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Inquiries to: Mr. Bernardo Guillamon (extension 1583)

Remarks: This report is an integral part of the work program of the Office of Evaluation and Oversight (OVE) to evaluate Multilateral Investment Fund (MIF) activities, since the beginning of its operations in 1993, following the mandate of its Donors Committee. The work of OVE aims at developing a comprehensive image of the Bank activities in support of the private sector, and particularly of the MIF, as established in the document MIF/GN-78 of February 2002.

The evaluation was initiated in 2002, covering four thematic groups of projects: Alternative dispute resolution (GN-78-2), microfinance (GN-78-3), and capital markets & financial reform (GN-78-4). During 2003, as established in the program approved by the Donors Committee (GN-78-1), the project groups to be evaluated include the rest of the MIF thematic areas of intervention: (i) private provision of infrastructure services; (ii) human resources development services (including skills standards and labor market reforms); (iii) business development services (including quality standards and promotion of trade and investment); (iv) development of venture capital; (v) **environment**; and (vi) promotion of competition and consumer protection.

Once these thematic group evaluations are finished in 2003, the results would be consolidated in an overall evaluation report, integrating the results of the evaluation for the 10 years of MIF operations.

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Evaluation of MIF Projects – Environment

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CONTENTS

The following annexes and appendices are posted on the Office of Evaluation and Oversight's intranet page at http://ove/ (click on All about OVE / Docs. Sent to Board / Independent Evaluation of the MIF). For a printed copy, please contact the Office of Evaluation and Oversight.

ANNEXES

APPENDICES

ABBREVIATIONS

ACOPI	Asociación Colombiana de Pequeña Industria [Colombian Association of Small Manufacturers]
CAN	Andean Community
CAR	Corporación Autónoma de Cundinamarca
CARICOM	Caribbean Community
CINSET	Corporación para la Investigación Socioeconómica y Tecnológica de Colombia [Colombian Corporation for Socioeconomic Research and Technology]
CLUSA	Cooperative League of the United States of America
CONACYT	Consejo Nacional de Ciencia y Tecnología [Mexican Council on Science and Technology]
CONAMA	Comisión Nacional del Medio Ambiente [National Commission on Environment]
ENA	National Environmental Strategy
EUREPGAP	Euro Retailer Produce Working Group Good Agricultural Practices
FDI	Foreign direct investment
FSC	Forestry Stewardship Council
GDP	Gross domestic product
GEF	Global Environment Facility
IIC	Inter-American Investment Corporation
INBio	Instituto Nacional de Biodiversidad
IPA	Instituto de Protección Ambiental [Mexican Environmental Protection Institute]
ISO	International Organization for Standardization
LAC	Latin America and the Caribbean
MERCOSUR	Southern Cone Common Market
MIF	Multilateral Investment Fund
MME	Ministry of Mines and Energy
MSC	Marine Stewardship Council
MSRP	Micro and small rural producers
NAFTA	North American Free Trade Agreement
NGOs	Nongovernmental organizations
OBADE	Oficina de Biodiversidad para el Apoyo al Desarrollo Empresarial [Biodiversity Office for Business Development]
OECD	Organization for Economic Cooperation and Development
OVE	Office of Evaluation and Oversight
PEU	Project executing unit
PPMR	Project performance monitoring report
PRODEEM	Programa de Desenvolvimento Energético dos Estados e Municípios [Brazilian Energy Development Program for States and Municipalities]
PROEXSAL	Sociedad Cooperativa de Productores y Exportadores de El Salvador de R.L.

SENASA	Servicio Nacional de Sanidad y Calidad Agroalimentaria [Peruvian Food Safety and Quality Service]
SMEs	Small and medium-sized enterprises
TA	In-plant direct technical assistance
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USEPA	United States Environmental Protection Agency
WBCSD	World Business Council for Sustainable Development
WTO	World Trade Organization
WWF	World Wildlife Fund

PROLOGUE

This report of this Group of Projects is part of the work program of the Office of Evaluation and Oversight (OVE) to evaluate Multilateral Investment Fund (MIF) activities, since the beginning of its operations in 1993, following the mandate of its Donors Committee. The work of OVE aims at developing a comprehensive image of the Bank activities in support of the private sector, and particularly of the MIF, as established in the document MIF/GN-78 of February 2002.

In order to proceed with the evaluation, a special methodological framework was developed by OVE to capture the specific characteristics of MIF interventions. Also an initial estimate of its entire project portfolio was done, identifying the main thematic project groups for which common reference points could be established and meaningful lessons could be drawn. The evaluation was initiated in 2002, covering four groups of projects: (i) Financial Reform, (ii) Capital Markets; (iii) Microfinance; and (iv) Alternative Dispute Resolution. These four groups represented 134 projects from 16 countries with a total approved value US$159.75 millions of MIF resources.

According to the detailed work program for 2003 included in the Progress Report of 2002 approved by the Donors Committee (document GN-78-1), during 2003 the project groups to be evaluated include the rest of the main MIF thematic areas of intervention: (i) private provision of infrastructure services; (ii) human resources development (including skills standards and labor market reforms); (iii) business development services (including quality standards and promotion of trade and investment); (iv) venture capital development; (v) environment and ecoefficiency; and (vi) promotion of competition and consumer protection. Evaluation of the first two groups was completed in the first half of the year, while the other four groups reports were completed during the second semester of 2003.

At the end of 2003, once all the evaluation work is covered for the main thematic project groups, an overall evaluation report will be produced by OVE, integrating the results of the evaluation done for the 10 years of MIF operation, and addressing issues relating to institutional processes and mechanisms.

EXECUTIVE SUMMARY

This report is the outcome of evaluation of a group of 17 MIF environment projects totaling US$19.7 million, as part of the work program of the Office of Evaluation and Oversight (OVE) to evaluate MIF activities, following the mandate of its Donors Committee.

The report is structured in accordance with the steps established in the evaluation framework developed by OVE to examine MIF activities.[1] Chapter I describes the context in which environment projects were carried out in the region. It briefly reviews the development of environmental management in Latin America and the Caribbean (LAC), the consolidation of environmental institutions and legislation, and the private-sector response to the challenge of sustainable development. It also looks at the challenges and opportunities arising out of open trade practices on the environmental agenda. Chapter II traces the development of the strategic framework under which the projects were designed, and the role played by the MIF. Chapter III relates the findings of the analysis and evaluation of the group of projects, following the special methodology developed for the MIF evaluation (attached as Annex IV), presenting the findings in terms of seven evaluative dimensions: relevance, effectiveness, efficiency, innovation, sustainability, additionality, and evaluability. Lastly, Chapter IV presents the main conclusions based on the factual data of the analysis in the previous chapter, and identifies the principal opportunities for MIF action in this thematic area.

At the macro level, the main environmental problems affecting the region are pollution in major cities, the degradation of natural resources,[2] natural disasters and climate change, soil loss and desertification, conditions for indigenous peoples in the region, and coastline deterioration. Toxic waste is important, but this problem is just emerging due to low levels of industrialization and industrial parks in the region.

Environmental degradation makes the private sector less competitive in a number of ways, including: (i) a lack of built-in quality all along the supply chain; (ii) higher costs from needed environmental remediation activities; and (iii) lower labor productivity due to poor environmental quality.

On environmental issues, the international response has been to treat small and medium-sized enterprises (SMEs) differently from large companies. This large SME market has not yet been fully incorporated into environmental protection efforts. Businesses have run into a number of obstacles to the adoption environmental practices, such as weak demand for environmentally friendly products in the region and a lack the means to improve their performance. Given these difficulties, it is important to realize that SMEs interact with other businesses, both suppliers and buyers, along a supply and marketing chain. The region is home to major business clusters anchored by large companies that are starting to introduce sustainable practices in their supplier systems.

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1 The methodological framework used for this evaluation is the same one used for all the MIF evaluations.

2 UNEP Global Environment Outlook 3.

Additionally, with trade integration and the opening up of the region's countries during the 1990s, local businesses must meet certain minimum standards and by local laws in each country, including environmental laws.These requirements have been expressed through economic integration processes, which have involved environmental cooperation agreements. Under these agreements, not only must SMEs adapt to new competition, they must also meet new environmental obligations.

These factors have led to new trends to jointly address environmental degradation, or in response to the growing environmental concerns of consumers as reflected in their buying habits, especially in developed countries. These include organically farmed foods, which grew by 23% last year to US$26 billion equivalent; ecotourism, with 4% to 10% annual growth and a 7% share of international tourism; and prototype carbon funds, an instrument that emerged in response to the Kyoto Protocol, through which companies can buy low-cost emission reductions in developing countries.

The chief motivations of businesses to adopt environmental plans and measures vary depending on their needs and surroundings. Studies in Central America,[3] for example, show that the motivation in this exporting region has to do with the priority businesses place on keeping up a responsible corporate image internationally, and obeying applicable laws. Elsewhere, the main incentive is product differentiation or the demands of the local community or civil society. Yet it should be borne in mind that not all companies or sectors have the wherewithal to develop and maintain systems of this kind.

Environmental management in LAC has made significant progress in the past 15 years. The 1992 Rio de Janeiro Conference on Environment and Development was a turning point, and has considerably influenced public and private management systems in LAC. Substantial strengthening was observed during the 1990s in institutional capacity for the handling of environmental issues in the region. Today, most countries have environmental laws. Civil rights and obligations have been regulated, and government environmental management agencies have emerged. Progress has also been made in the formulation and implementation of environmental policies at the national, regional, and local levels. Yet beyond the structure or model selected, the hallmark of environmental services or agencies in LAC has been the obstacles they have encountered in their work.

The Agreement Establishing the MIF states that one of its broad objectives is to promote in the full range of its operations environmentally sound and sustainable economic development. The 1996 task force stressed the need to better target the MIF's financial action. No direct reference is made to environment projects. Only the investment funds are mentioned, some of which have an environmental component. Lastly, after five years of operation, the MIF needed to find new ways of promoting environmental sustainability at the region's micro, small, and medium-sized enterprises (MSMEs), and an environmental strategy was developed. The strategy identified the following exigencies for the MIF to adopt, in order to promote sustainable development

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[3] The Greening of Business in Developing Countries. Chapter 2. UNRISD. 2002.

and private sector investment: (i) achieve sustainable development; (ii) invest in the promotion of ecoefficiency and environmental businesses; and (iii) relate the environmental area to other MIF project areas. Additionally, the Bank's Environment Strategy (GN-2208-4), approved in August 2003, gives the MIF a leading role in the funding of private sector initiatives with an environmental impact, especially at the SME level.

MIF resources targeting environmental issues have been channeled through three initiatives: investment funds, quality standards, and environment projects. The performance of investment funds with an environmental slant were evaluated along with the other MIF investment funds.[4] The ISO standards projects, which include components for the certification of environmental management standards, were also evaluated along with the business development services cluster.[5] This report focuses on the environment cluster, which includes 17 projects directly addressing environmental issues.

The MIF's environmental projects have targeted two main areas: sustainable markets and clean production. Eight of the 17 projects focused on sustainable markets, covering the following areas: ecotourism, organic production, sustainable forestation, developing alternative energy sources, fair trade, and biodiversity. The operations reflected new market trends, but were implemented in an isolated manner without interproject coordination or monitoring, and without connecting participating SMEs with larger companies or international markets to guarantee outlets for their products and services. Eight other projects focused on cleaner production processes and environmental management systems. These projects are facing constraints in translating savings from cleaner production into measurable benefits, to stimulate demand among SMEs. They did not assess the needs of the target sectors or participating SMEs, nor were the SMEs integrated with larger companies to encourage them to adopt cleaner production processes. Only a couple of projects address institutional strengthening of the environmental authority (Chile and Panama), each using different mechanisms. This seems to point to a lack of understanding of the relationship between promoting cleaner production and implementing environmental management systems, on the one hand, and necessary environmental regulation and oversight, on the other.

The interventions reflected growing market trends and concerns having to do with environmental issues. The **relevance** of environment projects in general was affected by the fact that needs had not been diagnosed, nor specific market studies conducted to identify specific sector and business needs, as a basis for projects.

Another important feature of the projects was their high level of innovation. Many introduced new concepts, products, and services in national and regional settings. There were also innovations at the institutional level, linking the public sector, private sector, and academia. Nonetheless, the challenge was to internalize the innovations, generate sustainable markets, and produce a demonstration effect based on the pilot projects.

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4 Document MIF/GN-78-11 "Evaluation of MIF Projects: Venture Capital Programs."

5 "Evaluation of MIF Projects: Business development services," OVE.

Although this is a relatively young portfolio, project **effectiveness** was reduced because the objectives were too vague.

Project evaluation needs to be strengthened significantly and monitored. Clear, measurable indicators must be established, and industry benchmarks incorporated. Quantitative indicators are greatly needed for evaluating whether project objectives are met. It is striking that no specific indicators were established to measure project impact and benefits in the areas of cleaner production and ecoefficiency, despite the clustering of these projects and their highly innovative nature, the body of applied literature on the use of indicators and the stated strategy of producing a demonstration effect.

Given the executing agencies' limited experience and familiarity with Bank procedures, and the delays this has caused, the **efficiency** of the executing agencies in managing projects has arguably been relatively low. The absence of standardized criteria and uniform processes for selecting executing agencies, as well as limited institutional and financial analysis of partners, has resulted in low levels of **sustainability** for the products and services provided through environment projects. MIF financial and conceptual **additionality** has been important in advancing some items on the environmental agenda, particularly those related to the private sector. However, the MIF has not applied the lessons learned from past experience to the design of new projects.

The MIF's approach is to invest in projects and businesses that will serve as models or pilots, creating a demonstration effect to show the environmental and economic opportunities of adopting such processes. However, that approach does not go into detail on the concepts behind the strategy (ecoefficiency, clean production, sustainable agriculture, and environmentally sound business models for venture capital fund investments). These concepts are the structural basis for the projects funded by the MIF in the respective areas. Yet, as the evaluation shows, there is no clear conception of what the MIF is trying to do in these environmental areas. The objectives are not defined, nor are the activities or expected outcomes.

Analysis of the operations reveals that, with only a few exceptions, the project designs do not expressly call for integration along a supply chain, bringing in major buyers that could provide an incentive to introduce environmentally sound methods and a tangible market that recognizes and pays for products.

The evaluation identified the following opportunities for projects of this kind:

- **Strengthen environmental regulations**. Since the environmental authorities and regulations are relatively new, the MIF could have played a major role in adapting them to private sector development. Environment projects could contain a component that analyzes existing regulations, to potentially help the authorities improve and adapt them to SMEs. In some cases, existing regulations may provide no environmental benefits while at the same time hampering productivity. The SME sector tends to be the hardest hit by inappropriate regulations, since SMEs do not have the same capacity as large firms to interact with regulators. Moreover, during MIF project assessment and preparation, the project teams and

consultants obtain important information on regulations and their applicability to the private sector, and particularly to SMEs. Agreements could therefore be structured for joint government/business projects, enabling government to optimize its compliance-monitoring resources, and businesses to get into compliance while boosting business productivity.

- **Change the demonstration approach**. The MIF's current demonstration approach should be turned around. In the case of cleaner production and environmental management systems, for example, each new operation could begin by disseminating pilot demonstration cases that have already been completed. An approach that clearly pre-establishes that certain actions are profitable could provide a major boost to recruitment of participants by building confidence and willingness to invest. At present, participants generally join projects either because of the subsidies or because they are prompted to do so by the authorities' oversight activities. Efforts must therefore be concentrated on projects that already have, as a starting point, a base of companies that could serve as pilot demonstration cases, which increases the chances of success and lessens the likelihood that ecoefficiency aspects will be jeopardized by poor implementation. This would greatly enhance the demonstration effect of MIF projects, inasmuch as the experiences are standardized, properly documented, and disseminated to the network of key business development institutions that were or are in place in other MIF programs.

- **Carry out integrated projects involving SMEs and larger companies, informing the growing interest in corporate social responsibility (CSR)**. Medium-sized (or large) companies in "buyer-supplier" relationships with SMEs could constructively be incorporated into projects, paving the way for model supplier-development arrangements that the larger companies could easily replicate in the region. The basic reasons for this are twofold: first, the larger companies' financial contribution would help raise the level of their suppliers, and, second, because it offers a way of ensuring that a market exists and improvements translate into price. Pilot or demonstration projects require a strong commitment to their success. Project must include, ex ante, elements to guarantee there is a market for the new products and services offered. This would provide more opportunities for leveraging the outcomes of pilot projects and achieving a demonstration effect. Such opportunities exist within the Bank Group's private-sector development activities, such as the supply chain lines of financing being promoted by the IIC, and regional tourism development projects.

- **Strengthen the relationship between the IDB and the MIF on environmental issues**. Related to the previous point, one area of possible synergies provided for in the Bank Environment Strategy's work plan approved in August 2003 (document GN-2208-4) is the development of systems to coordinate the environment activities of the Bank and the private sector windows (MIF, IIC, and PRI). One possible avenue of complementarity is for the MIF to be involved in developing novel pilot ventures that, once tested on a small scale, could then be rolled out through larger Bank monitoring operations or replicated in other

countries in the region. For example, once alternative energy sources or new environmental certification mechanisms acceptable to prominent international buyers have been developed and proven in a "MIF laboratory" phase, they could be expanded to the Bank's main lines of activity. No such synergies were developed or cultivated in the projects evaluated. It will take special effort to identify such opportunities and understand the respective roles and the advantages of implementing this vision.

- **Support certification processes**. Modern environmental management requires formal systems of administration, particularly in a context of heightened productivity and competitiveness. Just as ISO 14001 has positioned itself in relation to environmental management systems, other standards could be supported to foster and complement environmentally sustainable processes that, in practice, have already been developed (e.g. MIF/AT-451, which is helping companies implement the Euro-Retailer Produce Working Group Good Agricultural Practices (EUREPGAP).

- **Integrate cleaner production programs with CSR programs.** The new line of projects the MIF has begun supporting in the area of corporate social responsibility must be integrated with cleaner production projects, particularly in those countries with more than one project, so as to promote the concept of ecoefficiency. This is mainly because social responsibility standards will have to address workers' rights, such as fair employment practices and occupational health and safety. Other certification mechanisms that have emerged in such areas as organic production and ecotourism could also be further developed.

- **Bring companies in line with trade integration processes**. Companies in the countries of the region very much need to be able to meet the formal or de facto requirements of international markets and large retail chains. This will be even more true as integration and trade agreements develop, potentially raising even greater challenges in this area. Support for the region's SMEs may be key to achieving the benefits anticipated from larger markets. The MIF could explore promoting initiatives to support mechanisms that help SMEs understand the requirements and main certification options under existing trade agreements, such as the North American Free Trade Agreement (NAFTA), the Caribbean Community (CARICOM), and the MERCOSUR-European Union agreement.

I. ENVIRONMENTAL MANAGEMENT IN LATIN AMERICA AND THE CARIBBEAN

1.1 This chapter looks briefly at the factors driving change in environmental management in the region, including the impact of the MIF project cluster evaluated. These factors, while not alone, do provide a basis for understanding the role and contribution of MIF activities in the sector. Given the nature of the projects evaluated, the emphasis is on small and medium-sized enterprises (SMEs) and how they relate to public- and private-sector environmental management in the region.

A. Environmental problems and their impact on competitiveness

1.2 **Environmental degradation makes the private sector less competitive** in a number of ways, including: (i) a lack of built-in quality all along the supply chain; (ii) higher costs from needed environmental remediation activities; and (iii) lower labor productivity due to poor environmental quality. Competitiveness is also hampered by an unstable environmental regulatory framework and lax compliance oversight, creating uncertainty as to the law and technical requirements. As a result, businesses may have to incur additional costs to show that products or services are "clean" or environmentally friendly.

B. The environment and SMEs

1.3 **On environmental issues, the international response has been to treat SMEs differently from large companies**, due to need to address numerous product/service activities with vastly different technological and financial capacity, facing increasingly complex environmental requirements in both segments. While SMEs are defined differently from country to country,[6] in general this market can be said to include over 90% of all businesses; microenterprises being the most common type of business in Latin America and the Caribbean (LAC). SMEs provide some 80% of jobs in the region, accounting for nearly 20% of national sales.

1.4 **This large SME market has not yet been fully incorporated into environmental protection efforts**. There are many reasons why these businesses have remained on the sidelines when it comes to adopting more environmentally friendly methods. Regulations specifically governing SMEs are flawed, still weak, or even nonexistent. Where they do exist, most such regulations are designed for large companies. Economic conditions in the countries of the region are another factor, as is uncertainty as to what businesses need to do, to survive in the marketplace.

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[6] Countries have differing criteria for what constitutes a micro, small, and medium-sized enterprise. Some measure by sales, such as Argentina and Chile. Others, like Bolivia, Colombia, Guatemala, El Salvador, and Costa Rica, use jobs as a yardstick. Still others measure revenue, such as Panama.

1.5 **Businesses have also run into a number of obstacles to the adoption environmental practices, such as still limited demand for environmentally friendly products in the region**. The small value placed on such undifferentiated products stems in part from governments' failure to make environmental practices a political priority or promote standards to encourage their adoption. Environmental awareness is still poor among citizens. Income limitations are another factor. Moreover, infrastructure is inadequate to support such activities as recycling, treatment of solid and liquid waste, and waste disposal; such infrastructure is needed if environmentally friendly processes are to be implemented.

1.6 **Many SMEs operate in the informal sector and are focused on competing to survive. Accordingly, they do not generally view environmental issues as high priority.** Manufacturing conditions compel the region's SMEs to operate day-to-day, making it difficult for them to take the long-term view that environmental protection demands. Lastly, the absence of oversight pressure from the public sector, incentives, or specific regulations that reflect the conditions under which the smallest businesses operate means that businesses see no need to meet environmental standards.

1.7 **These factors make it difficult to spur much demand among SMEs interested in adopting cleaner production techniques and receiving technical assistance in environmental management systems or other areas**. Any effort is further hampered by a lack of awareness of the potential for environmental damage or the benefits to be gained individually or as a group by adopting these techniques. Such lack of awareness stems from a dearth of information and the fragmentation of these businesses.

C. Incentives to incorporate the environmental variable

1. Supply chains

1.8 **It is important to realize that SMEs do not operate in a vacuum. They interact with other businesses, both suppliers and buyers, along a supply chain**. Open trade practices and the entry of big businesses into developing markets have made these supply chains stronger in the region.

1.9 **Supply chains heighten the importance of building trust between buyers and suppliers, and with the general public, especially on environmental issues**. The process is more effective when stakeholders, employees, suppliers, contractors, consumers, local communities, and the general public are encouraged to participate in building a long-term relationship of trust and understanding of the environmental issues in their mutual interest.

1.10 **The region is home to major business clusters anchored by large companies that are starting to introduce sustainable practices in their supplier systems, transferring and promoting the adoption of practices along the supply chain**.

The multinational Nestlé,[7] for instance, has an environmental management policy covering its entire chain of suppliers, processors, packers, and distributors. Another recent example is Coca-Cola, which committed in April 2002 to protect and preserve the environment in all countries where it does business. It has begun environmental audits, water monitoring, waste reduction, and other initiatives related to ozone layer protection and climate change. In Chile, Minera Escondida Limitada, a mining company that operates in Antofagasta, created incentives for 32 of 32 of its strategic suppliers to become ISO 14001 compliant through a strategic partnership with Corporación de Desarrollo Productivo. Five of its SME contractors have introduced environmental management systems.

1.11 **Similarly, the expansion of international supermarket chains in the region marks another trend: SMEs are meeting more stringent environmental standards in order to do business with them as suppliers**. As the region's countries opened up during the 1990s, international chains such as superstores established themselves by opening new locations or buying or merging with local chains.[8] This altered the supply relationships of SMEs. Big supermarket chains set certain minimum standards for local businesses, such as requiring them to abide by local laws in each country, including environmental laws. Often, parent company compliance audits of local subsidiaries extend to contractors and suppliers. The need for stable quality has led suppliers to implement quality standards, such as the use of sustainable farming practices for products such as fruits and vegetables.

2. Integration and international trade

1.12 **Some countries of the region have entered into economic and trade integration accords that involve environmental cooperation agreements**. Especially noteworthy are the North American Free Trade Agreement (NAFTA) and the bilateral agreement between Chile and the United States of America. MERCOSUR, CAN, CAFTA, CARICOM, and other agreements with the European Union and other countries are deepening trade integration.

1.13 **Under these accords, not only must SMEs adapt to new competition, they must also meet new environmental obligations**. Some establish obligations and mechanisms for cooperation that will later become more stringent regulations or enforced standards. Such obligations generally involve a commitment to adhere to each country's environmental laws, and mechanisms for cooperation to enhance environmental quality in the signatory countries. Regional free trade agreements may incorporate similar annexes or articles in the near future. This prospect is already posing a major challenge for such sectors as organic products and ecotourism. On one hand, a window of opportunity is opening, giving them access to millions of consumers; on the other, they face formal requirements nonexistent in many countries of the region.

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[7] In Mexico, Nestlé recently embarked on an program funded with the Inter-American Investment Corporation, involving an innovative arragement to finance its chain of suppliers, especially small dairies.

[8] Today, the five largest chains in each country control 65% of the Latin American market, on average.

3. New trends in sustainable markets

1.14 The context analysis was useful in identifying several trends that offer promising opportunities for the development of new environmental products or services in such areas as organic farming, ecotourism, and the greenhouse gas emissions market.

a. Organic farming

1.15 **Organically farmed foods represent a market that has created its own marketing chains in recent years. and rising demand has brought them into the mainstream of the food business**. Organic farming has expanded from raw farm produce to include processed foods such as wine, jams and jellies, and dairy products. The worldwide market for organic products grew by 23% last year to US$26 billion equivalent, and is expected to triple in size by 2008. While growth was strongest in Europe, sales of these foods in the United States and Canada also rose to US$9.7 billion through increased mass distribution in supermarkets, bringing more consumers into contact with them.

1.16 **Demand for organic products is still nascent in the region's countries, but major export opportunities exist. Yet certification systems that are accessible, inexpensive, and applicable have yet to take shape**. Likewise, food labeling regulations are just now starting to require listing of ingredients that may be harmful to certain vulnerable populations. Even so, the region has experienced an upswing in organic farming, accompanied by higher demand for product certification, labeling, and other means of verification. For example, Argentina's national food inspection service (SENASA) reports that the production and sale of certified organic products, mainly through exports, has grown steadily since 1998.[9]

b. Ecotourism

1.17 **Ecotourism is one of the fastest-growing kinds of tourism of the past decade with 4% to 10% annual growth and a 7% share of international tourism**.[10] LAC has seen an exponential increase in tourism products built around contact with nature. Ecotourism provides an opportunity to learn about biodiversity and local cultures, thereby contributing to environmental conservation and local sustainable development.[11] While the ecotourism market has been developing in recent decades, in the past few years it has gained strength. Its past experiences and future

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[9] To illustrate, land devoted to organic ranching and farming grew from 116,519 hectares certified in 1995 to 2,684,255 in 2000, with organic livestock driving much of that growth. See "Situación de la Producción Orgánica en la Argentina durante el año 2000 [Organic Production in Argentina in 2000]," Buenos Aires, 2001.

[10] www.ecoturismo.org

[11] In some instances the region's ecotourism businesses (ecotour operators, travel agencies, hotels, and associations and other public and private institutions involved in tourism and, especially, alternative tourism) have joined together to jointly promote their activities in LAC.

prospects were given voice in the 2002 Québec Declaration on Ecotourism[12] under the auspices of the United Nations.

c. Prototype Carbon Fund

1.18 **In 1999 a new market began to develop around greenhouse gas emission reductions and global climate change**. A group of five governments[13] came together with the World Bank and 17 companies of various nationalities to establish the Prototype Carbon Fund (PCF). Through the PCF, companies can buy low-cost emission reductions in developing countries. "Carbon bonds," an instrument developed in response to the need to reduce greenhouse gas emissions for the countries that produce the largest share and have ratified the Kyoto Protocol,[14] gives developing countries a new source of funding for sustainable development of their energy, manufacturing, waste, soil reclamation, and clean technology sectors, while industrialized countries commit to reduce their greenhouse gas emissions to 5% below 1990 levels between 2008 and 2012. Energy companies and others in developed countries have already begun making investments in developing countries in anticipation of these changes.

D. Private-sector response to environmental issues

1.19 **The private-sector used to view environmental requirements as expensive and unproductive. That view has changed and adapted to the new microeconomic environment since the Environmental Agenda for Business emerged from the 1992 Earth Summit in Rio de Janeiro**. Progress can be seen at the institutional level in the incorporation of environmental management into the environmental evaluation phase of job creation or investment projects. Increasingly, we are seeing business associations lobby the environmental authorities for these projects.

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[12] The Québec Declaration on Ecotourism was forumlated under the aegis of the United Nations Environment Programme (UNEP) and the World Tourism Organization (WTO) in Québec City (2002). The document contains an annex of recommendations to governments, the private sector, NGOs, community-based associations, and academic and intergovernmental institutions. See www.puna.org.

[13] Canada, Finland, the Netherlands, Norway, and Sweden.

[14] The Kyoto Protocol to the United Nations Framework Convention on Climate Change, Kyoto, December 1997.

Table 1.1: Business associations in LAC and their response to environmental issues

Country	Organization	Description
Colombia	ANDI (Asociación Nacional de Empresarios de Colombia)	ANDI has an Office of Environmental Affairs and a National Environmental Committee with member companies representing various sectors. Rules and procedures for waste oils management in the Bogota capital district. Methodology for developing a comprehensive solid waste management plan (PGRIS). Development of standards for handling agrochemicals.
Brazil	CIESP (Centro das Indústrias do Estado de São Paulo)	CIESP has an Environment Department with working groups on environmental legislation, gas emissions, and solid waste.
Chile	SOFOFA (Sociedad de Fomento Fabril)	SOFOFA has an Environment Department and supports environmental management at its member companies. Lobbies the government on environmental issues and helps fashion environmental legislation.

1.20 **Ecoefficiency as a concept is the private sector's response to the challenge of sustainable development**. An ecoefficient company rests on the sustainable development tripod of efficient use of natural resources, profitability, and social development (such as employee skills development). Private-sector companies have been moving in the direction of building sustainable development into their production processes. They are increasingly convinced that a positive corporate image can boost sales and earnings and give them a competitive edge, ultimately adding value to the company. That is the idea behind ecoefficiency.[15]

1.21 **Clean production is a necessary condition for environmentally sustainable processes.** Driving the implementation of clean production techniques is the scarcity of resources, which pushes costs up all along the supply chain. For this reason, the first principle of clean production is efficient use of resources. An ecoefficient company must also be profitable, but not by violating a country's environmental and social regulations or harming the environment in terms of unregulated variables. The concept has also evolved to include institutional transparency and employee skills development.

1.22 **Regardless of the existing regulatory environment, an ecoefficient company establishes its own set of rules and procedures**. Ecoefficient processes can be taught, and there is some conceptual overlap from one business to another. But the implementation will be unique to each business activity, since it is conditioned by the nature of the activity itself and its surroundings. Clearly defined processes mean that problems can be identified, and solutions implemented.

1.23 **Environmental management systems are another necessary condition for the development of measurably ecoefficient processes**. Without such systems, the

[15] Eco-efficiency is the process of adding value while using fewer resources and reducing waste and pollution (Schmidheiny and Zorraquín, 1996). As a concept it includes clean production and environmental management systems.

business moves in no clear direction in measurable environmental terms, and management will be unaware of the regulatory framework in which it operates or of any changes that occur. This leaves them open to penalties, or having to take corrective action without proper planning.

1.24 **The chief motivations of businesses to adopt environmental plans and measures vary depending on their needs and surroundings**. Studies in Central America,[16] for example, show that the motivation in this exporting region has to do with the priority businesses place on keeping up a responsible corporate image internationally, and obeying applicable laws. Elsewhere, the main incentive is product differentiation or the demands of the local community or civil society. Yet it should be borne in mind that not all companies or sectors have the wherewithal to develop and maintain systems of this kind.

1.25 **In less-developed countries, especially at smaller businesses without access to capital, development of clean production processes and environmental management systems is limited**. But, as we have seen, larger companies and marketing chains are exerting pressure on their suppliers to adopt the quality standards and processes their markets demand, and this is becoming a major influence on SME behavior.

1.26 **International experience shows that environmental demands on the productive sector can be expected to multiply and grow increasingly sophisticated**. Informed, environmentally conscious consumers will prefer environmentally friendly products and companies. This means that companies must use environmental indicators to gain an "environmental competitive edge," and communicate that to consumers. Consumer preferences for such companies could lead to greater transparency in terms of product type and quality, with implications for consumer protection.

1.27 **The private sector therefore has an urgent responsibility to create indicators for evaluating the cost and benefit of implementing a range of ecoefficiency practices**. Failure to establish performance indicators or parameters will make two things impossible: evaluating company performance, and entering into informed dialogue with the authorities in relation to the technical impact[17] of regulations.

E. Environmental management in Latin America and the Caribbean

1.28 **Environmental management in LAC has made significant progress in the past 15 years**. The 1992 Rio de Janeiro Conference on Environment and Development was a turning point, and has considerably influenced public and private

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16 The Greening of Business in Developing Countries. Chapter 2. UNRISD. 2002.

17 As noted above, environmental regulations arise out of political agreements based on technical data on the environmental impact of certain parameters. An absence of technical information raises the risk that political decisions may be inaccurate and impose environmental requirements that make no sense or are impossible to satisfy.

management systems in LAC. Substantial strengthening was observed during the 1990s in institutional capacity for the handling of environmental issues in the region. Today, most countries have environmental laws. Civil rights and obligations have been regulated, and government environmental management agencies have emerged. Progress has also been made in the formulation and implementation of environmental policies at the national, regional, and local levels.

1.29 Indicators of such progress on management in the region include: (i) formulation of across-the-board environmental policies for a given country or resource, uniting or consolidating sector initiatives; (ii) building an institutional framework for environmental policy; (iii) establishment of environmental assessment systems for investment projects; (iv) implementation of environmental programs to solve specific problems (decontamination plans, protections for special sites or ecosystems); (v) growing involvement of civil society in environmental matters; (vi) emergence of disputes over the siting of investment projects, especially when they collide with natural areas or cultures and vulnerable ethnic groups.

1.30 **The region's pressing environmental problems and heightened environmental awareness around the world have prompted the region's governments to enact environmental protection laws and set up environmental institutions of various kinds**. These have taken two basic forms in LAC: interministerial commissions (Chile, Peru) or ministries (Venezuela, Colombia). Both management models have operated with different degrees of success under different conditions. The outcomes reflect this, and so are not necessarily comparable. Even so, they can shed some light on the discussion.

1.31 **Beyond the structure or model selected, the hallmark of environmental services or agencies in LAC has been the obstacles they have encountered in their work**. For example, they have made scant inroads with other government agencies, the productive sector, civil society organizations, and the general public. Difficulties have arisen out of the very idea of environmental management, which by definition breaks down barriers and promotes integration.

1.32 Eager to break into the so-called "green" markets of Europe and the United States and boost their earnings in developing countries, **for the past decade the private sector, and businesses in the international market in particular, have been looking for ways of making their operations more efficient**. Two important areas that are gaining strength in the region are presented below: economic instruments as tools of environmental management and environmental certification processes.

1. Economic instruments as tools of environmental management

1.33 **A number of countries in LAC have built economic instruments into their environmental legislation as tools of environmental management**[18] (see Table 1.2 for examples). Yet their use has been hampered by scant political will, little strategic cooperation between the environmental authority and ministries (Chile), meager resources for environmental agendas (Brazil, Chile), fragile institutions, administrative discontinuity, a lack of coordination and integration of environmental agencies (Brazil), and stiff resistance from private business groups to environmental cost internalization (Mexico), and other causes.

Table 1.2: Economic instruments as tools of environmental management

Country	Phase I of the ECLAC/UNDP project studied implementation of the instruments below
Brazil	Financial compensation for oil and gas development (charge to extract nonrenewable natural resources). Payment for water use rights (charge or tax to encourage efficient water consumption). Industrial wastewater charges (economic incentive to offset externalities). Recognition and rewards for manufacturers that improve their environmental performance (nongovernmental initiative).
Colombia	Water pollution fine assessed at the watershed level by the regional autonomous corporations (economic incentive to offset externalities).
Chile	Pooling system for particulate emissions in the metropolitan region. Economic instrument to minimize the cost of controlling air pollution. Transferable individual fishing quotas (assignment of ownership rights to control catch rates).
Guatemala	Tradable water use permits (assignment of ownership rights to control catch rates). Certification systems (organic farming and ecotourism) (data to encourage consumption that internalizes the environmental costs of products). Reforestation incentives (subsidies) (offsetting of beneficial externalities). Financing of clean production projects at preferential rates (offsetting of beneficial externalities).
Mexico	Industrial wastewater disposal rights (economic incentive to offset externalities). Deposit refund systems for car batteries, tires, and used lubricants (economic incentive to offset negative externalities caused by environmentally controlled disposal).

2. Environmental certification processes

1.34 **Certification has a unique ability to build trust into customer/supplier relation-ships and make up for market information failures**. This makes is a valuable tool for domestic and international business transactions. In technical terms, certification is a procedure whereby a third party, other than the producer and buyer, certifies in writing that a product, process, or service meets the requirements of the system and relevant legislation. One of the most widely used certification systems is the International Standards Organization (ISO). The ISO standards for ecoefficiency are ISO 14001 (environmental management) and ISO 18000 (occupational health and safety management). Standards are now in

[18] *Aplicación de instrumentos económicos en la gestión ambiental en América Latina y El Caribe: desafíos y factores condicionantes* [Economic instruments as tools of environmental management in Latin America and the Caribbean: Challenges and constraints]. Juan Aquatella, Environment and Human Settlements Division, ECLAC, 2001.

development, and soon will be implemented, for corporate social responsibility (CSR) and social accountability (SA8000, Social Accountability International).[19]

Box 1.1: Scope of ISO 14001

The standard specifies the requirements for an environmental management system based on ISO 14001. These enable an organization of any size or type to formulate a policy and objectives, taking into account the legal requirements and information on potential significant environmental impacts. It applies to those environmental areas that the organization can control and can be expected to influence. The policy must be suited to the nature of the organization..

However, the ISO 14001 standard establishes no absolute criteria for environmental performance, other than that there be an environmental management system and an environmental policy. Neither does it guarantee optimal environmental results nor compliance, although it does incorporate the concept of continual improvements, understood as the process of strengthening the environmental management system in order to achieve improvement in all environmental areas, in line with the environmental policy.

1.35 **Certification benefits government, business, and consumers in several ways**. For government, certification attests that productive processes comply with applicable regulations, and that goods and services meet mandatory health, safety, and environmental requirements. Certification also helps to facilitate trade as an important tool for evaluating suppliers in contracting processes and for determining whether a good for which a contract is awarded meets the specification requirements. For business, certification can demonstrate that contractual and legal obligations have been met. For consumers, certification helps to identify products that meet requirements or have the qualities they seek.

1.36 Environmental management under ISO 14001 is a relatively new system around the world. More and more businesses are becoming certified, though the pace differs from country to country. Figures 1.1 and 1.2 show the growth of certified businesses in the OECD countries, which have been driving the certification trend in Latin America. The United States, Canada, Japan, and China have also recorded strong growth in ISO 14001-certified businesses.

[19] ISO 14001 emerged as an environmental response to worldwide acceptance of ISO 9000 (product quality). It also sought to harmonize the different standards on environmental managment then being implemented (BS 7750, EMAS, and others), and has become an incentive for businesses in the different countries to incorporate the environmental variable into their operations. ISO 14001 also promotes integration among the three sectors of government, business, and consumers.

Figure 1.1: ISO 14001 in OECD Countries

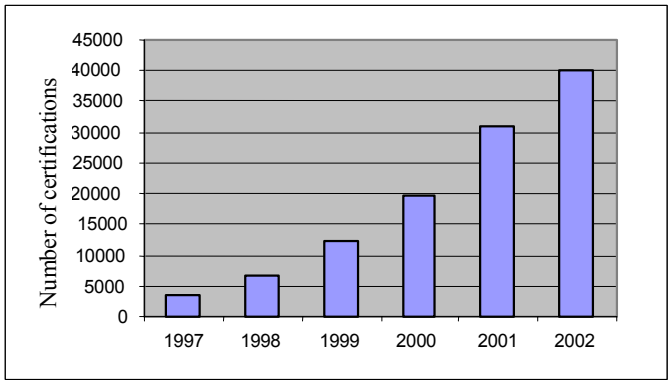
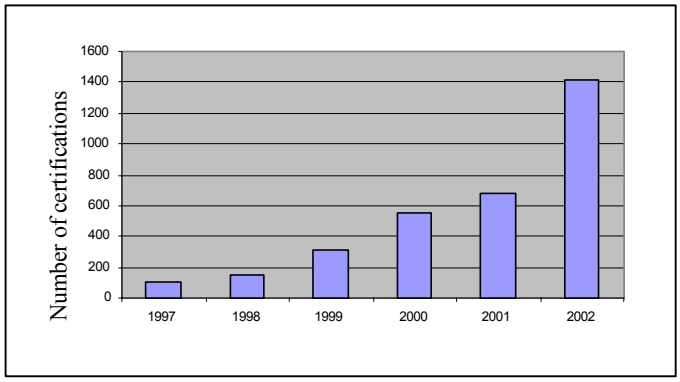


Figure 1.2: Total ISO 14001 in LAC



1.37 **The region has been adopting the ISO system gradually**. Leading the pack in absolute numbers of ISO 14001 certifications are Brazil, Mexico, and Argentina, trailed by Colombia and Chile. Chile, however, leads in terms of percent increase in certified businesses. Costa Rica, Peru, and Uruguay also have very strong growth in ISO 14001 certified businesses.

1.38 **Yet LAC lags well behind the rest of the world in its ISO 14001 growth rate and has fewer certified businesses**. The numbers tell the story: by end-2002, 49,462 businesses had become ISO 14001 certified in 118 countries, up from 36,765 certifications in 112 countries in 2001. In LAC, by contrast, only 4,101 businesses had become ISO 14001 certified by end-2002, accounting for just 8% of certifications worldwide.

1.39 **Other certification systems are increasingly used and recognized:**

- **Forest certification.** NGOs fighting deforestation of tropical rainforests (RAG, FoE-UK, WWF) joined with logging companies to form the Forestry Stewardship Council (FSC) in 1993.[20] The FSC is a forest certification organization of environmental NGOs, logging interests, forest communities, and certification organizations, founded on the idea of sustainable development. As of 2002, the FSC had certified 3.62 million hectares of forest in LAC, or 12.2% of its worldwide total.
- **Marine Stewardship Council.** The World Wide Fund for Nature (WWF) partnered with Unilever in 1996 to create market incentives for the development of sustainable fishing, setting up the independent Marine Stewardship Council (MSC). The MSC's goal is promote sustainable seafishing through responsible, environmentally appropriate practices with economically viable social benefits, which preserve the biodiversity, productivity, and ecological processes of the marine environment.
- **Certification of good agricultural practices** (EUREP: Euro Retailer Produce Working Group; GAP: Good Agricultural Practices—

[20] See http://www.fscoax.org.

EUREPGAP). EUREPGAP addresses consumer concerns about food safety, animal treatment, environmental protection, and the welfare of workers. This program for the certification of good agricultural practices began in 1997 as a retailer initiative,[21] and already has certification bodies in such Latin American countries as Chile, Uruguay, Argentina, Peru, and Costa Rica.

1.40 **These certification systems developed in the past decade in response to market integration and the need for clear rules and reliable suppliers**. They have grown out of a heightened awareness of product and service quality, greater attention to environmentally friendly production methods that are safe for workers, a need for development to be sustainable, and because of the benefits associated with certification. Certification creates better opportunities for international market access as more and more companies make certification a basic requirement in their market dealings.

F. Conclusions

1.41 **Environmental management in LAC has made great strides since the 1992 Rio de Janeiro Conference on Environment and Development**. Today, most countries have laws and an institutional framework for environmental issues. While the private sector used to perceive environmental requirements as a costly drag on productivity, that view has been changing. As the private sector enters international markets, it is looking for ways to make its operations more efficient and competitive internationally, to break into the so-called "green" markets of developed countries. Governments and the productive sector have sought convergence with environmental NGOs, and community participation on environmental issues has been gradually on the rise.

1.42 **SMEs face a number of obstacles to the adoption of ecoefficient processes**. These relate to still-limited demand for environmentally friendly products and services in their countries, governments' failure to make them a political priority, inadequate infrastructure, the high cost of financing, and difficulty shifting from a short-term outlook to investing for the long term. A further hindrance to private and public environmental management in LAC is the absence of specific regulations, oversight, or incentives to obey environmental laws. Yet a gradual shift can be observed, especially in terms of tighter control of labeling and rules on product ingredients. The region has been gradually getting on board with the ISO 14001 certification system, and new certification systems have been emerging for different types of business activities. Major companies and store chains are increasingly using such certifications with their suppliers, creating fewer opportunities for companies that adopt them.

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[21] The current version of the EUREPGAP document and procedures has been agreed upon by the entire fruit and vegetable supply chain. A standardization technical committee of farmers and retailers is responsible for its effective and efficient implementation. A benchmarking system has also been designed, to facilitate equivalencies between EUREPGAP requirements and existing national and regional quality programs. The EUREPGAP standard is also accredited under the ISO 65 standard on organic products, enabling the industry to avoid multiple farm-level audits and set up crop management systems at the regional level.

1.43 **The process of trade globalization and new trade integration agreements pose a major challenge for SMEs, forcing them to adapt to new competition**. These trends are also creating new opportunities in such areas as organic products, ecotourism, and the use of financial instruments as pooling tools to protect the environment.

II. STRATEGIC FRAMEWORK FOR MIF ENVIRONMENT PROJECTS

2.1 This chapter examines the Bank Group's framework of environmental strategies, under which the MIF has operated. It looks closely at how the MIF's strategic approach has evolved, both as articulated in formal strategy papers and as reflected by resource allocation in environment projects. Annex II provides a detailed synthesis of the analysis summarized here.

A. The Bank's environmental policies and strategies

2.2 The Bank's **Eighth Replenishment** in 1994 took these priorities into account and established as areas for Bank action the social sector (poverty alleviation and social equity), modernization and integration, private sector development and support, and the **environment**. It also called for the Bank to continue the lines of activity from the Seventh Replenishment: low-income beneficiaries, women's development, environmental management, and support for microenterprises. In response to these priorities, many operational policies have been developed that make the environment a priority: (i) agricultural sector (OP-721); (ii) basic environmental sanitation (OP-745); (iii) electric energy (OP-733-1); (iv) forestry development (OP-723); and (v) involuntary resettlement of persons or communities (OP-710).

2.3 **Over the past decade (1990-2000), Bank programs and operations have involved systematic investment in natural resources and the environment**. One paper, "IDB and the Environment (1990-2002)," reckons total Bank environment operations for the period at US$10.6 billion, or an average of US$964 million a year. The Bank made US$531 million in environment loans in 2000, representing 10% of total Bank loans. As noted above, the Bank has funded a range of environment projects, mainly in the areas of sustainable watershed management, coastal resource management, energy, environmental management, institution-strengthening, natural disasters, conservation of natural resources, and pollution control.

2.4 **Bank support has also played a very important role through technical cooperation operations, which have helped to strengthen environmental management in the countries of the region**. They involve support for feasibility studies, institutional strengthening of environmental management, public participation, and environmental management systems. In 2000 alone, the Bank funded 68 technical cooperation operations in the environmental sector, totaling US$29.8 million, or 45% of the Bank's technical cooperation allocation. A new source of environmental financing is the Global Environment Facility (GEF) of the United Nations Environment Programme (UNEP), which in 2000 began granting the regional development banks direct access to funds for environment projects in such areas as biodiversity, pollution of international waters, and global warming. While the new IDB/GEF partnership is just getting under way, six environment projects

have already been approved in the region, and it is expected to place between US$30 million and US$40 million in financing each year.

2.5 **Lastly, the Bank's Environment Strategy (document GN-2208-4), recently approved by the Board of Executive Directors in August 2003, gives the MIF a leading role in the funding of private sector initiatives with an environmental impact, especially at the level of small and medium-sized enterprises (SMEs).** The strategy points to an opportunity for Bank involvement in the private sector, especially in terms of competitiveness, and recommends that the MIF, IIC, and PRI coordinate in this area.

B. The MIF's strategic focus on the environment

2.6 **The Agreement Establishing the MIF states that one of its broad objectives is to promote in the full range of its operations environmentally sound and sustainable economic development.** The report of the 1996 task force stressed the need to better target the MIF's financial action, refining its objectives and priorities for the coming years. The report proposed the following as an operating principle: "stimulate and support private-sector expansion into new areas of activity, such as the provision of infrastructure and public services, technology development and dissemination, development of local capital markets and an enabling environment for SMEs, administration of social security and other services, workforce training, and support for micro and small enterprises."[22] No direct reference is made to environment projects. Only the investment funds are mentioned, some of which have an environmental component.

2.7 **In 1999, the MIF set down its conceptual approach to the environment in the 1999 "Environmental Investment Strategy," which identified the following considerations the MIF should adopt: (i) achieve sustainable development; (ii) invest in the promotion of ecoefficiency and environmental businesses; and (iii) relate the environmental area to other MIF project areas**. The MIF focused its environmental strategy on SMEs and promoting the integration of business and the environment. In order for the MIF to meet its objectives and strengthen its position on sustainable development, it invested in model projects and enterprises that would have a demonstration effect and therefore educate, communicate, encourage replication by making other enterprises and projects see the environmental opportunities that arise when ecoefficient processes are adopted. MIF involvement in these projects was to yield outcomes that might help speed implementation of better business practices. Thus, the recommendation was to target investment to those environmental markets where SMEs could develop a competitive advantage, such as by using energy efficiently, using renewable resources, promoting sustainable tourism or ecotourism, diversifying farm products, and sustainable agriculture. MIF's strategy was to concentrate on four areas: market makers, investment funds, business management and applied knowledge, and changes in structural conditions.

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[22] Task force report, Guillermo Perry, 1996.

2.8 **Based on the 2000 task force's recommendations for environment projects, the "clean production and environmental management" cluster was established, and environmental quality standards were to be met through the "ISO standards cluster," which includes ISO 9000 and 14001**. The report of the 2001 task force states that SMEs ought to view environmental management as an opportunity, rather than just a expense, and understand that better environmental performance ultimately yields productivity gains, due to more efficient utilization of production inputs and more business opportunities as a consequence of compliance with environmental quality standards.

Table 2.1: Evolution of the MIF's environmental strategy

1993 Agreement Establishing the MIF	1996 Task Force	1999 MIF Environmental Strategy	2001 Task Force
Promote private sector development through funding of micro, small, and medium-sized enterprises. Promote in the full range of its operations environmentally sound and sustainable economic development.	Nurture and support private sector expansion into new areas: infrastructure and technology, capital markets, social security, workforce training, and support for microenterprises and small business. No direct reference is made to environment projects. Only the investment funds are mentioned, some of which have an environmental component.	Support market makers that catalyze latent markets for products or services and use natural resources sustainably. Continue with the investment funds targeting environmental issues. Support business management and applied knowledge. Improve structural conditions, strengthening regulations and supporting certification systems.	Efficiency and environmentally friendly production under the ecoefficiency cluster. Meet environmental quality standards under the ISO cluster. Develop environmental management systems.

C. MIF action on environmental issues

2.9 MIF resources targeting environmental issues have been channeled through three initiatives: (a) venture capital, which consists of the investment funds with an environmental slant, whose performance has been evaluated along with the other MIF investment funds;[23] (b) business development services under ISO standards, which includes components for the certification of environmental management standards, whose performance has been evaluated along with the business development services cluster;[24] and (c) environment projects, which includes the 17 projects covered by this evaluation.

2.10 The total MIF contribution for the 17 projects evaluated was US$19.7 million. These projects fall into three subgroups.[25]

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[23] Document MIF/GN-78-11 "Evaluation of MIF Projects: Venture Capital Programs."

[24] "Evaluation of MIF Projects: Business development services," OVE.

[25] The projects are listed in Chapter III, Table 3.2.

a. **Sustainable markets**. This group includes eight projects totaling US$10.3 million in the areas of ecotourism (2), biodiversity (1), renewable energy (1), sustainable forestry (1), organic production (1), sustainable agriculture (1), and social responsibility (1). The broad objective was to make businesses more competitive through sustainable management of resources, introduction of new production practices, promotion of environmentally friendly products and services, and certification of processes and products.

b. **Clean production**. This group includes eight projects totaling US$7.5 million in the MIF's "achieving ecoefficiency through cleaner production and environmental management" cluster. These projects seek to make businesses more competitive through the use of cleaner production processes and environmental management systems, enhancing their environmental performance and productive efficiency. The cluster paper proposes two execution mechanisms for cleaner production projects: (i) forging supply chains with large companies, of which SMEs are suppliers; and (ii) identifying sectors where peer pressure can be applied to adopt ecoefficient processes.

c. **Regulation**. One project was executed in this area in 1994 for US$1.9 million with the main objective of building the institutional capacity of Chile's environmental authority (CONAMA). In 2000, MIF project MIF/AT-383 included an institutional strengthening component for Panama's environmental authority, but its main objective of clean production put it in the clean production group.

2.11 **Thirteen of the 17 environment projects were approved after the MIF's environmental strategy was introduced in 1999. Since then, 76% of all environment projects, and 69% of all environment portfolio resources, have been approved**. Only four projects had been executed before then: two in 1998 (biodiversity, organic production), and two in 1994 (ecotourism) and 1995 (regulation). No clear connection was observed between these and other projects. A rising trend in the number of environment projects approved was also observed, given the many projects in the pipeline. In September 2003, the it contained seven projects focused mainly on clean production and corporate social responsibility.

III. EVALUATION OF MIF ENVIRONMENT PROJECTS

3.1 This chapter presents the findings of the evaluation of environment projects approved by the MIF from 1993 to 2002. OVE developed an evaluation methodology for the entire MIF evaluation exercise. It rates the projects on seven factors, or dimensions: relevance, effectiveness, efficiency, innovation, sustainability, additionality, and evaluation. These were assessed at different project stages: project design (ex ante), execution, and at or near completion (ex post). Several aspects of each stage were examined, as shown in Table 3.1.

Table 3.1: Evaluative dimensions

Evaluate dimensions	Project status		
	A. Ex ante	**B. Execution**	**C. Ex post**
1. Relevance	1.A Needs diagnostic	1.B Demand for services	1.C Market generation
2. Effectiveness	2.A Risk prevention	2.B Flexibility	2.C Project output
3. Efficiency	3.A Resources allocation	3.B Administrative management	3.C Productivity
4. Innovation	4.A Product innovation	4.B Process innovation	4.C Demonstration effect
5. Sustainability	5.A Partner analysis	5.B Partner monitoring	5.C Institutionalization
6. Additionality	6.A MIF value added	6.B Synergies	6.C Catalytic effect
7. Evaluation	7.A Evaluability	7.B Monitoring	7.C Impact evaluation

3.2 In keeping with the methodological framework, the evaluation looked at the projects stage by stage. The design stage assessment (ex ante) included all 17 environment projects. The execution stage assessment included the 13 projects over 50% disbursed or approved more than two years ago. The outcome evaluation (ex post) included the eight projects completed or near the end of their execution period with tangible, evaluable products and/or outcomes. Table 2.2 lists the projects evaluated, stages rated, and subclassification.

Table 3.2: List of projects evaluated

Sustainable markets

Country	Donors memorandum	Operation no.	Project title	Amount approved	Year	Stages rated	Subgroup
BO	MIF/AT-26	ATN/ME-4757-BO	Sustainable development and ecotourism program in San José de Uchupiamonas	1,250,000	1994	All	Ecotourism
CR	MIF/AT-211	ATN/ME-6255-CR	Support for biodiversity use by small businesses	1,670,000	1998	All	Biodiversity
ES	MIF/AT-218	ATN/ME-6282-ES	New organic fruit and vegetable microenterprises	1,300,000	1998	All	Organic agriculture
BR	MIF/AT-293	ATN/MT-6697-BR	Deployment of business models for renewable energy	2,250,000	1999	Ex ante	Renewable energy
BL	MIF/AT-343	ATN/MH-7092-BL	Ecotourism training program	700,000	2000	Ex ante, execution	Ecotourism
RG	MIF/AT-451	ATN/ME-7724-RG	Business advisory services for small rural producers	495,850	2001	Ex ante, execution	Sustainable agriculture
RG	MIF/AT-487	ATN/ME-7953-RG	Competitiveness of small and medium-sized forestry companies	1,684,200	2002	Ex ante	Sustainable forestry
BR	MIF/AT-495	ATN/ME-8031-BR	Promotion of socially responsible market opportunities	975,000	2002	Ex ante	Social responsibility
				10,325,050			

Clean production

Country	Donors memorandum	Operation no.	Project title	Amount approved	Year	Stages rated
PR	MIF/AT-236	ATN/ME-6399-PR	Business integration program	1,200,000	1999	All
ME	MIF/AT-303	ATN/MH-6742-ME	Mentoring model for the implementation of environmental management systems	395,000	1999	All
PE	MIF/AT-318	ATN/MH-6919-PE	Quality control and environmental management systems	469,250	2000	All
ES	MIF/AT-333	ATN/MH-7007-ES	Promotion of cleaner production processes	749,000	2000	All
PN	MIF/AT-383	ATN/MT-7257-PN	Environmental management instruments and partnerships with industry for clean production	1,613,880	2000	Ex ante, execution
EC	MIF/AT-463	ATN/ME-7833-EC	Promotion of cleaner production processes	737,900	2002	Ex ante, execution
CO	MIF/AT-385	ATN/MH-7269-CO	Environmental management and implementation of cleaner technologies for Colombian enterprises	1,423,000	2000	Ex ante, execution
AR	MIF/AT-517	ATN/ME-8129-AR	Mendoza Cleaner Production Center	940,000	2002	Ex ante
				7,528,030		

Regulation

Country	Donors memorandum	Operation no.	Project title	Amount approved	Year	Stages rated
CH	MIF/AT-33	ATN/MH-4905-CH	Strengthening the National Commission on Environment (CONAMA)	1,902,500	1995	All

3.3 **Country visits were used to gather more information on project performance, especially for projects completed or well along in execution**.[26] Also used were documents available at the Bank,[27] telephone interviews, and contacts with Bank and MIF staff. In addition, the evaluation looked at information gathered through a standardized survey of executing agencies.[28]

3.4 **Evaluation reports were prepared for all projects, either in the form of an "evaluation brief" or "case study," depending on the level of information available**. In-depth case studies[29] were done on three of several projects visited. An example is given in Appendix 1. A shorter evaluation brief was prepared for other projects (see Appendix 2). Both documents include a detailed assessment using the evaluation matrix of the applied methodology.

A. Project evaluation

1. Relevance

3.5 Relevance measures the degree to which the projects met market needs. It comprises an analysis of needs assessments, the extent to which needs translated into market demand, and the creation of sustainable markets for products and services once projects were complete.

3.6 **The evaluation found that the design of environment project did identify valid needs and problems in the context of the region**, such as the lack of competitiveness and productivity of SMEs and the need to enhance their environmental performance. There is no evidence, however, that the projects were designed with the needs of businesses in mind.

3.7 **In general, no assessments of specific needs were done for each of the different industry segments, to identify priority sectors for improvements in business productivity**. The review of project design shows that no market studies, surveys, or interviews of potential customers were done, and that businesses had been identified prior to project start in only a few instances. Of the 16 "clean production" and "sustainable markets" projects, only five show evidence in the donors memorandum of having included some type of market study in their design, and those were accessible in only two cases.

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26 Visits were made to the seven projects in Chile, Colombia, Mexico, Paraguay, and Costa Rica.

27 Documents reviewed included: Bank and MIF strategy and policy papers, country programming papers and country programming evaluation, project documents (donors memorandum), midterm and final evaluations, semiannual progress reports, PPMRs, and the LMS.

28 The response rate was 60%.

29 The project case studies for the environment group were "Environmental management and implementation of cleaner technologies for Colombian enterprises" (MIF/AT-385); "Strengthening of environmental regulations and their enforcement" (MIF/AT-33) for Chile's National Commission on Environment (CONAMA); "Mentoring model for the implementation of environmental management systems" (MIF/AT-303) in Mexico; and the "clean production" component of MIF/AT-236 in Paraguay.

3.8 **By not conducting market studies, or simply not identifying beneficiaries individually, projects run the risk of "no demand."** Thus, 12 of the 17 projects (70%) name the potential for "no demand" as one of their chief risks. Given the MIF's limited intervention capability in the countries, it was not very useful in terms of project execution to identify, ex ante, that a country had many potential beneficiary SME. The relevance of these projects could have benefited from a more specific prior diagnostic assessment of the needs of businesses, identifying specific market niches. Box 3.1 gives an example of the difficulties arising out of low relevance.

Box 3.1: Case of low relevance

MIF/AT-236 "Nonreimbursable technical cooperation funding for a business integration program" in Paraguay

The main objective of this project approved in 1999 was "to help build business links between small and large companies and promote the use of clean technologies." Coordination was built around the Japanese center/satellite system (Keiretsu). The project design states only that there are "approximately 9,000 small, medium-sized, and large industries, 3,000 of which have more than seven employees." No business was named specifically for implementation of the model, nor even a sector on which efforts could be concentrated.

Subsequently, project execution was hampered mainly by the fact that large companies were found to operate in a way that did not match the project assumptions. As part of the project restructuring, promotion and dissemination activities were added to attract interested businesses, but even today the project executing agency cannot gauge the size of the target market.

One of the lessons learned, reflected in the PPMR, was that the "marketing effort should not try to 'sell' a predetermined program, but rather detect the business's problems and respond them with specific business development services."

3.9 **The absence of market studies and market knowledge is even more striking in the absence of baselines for the indicators proposed to track objectives**. Analysis of advance information showed that only two of the 17 environment projects (12%) had indicators with an established baseline. No baselines makes project ex ante relevance and impacts even more difficult to measure.

3.10 **As a mechanism to mitigate the risk of no demand, the projects included specific promotion, dissemination, and training components to make SMEs more aware of the benefits of environmental management and clean production**. Yet the surveys of executing agencies showed that apparently, even now, they cannot gauge the size of the market in which they operate. In 66% of the surveys received, the executing agencies had been unable to identify the size of the market or the number of potential customers before the project began.

3.11 **Another key aspect of relevance relates to the project rationale. The fact that there are no examples of successful projects or actions taken by businesses is indicative of low project relevance.** Only one project in the entire group—"Nonreimbursable technical cooperation funding for promotion of cleaner production and industrial ecoefficiency" (MIF/AT-517)—cites examples of similar projects in the donors memorandum that have produced the desired results. Yet despite the fact that the project was approved in November 2002, none of the examples related to a business that had received assistance under a MIF "clean production" project, when the group had been in existence for years. References were even used from 1995. Greater relevance could be achieved in project design by clearly demonstrating the economic benefits and productivity gains possible through introduction of the techniques proposed by the projects, and tying in more lessons learned on previous MIF projects. Below is an example of a project well supported by studies on the target markets.

Box 3.2: Case of a project with sufficient ex ante analysis and relevance

MIF/AT-495 "Promotion of socially responsible market opportunities"

This project began in 2002 in Brazil, and is currently in the execution stage. Its objective is to develop the marketing services of micro and small rural producers (MSRP) in the states of Alagoas, Pernambuco, and Rio Grande do Norte by improving MSRP marketing, strengthen production capacity, promote the concept and practice of fair trade, and establish a fair trade certification system.

MSRPs generate some 12.5% of northeastern Brazil's regional product, but much of the population lives below the poverty line. Rural SMEs have little access to domestic markets, and still less to international markets. Aiding the development of small rural producers can raise incomes and attack the problem of poverty. The expected beneficiaries will be at least 2,500 SMEs representing about 30% of the region's total agricultural output. An estimated 80% of these will be microenterprises, and the remaining 20% small businesses. PPMRs show evidence that SME incomes have risen, because the project meets their need for better services to reach domestic and international markets, and so raise their standard of living.

3.12 **Actions to meet international environmental standards have been shown to increase project relevance**. As noted in chapter I, advancing trade integration is forcing exporters to introduce clean production systems or have their products certified. Several MIF projects were designed to meet this threat. For example, MIF/AT-303 "Nonreimbursable technical cooperation funding for a mentoring model for the implementation of environmental management systems," was designed to meet the growing threat of trade restrictions arising out of poor compliance with environmental production standards, and was based on studies by the National Institute of Technology (INE), which had detected the need. Another good example, MIF/AT-383 "Nonreimbursable technical cooperation funding for a program on environmental management instruments and partnerships with industry for clean production" in Panama sought to make SMEs more competitive through implementation of environmental management systems, and the objective of its components to strengthen the

regulatory framework and authority was to comply with environmental requirements arising out of Panama's accession to the World Trade Organization (WTO).

3.13 **During the execution stage, the projects meet market needs to some extent. Yet services were observed to remain in demand during project execution mainly because they were nonreimbursable technical assistance services and/or were delivered at subsidized prices**. For example, data from executing agency surveys shows a willingness to pay, but always predicated on the fact that the services under the projects are subsidized. Visits to businesses also revealed that demand for technical assistance services delivered under the projects fell off once the subsidies ended, because many SMEs did not view them as a major necessity in a context of financial restraint.

3.14 **The projects furthest along, and even those already complete, showed no evidence of a market having been created for actions of this kind**. This is due to the fact that, despite low SME productivity and poor environmental compliance, there is not necessarily a direct relationship between gains in competitiveness and productivity at SMEs and the introduction of clean production techniques or organic farming.

2. Effectiveness

3.15 **Effectiveness measures to degree to which the projects have met their development objectives**. It also looks at risk prevention mechanisms and contingency management, and documents project outcomes.

3.16 **Sixty-three percent of clean production and sustainable markets projects stated their main objective as making businesses more competitive.** Another 19% stated their main objective as making businesses more efficient, with can be closely tied to gains in competitiveness.

3.17 **The difference between the sustainable markets projects and clean production projects lies in how they propose to meet these general objectives, which can be assessed in terms of the specific objectives**. Eighty-eight percent of clean production projects have components to train human resources at businesses (on the demand side), and to train consultants to implement clean production systems (on the supply side). Fifty percent of the sustainable markets projects focus on support for the marketing of products made using environmentally friendly techniques, through product certification, quality standards, or strengthened commercial channels. Operations in both groups had specific components to build the technical capacity of an institution (generally the executing agency) responsible for carrying on the project once the MIF was out of the picture.

3.18 **There is no clear evidence of a link between the projects' general objectives and their specific components or objectives**. The projects are missing a clear explanation of the correlation that should exist between competitiveness gains and the introduction of clean

production systems or environmentally friendly production techniques.[30] When the connection between the general objectives and the specific objectives or components of a project is less than evident, clear indicators to guide project execution toward definite targets that later can be used to evaluate project outcomes take on vital importance.

3.19 **Qualitative analysis of the indicators revealed that only half the projects had effective indicators for measuring expected outcomes**. Project indicators and evaluability are analyzed in detail under the heading of evaluation, but Box 3.3 below provides examples of design and development problems that conspired against greater effectiveness. As already seen under the heading of relevance, a generalized lack of baselines for the measurement of objectives made them even more difficult to understand.

Box 3.3: Relationship among general objectives, specific objectives, components, and indicators

Examples of an ineffective relationship

MIF/AT-463 "Promotion of cleaner production processes" in Ecuador: **General objective**: Make SMEs in Ecuador more efficient. **Specific objectives:** None. **Components**: Raise awareness of cleaner production; strengthen the local supply of cleaner production services; implement cleaner production processes at businesses. **General indicators**: In three years, 70% of beneficiaries improve their indicators of competitiveness, efficiency, quality, price, and timeliness. **Specific indicators**: Demand for cleaner production services rises by 30% at Ecuadorian businesses; 20 more practitioners offer services to meet the demand.

MIF/AT-318 "Instruction for environmental management system implementation" in Peru. **General objective**: Enhance the efficiency, quality, and competitiveness of a group of SMEs in Peru. **Specific objectives**: Formar profesionales en la aplicación de ISO 14001, Experimentar y reproducir la paliación de ISO 140001, Fortalecer institucionalmente a Perú 2021(ejecutor). Train practitioners to implement ISO 14001; pilot and replicate ISO 14001 alleviation; institutional strengthening of Perú 2021 (executing agency). **Components**: Same as specific objectives. **General indicators**: Enhanced economic and environmental performance of participating SMEs. **Specific indicators**: None.

MIF/AT-303 "Implementation model for environmental management systems" in Mexico **General objective**: Make SMEs in the manufacturing sectors more competitive. **Specific objectives**: Increase the number of local practitioners and technical specialists trained in implementation of environmental management systems; improve the environmental and economic return at participating SMEs; give participating SMEs access to credit. **Components**: Same as specific objectives. **General indicators**: participating SMEs improve their environmental economic rate of return. **Specific indicators**: Sufficient qualified local consultants; ten SMEs have access to credit for technical assistance.

EXAMPLES OF AN EFFECTIVE RELATIONSHIP

MIF/AT-293 "Development of business models for renewable energy service delivery" in Brazil. **General objective**: Promote the use of renewable energy through implementation of three business models. **Specific objectives**: None. **Components**: Implement an NGO business model for various products and services, and a concession/permit holder business model; Revolving fund for business startups; gather information and provide feeedback to compare the models implemented; evaluate business models and revolving fund; disseminate outcomes. **General indicators**: Before and during execution: number of people and households supplied with power, hours per day of power availability; use of electricity for lighting. **Specific indicators**: Number of private-sector operators in the renewable energy sector;number of businesses started; type and quantity of new power plants; profit margin of businesses.

MIF/AT-495 "Promotion of socially responsible market opportunities" in Brazil. **General objective**: Make micro and small rural producers more competitive by improving their productivity and access to domestic and international markets. **Specific objectives**: None. **Components**: Develop and strengthen the capacity of the firm that markets, promotes, and sells products in fair trade markets; strengthen production capacity; promote the concept and practice of fair trade; improve the services provided by the marketing firm. **General indicators**:,500 SMEs benefit from the project with US$7.3 million in new sales, US$6.3 million of that amount from organic or fair-trade products; the marketing firm books US$200,000 in member contributions above its initial capital; the marketing firm is financially self-sustaining (overhead, financial, and operating costs / financial and operating revenue ≤ 1). **Specific indicators**: None.

3.20 **One problem that hampered project effectiveness was the development of effective mitigation measures**. This was even more of an issue in relation to the most common risk identified in the operations: weak or no demand from businesses, which was cited by seven of the eight clean production projects, and five of the eight sustainable markets projects.[31] Few projects included effective mitigation measures. Especially noteworthy were MIF/AT-303 in Mexico and MIF/AT-318 in Peru, which depended on coordination between small and large companies to introduce cleaner production systems. Prior to approval, both projects had commitment letters from large companies that were willing to participate in the project as customers of the beneficiary SMEs. Yet only three of the eight clean production projects sought to forge such supply chains,[32] and only two had commitment letters from large companies. None of the sustainable markets projects had any kind of commitment from large companies, even though such coordination could enhance project execution in at least two instances.

Box 3.4: Case of better mitigation of risks

Regional MIF/AT-487 "**Nonreimbursable technical cooperation funding to enhance the competitiveness and environmental performance of small and medium-sized forestry companies**." The project's objectives are to strengthen the technical and business management capacity of SMEs in the forestry sector through better business and environmental performance. One of its components includes support for the sale of forestry products, and the project states that "the successful performance of the SMEs in the program will depend on various factors, including identifying and promoting markets with suitable product prices." The project also acknowledges that "the key to success in the search for and utilization of new markets is to establish and strengthen transparent and trustworthy relations between producers and buyers." The project was approved in 2002, so it is too early to evaluate its outcomes. It can be said, however, that the risk of no demand could have been reduced significantly, if a study of potential buyers of certified wood had been done prior to project approval, so as to put buyers and producers into contact from the start, increasing the likelihood of success.

MIF/AT-211 "Nonreimbursable technical cooperation funding to support biodiversity use by small businesses" in Costa Rica. The project was approved in 1998 with the general objective of promoting small business development through the sustainable commercial exploitation of biodiversity. It was executed by Instituto Nacional de Biodiversidad (INBio), which has experience with such major companies as Merck & Co., Bristol Myers Squibb, and Indena. INBio accepted the challenge of working with the MIF to "develop business plans for small businesses based on sustainable biodiversity use through the precommercial stage." Uncertainty was acknowledged during project design as to "the availability of financing for the necessary investments called for by the business plans," and it was noted that "the program would help to secure financing from such sources as the Environmental Businesses Fund of Central America." Yet it became clear after the visit that one of the program's main weaknesses was the limited business vision of the ventures. Thus, the project could have benefitted from a prior commitment from the large companies working with INBio and the small producers, and effective coordination with venture capital funds could have sharpened the business focus.

3.21 **The potential financial limitations of businesses were another frequently named risk**, cited by 50% of the clean production and sustainable markets projects. The proposed

[31] The ramifications of there being no demand were considered under the heading of relevance.

[32] The third project, MIF/AT-236 "Nonreimbursable technical cooperation funding for a business coordination program," was discusssed in Box 3.1.

mitigation mechanism involved subsides that would decrease over time and "raising awareness on the demand side" through program dissemination and training for in-house human resources. Yet the MIF did not cite success stories at the level of the individual firm, to demonstrate to potential beneficiaries the economic return on implementing components designed to make their production processes more efficient. In the clean production cluster, no activity coordinated by the Bank/MIF and carried over to project design and execution was seen to have gathered and disseminated examples of successful financial outcomes at the level of the individual firm. Only MIF/AT-383, "Environmental management instruments and partnerships with industry for clean production" in Panama involved an activity to identify and publicize success stories. However, these have yet to be posted on the program's website (www.conep.org.pa).

3.22 **Risks were also identified in relation to project execution, mainly associated with institutional weaknesses or the technical capacity of executing agencies or the regulatory framework**. Projects generally addressed such risks through specific technical capacity building components. Sixty percent (10 out of 17 projects) included a component to build technical capacity in the country, and three of the sustainable markets projects had a component to strengthen the regulatory framework. The MIF Eligibility Committee[33] saw a need to extend institutional capacity building beyond the executing agency under the project: 50% of the donors memoranda contain committee recommendations for mechanisms to coordinate with other country institutions.

3.23 **Progress on planned outcomes and activities and the handling of contingencies by executing agencies and the Bank has been relatively good**. It bears mentioning, however, that effectiveness in execution was measured in terms of completion of activities and achievement of specific outcomes internal to the projects, rather than in terms of achievement of the projects' development objectives.

3.24 **As far as the handling of contingencies, external events did occur that helped or hindered project effectiveness**. Data supplied by the executing agencies identify the main factors working against project execution as the adverse economic environment (66%) and adverse political environment (44%). The surveys show that the projects benefited from the institutional support received (90%). "Enabling laws and regulations" contributed to a lesser extent.

3.25 **The weakness of the project indicators limits their ex post evaluability**. Only two projects have baseline indicators, making their outcomes very difficult to evaluate. Poor definition of measurable indicators also carries over into the PPMR monitoring system, which treats all the indicators in the donors memoranda identically. Indicators tied to the general objective were used in some instances, while in others indicators associated with certain components were used, creating problems for monitoring. According to the executing agencies themselves, the projects can be said to have made no significant

[33] The 11 available donors memoranda were reviewed; all are project eligibility memoranda approved since 1999.

difference in the industry or market in relation to the scenario without the project. It is also clear that benefits had difficulty reaching the businesses. Only 31% of the surveys identified businesses as the project beneficiaries, whereas 16 of the 17 projects (95%) sought to make SMEs more efficient or competitive. Boxes 3.5 and 3.6 give examples of high effectiveness and low effectiveness.

Box 3.5: Case of low effectiveness

MIF/AT-218 "New microenterprise producers of organic fruits and vegetables"

This project in El Salvador was conducted in 1998-2003 by executing agencies PROEXSAL and CLUSA. Its objectives were to provide training and assistance to make small farmers more competitive through the introduction of organic farming, while supporting an activity that preserves natural resources and uses them sustainably. The project's final evaluation found that the farmers had abandoned organic methods by the time the project ended for lack of sales outlets that paid a premium for such produce. They returned to their traditional methods, indicating that that project had failed to meet its development objectives of introducing organic farming. Its great weakness was the absence of ex ante partners or coexecuting agencies that would have provided access to organic markets.

Box 3.6: Case of high effectiveness

MIF/AT-385 "Environmental management and cleaner technologies for Colombian businesses"

This project began in 2000, and is being executed by CINSET and ACOPI. Its objective is to make Colombian SMEs more productive and competitive through good environmental management, introduction of cleaner production practices, optimal use of inputs, minimization of waste, and environmental retrofitting of SMEs. Compliance with environmental laws is an added benefit.

Potential market risks were identified before the project began, including little willingness to pay on the part of businesses, resistance to change, and difficulty obtaining credit to implement recommendations (financial limitations). To minimize these risks, mitigation measures were built into the project design. They included higher subsidies for the first businesses to join the program as a way of building confidence and awareness of the project, along with other awareness and training activities. The project has been successful in building important partnerships and networks, both public and private. This has enabled it to reach more beneficiaries and added to the credibility of its activities. Even thought the project is still in the execution stage, progress reports show that the objectives have been met satisfactorily.

3. Efficiency

3.26 **The efficiency dimension measures the input-output ratio**, which is to say the quantity of inputs, financial or otherwise, needed to produce a given output. Activity planning, administrative management, the executing agency's experience, and project length are all key factors in determining a project's ultimate productivity, and hence its efficiency.

3.27 **The survey data show that 80% of the executing agencies had no prior experience with IDB/MIF projects**. In fact, the executing agencies demonstrated relatively little capacity to execute projects of this kind efficiently. This, coupled with their unfamiliarity with IDB/MIF administrative procedures, led to delays in project execution. According to the

executing agencies, the most significant delays were caused by recruitment of consultants and fulfilling eligibility requirements for project disbursements. Recruitment was rated as a serious obstacle, whereas disbursements and procurement, although obstacles, were not rated as serious (see Tables 3.3 and 3.4).

Table 3.3: Activities with significant delays

	Freq.	%	Months	Avg.
Signing of contract	1	8%	3	3.0
Conditions precedent to eligibility	3	23%	10	3.3
Recruitment of consultants	7	54%	30	4.3
Training	0	0%	0	0.0
Procurement of hardware and software	2	15%	21	10.5
	13			

Table 3.4: Administrative obstacles that hampered project execution

Yes	6	60%
No	3	30%
NC	1	10%
	10	

	Serious	Not Serious
Procurement	0	3
Recruitment	4	0
Disbursements	2	3

Box 3.7: Cases of high effectiveness

The MIF/AT-333 cleaner production project in El Salvador was delayed by 15 months when recruiting the program coordinator as a result of internal coordination problems at the executing agency. According to the executing agency, "the people who had been hired lacked management, administrative and financial experience."

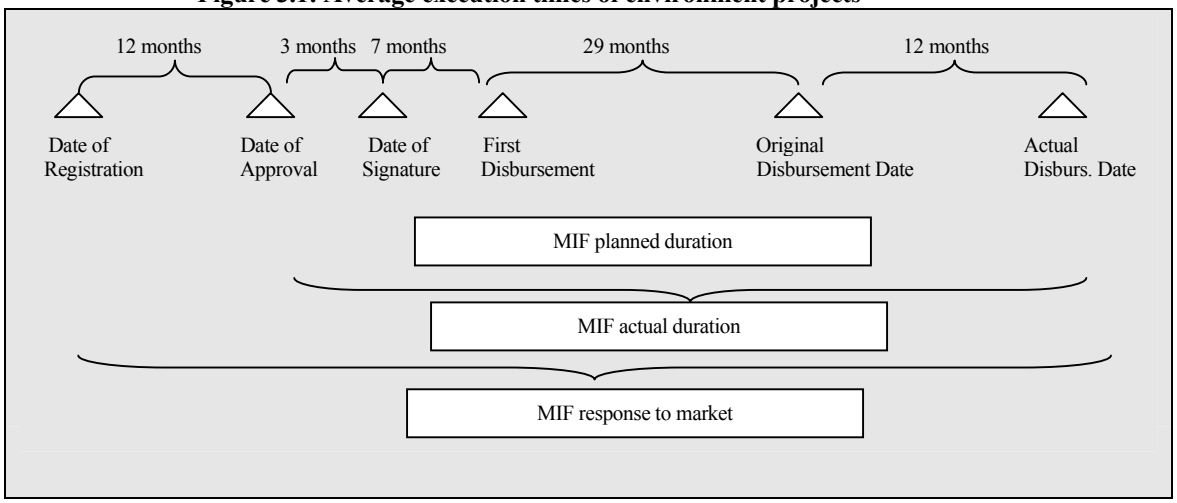
The MIF/AT-463 cleaner production project in Ecuador was six months late in fulfilling the conditions precedent to eligibility, when one one of the institutions that was to help set up the cleaner production center showed no interest in doing so. Selecting the technical coordinator for the project caused another four-month delay. Three selection processes were conducted.

The MIF/AT-218 organic production project in El Salvador experienced significant delays in the recruitment and consulting services. A six-month delay in fulfilling the conditions precedent to eligilibity was caused by a lack of clarity or support in the IDB/MIF procedures for setting up a trust, and the lack of clarity or support in the procedures for hiring the consulting firm to conduct the project final audit.

3.28 **Lags in activities during project execution lead to significant delays in project completion**. For example, projects completed and over 50% disbursed had, on average, an original execution period of 36 months (from signing until the planned last distribution date) and were granted an average extension of 12 months, for an average total execution period of 48 months (four years). Analysis of the timing of project milestones shows that, on average, three months pass from approval to the signing of the agreement, and seven more until the first disbursement (four months on average from signing to eligibility, and three more from eligibility until the first disbursement). Thus, 20% of planned total execution time passes from approval until the first disbursement. Adding to that the time from registration until approval of a technical cooperation operation, the average total project

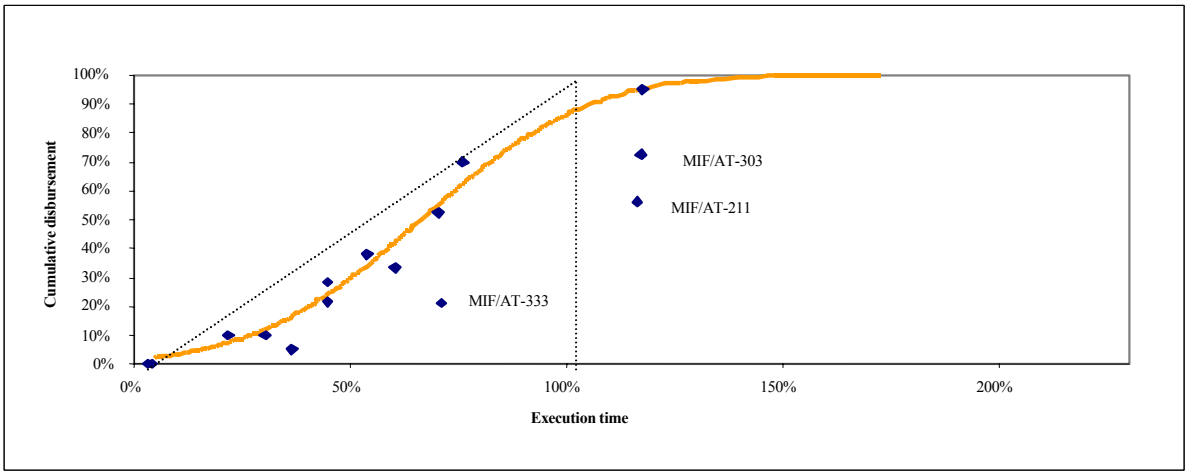
cycle for environment projects is over five years. Figure 3.1 summarizes the observed project cycle.

Figure 3.1: Average execution times of environment projects



3.29 **Environment projects are consistent with the overall trend for MIF projects in terms of the relationship between execution time and level of disbursements**. Figure 3.2 illustrates this relationship. The curve represents the average disbursement for all MIF projects in execution as of March 2003, while the points are environment projects in execution as of the cutoff date (September 2003).

Figure 3.2: Profile of execution time and cumulative disbursement for environment projects



3.30 **The projects farther away from the curve are those with significant delays and/or disbursement problems**. The MIF/AT-211 biodiversity project in Costa Rica experienced major delays, due initially to a change of specialist at the Country Office, which led to changes in the project performance criteria, and later to an audit that halted project

execution because of conflict of interest issues. These delays affected the executing agency's relationship with the businesses and slowed the project's momentum. The MIF/AT-303 project on environmental management system certification in Mexico falls far from the disbursement curve, because of delays in recruiting the international consultant caused by the limited budget set aside for such purpose. Another four-month delay in selecting the participating SMEs was due to the many requirements imposed by the executing agency. Even so, this did not result in substantial delays at the end of the project. Several extensions were granted for the completed projects (MIF/AT-26 and MIF/AT-33). The MIF/AT-33 CONAMA project in Chile saw its already short execution period (16 months) shortened further by recruiting delays at the United States Environmental Protection Agency. Time and financial limitations reduced the expected impact of the educational campaigns. The execution time of the MIF/AT-26 ecotourism project in Bolivia was extended (27 months), to ensure that the ecohotel Albergue Ecológico Chalalán S.A. had sufficient infrastructure and the wherewithal to be sustainable.

3.31 **In terms of project design, finally, the environment projects were seen to plan their activities and allocate resources to conduct them**. The clean production projects, for example, plan better in the design stage. As a cluster, however, these projects are designed in such a way as to introduce inefficiencies.

3.32 **The evaluation team found problems of efficiency and resource allocation in the clean production cluster**. For example, each clean production project had recurrent activities or components such as development of operating manuals, approval of standards, development of training curricula and teaching materials, etc. Similar products were paid for multiple times, rather than taking advantage of economies of scale and shared experiences. These are aspects to incorporate into project designs. All projects also include promotional activities or components. Following the cluster logic recommended by the 2000 task force, these projects would be expected to have an integrated promotional strategy for disseminating successes and failures and incorporating lessons learned over time. Lastly, no integrated terms of reference have been developed for evaluations or standardization of costs for such activities.[34]

4. Innovation

3.33 **Innovation was named consistently as one of the key features of projects to be funded by the MIF. Innovation describes the extent to which a project introduces products, services, or processes that are new to a given market**. The ways in which products and services are designed determine how innovative they are. The ultimate proof of an innovation's success is its demonstration effect, both locally and internationally.

3.34 **The environment projects generally were rated as highly innovative in their design**. This was confirmed by the executing agencies, 90% of which thought that the products,

[34] Even so, many ended up being conducted by the same consulting firm.

services, and processes introduced under the projects had been innovative in the national or regional context. Most executing agencies on clean production projects said no previous efforts had been identified in the same area. The approaches of the CONAMA institutional strengthening project in Chile and the sustainable energy project in Brazil were also highly innovative in the context of the respective countries (see Box 3.8).

3.35 **The MIF/AT-383 project in Panama is another interesting case study for innovation. It stands out from the other clean production projects, in that it is the only one that takes a systemic approach, uniting the public and private sectors. It also differs in that it links clean production processes with environmental management systems**. These projects seek chiefly to make SMEs more competitive, improve their environmental performance, strengthen the National Council on Private Enterprise (CONEP) in all aspects of cleaner production, and support the government through its environmental authority (ANAM). In the Panamanian context, fostering coordination between the public and private sectors on environmental issues is an institutional innovation in and of itself. This project also introduces an innovative product by jointly implementing the cleaner production strategy and environmental management system through ISO 14001 standards.

Box 3.8: Cases of high innovation

MIF/AT-33 "Strengthening of regulations and their enforcement" was approved in 1994 to build public and private sector capacity to enforce environmental regulations and train staff at the executing agency, CONAMA, to perform a coordinating function. The project was innovative in that it supported a public institution in managing the development of pollution cleanup plans with the involvement of civil society, as well as the development of environmental regulations. Chile had no previous experience in these areas, and curriculum development activities had been very limited on enviornmental issues.

MIF/AT-293 "Deployment of business models for renewable energy" was approved in 1999 and is being executed in Brazil. Its chief innovation is the decentralization of renewable energy service delivery to isolated communities, and the involvement of private businesses in delivering such services. The project seeks to apply three private-sector-oriented business models to pilot projects in different regions of the country. The pilots deliver renewable energy services to remote communities in Brazil, building market demand for electric power services by demonstrating the effectiveness of renewable technologies. The project includes activities relating to collaboration between private businesses and local social and environmental NGOs, to meet community energy needs; business models for a range of products (water, television networks, and others); a business model for holders of electricity concessions and permits (pilot business model for electricity service delivery); a revolving fund for business startups; information gathering on business model performance; evaluation of the business models and revolving fund; and dissemination of outcomes.

3.36 **Yet while there were innovations during the execution process, introducing them into the mainstream for a demonstration effect was a major challenge for this group of projects**. Related to this challenge is the lack of interconnectedness among the projects. Thus, the only executing agency that did not consider the project to have been innovative (MIF/AT-463) said "it had not included external advisory services, to transfer experience, obstacles, limitations, successes, failures, and solutions from the management of a cleaner production center or a similar project in the region." The project was approved in 2002, when the MIF had already conducted five projects in the same area.

3.37 **Another factor limiting these projects' demonstration effect is the lack of clearly defined indicators to measure outcomes and the benefits of using cleaner production techniques, environmental management systems, or sustainable markets, which could be used to promote these services, products, or innovative processes**. Without an accurate baseline diagnostic assessment as or clearly defined and monitored performance indicators, a catalytic effect is very difficult to achieve, because no positive results from the services, products, and processes can be demonstrated.

5. Sustainability

3.38 **Sustainability describes the staying power of project-supported products and services once MIF financing ends.** In most cases, this is related to the sustainability of the executing agencies. The factors influencing sustainability are executing agency selection and assessment in the design phase, the executing agency's demonstrated capacity and commitment to project implementation, and the institutional and financial viability of continuing to deliver the services.

3.39 **The majority of environment projects were approved after 1999 and have not yet concluded, so not enough information is available in all instances to determine how far the direct and indirect benefits stemming from projects have become institutionalized**. Nonetheless, evaluation of the design and execution of those projects already well leads to the following conclusions.

3.40 **One of the factors conspiring against sustainability was a lack of due diligence on the executing agencies selected for MIF environment projects**. Review of the 17 donors memoranda in the environment group suggests that only two projects (MIF/AT-218 and MIF/AT-495) show evidence in their technical files of documents containing institutional analysis and the financial statements of the executing agencies. In those instances, the documents contain information on the agencies' years of experience, similar projects being executed by them, field of specialization, geographic coverage, number of employees, annual revenue and expenditure, and the value of their assets. Review of institutional and financial capacity is crucial, if MIF projects are to be placed with entities that have the capacity to break new ground in areas that demand a medium- and long-term effort.

3.41 **The chief criteria for the selection of executing agencies, as reflected in the donors memoranda, were track record, relevant experience, and partnerships with other public- and private-sector entities**. Yet a hunt for hard evidence of the agencies' prior experience revealed that only 60% (five) of the sustainable markets projects and 25% (two) of the clean production projects, or 50% of all environment projects evaluated, identified what type of specific experience the agencies had.

3.42 **The evaluation also revealed an absence of uniform selection processes for executing agencies, or standardized criteria for accepting or rejecting requests**, other than the MIF's general criteria for all its projects. For the cleaner production cluster, an effort is

being made to establish guidelines for MIF financing in the area of environmental regulation, training, and financing and investment, but the criteria are very general.

3.43 **Regarding the type of partner, environment projects involve a spectrum of executing agencies**. Two were with governments through their environmental authority (CONAMA in Chile and ANAM in Panama), while others were with NGOs (Visión Mundial Brasil, Perú 2021), professional associations (an economic federation, industry union, and boards of industry), and academic and research organizations (Earth, InBio, CATIE). Noteworthy here is the MIF's effort to create links among the public and private sectors and academia.

3.44 **Features of projects with good prospects for sustainability include: (i) the executing agencies have practical experience in the relevant project area; (ii) they have the institutional capacity to coordinate, solve problems, and provide technical training; and (iii) they have financial capacity**. They must also have a strong commitment to executing the project, which must be of special interest to the executing agency. Other influences on project sustainability are country, private-sector, and industry needs, for the project services and products, as well as the economic means and level of development of environmental regulation and oversight. Box 3.9 describes a project that achieved a high level of sustainability.

Box 3.9: Case of high sustainability

MIF/AT-303 "Mentoring model for the implementation of environmental management systems"

The project was approved in 1999 in Mexico with the main objective of making 36 SMEs in Nuevo León more competitive and enhancing their economic and environmental performance, as a model for better environmental management at other small businesses.

The project concluded on 13 March 2003 and remains relatively well institutionalized. An institution left stronger by the project has added skilled technical staff, who are providing consulting services in the area of environmental management. Senior consultants feed a new information system periodically with monitoring data on the introduction of environmental management systems at businesses. Level of service has been maintained. Although serving fewer businesses than during the project, the institution does provide consulting and audit services. The institutional viability of continuing to provide services is also good, although no data are available on financial viability. Nonetheless, the fact that audit services are selling at market prices means that they will be financially sustainable, while strong demand is created in the project's region of influence.

3.45 **Despite a few experiences like the one in Box 3.9, environment projects have had problems with sustainability**. Even though it is a relatively young portfolio, as already noted, these projects have not yet established a market to pay for the environmentally sustainable products and services developed under them. Nor have they succeeded in translating the benefits of ecoefficiency into prices and market.

6. Additionality

3.46 **Additionality describes the extent to which MIF participation was essential for a given activity to occur, either because there were no other financial options within the established timeframe, or because of special technical support provided**. Additionality

during execution measures the extent to which projects interact and lessons learned are used to enhance an activity. In the extreme, additionality shows through as a "catalytic effect" that produces direct and indirect benefits in related areas without any direct MIF funding being necessary.

3.47 **The MIF's performance on environment projects has reflected the lack of an articulated vision of each of the different projects as part of a coordinated approach in the target areas**. The result is a fragmented and uncoordinated effort within the clean production cluster and the group of environment projects as a whole. This lack of coordination is also evident in the absence of tie-ins with other MIF initiatives furnishing venture capital for environmental startups or promoting environmental management certification.

3.48 **There is no evidence planning in the preparation phase to coordinate with other projects in execution or with other agencies**. Donors memoranda were reviewed specifically for any intention of coordinating with other projects, seeking evidence of three things: (i) whether the project was connected to the Bank's country strategy; (ii) whether the project was tied to another Bank project; and (iii) whether the project was tied to another MIF project, and to clean production projects in particular. Only half the projects stated a connection to the Bank's country strategy, 24% were tied to other Bank projects, 10% were tied to another MIF project, and only 6% mentioned the possibility of coordinating with other cluster projects.

3.49 **Such weak coordination ex ante is consistent with the actions of the MIF's Eligibility Committee, as the eligibility memoranda show**. In 45% of cases, the committee recommended greater coordination with other projects in execution or other, prior initiatives. For example, on MIF/AT-343 "Technical support for the development of an ecotourism training program" in Belize, the Eligibility Committee recommended "determining whether any labor standards had already been developed in Belize. If not, the Committee suggests looking into adapting to Belize the standards developed for a regional tourism project conducted in the Caribbean with MIF support."

3.50 **In relation to financial additionality, it was observed that the MIF supplied 65% of all resources for project execution, on average, with the remaining 35% coming from counterparts**. The MIF contribution is essential, if environment projects are to be executed, and they probably would not have been done without it. Box 3.10 gives an example of a project with high additionality.

Box 3.10: Case of high additionality

MIF/AT-383 "Environmental management instruments and partnership with industry for clean production"

This project is currently in execution in Panama (2000-2005). It seeks to make SMEs more competitive through the development and implementation of environmental management instruments that promote clean production processes in industry, to perform environmental audits, and to provide environmental training and technical assistance. The project has three components: regulatory framework; (ii) quality and environmental management in industry; and (iii) institutional strengthening and dissemination. The project is needed now, because Law 41 of 1998 set a three-year deadline from the time environmental quality standards were introduced, to regulate effluents, emmissions, and environmental impacts generated by industrial operations. It also set a deadline of eight years to change production processes or technologies in order to ensure compliance with environmental quality standards. This has created a need for industry to conduct environmental audits and introduce clean production techniques. The project's additionality resides in the lack of interest from government or the private sector in funding a project of this kind. As a result, the expected outcomes could not be achieved without MIF financing.

3.51 **The clean production projects offered ample opportunity for greater additionality**. Despite the cluster's structure of multiple projects over several years, no evidence was found of feedback being provided in project design from lessons learned on prior projects. The lack of coordination also takes the form of recurrent items that could have been funded once and then passed on to other projects (manuals, teaching materials, etc.).

3.52 **But even so, some degree of interaction was observed on project execution**. Responses to the executing agency surveys showed that 55% of projects sought to tie in with other projects. When the executing agencies identified other operations in the region through other donors (such as GTZ and UNIDO), they did, and do, attempt to work with them on joint activities, generally related to promotion and dissemination components. The environment projects were approved too recently to assess whether they may have a catalytic effect. Significantly, however, the completed projects have shown that environmental practices tend to be discontinued once the project ends. A catalytic effect can be achieved to the extent that the MIF projects have a strong demonstration effect for other institutions to replicate the initiatives.

7. Evaluability

3.53 **This dimension examines whether projects were designed to be evaluated, and their outcomes measured**. This parameter looks at whether effective indicators were selected with baselines, targets and benchmarks, as well as at the monitoring plan and impact evaluation.

3.54 **Project evaluability is generally very poor. The projects had major design limitations, and that weakness carries over into execution and monitoring**. As already noted under the headings of relevance and effectiveness, review of the donors memoranda found weaknesses in indicator design. For example, monitoring indicators are based on activities and products, rather than expected outcomes and impacts, making project performance difficult to evaluate. Additionally, for execution, the PPMRs do not include indicators in the

business firm setting, making it difficult to evaluate project impact and determine whether business operations have changed.

3.55 **Effectively designed indicators can add value to projects by providing businesses with information their management can use as a decision-making tool**. This can be useful for employees, for improving production processes, for insurance companies, for risk assessment, and for the community in determining the costs and benefits of an economic activity. The MIF strategy for the clean production sector states that: "by adopting 'ecoefficient' processes, businesses can reduce their long-term costs, lower their liability, put their assets to better use, produce more with fewer natural resources, improve their competitive position, and expand their profit margins." Yet the clean production projects are the weakest on evaluation, as the following examples illustrate:

- Only two of the eight projects established an effective general indicator.
- Four of the eight projects had effectively designed objectives indicators, two had indicators with targets, and two had baselines.
- MIF budgeted over US$330,000 for 15 individual midterm and final evaluations of projects, but there is no evidence of the MIF planning a joint impact evaluation of the cluster as a whole. However, the MIF has planned a meeting in 2004 to determine lessons learned from the execution of clean production projects.
- Despite the fact that the MIF contracted for all the evaluations, and will continue to do so, neither the terms of reference nor the cost of the evaluations has been standardized, reducing the potential for efficiency and benchmarking.
- In the design of the project logical framework, the proposed objectives and indicators are not uniform. Different means of verification are proposed for the same objectives. For example, an objective of making businesses more competitive has indicators as varied as: (i) "the beneficiaries have improved their competitiveness indicators: efficiency, quality, price, and opportunity" (MIF/AT-463); (ii) "improved economic and environmental performance for participating SMEs" (MIF/AT-303 and MIF/AT-18); (iii) "as of the year 2004, the quality of liquid effluents from industrial facilities with clean production systems meets standards established under Technical Regulation DGNTI/COPANIT 35-20000" (MIF/AT-383); (iv) reduction of at least 10% in the ratio of raw materials and inputs to products, and a 20% reduction in the quantity of waste generated (MIF/AT-517); and (v) "raising SME productivity indices, and improving environmental performance of participating enterprises" (MIF/AT-385).

3.56 **Project evaluability is better for the sustainable markets group**. Five of these eight projects have an effective indicator to measure the general objective, but only four have targets, and none establishes a baseline.

Box 3.11: Cases of low evaluability

MIF/AT-303 "Mentoring model for the implementation of environmental management systems" and MIF/AT-318 "Mentoring model for the implementation of environmental management systems"

As the evaluations of these projects shows, implementation of the final evaluation methodology needs substantial adjustment. The headings used in the evaluations, such as coverage, effectiveness/impact, sustainability, etc., are difficult to evaluate, either because of insufficient data, or the component cannot be properly evaluated in those terms. Additionally, these headings are defined as "indicators," when in reality they are "categories of analysis," making them complicated to apply and not very objective.

Quantitative indicators used to evaluate this project included the number of SMEs participating at project end with respect to a baseline of the number of MSMEs involved at project start and the number of consultants, whereas qualitative indicators were used to assess improvement in the relationship between large companies and SMEs

Generally speaking, the semiannual reports, final evaluation, and PPMR are of high quality. Yet there are no performance indicators to track the SMEs' economic and environmental performance. One suggestion would be to add a special section to these reports with the findings of monitoring such indicators.

Box 3.12: Case of an effective degree of evaluability

MIF/AT-293 "Deployment of business models for renewable energy"

The project used indicators to assess the component execution, fulfillment of objectives, and the monitoring of project progress. In the first instance, for the business model implementation component, implementation itself is used as an indicator. The indicators for the revolving fund component are the number of loans made and the percent of loans recovered. For the implementation of an information system, the information dissemination and feedback system itself was used a circular indicator. However, indicators of the efficiency and effectiveness of the models were used for the business model, revolving fund, and dissemination of outcomes component, along with other factors related to their success.

Indicators to evaluate fulfillment of objectives included the number of people and households supplied with energy; reduction in consumption from nonrenewable energy sources; number of private sector companies participating in the renewable energy market and the number of new businesses started; the number of new energy facilities; the number of people involved in the new activities and income generation; the percent of loans made to energy businesses and the percent of loans recovered; production of the pilot business plan.

3.57 As already noted, midterm and final evaluations have had to deal with weaknesses in indicator design. This vagueness has carried over into the evaluation reports contracted with project funds. See Box 3.13 for an example.

Box 3.13: Consequences of evaluability problems

"Quantifiable impact indicators can be very useful for IDB programs. A project's logical framework and impact indicators guide project execution and provide a point of reference for evaluation. As such, the indicators in the logical framework must so specific as to leave no doubt as to their interpretation" (Final evalution, MIF/AT-218 "New organic fruit and vegetable microenterprises," page 39, para. 8.12, May 2000). The general objective in the logical framework of the CADENA program was to 'increase the level of efficiency, quality, and competitiveness among SMEs in Peru through the economic and environmental performance of the participating SMEs.'

This objective, as its highly generic formulation might suggest, was evaluated on the basis of data provided by the executing agency and personal interviews by the consultant" (Midterm evaluation, MIF/AT-318 "Mentoring model for the implementation of environmental management systems," page 26, February 2003).

3.58 **There is extensive applied literature on the use of ecoefficiency and environmental impact indicators that could benefit the clean production projects in execution**. Some can be evaluated in monetary terms and others used for reference, but all are ecoefficiency tools for measuring environmental efficiency, especially in large organizations, although they can be adapted easily for SMEs. They include ecobalance, ecoefficiency indicators, and benchmarking.[35] The World Business Council for Sustainable Development (WBCSD) has developed a series of indicators for measuring the savings achieved through ecoefficiency, and an information gathering method and benchmarks for projects of this kind. According to the WBCSD, there is a practical series of indicators for monitoring any industry. However, projects targeting specific niches should incorporate additional indicators that reflect the specific features of each industry.

3.59 **Lastly, no impact evaluations have been done for any of the projects, because most are incomplete**. Evaluation of current and future projects requires substantial strengthening.

[35] The **ecobalance** is used to identify the inflows and outflows of energy, raw materials, products, waste for a specific process over a given length of time, as a form of environmental accounting. The **ecoefficiency** indicators developed by the WBCSD help businesses account for progress toward economic and environmental sustainability. Benchmarking is a tool used to compare and measure products and services, processes, functions, performance, and strategies in relation to more competitive businesses that are leaders in the field.

IV. FINDINGS AND OPPORTUNITIES

A. Summary of evaluation and findings

4.1 **Eight of the environment projects analyzed focused on sustainable markets,** covering the following areas: ecotourism, organic production, sustainable forestation, developing alternative energy sources, fair trade, and biodiversity. The operations reflected new market trends, but were implemented in an isolated manner without interproject coordination or monitoring, and without connecting participating SMEs with larger companies or international markets to guarantee outlets for their products and services.

4.2 **Eight other projects focused on cleaner production processes and environmental management systems**. These projects are facing constraints in translating savings from cleaner production into measurable benefits, to stimulate demand among SMEs. They did not assess the needs of the target sectors or participating SMEs, nor were the SMEs integrated with larger companies that would encourage them to adopt cleaner production processes. **Only a couple of projects address institutional strengthening of the environmental authority (Chile and Panama)**, each using different mechanisms. This seems to point to a lack of understanding of the relationship between promoting cleaner production and implementing environmental management systems, on the one hand, and necessary environmental regulation and oversight, on the other.

4.3 In terms of the seven evaluation dimensions, the **relevance** of environment projects was affected by the fact that needs had not been diagnosed nor specific market niches identified. Yet the operations did reflect recent market trends and concerns, and therefore were highly **innovative**. Many introduced new concepts, products, and services in national and regional settings. There were also innovations at the institutional level, linking the public sector, private sector, and academia. Nonetheless, the challenge was to internalize the innovations, generate sustainable markets, and produce a demonstration effect based on the pilot projects. Although this is a relatively young portfolio, project **effectiveness** was reduced because the objectives were too vague. While the projects did identify the risks associated with generating a market, project design did not strategically link business opportunities to the new products and services developed.

4.4 Given the executing agencies' limited experience and familiarity with Bank procedures, and the delays this has caused, the **efficiency** of the executing agencies in managing projects has arguably been relatively low. The absence of standardized criteria and uniform processes for selecting executing agencies, as well as limited institutional and financial analysis of partners, has resulted in low levels of **sustainability** for the products and services provided through environment projects. MIF financial and conceptual **additionality** has been important in advancing some

items on the environmental agenda, particularly those related to the private sector. However, the MIF has not applied the lessons learned from past experience to the design of new projects. Lastly, project **evaluation** needs to be strengthened significantly and monitored. Clear, measurable indicators must be established, and industry benchmarks incorporated.

B. Opportunities

4.5 The evaluation identified the following opportunities for projects of this kind:

- **Strengthen environmental regulations**. Since the environmental authorities and regulations are relatively new, the MIF could have played a major role in adapting them to private sector development. Environment projects could contain a component that analyzes existing regulations, to potentially help the authorities improve and adapt them to SMEs. In some cases, existing regulations may provide no environmental benefits while at the same time hampering productivity. The SME sector tends to be the hardest hit by inappropriate regulations, since SMEs do not have the same capacity as large firms to interact with regulators. Moreover, during MIF project assessment and preparation, the project teams and consultants obtain important information on regulations and their applicability to the private sector, and particularly to SMEs. Agreements could therefore be structured for joint government/business projects, enabling government to optimize its compliance-monitoring resources, and businesses to get into compliance while boosting business productivity.

- **Change the demonstration approach**. The MIF's current demonstration approach should be turned around. In the case of cleaner production and environmental management systems, for example, each new operation could begin by disseminating pilot demonstration cases that have already been completed. An approach that clearly pre-establishes that certain actions are profitable could provide a major boost to recruitment of participants by building confidence and willingness to invest. At present, participants generally join projects either because of the subsidies or because they are prompted to do so by the authorities' oversight activities. Efforts must therefore be concentrated on projects that already have, as a starting point, a base of companies that could serve as pilot demonstration cases, which increases the chances of success and lessens the likelihood that ecoefficiency aspects will be jeopardized by poor implementation. This would greatly enhance the demonstration effect of MIF projects, inasmuch as the experiences are standardized, properly documented, and disseminated to the network of key business development institutions that were or are in place in other MIF programs.

- **Carry out integrated projects involving SMEs and larger companies, informing the growing interest in corporate social responsibility (CSR)**. Medium-sized (or large) companies in "buyer-supplier" relationships with SMEs could constructively be incorporated into projects, paving the way for model supplier-development arrangements that the larger companies could easily replicate in the region. The basic reasons for this are twofold: first, the larger companies' financial contribution would help raise the level of their suppliers, and, second, because it offers a way of ensuring that a market exists and improvements translate into price. Pilot or demonstration projects require a strong commitment to their success. Project must include, ex ante, elements to guarantee there is a market for the new products and services offered. This would provide more opportunities for leveraging the outcomes of pilot projects and achieving a demonstration effect. Such opportunities exist within the Bank Group's private-sector development activities, such as the supply chain lines of financing being promoted by the IIC, the Nestlé case described in Chapter I, and regional tourism development projects.

- **Strengthen the relationship between the IDB and the MIF on environmental issues**. Related to the previous point, one area of possible synergies provided for in the Bank Environment Strategy's work plan approved in August 2003 (document GN-2208-4) is the development of systems to coordinate the environment activities of the Bank and the private sector windows (MIF, IIC, and PRI). One possible avenue of complementarity is for the MIF to be involved in developing novel pilot ventures that, once tested on a small scale, could then be rolled out through larger Bank monitoring operations or replicated in other countries in the region. For example, once alternative energy sources or new environmental certification mechanisms acceptable to prominent international buyers have been developed and proven in a "MIF laboratory" phase, they could be expanded to the Bank's main lines of activity. No such synergies were developed or cultivated in the projects evaluated. It will take special effort to identify such opportunities and understand the respective roles and the advantages of implementing this vision.

- **Support certification processes**. Modern environmental management requires formal systems of administration, particularly in a context of heightened productivity and competitiveness. Just as ISO 14001 has positioned itself in relation to environmental management systems, other standards could be supported to foster and complement environmentally sustainable processes that, in practice, have already been developed (e.g. MIF/AT-451, which is helping companies implement the Euro-Retailer Produce Working Group Good Agricultural Practices (EUREPGAP).

- **Integrate cleaner production programs with CSR programs.** The new line of projects the MIF has begun supporting in the area of corporate social

responsibility must be integrated with cleaner production projects, particularly in those countries with more than one project, so as to promote the concept of ecoefficiency. This is mainly because social responsibility standards will have to address workers' rights, such as fair employment practices and occupational health and safety. Other certification mechanisms that have emerged in such areas as organic production and ecotourism could also be further developed.

- **Bring companies in line with trade integration processes**. Companies in the countries of the region very much need to be able to meet the formal or de facto requirements of international markets and large retail chains. This will be even more true as integration and trade agreements develop, potentially raising even greater challenges in this area. Support for the region's SMEs may be key to achieving the benefits anticipated from larger markets. The MIF could explore promoting initiatives to support mechanisms that help SMEs understand the requirements and main certification options under existing trade agreements, such as the North American Free Trade Agreement (NAFTA), the Caribbean Community (CARICOM), and the MERCOSUR-European Union agreement.