving forward and important lessons have been learned along the way that will help strengthen the continued implementation of these projects and the design of new projects.

The remainder of this Section of the report reviews the specific impact of the MIF projects in the following key areas:

- Adoption of standards and certification within the market
- Building of consensus among management, labor, and government;
- Development of long-term institutional framework
- Financial sustainability
- Public policies supporting skills standards certification
- Occupational health and safety
- Quality of education and training

B. Adoption of Standards within the Market

The adoption of standards and certification within the market is the most fundamental desired impact of the MIF pilot activities. It has also been the most difficult to achieve. All projects did achieve private sector participation during the development process, but to date a relatively small number of companies have continued to invest their own hard resources in certification or to require certification through their recruitment or

subcontracting practices. In most cases, the systems being developed are still at too early a stage to make a determination about market adoption. The time frame for adoption anticipated in the projects was too optimistic. Overall, the MIF projects have not achieved the impact desired in terms of penetration within the market in the time frame expected. But progress has been made in this direction.

One of the key impacts that the MIF-supported pilots have achieved, which will contribute to adoption of the system, is the dissemination of the skills standards concept. All projects noted that the level of understanding and discussion on skills standards and certification had been advanced within the country as a direct result of the pilot efforts. More dissemination is still needed, especially as projects wrap up pilot phases and prepare to expand use of the system or develop the framework for national systems.

In terms of the adoption of the system within the market, this refers to the demand for certification by employers who want to certify their workers and who seek certification in their recruitment processes, and the demand for certification by individuals who want to improve their marketability and job mobility. It is important to keep in mind that the market has always sought out credentialing and certification of one form or another. Throughout Latin America, many workers and unemployed individuals, including those from low-income levels, seek out training courses in hopes of increasing their chances of obtaining better jobs. The quality of such programs and value the market actually places on the credential they provide varies greatly. The skills standard certification aims to make that process of higher quality and more transparent to the marketplace, since the market should know what competencies a person masters who holds a standards certification as opposed to a diploma from a course whose curriculum is unknown.

The point of interest therefore in examining these pilot projects is to understand the extent to which they have built recognition in the marketplace of the value of the standards and certification. To date, none of the projects has reached a stage where certifications are readily recognized and valued in the market. Therefore, it is too soon to determine the impact of the projects on labor mobility. However, there have been some important successes in terms of segments of the market adopting the use of standards and certification.

As mentioned in Section III, several key companies in each country have taken strong interest in the standards and committed hard resources to finance the certification of their workers, such as Bimbo in Mexico, SuperClubs in Brazil's tourist sector, and CIEMG in Brazil's industrial sector. Interest from workers has also been strong in certain sectors and in some cases such as the mining sector in Chile, workers have expressed a willingness to pay for at least a portion of their certification. In Argentina, union representatives expect that workers will pay a portion of certification in some sectors (confectionary and automechanics). In Minas Gerais, a construction worker interviewed for the project noted that if the certification cost about the same as the SENAI courses that many construction sector workers currently take and pay on their own (about US\$50 paid in three installments), then workers would likely also pay for the certification.

While private sector participation in the pilot program is critical, it is the longer-term use of the system once it is put in place that will indicate the impact on the market. Only two projects are advanced enough to analyze the use of the system: Mexico and the Brazil tourism project. But preliminary experience from other projects gives some indication of the level of interest of employers and workers in utilizing the system once it is established.

In the case of the tourism sector in Brazil, almost 13,000 people have been certified. A variety of factors have facilitated the beginnings of industry adoption of standards. The sector itself is in a unique moment of growth. Employment in tourism grew by 24% from 1991 to 1999, while employment grew only 10% in the country as a whole. Brazil's tourist potential is under-utilized and one of the factors identified by all players in the sector as key to the country's ability to take advantage of its potential is the development of its human resources. There is a relatively widespread understanding of the importance of training the workforce and finding effective solutions for increasing competitiveness of workers. While businesses are supportive of the system and large companies are beginning to invest resources in it, the main drive for penetration within the market depends on public sector financing for small and medium enterprises and unemployed workers.

The most successful experience to date with industry adoption in the tourist sector in Brazil has been with an international hotel chain, Super Clubs, which is utilizing standards certification as an integral part of its human

resources management strategy within its newly opened all-inclusive resort near Salvador. The hotel's goal is to certify 100% of its 400 workers. The manager sees certification as key for Brazil in order to set parameters for increasing the quality of the workforce, improving training, and motivating workers.

While on the one hand, Mexico has achieved the greatest number of certifications to date and has a system in place that is being used by companies, the level of penetration within the market remains limited, particularly given the scale of the program. Thirty-two certification agencies and 870 evaluation centers have been accredited and are selling their services to the private market. To date 128,000 certifications have been granted for specific competencies. At an average of 3 competencies per person certified, this represents an estimated 42,000 workers that have been certified. Only 273 of these were certified directly through the 13 MIF pilots, while others have been certified through the ongoing system of CONOCER that the MIF pilot helped to develop. The leaders in the use of certification have been the state-owned energy company (Comisión Federal de Electricidad, CFE), large restaurant chains, and the textile industry.

Despite the large number of people certified to date, there is little indication of ongoing commitment by the private sector to use certification as part of a continuous human resources management strategy in Mexico. Even leading companies that had participated in the pilots such as the food company Bimbo, and the hotel chain Grupo Posadas, were primarily interested in improving their internal training processes, and in the case of Bimbo internal certification, rather than using the national system. Awareness within the industry of skills standards has certainly grown significantly with the project and individual companies continue to approach CONOCER for assistance in implementing standards within their companies, but the penetration within the market is not yet very deep.

The strongest company currently supporting certification, and the one that represents a large portion of workers certified to date (8,000) is the state-owned energy company, CFE, that provides 95% of the energy in Mexico. It has 80,000 workers, is ISO certified and invests heavily in training. The company has clearly understood the benefits of standards certification and is dedicated its own resources to developing standards and certifying its workers, with a goal of certifying 100% of its workforce over the next few years.

Although the MIF pilots specifically worked with the private sector in the implementation of enterprise-based pilots in Mexico, the management of the process apparently had the perception in the market of being driven by CONOCER staff and the private sector has not taken on the desired level of ownership of the process. Furthermore the link between the company-specific pilots and the sector-wide committees was not as strong as anticipated and thus the transfer of the pilot experience and penetration within the sector was limited in some cases.

In Chile, the program is still in its pilot phase, but discussion about adoption of the system within the market has begun. Important progress has been made in Chile in terms of getting skills standards into the national dialogue, among both government officials and businesses. One of the leading business federations, that is an umbrella organization for several business associations, CPC (Confederación de la Producción y del Comercio), has strongly supported standards certification in its official statements. The development of a certification system was included in the list of priorities outlined by business leaders and the government in their joint Pro-Growth Agenda.

The design of the program in Chile has specifically sought to maximize private sector participation and the demand-driven nature of the system. Thus far, one sector, the mining sector, has demonstrated clear commitment to standards and is investing its own resources in the certification of workers. The association of the large mining companies is fully supportive of the use of standards certification and is promoting it among all its members. In the case of the other pilots, in the tourism and construction sectors, there has been less commitment from the private sector to date, in part because the pilots took on a more social objective with financing from the public sector to evaluate and certify lowest skilled workers. Companies interviewed in these sectors are interested in the system but not yet clear on the level of investment they would be willing to make to certify their workers.

The project in the Brazilian state of Minas Gerais is also still in a pilot phase, but the pilot has been expanded as companies have approached FIEMG requesting participation. While first working in the construction and maintenance sector, FIEMG is now working with the energy sector and the mining. The strongest case of market commitment in this project is with the energy sector. The state owned energy company

for the state, CEMIG, together with the association (SINDIMIG) that represents companies that serve as suppliers to CEMIG, approached FIEMG to develop a standards-based certification and training program for their sector. The sector has a history of investing in training and view skills standards as an important tool for them to improve quality of their workforce. Two driving forces behind their interest are the desire to lower workplace accidents and the growing demand on the part of large companies such as Petrobras for demonstrated quality of workers in firms they subcontract.

The project in Argentina is at too early a stage to make an assessment of the level of acceptance and adoption of the system in the marketplace. The pilots are industry-based, though linked primarily to training components of the sector. Employers and union representatives are involved in the project and have expressed interest in certification. But the financing mechanisms will be challenging, with certification in some sectors such as pastry chefs, expected to be financed by workers themselves while others such as graphic arts to be financed by employers. However, complicated issues related to collective bargaining agreements and salary increases related to certification are expected to pose significant hurdles to employer purchasing of certification. An appropriate incentive plan and government financial assistance is expected.

In the case of the Caribbean regional project, it is also too soon to determine impact within the marketplace. The project is led by the private sector, through the Caribbean Hotel Association (CHA) and business plans have been developed for both a certification and a credentialing system, to be managed on a regional basis through an arm of the CHA. But at the current stage, the plans call for significant resources to be invested in promotion and dissemination in order to build awareness and demand for the certification and credentialing. The effectiveness of the unique credentialing process established in the Caribbean and the extent to which the market will demand both credentialing and certification cannot yet be determined. Anecdotally, project staff note that the credentialing pilot generated significant enthusiasm and interest. It is anticipated that employers are more likely to pay for certification and workers for credentialing. An innovative aspect of the Caribbean project that needs to be expanded is the use of extension workers to work directly with small hotels, training managers and line supervisors about the use of standards and certification.

An explicit strategy for increasing market adoption of the system has been developed by the Instituto de Hospitalidade, which plans to continue to function as an accredited certification entity, and has estimated that it needs to certify 15,000 workers per year to be financially sustainable. It expects to reach this level in the next two to three years. The strategy includes gaining the participation of large companies including those who can serve as examples (international hotel chains, upscale restaurants) and those who can have a domino effect by demanding certification from their subcontractors (e.g., Petrobras through its purchasing of food and lodging services). They are also targeting large corporations for support of promotional and training activities. Programs are under development with Mastercard and Nestle to finance promotion and training of change agents (multiplicadores) in small business throughout the country. As a further incentive to companies, the program provides a type of certification as recognition to the company as a whole if 90% of its workers are certified.

In parallel with these efforts, IH is pursuing government financing which will serve as the cornerstone of the strategy for significant penetration in the marketplace. IH is working with labor unions to obtain funding from the government's Fund for Workers (FAT) to finance the evaluation and certification of 15,000 workers. The government will also be funding large numbers of individuals to be trained and certified through an IDB loan supporting tourism development in the Northeast of Brazil (Prodetur). To facilitate adoption by small businesses, IH is working closely with the Brazilian agency for small business development SEBRAE, which is one of several institutions funded by the payroll tax and managed by the private sector

C. Building Consensus: Management-Labor-Government Involvement

One of the general goals of the MIF pilot projects was to build consensus among key players representing management, labor, and government, since support from all three groups is important for standards systems to be sustainable in the long-term. The validity of the standards themselves depends on worker input as well as management approval. The value of the certification must be perceived by manager and workers. Government participation is important given the policy implications and social benefits of standards systems and the need for co-financing between public and private sectors during the development phase.

The impact of the MIF projects in building that consensus has been mixed. While all projects involved the

three sectors to some degree, primarily in the process of defining and validating standards, the majority had a limited presence of labor in the overall guidance of the project and several are still struggling with finding the appropriate balance between private and public ownership of the process.

In the case of Mexico, which had the strongest impetus from within public policy decisions, the project has a strong public sector orientation. In the Caribbean, the project was led by the private sector with limited coordination with the public sector except for the participation of the state Association of Caribbean Tertiary Institutions (ACTI). Stakeholders interviewed suggested that the failure of a strong public-private partnership resulted in duplicative efforts initiated separately by the public sector in some countries, such as Jamaica. Two projects, Chile and Argentina, anticipated the establishment of representative advisory councils, but these were not established for various political reasons. In Argentina, the political dynamics and support for a national system changed during the course of the project. In Chile, a separate initiative developed under the direction of the Ministry of Labor, which convened various actors to a dialogue on skills standards, thus replacing the need for Fundación Chile to create its Counsel.

Labor unions have been actively involved in Mexico, Brazil tourism, and two of the Argentine pilots. They have very limited involvement in Chile and the Brazil project in Minas Gerais. In the latter cases, workers do participate in the definition of the competencies in the standards development process, but are not part of the decision-making structure of the projects. In the case of Chile, labor is not an active participant in that national dialogue. In Argentina, both labor and management are involved in the project, but not together – two pilots are led by unions and two by management associations. In the Argentina pilots, there is some dialogue with managers and workers, respectively, but the projects are not being led in a tri-partite manner. The project team believes that this may be a better method as each sector differs as to interest by either managers or workers in training and certification.

The level of participation and commitment from a broad representation of private sector employers and workers as well as government agencies is strongest in the case of the Brazil Tourism project. As described above, the Certification Council established by the Instituto de Hospitalidade had tri-partite representation. In addition, the project reached out to institutions involved in the tourism sector across the country so that a total of 136 institutions representing management, labor, and the government were involved in the project in one way or another. Participation of these institutional actors from across the sector allowed for the project to develop consensus within the sector, facilitated broad validation nationwide, and helped promote the system.

Why was the project in the Brazil tourism sector able to achieve this representation so effectively while others have not? In part, the specific political context and history of management-labor relations in each country must be taken into account. But in addition, the IH benefited from strong leadership from within the industry that set a precedent for building representative participation. Also the character of the Institute as a non-profit established by corporate foundations but not affiliated directly with either business associations, labor unions, or the government, gave it a particular independence that allowed it to bring together all the different players.

D. Long-Term Institutional Framework

The MIF pilot projects have had an impact in contributing to the development of long-term institutional frameworks for national skills standards systems. With the exception of Argentina, which is at an early stage in the pilot process and is taking a sectoral rather than national approach, all projects have made strides toward developing long-term systems. In many cases the mechanisms for long-term sustainability of these systems, especially in terms of financing (discussed in subsection E) are still being worked out.

Box 1: Summary of Long-Term Institutional Arrangements in Each Country

Long-Term Institutional Arrangements

Argentina... Not applicable, since project at early stage.

Brazil ... Both projects have decided to use the ISO 9000 regulatory bodies to approve national standards and accredit certification bodies. IH and SENAI are the certification bodies currently.

Caribbean ... Business plans developed for CaribCert and Credentialing system, to be managed under representative council affiliated with Caribbean Hotel Association. These systems serve as certification organizations. Broader regulatory structure not clear.

Chile ... New institutional structure to oversee the system currently under debate in the context of new law. Will involve private and public participation. Independent evaluation organizations developed with support of project but expected to be market-driven in the future. Certification organizations expected to be within umbrella business associations.

Mexico ... CONOCER continues as regulatory body and technical support for the system. Its legal structure is currently under review, and may come more under control of public sector. Independent certification organizations received some subsidy from project, but expected to be market-driven in the future.

In Chile, public dialogue around the creation of a national system is underway through two concrete initiatives. One is a nationwide program centered around lifelong learning, called Chile Califica, through which the Government, with support from the World Bank, will support large scale reform in the education and training system with skills standards and competency-based training at the core of the reform model. The second is a new law that is being drafted and debated that would lay out the institutional structure for a national standards certification system and define some of the key incentives for industry to participate in the system. The technical expertise of the Fundación Chile in managing the MIF pilot project has made it a major player in that dialogue, especially in terms of technical aspects of the system. But the move to a national institution was initiated by the public sector, even before the results of the pilot were complete. One of the key issues under debate regarding the law is the balance between public and private sector ownership of the regulatory body developed for the Chilean system.

In Brazil, participants in both projects have decided that the institutional framework for labor standards and certification will be the same framework already in place for ISO. Both the IH and SENAI are planning on applying to the ISO accreditation body in Brazil, INMETRO, for accreditation as certification entities for the certification of workers. The new ISO standard for labor certification entities is currently under review by countries around the world through the ISO process. The MIF pilot in Minas Gerais had an important impact in terms of skill standards development in the country since it became one of the leading pilots within the development of a standards certification program for the SENAI system.

In Mexico, CONOCER is a well-established institution, though its legal structure is currently under discussion and will soon be reformed. The case of CONOCER is unique in that significant resources were put into the establishment of the system prior to building up industry support. As a result, a large infrastructure has been developed, but the use and impact of the system now needs to be expanded. Although the private sector has a majority on the Board of CONOCER, overall the private sector does not seem to have a sense of ownership of the institution and the market perceives the system as very public-sector driven. If the current changes to the legal structure of CONOCER result in the institution becoming absorbed by a public ministry, the level of industry ownership and participation in the system could be at risk.

In the Caribbean, detailed business plans have been developed for the institutional structure that will manage the certification and credentialing systems: Caribcert and the Association of Caribbean Tourism Professionals (ACTP). Both fall under the auspices of the Caribbean Hotel Association. Caribcert has already developed its online services for workers to access certification materials. The systems are currently completing their pilot phases and are expecting the next step to involve significant outreach to build demand for the systems.

E. Achieving Financial Sustainability

A key question for the long term impact of the programs is the financial sustainability of the systems. At the early stages, where the MIF and other donors as well as the public sector are involved, funding is required for the development of methodology, research, and establishment of the system specific for each country. Over the

long-term the costs are comprised on the one hand of maintaining the regulatory functions and updating the standards every three to six years (depending on the sector) and on the other hand the cost of the actual certification of workers. However, the certification is expected to be demand-driven and serve as a cost recovery mechanism to maintain the system. The key issue therefore is whether employers and workers will invest in certifications and at what level.

The cost of certification varies across projects. Currently in the Brazil tourism sector, certification costs about \$25, in Barbados the cost is approximately \$50 for line level workers, \$100 for supervisor level, and \$200 for managers. In Mexico, the government sets the price for lower occupational levels 1 and 2, while the open market determines prices for levels 3,4, and 5. The cost for certification of level 2 is about \$20 and for level 3 it is about \$80. In Chile, the evaluation and certification process for the pilot was approximately \$200. In addition to the cost of certification, the system also depends on investment in the cost of training since certification is just one piece of a comprehensive human resources management strategy. A portion of workers who are evaluated for certification will require additional training to achieve certification in some areas.

The pilot projects have begun to test the willingness of various participants to finance the system, and all have discovered that incentives and subsidies are needed at the early stages of standards certification systems, until enough people are using the certification and market demand is high. In each country different mechanisms are available and under debate. Private sector financing for certification has thus far been limited primarily to large companies that already have a history of investing in training.

Chile and Brazil have incentives in place to promote investment in training and these same mechanisms are expected to be adapted to support certification. In Chile, companies can receive a reimbursement from the national labor market system (SENCE) of up to 1% of the amount of their payroll tax (franquicia) for investments made in training of workers. Currently the possibility of expanding eligibility of the subsidy to cover investments in certification is under discussion. Whereas in Chile companies are reimbursed for training purchased from the open market, in Brazil, all companies pay a payroll tax which is distributed to several institutions that provide training and technical assistance to the various sectors. Known as the "S" system, these institutions include SENAI (for industrial sectors), SENAC (for commerce including tourism), and SEBRAE (for small businesses). These institutions are all managed by the private sector but have virtual monopolies in many markets. Since businesses already invest in human resources development through their contribution to this system, it is expected that these institutions will play an important role in sustaining standards certification programs. As a certifying entity, SENAI would likely charge a subsidized cost for its certification, as it does for its training, since employers contribute to the overall budget of SENAI through their payroll tax. In the case of tourism, IH can leverage the training of SENAC in standards-based curriculum to build demand for certification.

F. Integrating Standards into Public Policy

Skills standards have become part of the public policy agenda in many of the countries where the MIF has supported pilot projects. As mentioned above, standards have become a central element of public debate on labor market issues in Chile. In several countries, laws have been enacted that support the use of standards in the public sector.

In Brazil, the Ministry of Education passed a law calling for the use of competency-based curriculum in vocational education. Now the challenge is to assist educational institutions in implementing this law. The IH will be conducting a two and a half day workshop for 90 schools to present an overview of the standards process and expects to be contracted by some of the schools to provide technical assistance. In Chile, a recent law mandates that two-year vocational education programs can only be considered for the reimbursement under the SENCE franchise, if the schools use competency-based training.

In Mexico, several government agencies are supporting the adoption of skills standards and certification within their domain. For example, the Secretary of Transportation (SCT) is adapting the CONOCER standards to its own national licensing requirements. The health ministry is using norms in several areas for quality control, as is the Controller General of the country. Similarly, in Chile, the Superintendency that grants licenses for electricians is adopting the evaluation process based on skills standards developed in the pilot program as a requirement in its licensing program.

G. Impact on Occupational Health and Safety

The MIF projects have had a positive impact on occupational health and safety in some cases and have demonstrated overall that standards can serve as a useful model for addressing these concerns. In the case of the energy sector in Minas Gerais, the main motivation for employers to participate in standards certification is to reduce the accidents in the sector. Currently there are 3.7 fatal accidents per year in the sector in the state, and the employers are adamant about bringing that number down to zero. They have targeted the functions with highest accident levels (placing of electricity lines on poles) as the priority for standards development and expect to test all workers and provide training to ensure that all meet the certification requirements.

Food safety has been a leading area of standards in the tourism sectors in Brazil, Mexico, and the Caribbean. International standards have been adopted to national norms in all three cases. As demand from international tourists grow, together with stronger promotional campaigns in each country, restaurants and hotels are increasingly driven to ensure proper food handling and certification provides an objective means of doing so.

In the case of the construction sector in Mexico, the pilot specifically included a component on occupational safety and training modules on safety were developed and implemented.

H. Impact on Education and Training

The MIF projects have had a significant impact on improving the quality of professional education and training through their support of skills standards projects. The use of standards to develop competency-based curriculum has been shown to increase training quality because the training is modular in approach, linked to specific outcomes, and oriented to specific market demands.

In all cases except Chile, the project involved the development of curriculum based on the standards and training of trainers. In Chile, the strategy was explicitly not to link directly their pilot program to training, but instead to work in sectors where certification would be valued with the expectation that training programs would be modified to match standards demanded by the sector as an indirect benefit. This has indeed happened in the case of the mining sector where the company training programs are being adapted to the standards being developed under the project.

In Argentina, the project is currently focused primarily on the use of standards as a tool for the improvement of training. The four pilots in Argentina are each being led by a sector-specific training institute. As standards are developed, curriculum experts work to design curriculum guides around the standards. The participating institutes were for the most part not using modular training previously and thus the project is resulting in significant changes to their training methodology. The project plans to turn to labor certification at a later stage but is approaching the process in a phased approach.

The case of the Minas Gerais project also has a strong training orientation, though they are also working toward certification. As one of the most important providers of training in Brazil, the fact that SENAI is adopting its training to standards-based curriculum will have a significant impact throughout the country.

In Mexico, the project also had a strong training orientation – both in terms of support for curriculum development under the MIF pilots and in terms of CONOCER's broader project on education reform implemented with support of the World Bank. The large number of standards developed in Mexico have been transferred to the education system and used to develop competency-based curriculum.

The risk of focusing on training within a standards system is that it might lead to standards being developed based on the interests of the educational sector rather than the labor market. It is also important to ensure that the concept of standards certification remains distinct from a certification offered upon completion of a course that used standards-based curriculum. Labor certification should certify the competency of a person to perform certain functions as demonstrated concretely through evaluation of competencies. This is quite different from a traditional test to pass a subject matter in a classroom.

Nevertheless, the impact of standards on training quality should not be under-estimated. As one hotel manager noted in Mexico, the quality of his workforce and the satisfaction of his guests had increased after his participation in the MIF pilot and he gave credit for that improvement without any doubt to the improvements in his in-house training based on the standards that were developed.

V. LESSONS LEARNED

A. Projects Must Be Demand-Driven and Build Industry Commitment

The success and long-term sustainability of skills standards projects depend on the commitment of the private sector to maintain and utilize these systems. While public sector support is necessary, at the end of the day, the market must value worker certification based on skills standards in order for the system to be viable. The experience of the MIF pilot projects to date demonstrates the need for projects to engage the right industry players from the onset of a project. Without such commitment, significant resources can be spent on the development of standards that are not used by the marketplace to certify workers and that may not be updated regularly to maintain their relevance.

Projects should work within sectors where there is an articulated demand for standards and certification and within those sectors projects should work with leading companies while at the same time developing an appropriate strategy for penetration of certification within the market including among small and medium enterprises. Industry representatives – management and labor – should be involved in project design and specific commitments from industry leaders should be obtained during project preparation.

Several characteristics were found to influence the degree of acceptance and readiness of a sector for adopting skills standards and certification. Firms more likely to prioritize skills standards include service-oriented sectors such as tourism and banking where revenue is directly linked to quality of service provided by employees, firms operating in competitive export markets, such as mining, and firms in sectors where ISO 9000 certification is common and demanded by the market. However, it is important to note in terms of service sectors that the extent of consumer demand is critical to the importance places on standards. This explains in part the variation of acceptance of standards certification within tourism sectors in various countries. The role of ISO as a driver of skills standards can be expected to continue to grow as more companies seek certification. Furthermore, the ISO process itself is placing increasing importance on labor competency with specific reference to labor included in the 2002 version of the standards. Sectors with high turnover and seasonal employment such as construction are also likely candidates for strong demand of certification. In these cases, employers have much to gain from improvements in their frequent recruitment processes and workers have a strong incentive to obtain valid demonstration of their skills.

It must also be recognized that large companies that invest in training are more likely to understand and value skills standards and worker certification processes. The greatest success in the use of certification was achieved with large companies that have a tradition of investing in training – large mining companies in Chile, SuperClubs Resort in Brazil, the energy companies in Brazil and Mexico, and Bimbo in Mexico. Projects should ensure participation of these companies which are likely early adopters of the process since they can invest resources in piloting and developing standards and can also create an important demonstration effect within a sector. Large companies not only set industry trends but also can influence behavior of smaller companies by, for example, demanding certification of their suppliers and subcontractors.

Small and medium sized companies must also be involved in the process, but since these companies tend to invest limited resources into human resources development projects should include incentives for their participation and strategies to ensure their participation in the system over the long term. Many of the same goals of MIF human resources development strategy of raising awareness of small and medium enterprises about the importance of investing in training are still relevant in the context of skills standards projects.

The importance of building ownership of the process within the private sector and building consensus among various actors raises questions about the effectiveness of a regional versus a national level standards project. The Caribbean project experienced difficulty in gaining collaboration among countries and encountered some turf battles in attempts to reconcile existing national efforts at a regional level. Nevertheless, despite

difficulties, globalization and regional trade agreements will likely push for greater coordination of standards and certification on sub-regional if not regional level over the medium or long term.

B. Financial Sustainability of Certification Systems Needs to Be Addressed

Over the long-term, the sustainability of a standards-based certification system depends on financing for several aspects of the system including paying for the certification of workers, updating the standards every few years, and maintaining a regulatory body that accredits certification entities and validates norms at a national level. These costs need to be shared by the private and public sectors, and the scheme for doing so needs to be worked out during the pilot phase.

Financing of the certification is a fundamental issue that is largely unresolved in most projects to date. The extent to which private employers are willing and able to pay for the certification of their workers varies. The ability and interest of workers to purchase certification on their own also varies. In most cases, it is assumed that some level of government subsidy or incentive plan is needed. Each country context influences the way in which financing is worked out. When designing new projects, options should be identified during the preparation stage and explored through the pilot program. Requiring cash contributions of employers even during the pilot stage is important to ensure adequate private sector commitment to the program and avoid creating inappropriate expectations. The key is determining the right level of subsidy while the system gets up to scale.

C. Proper Balance of Management-Labor-Government Involvement Is Needed

Although private sector leadership is essential for project success, it is also important that the right balance of involvement be attained from management, labor and the public sector. The political context and history of labor relations within countries affects the ability of projects to achieve this, but the MIF can play an important role in bringing the right people to the table. Project experience demonstrated that establishing a representative advisory counsel for the projects was not always effective since these counsels were not always convened or used as intended.

While involvement of all parties is important throughout the pilot phase of the project, it is also essential for the long-term institutional structure of the projects. While the country-specific context must be taken into account in each case, projects are most successful when they involve institutional structures that are led by the private sector, with broad representation from employers and workers, but that also have representation by the public sector. Public sector funding should be sought in a way that supports a private-sector led institutional structure rather than through direct management of the system through a public institution.

D. Methodology Should Be Responsive to Needs of the Market

The specific methodology used for elaborating and validating norms and evaluation instruments, as well as the process for evaluating and certifying workers varied across projects. A key lesson learned is that the methodology should be responsive to private sector needs, which has tended to mean the process should be simple and relatively quick. The ultimate test on the quality of the methodology is the acceptance and use of the standards and certification by the market.

To date, in the process of developing and testing the system, experience has shown the market is much more responsive to a shorter standard written in easy to read language, that is relatively general in terms of the description of the competencies, such as the case of the Brazil tourism sector. A more complex methodology such as that developed in Mexico, is theoretically more sound and may even produce a more accurate standard, but it was found to be too cumbersome by employers and workers involved. However, as systems grow and standards begin to be used more broadly, the quality of the standard itself especially in terms of the level of detail needed to sustain the standard may need to be re-evaluated.

E. Resources Needed for Design and Supervision

Skills standards certification is an innovative and complex topic, particularly when a country is at the early

stages of development of such programs. Projects therefore require careful design with sufficient time and resources dedicated to ensuring that the right players are involved. Sufficient consultation with relevant stakeholders and their involvement in project design is also essential. The MIF projects to date tended to follow similar basic design elements but were varied in terms of the scope and size depending on the ability of the grant partners to arrive at local counterpart resources, required for all MIF grants.

As the concept of skills standards is increasingly promoted throughout the world, many different understandings emerge as to the meaning of the concept. It is important where the MIF is involved to ensure consistent understanding and application of the concept. This requires resources devoted within a project to proper education and training of project participants, to help them to understand the concept. Interviews with employers and workers involved in the projects revealed that in some cases, they did not fully understand the concept or its long-term implications or benefits.

Project complexity and innovative nature also calls for technical supervision throughout implementation. Almost all of the projects studied ran into challenges that required changes from the original project design. The current IDB practice of separating design and supervision functions is particularly problematic for innovative projects since the supervision staff in the representation office may not have the technical expertise, nor the time to provide needed support to these projects.

F. Pilot Design Should Optimize Demonstration Effect

The actual process of piloting standards and certification should be done in such a way as to mirror as much as possible the long-term process the project hopes to establish and results should be documented and disseminated widely. To optimize the demonstration effect, projects should pilot the use of standards-based certification within companies and employers should be required to cover at least a portion of the costs. The pilots should serve not only to test out the quality of standards and evaluation instruments, but to test the process itself, build industry ownership and understanding of the process, and build case examples that can be promoted throughout the sector. Documentation and dissemination of results is important.

G. Standards Certification Should Be Linked to Human Resource Management

While standards provide a useful tool for improving quality of training, ultimately standards are most useful to the system when they are used as a measurement against which workers are certified and when they are used as part of an integrated process of human resources management.

For this to take hold, need to increase awareness of employers on importance of viewing training as an investment and not a cost. And need to enhance the capacity of businesses in Latin America to effectively manage human resources. This is an area that requires additional training and development within the region as a whole.

H. Skills Standards Development Should Be Seen as Long-Term Process

The development and institutionalization of a standards certification system is a long term process, and the MIF funding in this area should keep in mind the realistic timeframe for the process as it determines lengths of its own pilot projects as well as the scope and benchmarks for the projects. A three-year timeframe is apparently too short to get pilots completed and results effectively taken to the next step. Almost all of the projects reviewed requested extensions in the disbursement period.

A relevant experience that serves as a comparison is the development of ISO certification systems. The trajectory of adoption of ISO standards within the marketplace was slow at the outset, and accompanied by significant subsidies and incentives, and once it hit a critical point, accelerated. Skills standards certification is still at the early stage of that cycle.

VI. RECOMMENDATIONS FOR FUTURE MIF OPERATIONS

The lessons learned from the MIF experience to date have concrete implications for the design of future

the MIF operations. These are presented in the Section as recommendations to be taken into account during the design and implementation of projects, as well as recommendations related to the evaluation of existing and future projects.

A. Recommendations for Project Design

1. Ensure industry commitment during project preparation

Conduct sectoral analysis to ensure demand for certification – Projects should only work in sectors where there is a clear articulation of the reason why standards would be effective for the sector. Factors to be considered include the extent to which the sector is responsive to quality demands from the marketplace and the extent to which the quality of the workforce has a direct impact on the quality of the company. Sectors with high levels of ISO certification are prime candidates for adoption of certification. Another factor to consider is the demand on the part of individual workers for certification. This could include sectors such as construction or mechanical maintenance and repair where the ability of workers to demonstrate specific technical competence is valued by the market.

Support competency-based training in cases where sector is not ready for standards certification – In cases where sectors approach the MIF with an interest in skills standards but the sectoral analysis determines that the sector is not at the level of readiness to support the development of a standards certification process, the MIF should support projects that introduce the concept of skills standards and focus on improving the quality and demand-orientation of training by developing competency-based training, but should not attempt to develop a system where market demand and readiness are not yet appropriate to sustain the system.

Identify companies within target sectors that invest in training and are willing to commit to standards and certification – Within the target sectors, projects need to work where there are groups of companies that are willing to make the investment. These companies need to be identified during project preparation, and concrete commitments asked of them at that stage. The best way to identify these companies may vary from country to country but it is recommended that the MIF work through business associations to identify companies in order to ensure that the experience of the company-based pilots has a vehicle for dissemination more broadly in the sector.

Require cash contributions from employers – Projects should require hard resources from employers, particularly to cover at least a portion of the cost of certification and training of workers, even during the pilot phase. This is in addition to the existing practice of including in-kind contributions from companies to cover primarily staff time and meeting space. These contributions should increase over the span of the project.

2. Begin to build broad stakeholder consensus in project design

Be inclusive of stakeholders in project design phase – Even if projects are initiated by the MIF, the preparation of projects need to involve broad consultation with stakeholders and engage key stakeholders in the actual project design. When projects are primarily designed by Bank staff and consultants, the start-up time is longer and stakeholder buy-in more difficult.

Education of stakeholders is needed during the preparation stage – The awareness-raising and education about skills standards should begin during the project design phase. This does not need to be comprehensive training, but project design teams and especially consultants participating in design should lead short workshops and meetings where the concept of skills standards is clearly articulated to various stakeholders.

3. Provide for sufficient promotion and dissemination

Projects should pilot the use of the system once developed and disseminate pilot experience – Projects should extend their pilot phase to include the initial roll-out of the system and not only the piloting of standards and evaluation as a means of testing and validating the instruments. Once the system is developed, pilots should be implemented within companies that are willing to pay for the certification and, as needed, training, of their workforce. These pilots should be well-documented, particularly in terms of productivity improvements as well as interest and reaction of participants, and the results should be widely disseminated as part of the promotion of

the project.

Promotion should emphasize the use of industry networks – Projects should anticipate the use of existing networks, especially through business associations and labor unions, as key to any dissemination strategy. The promotion of the project through the communication channels of these networks should be included as part of the commitment obtained from industry stakeholders during project preparation.

Include the development of a strategy for market penetration as a project benchmark – Once a project is underway, the team needs to develop a clearly articulated strategy for building market penetration. Such a strategy will provide a guide and priorities for action and should also identify major barriers that need to be addressed.

4. Work with executing agencies led by the private sector

Independent private institutions are most effective – Although participation from business associations is essential, thus far experience has shown that project executing agencies are strongest if they are not business associations, but rather are independent nonprofit organizations that can build representation across the sector and develop respect based on their neutrality.

Assess institutional capacity to implement and provide institutional strengthening where needed – The appropriate organization to lead these projects may not necessarily have the capacity to manage the project, especially in terms of the MIF and IDB management and disbursement procedures.

5. Be explicit about mechanisms for financial sustainability

Identify existing incentive schemes for human resources development – Projects should identify the existing mechanisms in each country that provide incentives for companies or individuals to invest in human resources development. In countries where tax incentives exist for training purposes, the project team should engage the public sector in dialogue from the beginning about the possibility of expanding that credit for certification as well.

Create synergies with other MIF human resources projects – The MIF is supporting human resources development projects throughout the region, many of which are working to build awareness among companies of the importance of investing in training and in some cases are working with incentive schemes either through existing government programs or newly created ones such as matching grants. There should be a coordination of efforts and consistency in incentive schemes in countries where such programs exist. In countries where the government does not have such incentives, the MIF should work to develop them to the extent possible, within its overall labor market development strategy.

Create financial incentives directly through the project – Currently most standards projects include very little hard resources from the direct beneficiaries of the system – the employers and workers. During the pilot phase, even large companies have been able to participate at no or very limited cost. Where there have been exceptions to this (SuperClubs in Brazil, mining companies in Chile, CPE in Mexico), those companies who paid to certify and train their workers under the project also had the strongest commitment to the program. This is related to a recommendation listed above that projects should extend through the initial roll out of the system, piloting the use of standards within companies and not only piloting in order to validate aspects of the system. Particularly in this roll-out phase, MIF projects should include some type of matching grant and promote this subsidy as an incentive for participation.

Promote the sale of certification to workers as well as employers – Incentives should be aimed at individual workers as well as employers. While the ideal is that employers finance certification for their workers, workers who are unemployed or desire increased credentials in order to improve his or her position are likely candidates to purchase certification directly. Government subsidies for workers, such as the FAT in Brazil, should be explored from the beginning, and projects should directly provide subsidies for participants in the early stages of the program to build market penetration.

Conduct price analysis – Projects should finance market analysis studies to determine an appropriate

pricing scheme for the certification process. Even in cases where the price will be determined solely by the market through independent certification bodies, an indication of the price the market is willing to absorb will assist in developing an appropriate incentive scheme and a realistic market penetration strategy.

6. Allocate appropriate technical assistance to key components of the process and design methodologies that are responsive to the private sector

Development of standards – While the component of standards development requires some technical assistance to ensure a participatory and comprehensive process following sound methodology, projects should not over-emphasize the standards identification but be clear that this is the first step in a process. The standards development process should not be cumbersome and should leverage existing work in the region. In some cases it will be appropriate to use existing standards as a starting point and then validate them within a specific country context. However, projects in those cases will still need to review and validate the functional mapping that was used as the basis for those standards and ensure they are appropriate and understood within the country.

Validation of standards – This is an important piece in terms of assuring standards are appropriate to a specific country and as a means of building awareness and buy-in of the process. Large scale consultations via internet such as done in Brazil, should be combined with in-person consultation with several key companies in different regions. In addition, the use of networks of stakeholder institutions should be used to facilitate broad validation.

Development of evaluation instruments – This is an area where the MIF should ensure adequate funding and technical assistance, since the design of tests for labor certification requires a particular set of characteristics that are distinct from traditional academic-based tests. The quality of the evaluation is critical to the overall quality of the certification systems. Several of the projects to date have not invested the necessary resources in this area and will likely encounter problems and the need for further investment to refine their instruments in the future.

Validation of evaluation instruments – The validation of evaluation instruments is an integral part of their development. Tests must be administered to a variety of potential users to ensure clarity and objectivity. In addition, the validation process can serve as a means of assessing frequency and importance of competencies, which influence the weight given to various aspects of the evaluation in the scoring for certification. The Brazil tourism project developed a good system for the latter, building upon a software package they purchased from the US.

7. Support linkages with improvements in training as a supplement to standards systems

Support to curriculum development and training of trainers – The focus of standards and certification should be geared toward the certification as a market-driven process that will provide signals to the training market. Nevertheless, direct involvement in the training process is beneficial at the early stages of system development. Projects should therefore include support for the development of curriculum and especially the training of educational experts and trainers in the design of competency-based training, to enhance the long term capacity of the training sector to adapt its methodology. In the pilot projects, companies that certify workers, should be encouraged to view certification as an element of human resources development that includes investment in training; the subsidies discussed above should include this training component to enhance the impact of the certification within the pilot companies.

Do not allow projects to be driven by the training components. – Despite the need to include training, the experience to date suggests that training should be a tangential aspect that supports skills standards rather than the driving force of the projects.

8. Project execution time frame should be extended

An execution period of about four years should be used – Projects should include sufficient time for development and validation of the system as well as its piloting within companies and dissemination of pilot results.

B. Recommendations for Project Implementation

1. Provide technical supervision during implementation

Annual technical supervision missions should be conducted – The innovative and complex nature of these projects requires that the MIF provide project supervision by technical experts specialized in this field. An annual technical supervision mission is recommended. This should include staff involved in the design of the project as well as a consultant depending on the level of progress of the project and need for technical input. These supervision missions should include consultation with a range of stakeholders and not only project staff.

Technical experts should be consulted on project design changes – Revisions to the original project design should be done in consultation with skills standards experts to assist project teams in assessing the long-term implications of any proposed changes. In the face of a variety of challenges and changes to specific political and economic context, several MIF projects modified aspects of the original design, with approval of Bank field staff. While these changes were reasonable in some respects, in some cases they led projects away from technical aspects of the original design and influenced the ability of the projects to meet their original objectives.

2. Ensure integration of international experience

Insist projects utilize international technical assistance and exchanges funded under the projects – Skills standards and certification systems do require several fundamental changes in approach to human resources development. As such, learning from international experience is important. Several of the existing projects did not utilize the budgeted technical assistance to the full extent envisioned in the project designs. IDB staff supervising projects should be wary of approving some changes, and encourage projects that even if they have considerable technical expertise, they will benefit from learning in detail about the experiences of other countries.

Fund technical site visits and exchanges among countries - While much can be learned from reviewing documentation from other projects, an in-depth understanding of the techniques and challenges in different countries is best obtained through site visits. This cross-fertilization of ideas is important to facilitate more rapid learning within the region and will better leverage MIF experience across the region.

3. Support institutional capacity-building

Provide training to executing agencies in MIF procedures – Several of the skills standards faced delays in execution that derived from limited understanding of MIF procedures and limited capacity to fulfill the cumbersome bureaucratic requirements of the Bank. Adequate training and orientation for the executing agencies is essential for the efficient execution of the project.

Fund training in skills standards for project staff – The MIF should ensure that the terms of reference for technical assistance provided in the development of the various components of the system, specifically include training of project staff so that they fully comprehend the standards system being put in place and that the know-how of consultants is transferred to the country staff.

C. Recommendations on Project Evaluation

This study consisted of a broad review of projects and not an in-depth evaluation. Evaluations of these projects as well as future operations should consider the following.

1. Conduct an analysis of market penetration of certification

A closer look is needed at the number of people certified to date, the number and basic characteristics (especially size and sector) of companies purchasing certification, the number of competencies being tested, and growth in use over time, among other details that will allow an accurate picture of the way in which the market is using the certifications. This requires appropriate indicators are collected in data collection systems. Existing

projects may not be capturing all of this data. These indicators should be worked into new projects.

2. Assess the integration of safety, gender and disability issues

All MIF projects called for the integration of issues of occupational health and safety, and the inclusion of gender and disability into the definition of competencies. This study did not assess the extent to which that has occurred and a more careful review is needed.

3. Design monitoring and evaluation systems that focus on achievement of impact

While it is important to assess outputs produced and the extent to which a project is on track with its planned activities, the most important aspect to be monitored and evaluated is the extent to which projects are achieving the desired impact and complying with their general objectives. If the market does not adopt skills standards and utilize certification, the development of any number of standards will have a limited impact.

ANNEX A
List of Persons Interviewed

MexicoCONOCER

Esther Farca Salame, Secretaria Tecnica del Piloto Grupo Posadas
 Jorge Jaime Mendoza Robles, Secretario Tecnico del Piloto de la Construcción
 Marcela Elizondo Huerta, Secretaria Tecnica del Piloto Bimbo
 Juan Manuel Muñetón Vargas, Secretario Tecnica del Piloto de Aerotransporte
 Fortino Garza Rodríguez, Secretario Ejecutivo de CONOCER
 Susana Carreón Sierra, Secretaria Tecnica del Piloto Electronic Data Systems
 Marialuz Salgado Briseño, Coordinadora de Certificación
 José Gabriel Lopez Garza, Coordinador de Normalización

Certification Organization

Fernando Díaz, Organismo Certificador CLYC

Employers

Joerg Norenhau, Director General de Fiesta Americana Reforma (Grupo Posadas)
 Francisco Chavez, Gerente de Recursos Humanos, Bimbo
 Comisión Federal de Electricidad
 Felipe Rios, Six Continents Hotels

Brazil Minas GeraisFIEMG-SENAI

Eliane Aquino Ribeiro – Consultora Interna SENAI-MG
 Luciene MarzanoAlcantara – Consultora Interna do SENAI-MG
 Antonio Keltke – Consultor Interno do SENAI-MG (coordina con AMRAMANS)
 Edmar Fernando de Alcantara – Gerente de Produtos Educacionais e Tecnologicos
 Maria de Betania – Gerente do Nucleo de Oportunidade de Trabalho - NOT
 Marcia Oliveira de Carvalho– Consultora do NOT
 Nelson Boechat Cunha Junior, Gerente FIEMG

Training Providers

Nelson Boechat – Gerente do Centro de Formação Profissional “Paulo de Tarso” – Escola de Construcao Civil
 Gisele Canesso – Supervisora Pedagogica do Centro de Formação Profissional Paulo de Tarso
 Paulo Presser – Gerente Educacional e Tecnológico do SENAI do Rio Grande do Sul – Coordenador do Projeto Estrategico Nacional de Certificação de Competencias

Workers

Aldair Alves de Lima, Trabajador Encanador en el Comite Tecnico de Construccion Civil

Employers

Germano Martini Ribeiro, Analista de Formacai e Trenamento, USIMINAS
 Lúcio Marcos Arantes, Companhia Energetica de Minas Gerais (CEMIG)
 Joao José Magalhaes Soares, CEMIG
 Dirceu Gomes Fajardo, CEMIG
 Gustavo Eskenazi Charlemont, Sindicato das Industrias de Instalaciones Electricas, Gas, Hidarulicas, Sanitarias e Telecomunicacion no Estado de Minas Gerais (SINDIMIG)
 Márcio Danilo Costa, SINDIMIG

Caribbean Regional Project

Antonia Jean, OESC extension officer based in St. Lucia
 Bernice Critchlow-Earle, Barbados Hospitality Institute and CTCP Council member
 Bonita Morgan, Caribbean Tourism Organization and CTCP Council Member
 Doug Adair, Consultant
 James Samuels, CTCP Council Member, Jamaica

Nitza de la Cruz, Certification Coordinator, Caribbean Regional Project
Wanda Pina, Caribbean Hospitality Training Institute (CHTI)
Alex Titcombe, Caribbean Hotel Association

Brazil Tourism

Instituto de Hospitalidade

Wagner Fernandes, Coordinador del Proyecto
Virgina Barros, Coordinadora de Capacitación
Fábio Gordilho
Flávio Leal, Area de Productos, Testes
Cláudia Oliveira, Informatica
Rafael Sanches, Coordinador Tecnico
Silvestre Teixeira, Gerente de Proyecto de Desarrollo Sostenible
Felipe Cruz, Gerente de Mercadeo
Luiz Carlos Barboza, Director

Multiplificadores

Izabel Santana
Julia Santos
Renata Vilela Santos

Employers

Marcos Pedreira, SINART, Business Association
Xavier Vaciana, Gerente SuperClubs Resort
Emilia Guerra, Gerente de Recursos Humanos, SuperClubs
Luis Carrera, Presidente de un Gremio Empresarial y Propietario
Sergio Bezerra, ABRASEL, Business Association

Workers

Lavinia, DIEESE, Organismo tecnico de sindicatos
José Ramos, CONTRATUH Sindicato de Trabajadores

Chile

Fundación Chile

Joaquín Cordua, Gerente Departamento de Desarrollo, Fundacion Chile
Hernán Araneda, Director Programa de Competencias Laborales, Fundacion Chile
Monica Sievers,
Cristian Arenas,
Pablo Morris
Edmundo Beteta (encargado de la Evaluacion de Medio Termino de nuestro proyecto).

Government Representatives

Andrea Buttelman, jefe División Desarrollo de Mercados, Ministerio de Economia
Ignacio Canales, Director Ejecutivo Programa Chile Califica
Nils Pazos, SENCE

Employers

Gerardo Araneda, Aragas, empresario del sector Construccion
Pedro Meiss, Presidente Asociacion Gremial Hoteleros de Chile, y Gerente Aloha Hotel
Gustavo Abel Ernst, Gerente, Hoteleros de Chile A.G.
Luis Carlos Seoane Carrera, Socio Gerente, palace Hotel
Eduardo Loyola, Gerente General, Consejo Minero

Evaluation Centers

Patricia Mendez, Universidad de Las Americas

Argentina

Metallurgy Sector, AIM

Omar Berrocal, Presidente
Mario Abriata, Director Proyecto
Osvaldo Rista, Consultor
Arturo Pippino, Coordinador

Confectionary Sector, FATPCHPyA

Miguel Durán, Director de la Escuela de Capacitación
Ana Proietti, Asesora a Sindicato y Federación
Mariana Boceta, Directora de Subprograma
Jorge Farías, Consultor de Subprograma
Andrés Mandagar, Consultor Subprograma
Anahí Guelman, Consultora Pedagoga Subprograma
Carina Morato, Pasante Subprograma

Printing Sector, Fundación Gutenberg

Armando Espósito, Presidente de la Fundación Gutenberg
Roberto Candiano, Director Pedagógico
María de los Ángeles Marrazo, Regente Estudios
Silvina Subotich, Informante, Docente de la Fundación
Cecilia Barra, Informante, Docente de la Fundación
Daniel Osorio, Director Proyecto Competencias
Luis E. Gonzalez, Coordinador/Consultor
Fernando Widmer, Consultor
Gustavo Coseano, Consultor
Roberto Díaz, Consultor
Ramón Solsnes, Consultor
Lorena Campeni, Asistente/Consultor Jr.

Automobile Mechanics, SMATA

Juan Cerahona, Representante en el Comité de Dirección del Programa
Daniel López, Director del Programa
Sonia Sanhueza, Consultora en Área Curricular
Pablo Granovsky, Consultor en Estudios de Imagen del Centro de Formación
Hector Bóbeda, Consultor en Área de Competencias, Análisis
Funcional y Relaciones con Empresas

Executing Agency at Ministry of Labor

Ana Catalano
Mónica Slagdona

[1] In the US the Secretary of Labor's commission on Achieving Necessary Skills (SCANS) defined basic competencies that are used in the National Job Analysis Study that was the methodology applied to this project.

[2] ISO 9000 is a service and product quality certification issued by the International Standards Organization.

[3] DACUM is an acronym for developing a curriculum. It is a one or two day storyboarding process that provides a picture of what the worker does in terms of duties, tasks, knowledge, skills, traits and in some cases the tools the worker uses. (Definition taken from www.dacum.org)