

STRENGTHENING ENVIRONMENTAL REGULATION AND COMPLIANCE

(TC-94-10-15)

EXECUTIVE SUMMARY

EXECUTING AGENCY: Comisión Nacional del Medio Ambiente (CONAMA) and Consortium of Private Sector Training Providers

RECIPIENTS: CONAMA, private sector training institutions, regulated industries

OBJECTIVES: The general objective of this project is the strengthening of public and private sectors in the promotion of environmental regulation and compliance. The specific objectives of the project are: (a) development of a public and private sector human resource program oriented to establishing the compliance capacity of firms; and (b) support of the technical human resource capability of CONAMA to perform its coordinating function.

DESCRIPTION: The proposed project would work with both the public and private sectors to ensure the efficient implementation and sustainability of the new environmental protection regulations in Chile. An important element of the project is the integration of the private and public activities in environmental compliance.

The project will consist of the two components: (a) Human Resource Program; and (b) Technical Advisory Services to CONAMA. Component A would develop the needed expertise in Chile to support nationally appropriate criteria and standards and establish environmental norms for the different industrial sectors. Component B would strengthen the managerial capability of CONAMA as well as its scientific technical capacity in selected areas, through the provision of technical assistance.

FINANCING:	Modality:	Grant
	Local Counterpart:	US\$ 230,000
	MIF:	US\$1,902,500
	Total:	US\$2,132,500

IMPLEMENTATION	Execution Period: 15 months
SCHEDULE:	Disbursement Period: 17 months

Executive Summary

Page 2 of 2

**ENVIRONMENTAL
CLASSIFICATION:**

The Environmental Committee classified this as a
Category II operation.

I. COUNTRY ELIGIBILITY

- 1.1 Chile was declared eligible for all modalities of financing under the MIF by the Donors Committee on October 6, 1993.

II. BACKGROUND

A. General Framework

- 2.1 Over the past decade, Chile has developed a stable and market-oriented economy with an average growth rate of 5 percent per year, making it the fastest growing country in Latin America. This rapid growth, however, has been accompanied by serious environmental problems. Air polluted with sulfur dioxide and heavy metals and water polluted with industrial and municipal waste are beginning to impose important health and productivity costs on society.
- 2.2 The effects of highly polluting technologies have been aggravated by the proximity of many industrial facilities to the urban areas clustered in the country's central region, which contains more than 80 percent of the country's population. The Santiago metropolitan area, located in an enclosed valley in the center region and with an altitude of just over 1,700 feet, is considered the second most polluted city in Latin America after Mexico City. Its severe water, sewage and air pollution problems result from a combination of industrial and mobile sources, and are aggravated by its geography.
- 2.3 The principal problems in the rural areas are the loss of fertile soils caused by water and wind erosion, the pollution of soil and water and the degradation associated with mineral and resource extraction related to the mining sector. Although the mining activity is site-specific, its environmental impact is enormous and far-reaching.

B. Environmental Regulation

- 2.4 The environmental problems brought on by increased production were multiplied by the failure to develop a consistent environmental policy. Prior to 1994, environmental legislation in Chile consisted of about 2,000 separate environmental laws, some dating back to the colonial period, which were at times contradictory and impractical to enforce. Although environmental commissions such as the Environmental Legislation Commission (COLMA) and the National Ecological Commission (CONADE) were created in the 1980s, they lacked the political support and resources necessary to take on a role as an environmental protection body.

- 2.5 Since 1990, Chile has engaged in an increasingly open debate about the degradation of the environment. This process culminated in March 1994 with the enactment of the Environmental Framework Law (EFL), now the basic legislative instrument for environmental protection in Chile.
- 2.6 The EFL is based on the principle of sustainable development and includes three important concepts: (a) a citizen's right to a clean environment; (b) the requirement of environmental impact assessments (EIAs) prior to any project development; (c) the "polluter pays" principle of responsibility for environmental damage and repair. It is the first integrated national environmental legislation with a strong EIA component, although standards and regulations pursuant to the new EFL are still to be developed.
- 2.7 The EFL created the Comisión Nacional del Medio Ambiente (CONAMA) and established its authority as the coordinating environmental protection agency of Chile. CONAMA is presided by the Ministry of the General Secretariat of the Presidency, and includes ten ministers of relevant ministries. Its role is to review and consolidate existing environmental standards and regulations, and provide technical and policy guidance related to environmental legislation.
- 2.8 In the early stages of its operation, CONAMA is already experiencing institutional and informational difficulties. Because several ministries share the responsibility for monitoring environmental matters in their respective sectors, there is a lack of clear institutional responsibility for pollution control and little capacity for coherent or coordinated national policy-making, norms, monitoring, and enforcement.
- 2.9 Furthermore, analysis and risk assessment have been hampered by a lack of information. The initial debate and definition of actions has centered around the most visible sources of contamination--problems associated with sulfur dioxide and arsenic contamination at smelter sites. While tackling "hot spots" first is a reasonable response, this approach has provided only a limited forum for debate about an overall strategy.
- 2.10 The rapid buildup in its institutional infrastructure notwithstanding, CONAMA still lacks the managerial capability to absorb information from all the initiatives taking place, and to carry out the complex policy decision-making process. These difficulties have led CONAMA to identify specific needs in its institutional strengthening. These needs are related to CONAMA's day-to-day managerial capability as well as specific technical expertise in priority areas.

C. Private Sector Environmental Compliance

- 2.11 The private sector in Chile is prepared to assume a more active role in promoting a more sustainable economic future. An appropriate sustainable development model for Chile requires the integration of the private sector into the public regulatory process to ensure the development of market-based approaches to environmental protection and management.
- 2.12 Within the context of a sustainable approach to environmental controls, it is important to set realistic objectives and to incorporate the concerns of the industrial sector regarding potential costs of environmental management as compared to the benefits of the proposed action.
- 2.13 Strengthening the capacity of private sector entities to manage and implement environmental policies, strategies, and plans is essential if Chile is to create a partnership between the public sector, the regulated industry, and the affected community. There is an urgent need in Chile to improve the availability of trained environmental professionals and to improve the capacity of the private training institutions to systematically and independently analyze environmental problems.
- 2.14 Dissemination of information, environmental education, and specialized training are important human resource activities to promote the capacity of the private sector to comply with new environmental standards. The wide range of education and business organizations, including universities, consulting firms, community organizations and private sector industry organizations, will play an important institutional role in the promotion of this compliance capacity.

III. THE PROJECT

A. General Description and Objectives

- 3.1 The proposed project would work with both the public and private sectors to ensure the efficient implementation and sustainability of the new environmental protection regulations in Chile. The general objective of this project is the strengthening of public and private sectors in the promotion of environmental regulation and compliance.
- 3.2 The specific objectives of the project are: (a) development of a public and private sector human resource program oriented to establishing the compliance capacity of firms; and (b) support of the technical human resource capability of CONAMA to perform its coordinating function.

B. Components

- 3.3 The project will consist of the two components: (a) Human Resource Program; and (b) Technical Advisory Services to CONAMA.

1. Component A: Human Resources Program

- 3.4 The primary objective of this component is to develop, through private sector training institutions, the needed expertise in Chile to support nationally appropriate criteria and standards and establish environmental norms for the different industrial sectors.
- 3.5 This component would support activities which would contribute to the creation of a sustainable environmental mechanism such as: (a) development of training curricula and accompanying training manuals; (b) development of industry diagnostics to support appropriate norms and standards; (c) development of implementation plans for mitigation of existing pollution sources; (d) development of environmental procedures and production methodologies to promote sustainable development; and (e) development and implementation of a training needs assessment to compliment the compliance and standards goals.
- 3.6 The component would be comprised of the following three distinct but complimentary areas of activities:
- 3.7 (a) Training of Environmental Regulators - This will involve the training of CONAMA staff and other Government officials responsible for the Chilean regulatory and enforcement system on technical solutions to priority environmental problems, based on the concepts of risk assessment and risk management. Special focus will be given to promoting a balanced approach between environmental goals and imposing overly stringent requirements too early in the life of the program. Existing educational and training institutions will be incorporated into the process from its inception in order to ensure the involvement of the regulated community and other interested parties.
- 3.8 (b) Environmental Education Program - The project would develop an environmental education program, using a Data Resources Management System at CONAMA in conjunction with the existing structure of mostly private education and training institutions to disseminate environmental information through a network of community and industry associations to promote the compliance to specific standards. Such a program will support environmental education for the general public outside the formal education system. The institutionalization of an environmental education system is essential to raising public awareness about the social and economic implications of air pollution, river poisoning, land degradation, and deforestation.
- 3.9 The expected achievements of this subprogram are: (a) identify, prioritize and consolidate environmental data bases already

available in Chile; (b) identify and prioritize existing foreign environmental data bases and purchase same; (c) develop a strategy and establish a system for disseminating the information to public and private sector users; and (d) establish linkages to ensure coordination between the data gathered and the various key relevant sectors.

- 3.10 This program would include the development of teaching and audio-visual material, including the production and distribution of printed material, brochures, books, and videos to be used by NGOs, cultural associations, community groups, and other private institutions. As part of this program, public relations and environmental experts would be recruited to design the promotion campaign and develop hands-on materials.
- 3.11 (c) Technical Assistance for Curriculum Development - The project would provide technical assistance to private training institutions to meet the demand of private sector industry for courses which will assist them in implementing cost effective programs which comply with environmental standards. The curriculum to be developed will focus on short term courses aimed at executives and will include topics such as pollution prevention, principles of environmental management, environmental auditing, and waste minimization.
- 3.12 In order to ensure that the curriculum developed under this subcomponent meet the current demand of the private sector, the technical assistance would be awarded through a competitive bidding process managed by CONAMA. Organizations which would participate in the bids could include local universities, private training institutions, and industry associations. The bidding documents would be prepared during the first two months of project execution by a contracts specialist to be appointed as part of CONAMA's executing unit for this project and a short term technical consultant.
- 3.13 Bidders would be given the basic parameters of the program, including available budget (estimated at \$100,000 per site) and would need to present proposals comprised of institutional statements, current related curriculum offered by the institutions, proposed curriculum to be developed, field and qualifications of faculty to be trained (i.e. engineering, environmental science, etc). Bids will be awarded to provide for a variety of sites and courses. Cost-sharing (as explained in section 3.17) will be requested of all participating institutions. The technical assistance would be provided by technical experts, likely from universities or training institutions which have a well established curriculum in the areas which the bidders want to develop. Curriculum development and training of trainers would be implemented over approximately 6 weeks at each site, with some follow-up consultant time to review progress and modify curriculum as needed.

- 3.14 As a requirement of the award, the participating institutions would agree to form a consortium in order to share information and experiences and disseminate information jointly on the program. The establishment of this consortium is expected to serve as an important first step in the development of a permanent dialog among training providers, industry, and the public sector on compliance issues.

2. Component B: Technical advisory services to CONAMA.

- 3.15 As the institution responsible for guiding the environmental units of key ministries and for setting norms and standards for the regulated community, CONAMA needs to develop the technical capacity to set quality standards and scrutinize the compliance of regulated institutions.
- 3.16 The specific objective of this component is to strengthen the managerial capability of CONAMA and to strengthen its scientific, technical capacity in selected areas through the provision of technical advisory services. The component will immediately enhance CONAMA's managerial capability as well as generate the following expected achievements in the selected areas: (a) design of practical and coherent environmental standards in key sectoral areas; (b) design and implementation of a strategic environmental plan for five key regions, including Santiago; and (c) development of a viable environmental health unit, with basic skills in exposure assessment, environmental epidemiology, and health risk assessment within CONAMA.
- 3.17 In order to accomplish the specific objectives of the component, MIF resources would be used to finance:
- (a) Coordination and managerial strengthening - Recruitment of a medium-term international consultant with hands-on experience in environmental protection agency management to work side-by-side with CONAMA managers and technical staff during this initial phase. This consultant will act as the project coordinator to support CONAMA managers in designing, coordinating and implementing national environmental policies. The coordination role would include the supervision of the short-term consultants as well as the design and implementation of both the training component and the enhancement of the information system component. An overhead was included for this component since this service would be provided by a firm or a specialized institution.
 - (b) Short-term technical advise on three selected areas:
 - (i) Recruitment of international and local short-term consultants with expertise in legal and regulatory frameworks for the environment to help design and

implement a strategy for the review and modification of the existing body of environmental legislation and regulation.

- (ii) Recruitment of experts to assist in the design and implementation of strategic environmental plans for five priority regions, including Santiago. The new strategic plan will enable the Comisiones Regionales del Medio Ambiente (COREMAS) to perform more efficiently their roles as coordinators in their regions.
- (iii) Recruitment of international and local experts with expertise in exposure assessment, environmental epidemiology and health risk assessment to support the development of a basic environmental health unit within CONAMA (in collaboration with other relevant ministries). The development of this unit is essential in the development of national pollution control strategies and the implementation of strategic environmental plans.

C. Cost and Financing

- 3.18 The total project cost is estimated at US\$2,132,500, of which MIF would finance US\$1,902,500 and the local counterpart contribution would finance US\$230,000. CONAMA will provide the office space and some of the logistical administrative support required by the project. The training providers which are awarded technical assistance contracts for the curriculum development component will cover the per diem of consultants and provide logistical support including office space, classrooms, etc. The table below presents a summary of the project budget. A detailed breakdown of the MIF contribution is presented in Annex A.

SUMMARY BUDGET (US\$)

	MIF	Counterpart
Component A	845,000	80,000
Component B	736,000	50,000
Administration	136,500	100,000
Contingencies	125,000	
Evaluation	60,000	
TOTAL	1,902,500	230,000

D. Organization and execution

- 3.19 The executing agency for the project is CONAMA. Program resources will finance an international consultant who would act as Coordinator to assure efficient program implementation. This international consultant, who will be contracted according to Bank and CONAMA procedures, will work alongside CONAMA to ensure the transfer of the program after completion of the project.
- 3.20 Within CONAMA, a special executing unit with sole responsibility for execution of this project will be established. The staff of that unit would include the local coordinator; a contracts specialist responsible for overseeing the bidding procedures and managing the contracts with the private sector training providers for curriculum development; a technical professional responsible for ensuring the technical integrity of the project particularly supervising the quality of the curriculum development consultants; a financial officer responsible for managing the project budget and maintaining financial records as required by the Bank; and an executive secretary. The terms of reference for each staff member would be included, for approval of the Bank, in the Plan of Operations.

E. Disbursement

- 3.21 Disbursements of the resources of the grant would be made in accordance with standard Bank procedures. An advance of funds equivalent to 10 percent of the Bank's contribution would be provided to the executing agency upon compliance with the conditions listed below. This advance would be considered a disbursement of funds and may be replenished at the request of the executing agency, once the previous amount has been justified to the satisfaction of the Bank.
- 3.22 As a condition prior to first disbursement, CONAMA will present a plan of operations detailing the implementation schedule of the program activities and terms of reference for the staff of the executing agency and the consultants.
- 3.23 Sixty days following the first disbursement, the executing agency would submit, for the approval of the Bank, project monitoring indicators and the bidding documents for the curriculum development component.

F. Monitoring and Supervision

- 3.24 The monitoring of the program will require the preparation of two reports. The first after 6 months of program implementation and a project completion report at the end of the 15 month period. The first report that CONAMA would present must include a review of the first 6 months of the program as well as recommendations for improving its implementation and should also include the barriers

identified, the proposal of legal modifications and a schedule for implementation of said reforms. The report will also propose modifications in any of the subprograms if necessary and recommend for Bank approval the corresponding reallocation of resources among budget items. CONAMA's final report will also include recommendations for the consolidation of the institutional strengthening process and the modifications implemented and a timetable for the implementation of pending modifications.

IV. COMPLIANCE WITH PROJECT ELIGIBILITY

General Criteria for Project Eligibility

- 4.1 The national environmental program of the Government of Chile, and MIF financing for the strengthening of the national commission on the environment (CONAMA) is fully consistent with the general purpose of the MIF which are to increase private investment and expand private sector activity and to promote in the full range of its operations environmentally sound and sustainable economic development.

Facility Criteria for Project Eligibility

- 4.2 The project is also consistent with the criteria for financing under the Human Resources Facility, Article 3, Section 3 of the MIF Agreement, which establishes, among other criteria, that financing shall be provided for the training of professionals who are considered important to the development of the local economy, through strengthening the scientific, technical and managerial capabilities of the human resource base, and for the strengthening of training institutions which would serve to train workers and managers. In addition, the institutional strengthening of CONAMA will have a positive impact in the region in that the experience that would be accumulated through this project will facilitate the execution of similar projects, and that the reforms being adopted in Chile could have demonstration effects in the region.

V. CONSISTENCY WITH THE BANK'S COUNTRY PROGRAM

- 5.1 To support the establishment of an appropriate institutional framework to ensure the consistency of private investments with environment protection is part of the IDB's country program to Chile.

VI. AVAILABILITY OF MIF RESOURCES

- 6.1 Funding Modality - The project is expected to be financed through a grant based on the following points: (i) Chile was declared eligible for all modalities of financing under the MIF by the Donors Committee on October 6, 1993; (ii) The compliance of Chile with the criteria of eligibility for obtaining grant resources at the country level (Article 3, Section 5b of the MIF Agreement) is detailed in the Eligibility Memorandum of the country; (iii) The proposed project will have an important catalytic impact on the flow of investment funds as required by Article 3 Section 5 (a) of the MIF Agreement as long as its objective is to create an appropriate institutional framework for environment protection that will enable the expansion of private investments. The validity of these criteria was confirmed in a meeting of the Donors Committee on March 30, 1994 (MIF/GN-23).

VII. EVALUATION

- 7.1 The Bank will recruit a specialized firm to conduct the evaluation of the project. The firm would be contracted within the first two months of project execution. The firm would develop the monitoring and evaluation indicators which should be collected throughout project execution and would establish a monitoring system to be implemented by the executing agency.
- 7.2 Two evaluation reports will be issued. The first will be a mid-term evaluation 6 months into project execution. This mid-term evaluation will allow the Bank to identify any problems with project execution and modify the project as needed. The second evaluation will be an ex-post evaluation 6 months after completion of the project execution.

DETAILED BUDGET

Component A Human Resources Program

1. Training of Environmental Regulators

(a) Training Consultants	90,000	
(b) Consultants: Pollution Prevention & Industrial Pollution	20,000	
(c) Consultants for Wastewater Treatment Technology	20,000	
(d) Consultants for Information Systems Management	30,000	
(e) Consultants for Municipal Solid Waste Training	30,000	
(f) Travel & per diem	40,000	
Sub total (1)		230,000

2. Environmental Education Campaign

(a) Consultants to design and implement Data Resources Management Program	120,000	
(b) Dissemination (media spots, audio-visual materials, etc)	80,000	
Subtotal (2)		200,000

3. TA for Curriculum Development

(a) Short term consultant to prepare bid documents	15,000	
(b) Four sites at \$100,000 each	400,000	
Subtotal (3)		415,000
Subtotal Component A		845,000

Component B Technical Advisory Services

(a) Coordination - International consultant	300,000	
(b) Short-term consultants:		
Experts on legal and regulatory frameworks for environment protection	158,000	
Consultants for Strategic plan for five priority regions	174,000	
Experts to develop environmental health unit	104,000	
Subtotal Component B		736,000

Administration

(a) Local Project Coordinator (\$2500/mo @ 15 months)	37,500
(b) Contracts Specialist (\$2,000/mo @ 15 months)	30,000
(c) Technical Professional (\$1800/mo @ 15 months)	27,000
(d) Executive Secretary (\$800.mo. @ 15 months)	12,000
(e) Financial Officer (\$2000/mo @ 15 months)	30,000

Subtotal Administration	136,500
--------------------------------	----------------

Evaluation	60,000
-------------------	---------------

Contingencies	125,000
----------------------	----------------

TOTAL MIF CONTRIBUTION	1,902,500
-------------------------------	------------------

BUDGET COMPARISON

	ORIGINAL DEC. 1994	REVISED PROPOSAL	
	CONAMA	CONAMA	PRIVATE SECTOR
COMPONENT A			
1. Training Env. Regulators ¹	230,000	230,000	
2. Env. Education Campaign ²	120,000	200,000	
3. TA for Curriculum Development			415,000
Component B ³			
1. Coordination	300,000	300,000	
2. Short Term Consultants	436,000	436,000	
Administration		65,000	71,500
Evaluation		30,000	30,000
Contingencies	108,600	125,000	
TOTAL	1,194,600	1,386,000	516,500

¹ This is the Human Resources Development and Training (Component II) of the original project.

² The Environmental Education Campaign is an expanded version of the Data Resources Management (Component III) of the original proposal.

³ Component B is the Technical Advisory Services (Component I) of the original project.

PROPOSED RESOLUTION

CHILE. TECHNICAL COOPERATION FOR THE STRENGTHENING OF ENVIRONMENTAL
REGULATIONS AND COMPLIANCE

The Donors Committee of the Multilateral Investment Fund

RESOLVES:

1. That the President of the Inter-American Development Bank, or such representative as he shall designate, is authorized, on behalf of Multilateral Investment Fund, to enter into such agreements as may be necessary with the Republic of Chile and to adopt such other measures as may be pertinent for the execution of the plan of operations referred to in Document MIF/AT-_____, with respect to a technical cooperation, the purpose of which is the strengthening of environmental regulations and their compliance.

2. That up to the amount of US\$1.902.500 is authorized for the purpose of this resolution, chargeable to the Human Resources Facility of the Multilateral Investment Fund.

3. That the above mentioned sum is to be provided on a non-reimbursable basis.