

PD-ABL-218

15/1 2000

EP3/TUNISIA TRIP REPORT

Prepared by:

Deborah Leffert
RCG/Hagler Bailly
1530 Wilson Boulevard
Arlington, VA 22209

February 13, 1995

- 1 -

MEMORANDUM

TO: Betsy Marcotte **CC:** Henri-Claude Bailly
FROM: Deborah Leffert
DATE: February 13, 1995
SUBJECT: EP3/Tunisia Project

In order to prepare for my departure to Tunisia, I engaged in an initial investigation which included:

- (A) Research of the environmental market in Tunisia.
- (B) Research of organizations in the U.S. which had participated in activity, or had an interest in participating in activity within the environmental sector of Tunisia/possible sources of funding for EP3/Tunisia once USAID funding is terminated.
- (C) Interviews with RCG/Hagler Bailly (Hagler Bailly) staff regarding past cases of projects which became, or tried to become, self-sustainable.
- (D) Research of the historical activities of the EP3/Tunisia office.
- (E) Research of the historical costs of the EP3/Tunisia office.
- (F) Drafting of an initial vision as to what will happen to EP3/Tunisia in the future.

(A) Research of the environmental market in Tunisia

In order to carry out research of the environmental market, I contacted several organizations, and spoke to the person in charge of the Tunisia/ Maghreb Region. When available, I had these people send me literature addressing Tunisia's environmental situation. Some of the organizations which I contacted are:

- Dr. Abdelkader Baouendi (an individual consultant)
- Environmental Protection Agency
- National Technical Information Service
- National U.S.-Arab Chamber of Commerce
- Trade & Development Agency
- Tunisian Agency for Industrial Promotion
- Tunisian-American Chamber of Commerce in Tunisia
- Tunisian Embassy
- USAID
- U.S. Department of Commerce

In addition to conducting the activities addressed above, I asked April Wright (Hagler Bailly Librarian) to perform an on-line search of recent articles dealing with the environmental and

energy sectors of Tunisia. I also had April search the National Trade Data Bank for related information. I also searched for information among in-house documents, which I acquired from our Hagler Bailly library and from staff.

In order to supplement the information gathered above, I ordered a number of studies on Tunisia's environmental situation from the USAID Development Information Clearinghouse (*See Tab 1*). After initial discussions with both Betsy Marcotte and Henri-Claude Bailly, I put together a summary of the financial climate of Tunisia, and an outline of the environmental climate of Tunisia (*See Tabs 2 & 3*).

(B) Research of organizations in the U.S. which had participated in activity, or had an interest in participating in activity within the environmental sector of Tunisia/possible sources of funding for EP3/Tunisia once USAID funding is terminated

I gathered names of many organizations which had participated in activity within Tunisia's environmental sector from the documents which I had read. I then proceeded to contact several of these organizations in order to verify their interest in investing and becoming active in Tunisia's environmental sector. In addition, I visited the World Bank, and met with Mr. Ramzi Fares of the Maghreb and Iran Division. Some of the organizations which I contacted for information concerning investing in and funding EP3/Tunisia are (*See Tab 4 for additional organizations and detail*):

World Bank
Global Environmental Fund
Overseas Private Investment Corporation (OPIC)
United Nations Development Programme (UNDP)
Project in Environment and Development (PRIDE)
Bill Brown (Hagler Bailly)

The World Bank gives grants through two major funds; the Mediterranean Environmental Technical Assistance Programme (METAP) and the Global Environmental Facility (GEF). Under METAP, the World Bank allows grants of \$50,000-100,000 for studies. Under GEF, there are three main areas which the World Bank has already supported in Tunisia:

- (1) Depletion of the ozone layer (\$1.7 billion)
- (2) Water heating system, supplemented by the Belgians (\$7.5 million total)
- (3) Marine oil pollution, a regional project for Tunisia, Algeria & Morocco (\$20 million total in which Tunisia has received less than \$5 million)

The World Bank will only give grants directly to the Government of Tunisia (GOT). The GOT is then free to do what it would like with the money. The World Bank has the ability to pool

together funds from other bilateral donors, such as the European Community and Gesellschaft fuer Technische Zusammenarbeit (GTZ). The GOT can also apply for a loan, but these are expensive running 7.5%. Tunisia doesn't qualify for a loan below 7.5% because the country is too developed. The World Bank has also engaged itself in many GOT projects. For example, the World Bank is preparing its fifth project with the Office National D'Assainissement (ONAS), and its eighth project with Societe Nationale D'Exploitation et de Distribution Des Eaux (SONEDE).

Global Environmental Fund has previously considered doing business in Tunisia, but hasn't as of yet. I spoke with Peter Scott (Investment Officer/Emerging Markets) who requested that I contact him about my trip after I return.

OPIC has a Global Environment and Emerging Markets Fund. I spoke with Eric Estes, who stressed the importance of profitability, in order for an organization to receive OPIC investment.

At the UNDP, I spoke with a woman named Inga Anderson. UNDP already provides Tunisia with \$2 million annually. It could possibly give money to EP3/Tunisia (only if it was an NGO) through a GEF grant but the money must come through the GOT, and the funded project must qualify under one of four areas; biodiversity, effecting international waters, greenhouse gases and/or effecting the ozone layer.

The PRIDE Project participated in an international environmental conference in Tunis involving over 150 NGOs. I acquired the list of participants from Jack Stafurik (the Private Sector Advisor to PRIDE).

Bill Brown (Hagler Bailly) has a running mailing list of executives in large foundations. He offered to generate a letter presenting the EP3/Tunisia project, and to follow up, with the assistance of Henri-Claude, to those parties expressing interest in investing in the project. In addition, Bill offered to contact someone at the World Resources Institute, and to speak to Jim Gallup regarding the possibility of approaching someone at the EPA about funding.

(C) Interviews with Hagler Bailly staff regarding past cases of projects which became, or tried to become, self-sustainable

I interviewed two people on the Hagler Bailly staff involved in model case studies:

John Armstrong. John Armstrong was the key person involved in the Hagler Bailly Pakistan operation. Hagler Bailly owns 25% of the Pakistan office. This was a "Branch Office" for about three years, and it has been running on zero "profit". Revenues have been reinvested into the office in order to expand and develop the office. The staff has been extremely successful in generating their own business. Hagler Bailly guaranteed one year of salary in addition to providing overhead expenses up-front. These expenses are in the process of being recovered

through USAID work which Hagler Bailly is giving the Pakistan office. In John's opinion, the important element of this endeavor was the person. John knew Vaqar Zakaria (Head of Hagler Bailly Pakistan) and had faith in him to carry out the endeavor. John's suggestions:

- (1) Find out the legal implications of different entities.
- (2) Have a key individual whom you trust.

Eduardo Maal. Eduardo Maal was the key person involved in the KONEBA project in Indonesia. This was a project which concentrated on the fertilizer industry, and began as a World Bank loan. The fertilizer industry is a government-owned industry. The staff of the office in Indonesia was selected by the fertilizer industry. The fertilizer industry is finding the clientele for the staff of the office. Eduardo's suggestions:

- (1) Look at the possibility of an ESCo (Environmental Service Company).
- (2) Have the GOT possibly underwrite a loan.
- (3) Find out banks' receptiveness towards government-guaranteed loans.
- (4) Emphasize measures that make money, structure billing by industry, base salaries on profitability.
- (5) Offer potential clients an equity position in EP3/Tunisia, and build this into their service bill.
- (6) Find out from stock-brokers the viability of going private.

(D) Research of the historical activities of the current EP3/Tunisia office

I had several conversations with Betsy and Rachid Nafti regarding past activities of the EP3/Tunisia office. In addition, Betsy gave me several memos which she had written along with other pieces of literature involving activities of the EP3/Tunisia office. In addition to these documents, I acquired some additional documents from the EP3 Clearinghouse in Washington.

(E) Research of the historical costs of the EP3/Tunisia office

I met, over several days, with Hagler Bailly staff member Susan Owens, who is the person in charge of contract costs for the EP3/Tunisia office. Susan and I worked together to calculate the costs which were applicable directly to the EP3/Tunisia office. From our work, I was able to generate a budget summary (*Tab 5*). This summary was faxed to Rachid, and handed to Betsy and Henri-Claude before I departed for Tunis.

(F) Drafting of an initial vision as to what would happen to EP3/Tunisia in the future

From discussions with Betsy, Rachid and Henri-Claude, an initial outline was drafted for the purpose of presenting EP3/Tunisia to possible future donors. It had been initially decided, by Rachid, that EP3/Tunisia was to be called "CP3" (Centre Pour la Production Propre), being that

it was officially registered in Tunisia under this name as a private entity, and the word "Centre" sounded flexible enough to be applied to the new entity, whether it took on a private or NGO structure in the future. From this outline and Rachid's input, I created a draft "vision," as an overview for the future of EP3/Tunisia, which was faxed to Rachid and handed to Betsy and Henri-Claude before I departed for Tunis.

In addition to drafting the vision, I conducted research on the topic of how to become an NGO in Tunisia. I was able to obtain some information from the Tunisian Agency for Industrial Promotion. In addition, I contacted Donia Labidi at El Taller, a Tunisian NGO which organizes other entities into NGOs, and obtained some information directly from Rachid.

TRIP TO TUNIS

Upon my arrival in Tunis, I sat down with Rachid and proceeded to make an initial game-plan of activities for the week ahead. We discussed important people to see, as well as important people for Henri-Claude to meet. Rachid & I then discussed the "vision" of CP3, which I had faxed to him, and made some initial changes to the presentation (*Tab 6*).

In addition to the presentation, Rachid & I worked out two initial five-year cost and revenue forecasts of scenarios based upon CP3 as a private entity, and CP3 as an NGO. In addition to numbers and prices, we brainstormed over new possible products which CP3 could offer as a private company vs. as an NGO. (*Tab 7*).

Rachid & I met with Mr. Abdelhafidh Chaibi of the Tunisian American Chamber of Commerce (TACC). This organization was to serve as the "Model NGO" which had been successfully organized. During this meeting, we discussed the variety of products which TACC is offering, and its funding and growth history. In addition to Mr. Chaibi, we met with Dr. Karpe at GTZ, Mireille Appolon and the Canadian Embassy and Nadia Nagti at UNDP. The purpose of these meetings was to get a better idea of the funding sources which were available to EP3/Tunisia after termination of USAID funding. Rachid & I were accompanied to these meetings by Mounir Nabolane, an individual consultant which Rachid had hired to perform a study of the environmental market in Tunisia.

Upon Henri-Claude's arrival, activities-to-date and Rachid's concerns and vision for the future of EP3/Tunisia were discussed. During Henri-Claude's stay, him & I worked in the office with the EP3/Tunisia staff; Rachid Nafti, Halima Bali M'rad and Maher Harmel as well as the individual consultant, Mounir Nabolane. Mounir gave a presentation as to the research which he had performed. His presentation included the following elements:

- ▶ Introduction to the governmental framework of the environmental sector in Tunisia
 - The mission of MEAT (Le Ministere de L'Environnement et de L'Amenagement du Territoire)
 - Programs given by the National Sanitation Board (ONAS) & the National Environmental Protection Agency (ANPE)
 - CNE (Commision Nationale de l'Environnement)
 - Other environmental laws
- ▶ A brief overview of the Depollution Fund (FODEP) and the Code D'Incitation Aux Investissements
- ▶ A brief overview of current environmental projects in Tunisia, with their investment amounts (in dollars)
- ▶ A brief overview of Environmental NGOs (ONGs) in Tunisia
- ▶ An overview of the budget in the Eighth Plan for Economic and Social Development, and the amount allocated to environment
- ▶ Other funds given to the environmental sector of Tunisia
- ▶ The laws in Tunisia regulating the formation of an NGO and a SARL (Société à responsabilité limité), and the pros and cons of each form.
- ▶ A brief overview of standards ("norms") in Tunisia for air, and environmental protection
- ▶ An overview of trade activities involving products relating to the environmental sector

Various options for the structure of EP3/Tunisia was discussed among everyone including EP3/Tunisia as a private company, EP3/Tunisia folded into an existing company, EP3/Tunisia as an NGO, EP3/Tunisia as an SARL and EP3/Tunisia shutting down. A strategy of keeping EP3/Tunisia as a project, but making the project as part of an SARL, owned in part by Hagler Bailly, Inc. and in part by another organization (probably a bank) was decided upon. It was decided that Henri-Claude would address these issues in greater detail in a memo to Jim Gallup. In addition to Henri-Claude's memo, there would be a presentation, prepared by Rachid and I, to give to potential donors of the EP3/Tunisia project. This presentation would be finalized in Washington, with input and agreement from the EP3/Tunisia staff, in addition to assistance from Hagler Bailly's graphics staff.

USAID DOCUMENT LIST

- (1) Agricultural policy implementation project.
- (2) Assistance management plan for Tunisia in the 90s: a strategy for enterprise, exports, employment.
- (3) Audit of USAID/Tunisia's and the A.I.D. Regional Contracting Office's controls over A.I.D. - direct contracts for technical assistance.
- (4) Environmental assessment of Ennadhafa JUDY, Tunis, Tunisia.
- (5) Environmental assessment of Etablissements Slama Freres, Tunis, Tunisia.
- (6) Environmental assessment of Societe Anonyme Monastirienne, Monastir, Tunisia.
- (7) Environmental assessment: Societe de Fabrication de Produits Chimiques (ALKI), Tunis, Tunisia.
- (8) Environmental private sector initiatives in the Near East.
- (9) Etude comparative des approches de creation d'associations d'interet collectif pour les usagers de l'eau potable dans les zones rurales en Tunisie.
- (10) Etude du potentiel de diversification des exportations en Tunisie: fleurs coupees.
- (11) Europe's single market: implications for agricultural exporters from North Africa and the Near East.
- (12) Evaluation of performance measurement systems for use in allocating development assistance.
- (13) Final evaluation of the Tunisia agricultural policy implementation project (APIP).
- (14) Limited scope grant agreement between the Government of Tunisia (grantee) and the United States of America, acting through the Agency for International Development.
- (15) Medium - term trade and investment strategy for USAID/Tunisia - Final Report.

- (16) Memorandum of Understanding relative to the Tunisian trade and investment program.
- (17) Programmatic environmental assessment: private sector participation in environmental services program for low income housing in Tunisia
- (18) Project assistance completion report (PACR): private sector development and technology transfer.
- (19) Project grant agreement between the Republic of Tunisia and the United States of America for agricultural research.
- (20) Regional urban environmental action program (RUEAP).
- (21) Stock market observation tour.
- (22) Tunisia: follow-up to Joint Commission on Trade and Investment, phase I - Final Report.
- (23) Tunisia low cost shelter project.
- (24) Tunisia low cost income housing project.
- (25) USAID/Tunis: financial sector assessment.
- (26) USAID/Tunis: evaluation de secteur financier.

TUNISIAN FINANCIAL MARKET CLIMATE

- ▶ Tunisian banks do not appear to be financially healthy. The banking sector as a whole suffers from a lack of competitiveness & dynamism. Even in this state of health, however, there is a great dependence on bank financing in Tunisia.
- ▶ Banks may not extend credits with maturities of over 7 years. However, credits can be extended under certain provisions.
- ▶ There are twelve commercial banks and eight banks that are either off-shore, subsidiaries or branches of foreign institutions, or separate organizations owned by foreign entities. Citibank has established an on-shore branch next to its off-shore branch in November 1989. There are also eight development banks (*development banks are mainly engaged in project finance and the provision of long-term loans and equity investments to various sectors of the economy*). In addition, there is a venture capital company, Société de Participation et de Promotion des Investissements (SPPI), founded by a group of seventeen commercial and development banks.
- ▶ The Government of Tunisia holds a majority share in five of the six largest commercial banks.
- ▶ The stock market in Tunisia is in the early stages of development. Since new laws were passed in 1989, the number of companies listed on the Exchange has been reduced from 49 to 13 and trading activity has been minimal and limited to banking institutions. Price Waterhouse reported in a 1991 study that a survey of private sector executives and managers of financial institutions in Tunisia do not feel that the securities market and the Stock Exchange will be major players in Tunisia's financial sector any time soon. It has been said that investors lack confidence in the securities market, feeling that the market is highly speculative and open to insider trading abuses. In addition, the rate at which financial markets will develop in Tunisia is highly restricted by the lack of persons with the necessary skills and experience to manage and provide investment banking and brokerage services.

- ▶ If a company is a listed company, its shares must be traded on the permanent market. There are two “boards” in this market.
 - A public company can be traded on the first board if it has paid-up capital of TD 1 million or more, it has at least 300 stockholders, it is at least 3 years old, it has distributed a dividend in at least one of these years, and it has distributed at least 20% of its shares to stockholders that hold less than 5% of the firm's capital.
 - A public company can be traded on the second board if it has paid-up capital TD 500,000 or more, it has at least 100 stockholders, it is at least 2 years old, it has distributed a dividend in one of those years, and it has distributed a dividend in at least 10% of its shares to stockholders holding less than 5% of the firm's capital.

Shares of companies that are not listed must be traded either on the occasional market by the method of open auction, or on the registrar market by the method of closed and private transaction.

- ▶ There are several types of potential institutional investors in Tunisia including ten insurance companies, two pension funds, eight closed-ended mutual funds, and one venture capital company.
- ▶ A concern to potential foreign investors is the fact that the Tunisian dinar is not yet fully convertible.
- ▶ There is an inadequacy of financial information in Tunisia. This lack of financial information causes banks to be risk averse, and restricts investment activity. Accounting principles and audit standards developed in Tunisia are not uniformly applied and the majority of Tunisian businesses are allowed to select auditors, accounting principles and audit standards that suit varying needs.

On a more positive note:

- ▶ While real interest rates are currently positive, there is a wide diffusion of rates on loans and deposits for different categories of projects and clients. This could create demand for investment, depending upon the purpose. In addition, 10% of deposits must be allocated by banks for medium term loans granted to the designated priority sectors of small & medium enterprises, agriculture and exports. This credit is extended at preferential rates and is rediscountable at the Central Bank by means of promissory notes. Interest rates are set well below the money market rate, and vary according to the purpose of the credit.

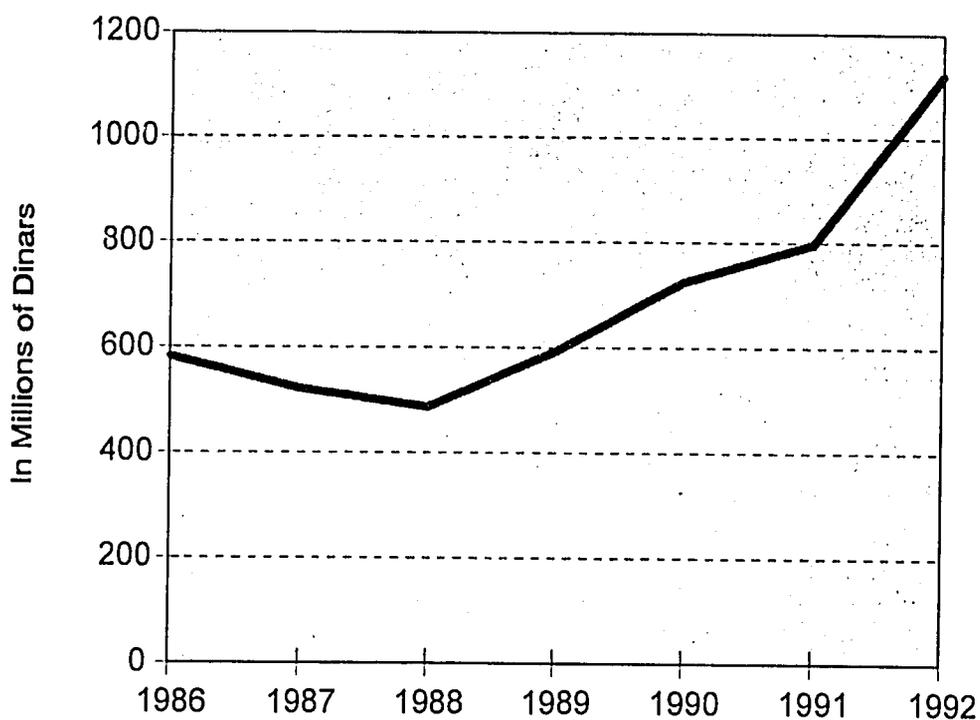
- ▶ Working with the IMF and the World Bank, Tunisia is implementing a comprehensive structural reform program that opens the economy to greater foreign and domestic competition, encourages greater exports and foreign investment, and reduces the role of the state in economic matters, both through a greater reliance on market-mechanisms and privatization of state enterprises.
- ▶ For the 1990s the principal donors in Tunisia, i.e. France, Italy and the EEC have begun to reformulate their strategies vis-a-vis their North African neighbors in the post 1992 period. These countries as well as other major donors like the World Bank and the IMF have provided important resources averaging \$700m a year to support Tunisia's structural adjustment process.

OUTLINE OF THE TUNISIAN ENVIRONMENTAL MARKET

Sources and Growth of Pollution in Tunisia:

- ▶ Industrial sectors in Tunisia are experiencing high growth rates, creating a large industrial market for clean technology. The more substantial industries include leather tanning, textile manufacturing, food processing, household chemicals, detergents and soaps, and phosphate processing.
- ▶ Industrial pollution is recognized as a significant problem and pollution control is an increasingly important market sector.
- ▶ Urban atmospheric pollution has increased (due to increased automobile traffic) and fresh and sea water have been exposed to contamination from chemical fertilizers and insecticides.
- ▶ Existing industries in Tunisia lack information and access to clean technologies and more efficient production processes. However, it has been verified, through a study conducted by USAID, that industries are very receptive to technical opportunities for economically rewarding use of these environmentally-friendly and new technologies.
- ▶ Sources of pollution are expected to grow as a result of the encouragement for greater R&D and new industry which is being generated by the government.

Gross Fixed Investment by Economic Sector and Financing (Industry)



Current Regulatory Framework:

- ▶ The creation of the Ministry of the Environment and Territorial Planning (MEAT) marked the emergence of the real environmental policy in Tunisia. MEAT was granted the responsibility to support the already existing L'Agence Nationale de Protection de l'Environnement (ANPE) and Office National D'Assainissement (ONAS). MEAT has since received a 324% increase in its operational budget and a 260% increase in its capital budget.
- ▶ NPE has been controlling and monitoring pollution by a program of environmental inspections.
- ▶ On November 1, 1994, the "Tunis Declaration" was adopted, calling for tighter cooperation in the Mediterranean to overcome the threat of pollution.
- ▶ Tunisia is applying strict limits on new polluting plants. Decrees No. 91-362 require that any company applying to invest in any economic activity should submit an environmental impact statement.
- ▶ Tunisia is applying strict limits on existing polluting plants by requiring that they comply with established pollution norms.
- ▶ The Government of Tunisia (GOT) has created a Depollution Fund (FODEP) which serves as a source for grants (worth 20% of project costs) for companies making investments protecting the environment from pollution generated by their own activity.
- ▶ Soft lines of credit are available for investment in environmental protection projects.
- ▶ In addition to FODEP, the Tunisian Investment Code provides that companies specializing in the collection and treatment of household and industrial wastes get an exemption of 50% of the net income and profits from personal or business income tax, an exemption from the value added tax and the consumption tax on all capital goods and an exemption from customs duties on imported capital goods not manufactured locally.

- ▶ In addition to national laws, Tunisia has ratified a number of international conventions pertaining to the environment such as prohibition of nuclear testing, phasing-out of CFC's, prevention of ocean pollution with hydrocarbons, trade in endangered species, protection of the Mediterranean, control of desertification and protection of wetlands.

Institutional Framework

Ministry of the Environment and Regional Planning (MEAT)

Created in October 1991 with the objectives of promoting sustainable development & a healthy environment, coordinates with other ministries through committees, regional programs & municipal environmental programs.

National Sanitation Board (ONAS)

Created in 1974 to control water pollution and protect the country's water resources, ONAS manages the entire sanitation sector in residential, industrial and touristic zones.

National Environmental Protection Agency (ANPE)

Created in 1988, ANPE analyzes and monitors the state of the country's environment while combating sources of degradation, ANPE carries out diagnostic studies and impact assessments, draws up pollution standards and facilitates public awareness.

Public Sector:

- ▶ The GOT and its agencies are the chief contractor of environmental activities.
- ▶ The GOT plans to spend \$600 million on its environmental control program included in its Eighth Plan for Economic and Social Development (1992-1996). Included within this plan is a National Strategy to Control Industrial Pollution.
- ▶ MEAT has implemented a program of environmental awareness-building through a variety of media, culture centers, environmental clubs and campaigns.
- ▶ MEAT developed the “Yellow Hand” program to combat desertification and biodiversity.
- ▶ Together with the National Committee on Biodiversity, MEAT developed the “Green Hand” Program in order to implement a national strategy to protect national sites and develop urban surroundings.
- ▶ MEAT, along with a number of other ministerial departments and public agencies, is involved in the “Blue Hand” program, developed to improve Tunisia’s marine and coastal areas.
- ▶ MEAT has developed the National Programme for Solid Waste Management (PRONAGDES), focusing on storing, reducing and recycling waste.
- ▶ ONAS has been carrying out sanitation programs focusing on conserving water resources and protecting public health.
- ▶ ANPE has been conducting educational and environmental outreach programs (i.e., labib).

Eighth Plan For Economic and Social Development

| Environmental Investments | in 1000 Dinars |
|---|-------------------|
| ENVIRONMENTAL PROTECTION PROGRAMMES | 259,400 |
| fight against industrial pollution | 157,300 = 60.6% |
| treatment of industrial and household waste | 53,200 = 20.5% |
| prevention of hydrocarbon pollution | 19,600 = 7.6% |
| protection of natural & historic heritage | 16,100 = 6.2% |
| pollution control | 8,000 = 3.1% |
| research, sensitization, aid to institutions | 5,000 = 2.0% |
| SANITATION | 298,000 |
| PROTECTION OF URBAN AREAS AGAINST FLOODS | 40,000 |
| TOTAL | 597,400 |

* *Environment and Sustainable Development; A Review of the Tunisian Strategy, Ministry of Environment and Regional Planning, November 1994.*

Internationally Funded Projects:

- ▶ In December 1990, the GOT organized a roundtable of international donors resulting in international support in Tunisia for environmental protection.
- ▶ The UNDP, European Investment Bank, World Bank, and the EEC support the Mediterranean Environmental Technical Assistance Program (METAP) addressing environmental policy, water purity, urban environment and investment in the Mediterranean region as a whole. Under METAP-I, 61 projects were completed between 1991 and 1992. METAP-II is scheduled for 1993-1995. Total funds for METAP-II are expected to be \$26-32 million. The allocation of these funds are currently being decided.
- ▶ As part of its "Avicenne" initiative for 1993, the European Commission issued a call for the participation of companies and institutes from Europe and Mediterranean countries in research projects covering water management and health.
- ▶ German bilateral aid (by KFW and GTZ) has focused on supporting ONAS sanitation programs in the Mejerdah basin. Germany donates about \$41 million annually.
- ▶ Belgium has been donating about \$8 million annually to finance wastewater treatment stations.
- ▶ Sweden has agreed to recycle Tunisia's debt into Tunisia's environment programs.
- ▶ Japan has provided funding (about \$70 million) to METAP and has supported the environmental lab at the Ecole Nationale d'Ingenieurs de Sfax.
- ▶ In addition to METAP, the World Bank has given three major grants to the GOT through GEF. One grant totals \$1.7 billion and is reserved for studies related to the depletion of the ozone layer. One grant totals \$7.5 million, is partly funded by Belgium, and is reserved for a water heating system. One grant totals \$20 million (this was for Tunisia, Algeria & Morocco and Tunisia received less than \$5 million) and is reserved for dealing with oil spills.

18

- ▶ USAID has initiated a \$3 million grant and a \$50 million loan program to the GOT under the Private Participation in Environmental Services Program. This program concentrates on assistance for low income housing/neighborhoods including solid and liquid waste management.

Non-Governmental Organizations:

- ▶ More than 100 NGOs are active in Tunisia's environmental arena.
- ▶ NGOs have participated in policy-making and public awareness activities with MEAT.
- ▶ There are also a number of research centers working in Tunisia on environmental topics such as the National Institute for Scientific and Technical Research (INRST), the National Scientific and Technical Institution for Oceanography and Fisheries (INSTOP), the Institute for Arid Regions (IRA) and the National Institute for Forestry Research.

Private Sector:

- ▶ The private sector is becoming more and more involved in the provision of environmental services.
- ▶ Industry is involved in the building of waste water treatment plants and equipment.
- ▶ Consulting firms are involved in waste water and solid waste management.
- ▶ Waste water treatment facilities are becoming privatized.

EP3 TARGET FUNDING SOURCES

| Organization | Contact | Actions |
|---|--|--|
| UNDP | GEF Coordinator: Ms. Inga Anderson Regional Bureau For Arab States Office DC12238 1 UN Plaza New York, NY 10017 (212) 906-6199 (Tel) (212) 906-5487 (Fax) Tunisia Desk: Mr. Ayadi (212) 906-5463 | Provides Tunisia with \$2 million annually, eligible for GEF funding if deals with biodiversity, effects international waters (ex: Mediterranean), GHG Gas, Ozone layer, money comes through GOT |
| World Bank | Ramzi Fares, Dept. Maghreb & Iran | 2 major grants; METAP & GEF, possibly pool from other sources. All through GOT, will loan too but is expensive at about 7½%, possibly loans already made & work into the pipeline |
| Environmental Enterprises Assistance Fund | Brooks Browne, President | They do not currently work in the region, but may have an interest in the future |
| Global Environment Emerging Markets Fund | Mr. Peter Scott, Investment Officer Emerging Markets (202) 789-4500 | Private investment fund which makes equity investments in environment-related business opportunities operating in emerging markets in Africa, Asia, Eastern Europe & Latin America |

EP3 TARGET FUNDING SOURCES ▶ 2

| | | |
|---|---|---|
| <p>African Development Bank (AFDB)</p> | <p>Ms. Alice Dear U.S. Executive Director to AFDB (225) 20 42 82 (Tel) (225) 33-14-34 (Fax)</p> | <p>Supports a variety of projects in Tunisia (ex: rehabilitation of phosphate - \$159.32 million), headquartered in Abidjan, Cote d'Ivoire. Provides project loans, lines of credit, technical assistance loans or grants. In addition to bank group's commitments, funds are also available through the bilateral cooperation agreements that most of the non-regional member countries have with the bank to support project work. Regional members of the AFDB are France, Germany, the US, the UK and Italy. There is also a Private Sector Development Unit of the AFDB which enhances private sector activities through channels such as direct lending, promotion of leasing companies, equity participation in projects and lines of credit. Funds come through government, or directly to firm through Private Sector Develop. Unit. (As private or NGO)</p> |
| <p>West African Development Bank (WADB)</p> | | |
| <p>ICF Incorporated</p> | <p>Mr. Joseph Karam, Project Manager (703) 934-3272</p> | <p>NE/USAID Workshop Participant</p> |
| <p>K&M Engineering & Consulting Corp.</p> | <p>Mr. Ibrahim Khalifa, Consultant (202) 728-0390</p> | <p>NE/USAID Workshop Participant</p> |
| <p>Coopers & Lybrand</p> | <p>Ms. Sydney Lewis, Managing Associate (703) 908-1645</p> | <p>NE/USAID Workshop Participant</p> |
| <p>World Environment Center</p> | <p>Dr. Romuald Michalek, Vice President (212) 683-4700</p> | <p>NE/USAID Workshop Participant</p> |

11

EP3 TARGET FUNDING SOURCES ► 3

| | | |
|--|---|--|
| Advanced Environment Research, Inc. | Mr. Ron McIlwain, President (703) 893-4710 | NE/USAID Workshop Participant Water Filtration System, joint venture possibly in Poland & Thailand, has interest in Tunisia. |
| Environmental Quality International (EQI) Americas, Inc. | Mr. Michael McWherter, President (602) 299-4381 | NE/USAID Workshop Participant |
| Environmental Protection Agency | Mr. Ted MacDonald, Program Manager-Office of Int'l Activities (202) 260-7394 | NE/USAID Workshop Participant, operates a "Pollution Prevention Information Clearinghouse", not likely that it will fund operating costs but EPA has been talking to EP3 about a EPA/USDA grant for a specific technology project. |
| Chemonics International | Dr. Larry Morgan, PRIDE Team Leader (202) 331-1860 | NE/USAID Workshop Participant |
| Stanford Research Institute (SRI) International | Ms. Valarie Nielson, President's Office, (415) 859-4242 | NE/USAID Workshop Participant |
| World Resources Institute | Mr. Elaine Young (202) 638-6300 | NE/USAID Workshop Participant |
| Black & Veatch International, Inc. | Mr. Wayne Weiss (301) 921-2869 | NE/USAID Workshop Participant |
| Africa Growth Fund | Ken Locklin (202) 293-1860 | Putting together a new fund with possibilities |
| OPIC | Mr. Eric Estes (202) 336-8649 | |

vt

EP3 TARGET FUNDING SOURCES ▶ 4

| | | |
|--|--|--|
| Eximbank | Ms. Anne Marie Emmet (202) 565-3946 | Eximbank is open to doing business in Tunisia, loans to U.S. manufacturers importing into Tunisia, private buyer (Eximbank needs to see 3 years of financial statements in english with the last year converted to dollars, exposure cannot be beyond ½ the company's net worth), Eximbank will also lend to NGOs if they are backed by the GOT and/or Central Bank. |
| EEC (EIB) | | Tunisia is 1 of 2 countries selected for case studies in the Environmental Program For The Mediterranean which is being carried out jointly with the GOT/EIB. |
| Germany (Gesellschaft fuer Technische Zusammenarbeit (GIZ)) | | |
| Canada (Canadian International Development Agency (CIDA)) | | |
| Japan (Organization for Economic Cooperation and Finance (OECD)) | | |
| France (Caisse Centrale) | | |

13

EP3 TARGET FUNDING SOURCES ▶ 5

| | | |
|--|---|---|
| USAID | | USAID has granted \$3 million under the Private Participation in Environmental Services Program (PPES or HG-V) for technical assistance and policy development involving the private sector in providing environmental services in urban areas. In addition, there will be a \$50 grant over 5 years in loans to the GOT for budget support programs for low income housing and basic services to existing low income neighborhoods. ANPE is the reviewing agency for the allocation of funds. (See chart at end) |
| International Resources Group | Rick Browning & Bo Poats (202) 289-0100 | EPSINE (a study supporting a pollution prevention center in Egypt with expansion to Morocco) |
| International Finance Corp. | Jerry Esmay, Environmental Div. (202) 473-7954 | Funds profitable environmental projects in Tunisia, can be private sector or NGO as long as profitable. |
| Africa Project Development Facility (APDF) - IFC/UNDP/AFDB | Cote d'Ivoire (225) 21 96 97 (Tel) (225) 21 61 51 (Fax) | |
| Arab Funds (Fades, Kuwait, Saudi Fund, Islamic Bank) | | Has given \$121 million, \$32 million, \$13.5 million & \$50 million to Tunisia, respectively. |
| UNEP | | Operates an "International Cleaner Production Information Clearinghouse" Financing handled by headquarters in Nairobi, Kenya |
| Italy | | |
| PRC Environmental Management, Inc. | Mr. Bory Steinberg | NE/USAID Workshop Participant |

EP3 TARGET FUNDING SOURCES ▶ 6

| | | |
|--|--|-------------------------------|
| GT International | Mr. Thomas A. King, PE, Vice President | NE/USAID Workshop Participant |
| Tunisian Central Bank (BCT) | | |
| Tunisian Commercial Banks (BNA, STB, BIAT, UIB, BH, BS, BT, UBCI, CFCT, ATB, BFT, CITIBANK) | | |
| Tunisian Development Banks (Islamic Development Bank, Arab Bank for Development in Africa (BADEA)) | | |
| Agence Nationale Pour la Protection de l'Environnement (ANPE) | | |
| Environmental Training Center | | |
| Société Tunisienne de l'Electricite et du Gaza (STEG) | | |

25

SUMMARY OF USAID/TUNISIA AID-DIRECT CONTRACTS BY PROJECT
As of March 2, 1992

| <u>Project Number</u> | <u>Project Title</u> | <u>No. of Contracts</u> | <u>Commitments</u> | <u>Disbursements</u> |
|-----------------------|--|-------------------------|---------------------|----------------------|
| 398-0249 | Project Development & Support | 13 | \$ 709,698 | \$ 570,174 |
| 664-0353 | Development Studies | 3 | \$ 185,891 | \$ 183,358 |
| 664-0315 | Technology Transfer | 1 | \$ 65,224 | \$ 64,480 |
| 664-0328 | Private Sector Development | 9 | \$2,010,459 | \$1,522,330 |
| 664-0331 | Family Planning | 1 | \$3,012,942 | \$2,978,989 |
| 664-0337 | Rural Potable Water | 4 | \$1,484,021 | \$ 850,623 |
| 664-0343 | Agricultural Policy Implementation | 5 | \$3,900,332 | \$3,560,704 |
| 940-1000 | Regional Housing and Urban Development | <u>5</u> | <u>\$ 511,862</u> | <u>\$ 350,437</u> |
| | TOTAL | 41 | \$11,880,429 | \$10,081,095 |

EP3 Tunisia Costs - 1994

| Labor | | | | |
|---------------------------|------------------|-----------------------------------|-------------|----------|
| Name | Total Salary | % of Time/Year (260 days/year) | Days Worked | Rate |
| <i>Local Experts</i> | | | | |
| C. Belgacem | \$3,200 | 7.69% | 20 | \$160.00 |
| S. Bouraoui | \$2,400 | 4.62% | 12 | \$200.00 |
| J. Bouzid | \$1,800 | 4.62% | 12 | \$150.00 |
| F. Chaieb | \$4,080 | 9.23% | 24 | \$170.00 |
| B. Ouederni | \$17,861 | 99.23% | 258 | \$69.23 |
| M. Khaled | \$1,800 | 4.62% | 12 | \$150.00 |
| <i>Full Time Staff</i> | | | | |
| R. Nafti | \$40,001 | 100.00% | 260 | \$153.85 |
| M. Harmel | \$18,000 | 91.15% | 237 | \$75.95 |
| B. Halima | \$16,999 | 100.00% | 260 | \$65.38 |
| Leila | \$8,320 | 100.00% | 260 | \$32.00 |
| Sadok | \$3,900 | 100.00% | 260 | \$15.00 |
| <i>Total Billed Labor</i> | <i>\$118,361</i> | | | |
| Social Security | \$11,296 | | | |
| Vacation Time | \$6,123 | | | |
| TOTAL LABOR | \$135,781 | | | |

| Other Direct Costs | |
|---------------------------|------------------|
| Travel | \$16,875 |
| Supply/Postage/Fedex | \$3,900 |
| Safety Equipment | \$164 |
| Tel/Fax/Telex | \$292 |
| Office Furniture & Equip | \$18,115 |
| Office Utilities | \$19,382 |
| Office Rent | \$10,921 |
| Vehicle O&M | \$21,130 |
| Total Workshop | \$16,218 |
| Local Recruitment | \$187 |
| Clearinghouse | \$1,368 |
| TOTAL ODC's | \$108,551 |

TOTAL EP3 COSTS \$244,332

Objective and Rationale for CP3

History of CP3

- ▶ The Ministry of the Environment and Regional Planning (MEAT) has adopted a Tunisian National Strategy for the Environment, which supports the development of clean technology and pollution prevention services.
- ▶ The U.S. Agency for International Development (USAID) has supported the Environmental Pollution Prevention Project (EP3), which has been in activity since October 1993.
- ▶ The goal of the EP3 Tunisia program is to establish a sustainable pollution prevention program in Tunisia, coordinate pollution prevention assessments and follow-up activities for interested firms, and establish a pollution prevention clearinghouse in Tunisia.

CP3 will act as the sustainable result of EP3

Vision for CP3

- ▶ Continue to serve as a focal point for promoting and implementing clean air production programs in Tunisia.
- ▶ Continue to create a market for environmental services and information through technical assistance, training and information dissemination activities.
- ▶ Contribute, expand and support the local network for pollution prevention and clean technology.
- ▶ Promote greater use of clean technology by Tunisian industries by expanding efforts to transfer U.S., Canadian and European technology and know-how to Tunisia.
- ▶ Tunisia is well situated to provide goods and services to the Arab world, Africa & Europe. CP3 would serve as the Regional Pollution Prevention Center for the Maghreb.
- ▶ Adopt a broad-based fundry to leverage donor contribution.
- ▶ Establish a fee schedule for services offered and charge.
- ▶ Generate an increasing amount of annual revenues from offered services to achieve sustainability.

4

**The Centre Pour la Production
Propre (CP3)**

The Need

- ▶ "End-of-pipe" pollution treatment (the traditional focus in the past) diverts scarce resources in developing countries from economic development uses.
- ▶ "Pollution prevention" is less expensive than the traditional route, and is more sustainable in the long run.
- ▶ Pollution prevention improves product quality, worker safety and enhances community image.
- ▶ CP3 is uniquely suited to serve the role as the "catalyst for change" in Tunisia.

Services

▶ ***Technical Information***

√ CP3's Tunisian Environmental Information System provides access to international information sources on P2, clean technology & urban/industrial environmental management, and serves as a principal source of such information for a range of audiences such as environmental professionals within the public and private sector, government officials and universities. CP3 has also developed a cadre of local consultants who are now familiar with pollution prevention concepts & approaches.

▶ ***Technical Assistance***

√ CP3 provides technical assistance to industrial plants by examining their current processes and identifying opportunities for saving money, reducing waste. In addition, CP3 assists companies in carrying out recommendations.

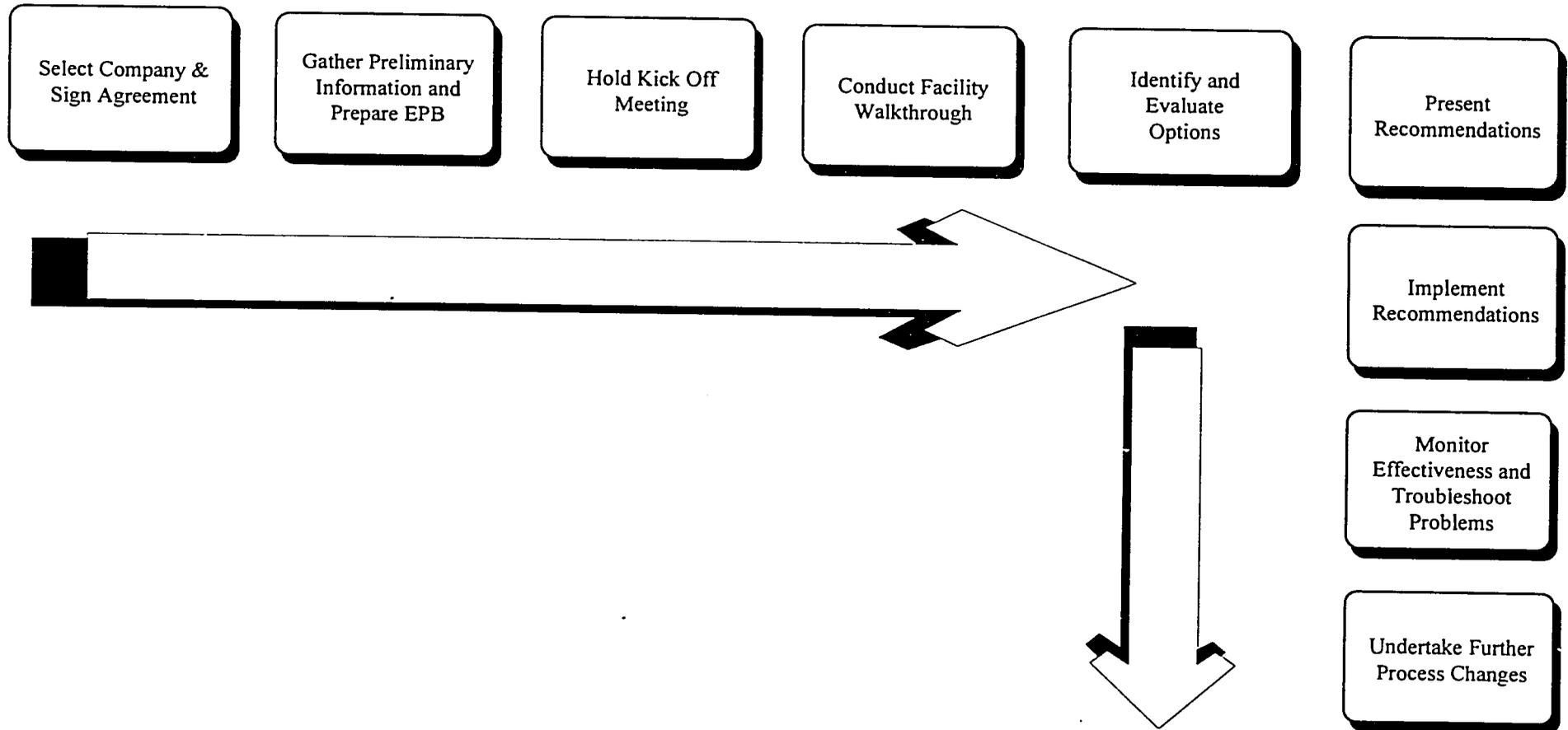
▶ ***Training***

√ CP3 offers training on P2 and development of environmental management plans for industrialists, consultants, government officials, non-governmental organizations, and engineering students. To date, CP3's broad-based program has trained environmental consultants in prefeasibility and feasibility studies and in environmental due diligence analyses, has offered two technical orientation workshops, and has participated in international conferences.

▶ ***Policy & Guidance***

√ CP3 has worked with MEAT to incorporate pollution prevention concepts into existing and new environmental initiatives.

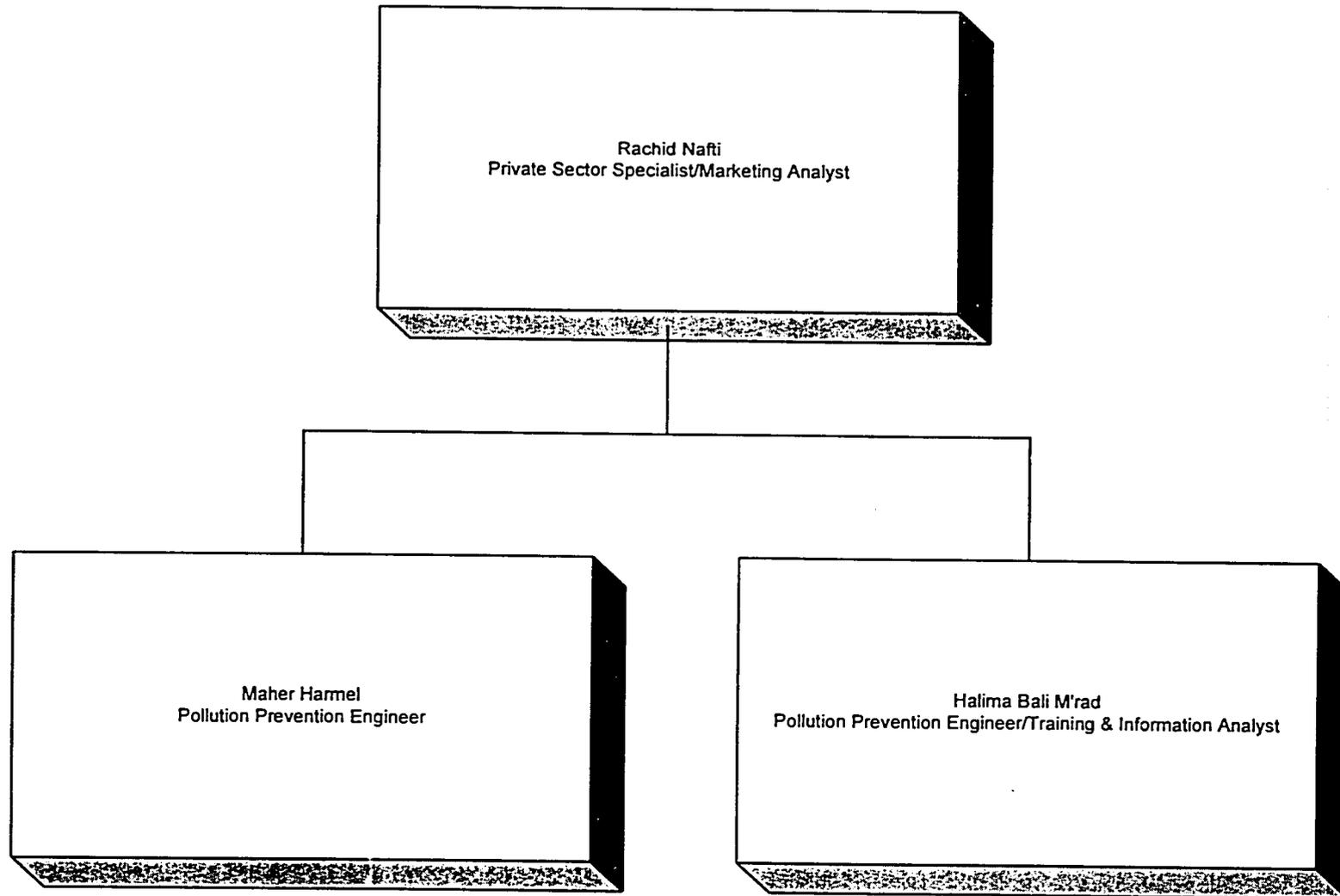
The Assessment Process



Growth Strategy

- ▶ CP3 Has already worked in conjunction with the Regional Institute of Scientific Information and Telecommunication (IRSIT). As it's database capability expands, it will eventually connect with the UNEP database, "International Cleaner Production Information Clearinghouse," and the USEPA database, "Pollution Prevention Information Clearinghouse."

Structure, Organization and Management



Structure, Organization and Management (Cont.)

▶ ***Rachid Nafti:***

√ B.A. - University of Tunis

√ Management Course - Business & Management Institute, Tunis

√ Law & Security - University of Lyon, France

▶ ***Halima Bali M'rad:***

√ B.S. - (Electrical/Computer Engineering) University of Miami

√ M.S. - (Electrical/Computer Engineering) Virginia Polytech Institute

▶ ***Maher Harmel:***

√ B.S. - (Civil Engineering) University of Texas at Austin

√ M.S. - (Environmental Engineering) University of Texas at Austin

LIST OF POSSIBLE CP3 PRODUCTS

Training

Private Sector Training Sessions
Government Training Sessions

Training will include auditing courses, environmental impact courses, and solid and liquid waste management courses. 25 people are expected to attend each session.

Technical Assistance

Environmental Audits
Environmental Impact Studies (scope expected to increase in later years)
Waste Management Studies
Pre-Treatment Studies
Treatment Studies (will be given in three phases)

Technical Information

Private Sector Clearinghouse
Government Sector Clearinghouse

Private sector clearinghouse information will be sold as a one-time fee for complete customer access. Government sector clearinghouse information will be sold as an entire system, designed for the particular government office, including a one-week training session.

Policy and Guidance

Policy Studies
Seminars

NOTE: All of these products would be offered if EP3 were to become a private entity. If EP3 is to become an NGO, only environmental audits would be offered under the category of Technical Assistance, and only seminars would be offered under the category of Policy and Guidance.