

ENVIRONMENTAL MANAGEMENT INSTRUMENTS AND PARTNERSHIP WITH INDUSTRY FOR CLEAN PRODUCTION

(TC-99-11-03-5-PN)

EXECUTIVE SUMMARY

Executing agencies: National Private Enterprise Council (CONEP) and National Environmental Agency (ANAM)

Beneficiaries: The beneficiaries are as follows: (i) 40 small and medium-sized industrial enterprises (SMEs) benefiting from improved competitiveness and environmental performance; (ii) 600 individuals and 300 enterprises, to be trained in the introduction of clean production processes; (iii) 14 SMEs, through in-plant environmental management initiatives; (iv) CONEP, by strengthening its technical and other resources, expanding its sphere of action and capacity to manage clean production systems (CPS); (v) the Government of Panama and ANAM, by furnishing them with instruments creating incentives to comply with the provisions of the General Environment Act and ensuing regulations; and (vi) the general public, by reducing pollution.

Financing:

Modality:	
MIF:	US\$1,213,000
Facility I:	US\$400,880
Facility II:	US\$812,120
Local counterpart	
(ANAM/CONEP):	US\$ 519,800
Total:	US\$1,732,800

Objectives: The general objective is to help improve the competitiveness of SMEs through the development and implementation of environmental management instruments.

The specific objectives are to: (i) develop environmental management instruments; and (ii) help strengthen supply and stimulate demand for CPS-related services.

Description: The project has been divided into the following three components: (i) regulatory framework; (ii) quality and environmental management in industry; and (iii) institutional strengthening and information dissemination.

Component I. Regulatory framework

This component provides for the development of environmental management instruments helping to promote clean production systems through regulations envisaged in the General Environment Act and other regulations which, while not expressly contemplated, are required in the industrial sector. The focus is on proposed regulations, standards and procedures given highest priority based on consultations with the private sector and ANAM.

Component II. Quality and environmental management in industry

This component provides for promotional and training efforts to strengthen supply and demand for clean production systems, as well as the introduction and demonstration of clean production systems, working directly with small- and medium-sized enterprises.

Component III. Institutional strengthening and information dissemination

This component will endeavor to strengthen the operational units in ANAM and CONEP that will be responsible for disseminating information on the results of the project, particularly those lending themselves to replication by other SMEs through the use of case studies.

Execution timetable:	Execution period:	48 months
	Disbursement period:	52 months

Environmental and social review: This project will have a positive environmental impact. It is designed to provide support for SMEs in the introduction and use of environmental management instruments that will improve their competitiveness. The Committee on Environment and Social Impact reviewed and approved the project abstract on 18 August 2000, and made specific recommendations which are reflected in the document.

**Special
contractual
clauses:**

Conditions precedent to the first disbursement: (i) evidence of a signed agreement between ANAM and CONEP establishing the obligations of both parties for project execution purposes; (ii) selection of the two coordinators for the CONEP and ANAM units based on Bank-approved terms of reference; (iii) presentation of a work plan and disbursement timetable, to the Bank's satisfaction, for the first six months of execution; and (iv) evidence of an agreement on technical standards and regulations, signed by ANAM-MICI and COPANIT.

**Exceptions to
Bank policy:**

None.

I. COUNTRY AND PROJECT ELIGIBILITY

- 1.1 The 9 February 1995 meeting of the Donors Committee declared Panama eligible for all MIF financing facilities. The project objective is consistent with the strategies and objectives of both the Technical Cooperation Facility (Facility I) and the Human Resources Facility (Facility II). The proposed project is consistent with the Bank's country strategy, as well as with the MIF environmental strategy formulated last year, which recognizes clean production as a valuable tool for strengthening the competitiveness of SMEs.

II. BACKGROUND

A. Legal and institutional framework in the environmental area

- 2.1 The government enacted Law 41, known as the General Environment Act, establishing a national environmental policy and creating the Autoridad Nacional del Ambiente (ANAM) [National Environmental Agency] in July 1998 as the product of a participatory, consultative process. ANAM proceeded to formulate a National Environmental Strategy (ENA) for the establishment of a single, agreed, consistent policy and action framework for systematically addressing the country's environmental problems. The national environmental strategy was crafted as part of a consultation process involving all stakeholders in environmental management, with active participation by private industry.
- 2.2 ANAM mounted a National Environmental Program (PAN) with financial assistance from the Bank. The program finances activities contemplated under the National Environmental Strategy, giving priority to the framing of regulations under Law 41 and to spending on environmental management and conservation initiatives, but fails to involve and formally engage industry in environmental management efforts. The Bank weighed the importance of strengthening partnerships between the public and private sectors to support and reinforce environmental management efforts in the private sector.

B. Profile of Panamanian industry

- 2.3 The industrial sector plays an active role in the country's economy, generating nearly 85% of the gross domestic product (GDP). Its share of GDP (US\$6,082,900) rose steadily over the period from 1993 to 1999 at an average annual rate of 3.5%. As of 1998, 35% of all nationwide employment (43% of nonagricultural employment) was generated by microenterprises and small business (MSEs). This sector employed 331,000 workers in 200,000 establishments. Twenty-five percent of these undertakings are engaged in producing goods for the industrial and construction sectors. Of the country's 25,430 registered enterprises in 1998, 95% had annual billings of less than or equal to US\$1.5 million.

- 2.4 There are some 31 trade associations representing private industry, the largest of which include the Sindicato de Industriales de Panamá [Panamanian Manufacturers' Association] (SIP), the Unión Nacional de Pequeñas y Medianas Empresas [National Association of Small and Medium-sized Enterprises] (UNPYME), the Cámara Minera de Panamá [Panamanian Mining Board] (CAMIPA), and the Asociación Panameña de Exportadores [Panamanian Association of Exporters] (APEX), all of which are members of the umbrella organization known as the Consejo Nacional de la Empresa Privada [National Private Enterprise Council] (CONEP), founded in July 1964.
- 2.5 CONEP has shown an interest in mounting a coordinated effort to address all issues relating to the implementation of Law 41, particularly in the area of clean production, which requires taking measures to strengthen competitiveness and, accordingly, to promote sustainable development at the national level. It is currently assisting in efforts to establish a public/private organization to head up and manage clean production initiatives and working to set up a National Clean Production Center.

C. Challenges to the private sector engendered by the implementation of Law 41

- 2.6 The General Environment Act, Law 41, presents important challenges in terms of implementing regulations, institutional strengthening, and the development of environmental management instruments and clean production systems in furtherance of national environmental policy. To meet these challenges, the government has been implementing the National Environmental Program so as to strengthen ANAM and the interagency environmental system and address other issues relating to regulations, standard setting and approval by the Comisión de Normas Industriales y Técnicas [Technical and Industrial Standards Commission] (COPANIT), an advisory agency attached to the Ministry of Commerce and Industry (MICI). Law 23¹ established COPANIT and included provisions on technical standards, accreditation, quality certification, metrology, and conversion to the international units system.
- 2.7 The implementing regulations for Law 41, issued by ANAM, will need to be coordinated with COPANIT and will require a commitment from industry to comply with corresponding mandates. In addition to the ANAM regulations, progress must be made in developing and consulting on other regulations urgently needed in the industrial sector, particularly in preparing procedural handbooks on environmental quality standards, permissible limits, environmental audits, environmental management and action programs and auditor registration.

¹ The Marrakech Agreement, establishing the World Trade Organization (WTO), and Panama's adherence to that agreement, adapted domestic legislation to international standards.

- 2.8 Law 41 calls for the preparation and implementation of environmental management and action programs to mitigate the adverse environmental effects of existing production facilities. Environmental management and action programs for industry are grounded in the performance of environmental audits designed to assess compliance with new environmental quality standards and should include proposals for voluntary commitments to meet new environmental quality standards. The application of these programs requires putting together a procedural handbook to ensure the application of cost-effectiveness criteria.
- 2.9 Constraints on the use of environmental audits include: (i) a lack of information on the scope of such audits and on their tie-in with environmental management and action programs; (ii) a lack of incentives for production facilities to institute management and auditing systems; (iii) a country-wide shortage of consultants for the performance of such audits; and (iv) a shortage of information on the effects of productive activities. These constraints on the use of environmental audits need to be overcome through training and skills development activities for government officials, users and consultants.
- 2.10 Law 41 sets a three-year deadline from the date of enactment of environmental quality standards for establishing effluents, emissions and environmental impacts from industrial operations, along with an eight-year deadline for making changes in production processes or technologies ensuring compliance with these environmental quality standards. The Act calls for the performance of an environmental assessment of the industrial sector and establishes the need to work with this sector to promote the use of clean production systems.
- 2.11 ANAM is planning to work with the industrial sector on a survey of sources of air and water pollution and solid wastes to develop an information system which can be used by this sector. There is a clear need for workshops on participation and environmental conflict resolution to furnish interested stakeholders with the tools necessary to effectively resolve such conflicts and negotiate on potential conflicts that may arise in the application of standards.
- 2.12 Clean production practices help make production processes more efficient by reducing production costs, as well as waste treatment and disposal costs. Since such practices are a relatively new concept, there is no prior experience in this area that can serve demonstration purposes for the industrial sector. There are no technical assistance or training services relating to clean production practices available anywhere in the country to bolster efforts by industry to meet the challenge presented by the provisions of Law 41. Pilot projects are needed to produce models for demonstration purposes and provide training for workers and consultants through in-plant practical instruction.
- 2.13 In the new global economy, goods and/or services designed for export have built-in certification mechanisms (such as environmental seals of approval and ISO 14000-

based environmental management systems) to ensure their continued marketability or to enable them to command a better price. ISO standard 14000 establishes the building blocks for environmental management systems. Such systems are designed to both strengthen service quality in business and industry and protect human health and the environment. Such procedures need to be encouraged and additional assistance provided to strengthen the Panamanian export sector. Initiatives such as the organization of an ISO 14000 Club will also be used to promote the institution of environmental management systems.

- 2.14 Owners of industrial facilities in Panama have no environmental information system for environmental management agencies and organizations, nor is there a local source of information on clean production systems. ANAM is currently in the process of setting up a national environmental management information system (SINIA), and ANAM's efforts need to be integrated with those required for private industry to provide an information system and web site on issues pertaining to clean production systems and ISO standard 14000, as well as on the execution of this operation.

III. PROJECT OBJECTIVES AND DESCRIPTION

- 3.1 **Project objectives.** The general objective is to help improve the competitiveness of SMEs through the development and implementation of environmental management instruments. The specific objectives are to: (i) develop environmental management instruments; and (ii) help strengthen supply and stimulate demand for CPS-related services.

- 3.2 **Project components.** To achieve of its objectives, the project has been divided into the following three components: (i) regulatory framework; (ii) quality and environmental management in industry; and (iii) institutional strengthening and information dissemination.

1. Component I: Regulatory framework (US\$206,500 in MIF funding and US\$61,000 in local counterpart funding)

- 3.3 The objective of this component is to develop environmental management instruments helping to promote clean production systems through regulations envisaged in Law 41 and other regulations which, while not expressly contemplated, are required in the industrial sector. The focus is on proposed regulations, standards and procedures given highest priority based on consultations with the private sector and ANAM. The following activities will be undertaken as part of this component:
- 3.4 **Procedural handbooks.** The setting of environmental quality standards and permissible limits requires two key instruments to be developed as part of the

proposed project, namely: (i) a handbook on the make-up, induction and operation of technical committees according to the standards requiring regulation; and (ii) a handbook on the make-up, structure and operation of an environmental crisis committee, to deal with critical situations that may arise, such as oil spills, fires, product contamination, etc. These handbooks will be prepared with the support of expert consultants hired for the project.

- 3.5 **Regulations for environmental audits, environmental management and action programs and environmental auditor registration.** This activity will establish the administrative scope and procedure for environmental audits, environmental auditing protocols for air, water, soil, and solid and liquid waste (hazardous and nonhazardous), as well as the scope and minimum content of environmental management and action programs. It also includes the development and distribution of a training plan and manual and corresponding training materials for the conduct of courses on environmental auditing regulations and the establishment of a roster of environmental auditors, spelling out administrative formalities and technical requirements for the official registration of environmental auditors. A parallel undertaking will establish the elements of environmental audits and inspections to be conducted in connection with environmental impact assessments, environmental management and action programs and the enforcement of environmental standards, along with corresponding procedures, and will arrange for the conduct of special courses on environmental conflict resolution.
- 3.6 **Official approval of technical regulations and standards.** The regulations and standards will be approved by means of an agreement between ANAM-MICI and COPANIT under which the latter will give priority to two courses of action with support to be provided through the project: (i) official approval of a number of ISO 14000 series standards; and (ii) endorsement of ANAM-approved quality and emissions standards in the form of technical regulations. Under the agreement, approximately twelve workshops will be conducted with COPANIT and financed by ANAM to address issues such as: (i) the socioeconomic impact of established standards; (ii) procedures for the framing of technical regulations and the official approval of international standards; (iii) eco-labelling and "green" markets; (iv) environmental quality and standards, etc.
- 3.7 **Regulations and promotional activities for the bestowal of environmental awards.** This activity will promote, by means of public recognition, individuals, businesses and industries that have made outstanding achievements in environmental management and clean production through healthy competition, thus spurring other industries to make progress in this area and strive for continuing improvements in their operations, particularly those based on the introduction of clean production systems. An international consultant will be hired to develop a set of regulations governing the bestowal of CPS awards for approval during the course of the first year of project implementation, with the first such awards to be conferred that same year in a ceremony organized by ANAM.

**2. Component II. Quality and environmental management in industry
(US\$626,800 in MIF funding and US\$67,700 in local counterpart funding)**

- 3.8 The objective of this component is to mount promotional and training efforts designed to strengthen supply and stimulate demand for CPS and the installation and demonstration of clean production systems, working directly with SMEs. The following activities are envisioned as part of this component:
- 3.9 **Technical assistance for quality and environmental management in industry.** A total of 30 small and medium-sized enterprises representing the five domestic industries with the greatest environmental impact (galvanoplastics, tanneries, food processing, agribusiness, and slaughterhouses) will be selected on the basis of specific criteria. These criteria include: (i) identification as an SME operating within a priority sector; (ii) demonstrated demand for an audit and the willingness to conduct it; and (iii) willingness to pay a part of the cost of technical assistance. Such enterprises will receive in-plant technical assistance services, with support from expert consultants, based on the performance of 30 environmental audits and monitoring operations, or ten per year. These audits/assessments will be used to: (i) introduce clean production practices in the selected enterprises; (ii) recommend and develop demonstration models to stimulate demand for these types of services within the industrial sector; and (iii) furnish theoretical and practical training in clean production systems to a minimum of 30 employees in each facility. By the fourth year of the project, the following are expected to have been completed: eight seminars/workshops covering at least 400 SMEs, 30 audits/assessments leading to the conduct of awareness-raising and training courses in CPS for at least 900 workers, and at least 10 demonstration projects for presentation at the seminars/workshops.
- 3.10 **Strengthening of the supply of CPS-related services.** In-plant training and skills development courses will be designed and conducted in an endeavor to strengthen the supply of consulting services pertaining to clean production systems. Training courses conducted as part of this activity will focus on: (i) theory and practices for the conduct of audits and environmental management and action programs; (ii) current regulations governing environmental audits and environmental management and action programs; (iii) ISO 14001 environmental management in SMEs; and (iv) clean production systems for SMEs. Four courses will be conducted the first year: two on environmental management audits and two on the implementation of ISO standard 14001, using experienced international facilitators in this area. In year 2, there will be two courses conducted by international facilitators and four courses conducted by local facilitators on environmental auditing, environmental management and action programs, and the implementation of ISO standard 14001. In years 3 and 4, all courses will be conducted by local facilitators. The goal for year 2 of the project period is to have at least 50 registered environmental auditors. The target figure for the end of the project period is 600 such auditors, including consultants, business operators, employees, students,

teachers, etc., having received training in CPS by attending the training courses and seminars.

- 3.11 **Environmental management capacity-building for industry.** An effort will be made to organize an ISO 14000 Club through the Project Technical Advisory Committee (paragraph 4.2), to strengthen and furnish training to 14 SMEs through specific in-plant initiatives. The SMEs will be selected for the introduction of environmental considerations into general business management systems on the basis of their own initiative and technical assistance services furnished as part of the project. The selection criteria include identification as an SME with export capacity expressing a need for the service, and a demonstrated commitment to the project. To this end, the following courses on clean production will be provided with support from expert consultants: four courses on the benefits and techniques of efficient water and energy resource use; four courses on industrial waste management and recycling; and six courses on environmental management instruments and benefits in SMEs. Participating SMEs will be charged for the courses. The goal is to build environmental management capacity in SMEs through in-plant initiatives, to ultimately strengthen the nationwide supply of CPS-related services. There should be at least five successful in-plant initiatives which can be promoted on the CONEP web site by the end of the project period.

3. Component III. Institutional strengthening and information dissemination (US\$277,740 in MIF funding and US\$358,560 in local counterpart funding)

- 3.12 The objective of this component is to strengthen the operational units in both ANAM and CONEP that will be responsible for the dissemination of information on project results, particularly those lending themselves to replication by other SMEs through the use of case studies.
- 3.13 This component will strengthen the ANAM Operations Planning Unit (OPU) to meet needs for the regulation, promotion and coordination of CPS initiatives with the private sector, with emphasis on the publication and dissemination of information on standards and regulations framed as part of the project.
- 3.14 As part of the project implementation process, capacity-building and strengthening efforts in the private sector through the addition of a project executing unit within CONEP should help meet the challenges presented by new environmental requirements with respect to clean production. The highest priority activities in this area include: (i) the development of an environmental information network; (ii) the publication and dissemination of project information; and (iii) evaluation of the feasibility of the National Clean Production Center.
- 3.15 The first activity involves setting up an industrial environmental management information network, on the internet, as part of the National Environmental

Information System (SINIA) with the latest information on the results of all project components, including those headed up by ANAM to promote clean production systems and technology. The second activity involves the publication of information on project results and, more specifically, those lending themselves to replication by other SMEs through the use of case studies, handbooks, guides, etc., including publications on: (i) courses on ISO standard 14001; (ii) results of the 10 CPS demonstration projects; and (iii) recommendations in regard to clean production systems designed to strengthen environmental performance.

- 3.16 The third activity will evaluate the feasibility of a self-sustaining clean production center run by private enterprise. The terms of reference for this study should include five-year forecasts of supply and demand for environmental services and an assessment of the strategy for setting up the center, its organizational structure and functional layout, staffing patterns for recommended positions and sources of funding for clean production projects and corresponding requirements.

IV. EXECUTING AGENCIES AND BENEFICIARIES

- 4.1 **Executing agencies.** Project implementation requires the services of two executing agencies, namely: (i) the National Environmental Agency (ANAM), which will be in charge of implementing the **regulatory framework component** and a number of component III activities, supported by its OPU; and (ii) the National Private Enterprise Council (CONEP), a nonprofit organization representing the entire business sector, which will be in charge of implementing the second project **component on quality and environmental management in industry**, and a number of component III activities backed by a project implementing unit (PIU) to be set up as part of the project.
- 4.2 **Technical project advisory committee.** This committee will bolster the coordination and consolidation of project activities and help build consensus on objectives for the introduction of clean production systems at the national level. The five-member committee will have two representatives from each executing agency and one representative from the academic sector, and its duties will include: (i) assisting in the framing of promotional and information dissemination strategies; (ii) helping to systematize approaches and working methods; (iii) monitoring and evaluating project performance; and (iv) interfacing with other agencies and organizations involved in environmental affairs. This committee should meet at least three times a year to monitor the project. To ensure the coordination of efforts by the executing agencies and their respective operational units, ANAM and CONEP will enter into an agreement containing provisions for the formation of a technical advisory committee.
- 4.3 **Implementing units.** These units will be in charge of implementing their respective project components and activities, submitting reports, and administering project

funding subject to conditions established in conjunction with the Bank. The three-member staff of the CONEP project executing unit (PEU) will include a general unit coordinator, an activities coordinator and a financial manager. ANAM will take part in project implementation through the OPU set up to coordinate National Environmental Program activities (loan 1122/OC-PN), strengthened by the addition of a special coordinator and administrative assistant. The terms of reference for professional staff to be hired for these project units can be found in the technical files, along with information on the specific duties and responsibilities of each unit.

- 4.4 **Project monitoring.** ANAM and CONEP will be responsible for monitoring project implementation and drawing up the corresponding reports through their respective executing units. Progress reports will be presented at six-month intervals, documenting the various activities conducted over the course of the reporting period, accompanied by a work plan and disbursement timetable for the ensuing period. These progress reports are to be submitted to the Bank's Country Office for approval within the 30 days following the end of each corresponding six-month period.
- 4.5 **Project accounting procedures.** ANAM and CONEP will be in charge of: (i) setting up and maintaining proper accounting, financial and internal control procedures and records systems itemizing the sources and applications of project funding. Accounting records will contain: (a) an itemization of incoming funds from different sources; (b) spending data, broken down into expenditures of MIF funding and funding from other sources; and (c) detailed information on procurements of goods and services; (ii) opening separate, specific bank accounts for the administration of MIF and local counterpart funds; (iii) processing disbursements; and (iv) presenting the Bank with annual financial statements and semiannual reports on the revolving fund.
- 4.6 **Revolving fund.** Up to 10% of the Bank grant will be used to set up a revolving fund. This figure was recommended by the project team and is warranted by expected initial expenses. Disbursements of grant funds and procurements of goods and services will be made in accordance with Bank/MIF policy and procedures.
- 4.7 **Project auditing.** Both ANAM and CONEP will provide the Bank, within ^{the} 90 days following the date of the last disbursement of project funding, with financial statements on the Bank financing and local counterpart, audited by a firm of independent accountants acceptable to the Bank. Auditing costs will be covered by MIF funding in accordance with Bank procedures.
- 4.8 **Project beneficiaries.** The beneficiaries are as follows: (i) 40 small and medium-sized industrial enterprises (SMEs) benefiting from improved competitiveness and environmental performance; (ii) 600 individuals and 300 enterprises, to be trained in the introduction of clean production processes; (iii) 14 SMEs, through in-plant environmental management initiatives; (iv) CONEP, by strengthening its technical

and other resources, expanding its sphere of action and CPS management capacity; (v) the Government of Panama and ANAM, by furnishing them with instruments creating incentives for complying with the provisions of Law 41 and ensuing regulations; and (vi) the general public, by reducing pollution.

- 4.9 **Project administration.** The Bank's Country Office in Panama will be responsible for ensuring project administration and supervision with technical support and assistance from the project team at Bank headquarters. The Bank will review and evaluate reports by the project executing agencies (see paragraph 7.3).
- 4.10 **Readiness.** Project preparatory work is nearly complete: (i) the project design, budget and envisaged project activities were prepared under a participatory process involving interested stakeholders, with technical assistance from an expert in this area and from the Bank team; (ii) the OPU is fully operational, backed up by the National Environmental Program; and (iii) CONEP has the necessary mandates from its board of directors to move forward in setting up its project unit and assembling its share of project funding.

V. COST, SOURCES OF FUNDING AND COST RECOVERY

- 5.1 The total estimated project cost is US\$1,732,800. The MIF contribution in the form of nonreimbursable funding is estimated at US\$1,213,000 (70%), broken down as follows: Facility I (US\$400,880) and Facility II (US\$812,120). The local counterpart (ANAM/CONEP) is estimated at the equivalent of US\$519,800 (30%), with approximately US\$188,900 furnished by the ANAM and US\$330,900 by CONEP. Of these latter figures, each agency is to furnish at least 50% in cash.
- 5.2 The project will be implemented over a period of 48 months, with disbursements made over a period of 52 months running from the effective date of the letter of agreement to be signed by the Bank and the executing agencies, with the exception of the resources needed for the audit (paragraph 4.7). A cost breakdown by type of expenditure and source of funding is presented below.
- 5.3 Project sustainability is contingent upon a boost in supply and demand for environmental services. The project is expected to set in motion a series of activities creating a dynamic, growing, sustainable market for environmental management and clean production services. The project should also generate income (from sales of handbooks and enrollment fees for courses and workshops) to be used exclusively for the long-term promotion of needed services to sustain this market (database management, consultant referrals, continuing training, etc.)

ESTIMATED PROJECT COSTS AND FUNDING (IN U.S. DOLLARS)

Expenditure items	MIF Facilities		Local Contribution		Total	%
	I	II	ANAM	CONEP		
1. Component: Regulatory framework	206,500	--	61,000		267,500	15.4
2. Component: Quality and environmental management in industry	--	626,800		67,700	694,500	40.1
3. component: Institutional strengthening and dissemination	147,400	130,340	111,400	247,160	636,300	36.7
4. Evaluations	17,500	17,500			35,000	2
5. Audits	4,000	4,000			8,000	0.5
6. Contingencies	25,480	33,480	16,500	16,040	91,500	5.3
Total	400,880	812,120	188,900	330,900	1,732,800	
Financing share	70%		30%		100%	100.0

VI. BENEFITS AND RISKS

A. Project benefits

- 6.1 The project should effectively strengthen ANAM through the development of priority standards for the private sector, primarily with respect to auditing, environmental management and action programs, monitoring and inspection, with emphasis on promoting clean production. Expected project benefits in this respect are as follows: (i) establishment of a regulatory framework geared to promoting sustainable development at the country-wide level; (ii) establishment of clear rules with active involvement by the private sector, providing guidance for the selection of environmental investments; and (iii) expansion of the market for environmental services. It should also help boost supply and demand for environmental services by furnishing technical assistance based on the experience gained through the in-plant initiatives and providing training opportunities for local consultants, thereby strengthening an important component of the country's environmental management system.
- 6.2 Direct benefits accruing to SMEs taking part in the project include: (i) measurable gains in economic efficiency through savings engendered by the implementation of recommendations geared primarily to promoting a more efficient use of water and energy resources and reducing losses of raw materials; (ii) access to courses providing workers with know-how and skills which they can subsequently use in their respective facilities and share with their colleagues, helping to strengthen overall environmental performance; and (iii) the ability to exhibit a real concern for

environmental problems, improving their relations with the surrounding community, as well as with the government.

- 6.3 The project should help to visibly strengthen the private sector, enabling it to: (i) efficiently and effectively take part in existing participatory processes to address sector-wide environmental issues; (ii) access useful information for decision-making purposes available on the internet; (iii) offer internal support and assistance by sharing information and experiences on the benefits of clean production systems; (iv) save on expenses, through the implementation of successful demonstration projects at very little cost; and (v) improve relations with ANAM and other government agencies.

B. Project risks

- 6.4 The project poses three potential risks, namely: (i) the two implementing units may fail to effectively coordinate their operations, resulting in duplications of effort and conflicts between these units and other bodies; (ii) CONEP's financial constraints may preclude compliance with the disbursement schedule for local counterpart funding; and (iii) demand could be lower than expected and, thus, fail to keep pace with the supply of courses and technical assistance services. The first risk will be mitigated by the signature of an agreement by ANAM and CONEP and the formation of a technical project advisory committee to ensure effective coordination and synergism between the two units. As far as the second risk is concerned, there are 30 trade associations and some 4,000 individual enterprises affiliated with CONEP, which should ensure this funding. Lastly, there should be a growing demand for these types of services with regulatory efforts under the National Environmental Program scheduled to begin in 2001, which should spark an interest in and concern for environmental issues on the part of industry as well as consultants.

VII. PERFORMANCE AND EVALUATION INDICATORS

- 7.1 The implementing units will assemble information on qualitative and quantitative project supervision and evaluation indicators throughout the course of the project implementation period. A logical framework with corresponding performance indicators is presented in Annex I. Qualitative indicators include: (i) types of enterprises evaluated, based on established eligibility criteria; (ii) specific services/training offered to participating enterprises; (iii) environmental benefits engendered by the implementation of recommendations; (iv) evaluations by project participants; and (v) project impact, including industry monitoring data.
- 7.2 As far as quantitative indicators are concerned, the project will be monitored on a yearly basis to verify: (i) with respect to the strengthening of supply: the number of professionals trained in clean production systems, the percentage of these

professionals hired and conducting in-plant evaluations and the quality of the training received; (ii) with respect to the implementation and demonstration of clean production systems: the number of enterprises instituting clean production processes under a specific agreement and action plan; and (iii) with respect to promotional and information dissemination activities: the operability and effectiveness of the computer network and the quality of data, the number of network users, the establishment of a web site and the sharing of information by SMEs, ANAM and other project participants.

- 7.3 **Project evaluations.** The Bank will use project funding to hire individual consultants for the performance of two project evaluations: a midterm review after 24 months of execution or the commitment of 50% of the resources, whichever comes first; and a final evaluation to be conducted within three months after the conclusion of the project. The evaluations will be based on the qualitative and quantitative benchmarks indicated in the paragraphs above. Project supervision instruments to be used for evaluation purposes include regular reports by project units and monitoring and evaluation reports contracted out to independent consultants. In addition, the Bank, in coordination with ANAM and CONEP, will conduct annual performance evaluations to determine such adjustments as may be necessary.

VIII. EXCEPTIONS TO BANK POLICY AND PROCEDURES

- 8.1 There are no envisaged exceptions to Bank policy.

IX. SPECIAL CONTRACTUAL CONDITIONS

- 9.1 Conditions precedent to the first disbursement of funding: (i) evidence of a signed agreement between ANAM and CONEP for the coordination and technical implementation of the project (paragraph 4.2); (ii) evidence of the selection of the CONEP and ANAM project unit coordinators based on Bank-approved terms of reference (paragraph 4.3); (iii) presentation of a work plan and corresponding disbursement timetable, to the Bank's satisfaction, for the first six months of project execution; and (iv) evidence of an agreement between ANAM-MICI and COPANIT (paragraph 3.6).

PANAMA
ENVIRONMENTAL MANAGEMENT INSTRUMENTS AND PARTNERSHIP WITH INDUSTRY FOR CLEAN PRODUCTION
(TC-99-11-03-5-PN)

LOGICAL FRAMEWORK

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTION
en the competitiveness of h the institution of clean processes.	As of the year 2004, the quality of liquid effluents from industrial facilities with clean production systems meets standards established under DGNTI/COPANIT Technical Regulation 35-2000.	Environmental audits, environmental management and action programs and monitoring by industry.	The government has the polit to address environmental issu private sector. There is a climate of trust betw and the private sector. Agreement between ANAM a
tions for environmental instruments and get industry e institution of clean systems in compliance with l regulations.	Issuance of regulations for environmental audits and PAMAs as of the year 2001. Boost in demand for CPS as of the year 2001. Existence of local capacity to furnish CPS-related services.	Regulations for environmental audits, PAMAs and auditor registration. Number of audits and PAMAS approved by ANAM. Registration of environmental auditors with ANAM.	The private sector is involved design and approval of corres regulations. The private sector is satisfied quality of local CPS-related s ANAM completes the PAMA process with due diligence.

1. REGULATORY FRAMEWORK

OBJECTIVE: of environmental instruments helping to a production systems through of regulations envisaged by ther regulations which, while contemplated, are required d the industrial sector.	Enactment of two priority regulations under Law 41 and other supporting regulations for the institution of clean production systems prior to the year 2001. Provision of technical assistance services to 10 SMEs for a four-year period running up to the year 2004.	Regulations, handbooks and guides. Register of SMEs. Functioning PEU attached to CONEP and OPU staffed by a full-time general coordinator and experts. ANAM-MICI/COPANIT agreement.	The financial position of inter remains stable or improves an their technical assistance agre Hired experts meet expectatio Consultants meet envisaged d the delivery of draft regulation
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OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
<p>of the procedural handbooks Decree No. 58.</p> <p>regulations for environmental as and environmental auditor</p> <p>regulations for environmental inspection and supervision.</p> <p>approval of technical regulations</p> <p>and promotion of l awards.</p>	<p>Two handbooks.</p> <p>Issuance of regulations for environmental audits and PAMAs by the year 2001.</p> <p>Publication of one training guide/manual by the year 2000.</p> <p>Official approval of six ISO 14,000 series standards by the year 2001.</p> <p>Issuance of one regulation for the bestowal of awards for the promotion of CPS by the year 2001.</p> <p>Number of environmental awards bestowed.</p>	<p>Published handbooks.</p> <p>Publication of regulations and standards in the Official Gazette.</p> <p>Enrollment records for ANAM and CONEP training courses and seminars.</p> <p>Guide/handbook on regulations and agreements establishing the elements of PAMAs.</p> <p>Regulations for the bestowal of awards promoting environmental management.</p> <p>Bestowal of annual CPS awards.</p> <p>Reports by consultants.</p>	<p>The industrial sector manages necessary project funding.</p> <p>The private consulting service displays an interest in attending training courses.</p> <p>The industrial sector trusts local consultants to conduct audits and training courses.</p> <p>Economic conditions in the private sector remain stable or improve.</p>

2. QUALITY AND ENVIRONMENTAL MANAGEMENT IN INDUSTRY

<p>OBJECTIVE:</p> <p>Two courses of action as the training and promotional supply and demand for the implementation and of clean production systems technical assistance services all and medium-sized enterprises.</p>			
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OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTION
<p>Technical assistance in quality and environmental management in industry.</p> <p>Supply of CPS-related environmental management capacity in industrial sector.</p> <p>Strategy for the implementation of control plan.</p>	<p>Audits/assessments of 30 SMEs by the year 2004 (10 per year).</p> <p>Training of 600 workers in CPS by the year 2004 (300 per year).</p> <p>Placement of three demonstration projects a year on the web site, for a total of 10 on-line projects prior to the year 2004.</p> <p>Registration of 50 environmental auditors prior to the year 2002.</p> <p>14 SMEs mounting in-plant environmental management initiatives.</p>	<p>Auditor registration with ANAM.</p>	<p>There are no political factors between ANAM and CONEP.</p>

3. INSTITUTIONAL STRENGTHENING AND INFORMATION DISSEMINATION

<p>OBJECTIVE:</p> <p>Establishment of the OPU attached to establishment of a PEU</p> <p>OP in line with project needs</p> <p>Dissemination of information on projects, particularly those lending to replication by other SMEs</p> <p>Use of case studies.</p>			
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OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
<p>of the ANAM Operations (OPU).</p> <p>d dissemination of project rough ANAM.</p> <p>and strengthening of the ct Implementing Unit.</p> <p>and maintenance of the ion Program web site.</p> <p>d dissemination of project rough CONEP.</p> <p>f the feasibility study for a on center.</p>	<p>Publication of 13 documents through ANAM by the year 2004.</p> <p>Up-to-date web site with project information furnished by ANAM and CONEP.</p>	<p>Publication and dissemination of information on project outputs through ANAM.</p> <p>CONEP project web site.</p> <p>Publication and dissemination of information on project outputs through ANAM.</p> <p>Sustainability study for a clean production center driven by supply and demand for CPS.</p>	<p>There is an interest in competi envisaged procurements under</p> <p>There are no political factors c between ANAM and CONEP.</p>

PROPOSED RESOLUTION

PANAMA. NONREIMBURSABLE TECHNICAL PROGRAM FOR ENVIRONMENTAL MANAGEMENT INSTRUMENTS AND INDUSTRY PARTICIPATION IN CLEAN PRODUCTION

The Donors Committee of the Multilateral Investment Fund

RESOLVES

1. That the President of the Inter-American Development Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Multilateral Investment Fund, to enter into such agreements as may be necessary with the Consejo Nacional de la Empresa Privada and the Autoridad Nacional del Ambiente, and to take such additional measures as may be pertinent for the execution of the Donors' Memorandum referred to in Document MIF/AT- with respect to a technical cooperation program for environmental management instruments and industry participation in clean production.

2. That up to the amount of US\$1,213,000, or its equivalent in other convertible currencies, is authorized for the purpose of this resolution, chargeable to the resources of the Multilateral Investment Fund. From this sum, the amount of US\$400,880, or its equivalent in other convertible currencies, shall be chargeable to the Technical Cooperation Facility and the amount of US\$812,120, or its equivalent in other convertible currencies, shall be chargeable to the Human Resources Facility of the Multilateral Investment Fund.

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