



Project in Development and the Environment

**Environmental Business
Development Strategy for the
Centre de l'Entreprise du Maroc**

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The objective of the Project in Development and the Environment (PRIDE) is to help the U.S. Agency for International Development (AID) design and implement programs that foster the agency's environmental and natural resources strategy for sustainable economic growth in the Near East and Eastern Europe.

PRIDE provides AID and participating countries with advisory assistance, training, and information services in four program areas: (1) strategic planning, (2) environmental policy analysis, (3) private sector initiatives, and (4) environmental information, education, communication, and institutional strengthening.

The project is being implemented by a consortium selected through open competition in 1991. Chemonics International is the prime contractor; subcontractors include RCG/Hagler, Bailly, Inc.; Science Applications International Corporation; Capital Systems Group, Inc.; Environomics, Inc.; Industrial Economics, Inc.; Lincoln University; and Resource Management International, Inc. In addition, AID has entered into a cooperative agreement with the World Environment Center to support implementation of PRIDE.

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ACRONYMS

CEM	Centre de l'Entreprise du Maroc
EDM	USAID Energy Demand Management Project (Projet GEM)
GEM	Projet Gestion de L'Energie dans les Entreprises Marocaines
GOM	Government of Morocco
NED	New Enterprise Development Project
P2	Pollution Prevention
SME	Small and Medium Enterprise
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

The environmental sector in Morocco does not warrant a major push by the Centre de l'Entreprise du Maroc (CEM) within the next year. This assessment is based on the considerations outlined below.

First, the environmental market in Morocco is embryonic, and it is uncertain when the market will start developing and in what directions. In particular, there is no strong push by the Moroccan government's recently established Under-Secretariat of the Environment (SSE) to develop, and especially to enforce, environmental standards in the industrial, power, agriculture, and urban infrastructure sectors. This situation is likely to change dramatically, however, within the next year. The World Bank and the United Nations Development Programme are sponsoring efforts to build up the SSE and to develop an Environmental Strategy and Action Plan for Morocco by late 1995. These efforts are likely to lead to new business opportunities in the environmental market for CEM and its clients. The potential environmental market is likely to represent more than \$300 million per year, a significant amount for Morocco.

Second, CEM at present has no unique expertise or reputation in the environmental business sectors, and developing this expertise and reputation will take considerable investment in training personnel and conducting public workshops. Such investment is unlikely to lead to substantial business for CEM in the near term, because the Moroccan environmental market is still undeveloped. CEM is under pressure to become self-sustaining as quickly as possible. It cannot afford this investment now to take advantage of environmental markets that are several years away.

Finally, CEM can initiate a "low-profile" approach to the environmental market. This approach will allow CEM to determine when the market is ready to expand and prepare products and services to help it and its clients take advantage of the market.

We recommend the following three-phase approach for CEM in the Moroccan environmental market:

Phase I - Positioning

During this phase, which will last approximately one year, CEM should not make major investments to take advantage of environmental market opportunities. Instead, CEM will follow a low-risk strategy to prepare for gearing up its efforts once the market develops.

During the positioning phase, CEM will provide business development services (business plans, market assessments, financing assistance, etc.) to entrepreneurs in the environmental market as to any other clients. In addition, CEM will start developing a baseline of environmental expertise and services that can be leveraged once the

ENVIRONMENTAL BUSINESS DEVELOPMENT STRATEGY FOR THE CENTRE DE L'ENTREPRISE DU MAROC

A. Background

The U.S. Agency for International Development (USAID) Morocco mission is sponsoring the New Enterprise Development (NED) project to help Moroccan entrepreneurs establish successful private enterprises. An important part of the project is the Centre de l'Entreprise du Maroc (CEM), a private Moroccan organization that provides a wide range of services to entrepreneurs, especially in evaluating new business opportunities and developing business plans to take advantage of them.

USAID requested the assistance of the Asia and Near East Bureau's Project in Development and the Environment (PRIDE) to help CEM evaluate opportunities for establishing businesses in the environmental field. This work built on PRIDE's previous private sector work in Morocco, summarized in the report *Profile of the Environmental Business Sector in Morocco (September 1993)*. An expert worked with CEM in November and December 1993 to assess the potential of this market. A follow-up visit was made in May 1994.

After the expert's first visit, CEM underwent changes that affected the initial environmental strategy design. These changes included the refocusing of CEM activities on areas promising near-term results and the departure of the staff member expected to have primary responsibility for environmental activities. Therefore, it was decided that a more generic and flexible strategy would be developed for CEM during the follow-up visit that could be adapted more easily to the new priorities.

The following sections briefly discuss the environmental business situation in Morocco and outline a strategy for CEM to take advantage of the lucrative opportunities that will arise.

B. Morocco Environmental Overview

Morocco and other developing countries have recently paid significant attention to environmental problems they previously ignored. The problems have resulted from the rapid industrialization, urbanization, and population growth of the past two decades and include a number of serious natural resource and environmental pollution problems:

Natural resource problems

- **Water scarcity.** Consumption is increasing by 8 percent per year, so water deficits are predicted in several regions by the year 2000 and nationwide by 2020.

- **Soil degradation.** Erosion, salt accumulation, and drifting sands threaten 12.4 million ha, or one-third of the total agricultural surface; erosion also is reducing dam capacity by 0.4 percent per year.
- **Deforestation.** About 50,000 ha per year are lost to erosion and unsound agriculture and forestry practices.
- **Loss of fauna and flora species.**

Pollution problems

- **Urban pollution and public health.** Untreated waste is discharged into the water system (only 35 percent of the total population and 65 percent of the urban population are connected to sewer systems), and solid waste dumping is not controlled.
- **Industrial pollution.** An estimated 10,000 tons per year of liquid wastes are discharged into the Sebou and Oum Rabia rivers, making them open sewers and eliminating almost all living organisms in them. Large quantities of dangerous uranium and cadmium wastes are discharged into the Atlantic Ocean.
- **Unbiodegradable pesticides and fertilizer residues.**
- **Air pollutants.** These include lead, NO_x, and HC, primarily from urban transport and from cement and power plants.

The environmental market in Morocco is in an early embryonic phase. A report by USAID estimated current spending on environmental goods and services at \$116 million per year, with the potential to reach \$281 million per year in the near term. This represents about 1 percent of GDP, compared with environmental expenditures of about 3 percent of GDP in the United States. These expenditures (about \$5 to 11 per capita) are very low by developed-country standards (e.g., as compared with \$500 per capita in the U.S.), but are comparable to expenditures in other developing countries in the region. For example, Tunisia spends about \$15 per capita, and Egypt about \$8 per capita. The region's low expenditures generally stem from a lack of strong government regulation and enforcement and little public pressure. A survey of 43 existing Moroccan environmental companies (out of an estimated 100 firms total) shows that respondents believe the political resolve needed to drive the environmental market will be forthcoming, but its timing is difficult to predict.

In fact, the situation is likely to change dramatically within the next year. The United Nations Development Programme (UNDP) and World Bank have started a major effort to help Morocco develop an Environmental Strategy and Environmental Action Plan. The strategy will focus on identifying major problem areas and developing a government organizational structure for dealing with them. It will be completed in early 1995. An action plan also will be developed that will identify specific activities for the government to undertake to develop environmental programs and regulations and improve enforcement.

These activities will be complemented by regional environmental strategies for each of the seven provinces. The first two regional strategies will be completed in mid-1995, three others in mid-1996, and the last two in 1997.

In addition, municipal action plans will be prepared for several cities, including Rabat, Marrakech, and Safi. UNDP is preparing a comprehensive review of existing environmental laws and regulations, to be used as a basis for revising and updating the existing legal and regulatory structure. Finally, the Under-Secretariat of the Environment (SSE) will be expanded from approximately 20 persons to more than 50 in the next two years. They will be undergoing training in Morocco and abroad to develop a modern, effective environmental policy and regulatory agency.

UNDP has given Morocco an \$800,000 grant to start this process. The World Bank has provided a \$6 million loan (over the next 10 years) to continue it. The World Bank and other international lenders are further focusing attention on environmental issues by increasingly requiring environmental impact assessments as a condition of loans to both public and private sector organizations.

This attention will result in major business opportunities for Moroccan private sector firms as well as U.S., European, and Japanese firms. The environmental market can be expected to grow, reaching a cumulative \$6.5 billion by the year 2011. Growth rates will likely exceed 20 percent per year. Most environmental expenditures (approximately 80 percent of the dollar volume) will be for municipal wastewater collection and treatment. However, other markets will grow as well. Industrial pretreatment, which is necessary for a successful municipal program, will be a major opportunity. Water purification will be well funded, since pure drinking water is in short supply and poor-quality water reduces the quantity available for other uses, including industry. "Pollution prevention" technologies and practices that focus on changing processes, recycling, minimizing waste, and similar activities to reduce pollutants and increase efficiency, rather than "end-of-pipe" treatments that simply add to capital and operating costs, will be welcome and will represent major business opportunities. Demand for consulting services and monitoring systems also will be significant.

In the industrial sector, specific opportunities will arise for the following types of generic environmental technologies:

- Solvent use - substitution and recovery
- Water conservation - recovery and purification
- Sludge management - dewatering, material recovery, and composting
- Recycling of organic wastes - treatment and composting
- Painting, coating, and dyeing - advanced spray materials and techniques
- Raw material recovery - rinsewater recycling and metal recovery
- High efficiency technologies - drying, washing, and combustion

Several environmentally oriented small and medium enterprises are already established in Morocco. While women play a role in a few of the businesses, men are the dominant

players. The sector at this point focuses mainly on environmental activities in paper, plastics, and metal recycling.

C. Recommendations

CEM must decide whether and how much to invest in developing the expertise to help clients take advantage of the environmental market that will emerge in Morocco. Our recommendations focus on the next two years.

CEM will need to make investments to take advantage of the market. Investments will be primarily for training key personnel in the technical, legal, and business aspects of the environmental market, and for publicizing CEM's expertise to potential clients (for example, through workshops and seminars).

While we firmly believe this market has tremendous potential, it has not arrived yet. Thus CEM must take a cautious approach that will minimize investments until the market has matured enough for CEM to identify products and services that clients will be willing and able to pay for. At the same time, CEM cannot afford to ignore this market. If it does, it will find itself playing catch-up to more aggressive competitors who will reap the rewards of early involvement once the market achieves major growth.

Therefore, we propose a three-phase approach to keep early investments to a minimum, help identify lucrative market opportunities in advance of competitors, and provide a basis for swift expansion into the market at the right time. The following sections describe our recommendations for CEM in each of these phases. These are further summarized in Exhibit 1 on the following page.

C1. Phase I - Positioning

The primary objectives of the positioning phase are to provide CEM with a basic understanding of the Moroccan environmental market and minimize CEM investments until the most attractive market segments can be identified. During this phase, CEM will provide assistance to entrepreneurs wishing to start environmental businesses. It will help other entrepreneurs evaluate the environmental impacts of their businesses and identify opportunities to reduce production costs while reducing environmental pollution.

The positioning phase will last approximately one year, until the Moroccan government has started developing effective environmental policies and regulations and improving enforcement. Then public and private organizations will be more willing to invest in pollution controls and effective environmental management practices. CEM will be a "market watcher," following environmental activities in the public and private sectors and preparing to jump in when the market appears ready for major growth.

CEM will pursue three types of environmental activities in this phase. First, it will provide its normal business development services (business plans, market assessments,

Exhibit 1

CEM Environmental Business Development Strategy

Phase	Objectives	Activities
Positioning	<ul style="list-style-type: none"> • Provide basic understanding of environmental markets • Minimize investment (funds and personnel) • Assist entrepreneurs in making cost-effective environmental decisions • Assist entrepreneurs in setting up environmental businesses • Develop cooperative arrangements 	<ul style="list-style-type: none"> • Business development services • Cooperative arrangements <ul style="list-style-type: none"> - Projet GEM - Association Je Recycle • Monitor environmental markets • Assess potential to proceed to Phase II
Investing	<ul style="list-style-type: none"> • Develop detailed expertise in environmental markets • Develop CEM reputation for environmental expertise • Select most attractive sectors for CEM to pursue 	<ul style="list-style-type: none"> • Environmental Market Report • National Workshop on Moroccan Environmental Business Opportunities • Develop environmental business plan for CEM
Harvesting	<ul style="list-style-type: none"> • Establish strong environmental practice within CEM 	<ul style="list-style-type: none"> • Create environmental profit center

financing assistance, etc.) to entrepreneurs in the environmental market as to any other client. It will not make a special effort to target environmental sectors, but rather will address them as the opportunities arise.

The second activity will be to start developing a baseline of environmental expertise and services it can leverage once the environmental market starts to expand. CEM will do so by developing a cooperative agreement with USAID's Projet GEM to provide brief energy and environmental evaluations of proposed business plans, where appropriate. The Projet GEM chief of party, Gilbert Richard, has indicated he is willing to do this. Each evaluation will require approximately one to five days of a GEM engineer's time to review production systems and recommend ways to conserve energy and prevent pollution that will also reduce capital and operating costs.

It will be very important to emphasize reducing costs rather than pollution, since entrepreneurs usually have little interest in investing in pollution reduction. "Pollution prevention" technologies and practices, however, focus on changing processes, recycling, minimizing waste, conserving, or substituting materials to reduce pollutants, increase efficiency, and reduce overall production costs. Pollution prevention differs substantially from traditional "end-of-pipe" treatments to clean up pollutants after they have been generated. These simply add to capital and operating costs without affecting plant output.

Experience in the U.S. and some developing countries has shown that pollution prevention approaches can reduce plant emissions by 20 to 60 percent, at little or no additional cost or with investments that pay back in less than one year. For example, a plant audit in Tunisia showed potential savings of \$825,000 per year with no additional capital investments, and savings of an additional \$1,051,000 per year with capital investments of \$687,000 (for an eight-month payback). In addition, pollutant emissions declined significantly, product quality improved, and dangers to workers' health were reduced. Pollution prevention is the only approach that will be effective in reducing environmental toxins in the absence of effective government laws and enforcement.

The charge for providing energy and environmental evaluations of proposed business plans should be included in the CEM client fees, not as a separate add-on that will likely provoke resistance. CEM and GEM should negotiate a mutually agreeable rate for these services. GEM will view this activity as an opportunity to market future services to the client by demonstrating its expertise. It will also be able to draw on USAID resources such as PRIDE and the Environmental Pollution Prevention project (EP3) to provide technical assistance. The significant cost savings to enterprises will generate goodwill for both CEM and GEM as well as respect for their expertise.

CEM should also continue cooperative efforts, such as the one recently started with Ms. Janan Benabud of Association Je Recycle, to provide entrepreneurs with information on recycling. This is a very low-cost effort that will generate goodwill and provide a window for CEM on the markets for recycling as well as other sectors.

CEM's third activity in this phase will be to start actively monitoring Moroccan environmental markets by meeting with key government and industry leaders, attending conferences, and collecting reports and articles. This low-key effort will represent 10 to 20 percent of a professional's time. A focal person should have primary responsibility within CEM for tracking the environmental market. This person should be selected on the basis of interest in the environmental market, willingness to devote time and effort to building this into a major CEM practice (once attractive market segments can be identified), and environmental expertise.

At the end of this phase CEM must conduct an objective internal review of the information gathered and experience developed to determine whether the market's potential justifies further investments. This review will look at three issues:

- Is the Moroccan environmental market developing quickly enough to provide a near-term demand for CEM services?
- Can CEM provide specific services profitably?
- Can CEM make the investments and initiate the activities needed to continue?

If this review is favorable, CEM will proceed to Phase II.

C2. Phase II - Investing

The second phase will start in about a year or so when CEM, as a result of its monitoring efforts, feels the Moroccan environmental market is beginning to take off. Indications of this will include:

- The government is making a major effort to develop and enforce environmental regulations.
- Private sector concern about compliance with environmental regulations is increasing.
- CEM is receiving more inquiries from potential clients about environmental business opportunities.
- Major infrastructure investments are being made in water and wastewater treatment.
- Public concern about environmental issues is increasing, as demonstrated by the media, public clean-up campaigns, and similar activities.

The UNDP/World Bank/Government of Morocco Environmental Strategy and Action Plan will have been completed, government environmental policies will be better defined, and environmental markets can be better assessed.

The investment phase will provide the basis for planning and implementing a major CEM environmental effort. Objectives will include acquiring in-depth knowledge of the Moroccan environmental market, developing a reputation for environmental expertise through high-quality reports and workshops, and selecting the most attractive environmental sectors to pursue.

The first major activity of this phase will be a detailed evaluation of environmental markets and opportunities for CEM. This evaluation will most likely be led by the environmental focal person identified in Phase I and can be based on the *Profile of the Environmental Business Sector in Morocco*. It will involve interviews with key public and private individuals and organizations to determine the future scope of major environmental market sectors. For each major sector identified, issues addressed will include:

- Sector identification and description
- Estimated size and growth rates
- Major firms involved (Moroccan and international)
- Laws and regulations
- Evaluation of factors affecting growth (e.g., financing, requirements and protectionism in export markets, barriers to entry)

This report should be published by CEM and sold to the public and potential clients. Pricing is important. Its price should be low enough that any purchaser seriously interested in the environmental market will be able to afford it, and high enough to be recognized as a premier product and to enable CEM to recoup most of the cost of developing it. We suggest Dh 2,500 as a reasonable price, although this will need to be evaluated when the decision is made to produce the report. This market assessment must be excellent, since it will serve as an example of CEM's expertise in the environment. USAID can assist this effort by providing experts to implement it.

The second activity, based on the report, will be a National Workshop on Moroccan Environmental Business Opportunities. The workshop will be sponsored by CEM to discuss the new environmental policies and activities and business opportunities emerging from them. The objectives of the workshop will be to:

- Allow CEM to showcase its talents in the environmental market and establish its reputation as the premier firm in the sectors it has chosen to pursue.
- Obtain feedback from potential entrepreneurs on the types of products and services that interest them.
- Educate entrepreneurs on developments in the Moroccan environmental scene and how they affect their businesses.

USAID can help CEM design and implement this workshop through the PRIDE project.

Based on feedback from the workshop and discussions with potential clients, CEM will need to decide whether significant opportunity exists in the environmental market and how best to proceed. Thus, the third activity will be an internal review similar to the review in Phase I, but more detailed and rigorous. If the market still appears attractive, CEM should select a small set of environmental activities (such as solid waste recycling, financing and management of private sector landfills, environmental impact assessments, development of industrial environmental strategies) that offer significant market potential for CEM, and develop a detailed environmental business plan that will allow CEM to take advantage of these areas. CEM's objective for this activity will be to select the most attractive environmental market sectors and pre-emptively establish itself as the premier firm in helping clients establish successful ventures in these sectors.

Developing the plan will require decisions about which sectors to select and how to develop them. In fact, CEM should treat these decisions as new business opportunities, evaluating them as it would evaluate concepts proposed by its clients. This evaluation will require assessing the market, evaluating the competition, determining CEM's competitive advantages, determining the most effective marketing approaches, estimating the investment (in both funds and personnel), determining the profit potential, and establish revenue and profitability goals against which to measure progress.

C3. Phase III - Harvesting

The final phase will be to "harvest" the environmental opportunities identified. The objective of this phase will be to implement the business plan developed in Phase II and to establish a strong, profitable environmental practice in CEM. Because of the technical expertise required for many environmental areas, CEM probably will need to establish ties with firms that offer skills complementary to CEM's and which would be too expensive for CEM to develop. For example, Projet GEM could offer in-depth expertise in industrial energy and environmental technology which, together with CEM's business, finance, and marketing skills, could provide industrial clients an environmental "one-stop shop."

At this point, environmental activities should become a separate profit center within CEM to sell a variety of services to businesses. While the market will determine the most profitable services, these will likely include market evaluations, business plan development, organizational environmental strategies, reports, and workshops.