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The Hashemite Kingdom of Jordan

Ministry of Water and Irrigation

Water Quality Improvement and Conservation Project

Design & Assist in the Implementation of Financial Mechanisms for Industrial Wastewater Discharge Prevention

Development Alternatives, Inc.

The Technical Assistance Team Includes:

Development Alternatives, Inc.
Science Applications International Corp.
Harza Environmental Services, Inc.
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PREFACE/ACKNOWLEDGMENTS

This report is the result of a activity performed to assess alternative financial mechanism to assist industries in implementation of techniques for pollution prevention and water conservation practices.

Several individuals on the Water Quality Improvement and Conservation Project contributed to this report. Mr. Ahmad Sa'adi of the Amman Chamber of Industry (Chamber); Engineer Rania Abdel Khaleq of the Ministry of Water and Irrigation (MWI); , shared their knowledge with financial specialists Messers. Michael McKone and Peter Hanny of Development Alternatives, Inc. (DAI). These staff worked under the direction of Dr. Shawn R. Niaki, P.E., Pollution Prevention Program Director, of Harza Consultants and Engineers, Chicago, USA, who heads the WQIC component under which the study was housed. It is from their combined expertise that this report was possible.

Special appreciation is given to Dr. Mohammed Bani Hani, Secretary General of MWI; Eng. Koussai Quteishat, Secretary General of the Water Authority of Jordan (WAJ); Mr. Khaldun Abuhassan, Chairman of the Chamber; Mr. Walid Khathib, Director General of the Chamber; Dr. Muwaffaq Saqqar, Project Coordinator from MWI;; the members of the PP/WM working group from WAJ including Eng. Abdul Wahab Matar, Eng. Marwan Al-Tal ; and to DAI., as represented by Edwin D. Stains, Chief of Party; for their cooperation and confidence.

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I. Executive Summary

Under the supervision of the Water Quality Improvement and Conservation Project (WQIC), a study team spent approximately 4 weeks implementing a work plan to design and implement financial mechanisms for investment in technologies related to pollution prevention and water conservation in Jordan. In implementing the work plan the team worked closely with the Ministry of Water and Irrigation, the AID mission in Amman, and the Amman Chamber of Industry. The team also conducted approximately 50 interviews with representatives of the Government of Jordan , the Amman municipality, the banking sector, and business leaders representing small, medium and large enterprises. The team also examined financial statements and eligibility requirements for various financing schemes already in existence.

The team's findings are summarized as follows:

The Regulatory Environment: The recently enacted *Environmental Law* represents an important step in enforcement of environmental standards and clarifying responsibility for environmental management, which is currently spread among various ministries. However, the Law needs further refinement as noted in the **Recommendations** section below.

The new *Income Tax Code* should provide businesses with additional investment capital from retained earnings and reverse the trend of decapitalization. However, it is not clear whether businesses will invest in pollution/conservation technologies without additional incentives.

The *Investment Code* and the *Property Rights* Laws do not have strong provisions allowing for firms to register fixed assets, which affects the ability to use those assets for collateral. The *Companies' Law* also constrains capital formation by limiting the borrowing capacity of firms; it also lacks specific provisions for the development of mutual funds.

The Financial Environment: The *Central Bank of Jordan* currently has no specific policy on the environment which it enforces through the financial system. Also, the Bank could provide incentives to the commercial banks to invest in environmentally-related technologies by lowering reserve requirements on a corresponding percentage of the commercial banks' loan portfolio dedicated to pollution control and environmental protection. The *Commercial Banking* Sector lacks competitiveness and innovation. Also, there is a clear preference for short-term lending to large, well-known businesses, making capital scarce for small- and medium-sized businesses. It appears unlikely that the commercial banks will make medium- and long-term credits available for pollution control and prevention unless market-based incentives are offered.

The *Jordan Loan Guarantee Corporation* was established to address the credit needs of small- and medium-sized businesses. Ways to enhance that Corporation's effectiveness are found in the **Recommendations** section. The *Industrial Development Bank* appears to be an excellent vehicle through which to implement pollution-related financing strategies and figures significantly in the team's recommendations.

The **Business Environment**: Large-scale firms have the best access to banking credit and other financial resources necessary to implement pollution control and prevention strategies. Small- and medium-sized firms do not in general have access to the funds or the technical information necessary to implement those strategies. Also, firms owned either in part or wholly by the Government of Jordan or the Amman municipality do not have full financial control of their operations and therefore cannot make capital investment decisions.

International and Bi-Lateral Agencies: These organizations offer a variety of financing vehicles for pollution control and prevention technologies. The most notable include the *Kredit Fuer Wiederaufbau (KFW) Debt Forgiveness Facility,* Ex-Im Bank of the United States' *Environmental Export Program* and the *Commodity Import Program.*

The Team's **Recommendations** are summarized as follows:

Short-Term Recommendations:

- ***Establish a fund to provide credit at below market rates to intermediary financial institutions***;
- ***Eliminate withholding tax payable on interest payments due on off-shore funding for environmental purposes;***
- ***Request the Central Bank to accommodate resources employed in environmental projects, by exempting them from statutory reserves***;
- ***Modify the parameters of support to SMEs exclusively for the finance of water conservation and pollution control equipment by the* Jordan Loan Guarantee Corporation;**
- ***Formally withdraw the special privileges of the Housing Bank and the Industrial Development Bank (with the exception of tax exemption);***
- ***Have the services of Industrial Development Bank more aggressively promoted.***

Long-Term Recommendations

- ***Have fixed assets of all corporations and business registered with a central registry of corporate and business names. This registry would also be the official record of property transfers, assignments, liens and mortgages;***
- ***Modify the existing law(s) to have the costs of environmental clean up made the responsibility of the polluter, be he an individual, business or government agency. This should include, obliging lenders to business that pollutes, potentially responsible***

for the cost of toxic clean up;

- *Create a regulatory climate that encourages the development of diverse financial institutions;*

- *Reform legal process to accelerate recourse against delinquent borrowers;*

- *Expand the range of acceptable collaterals via legal reforms;*

- *Extend the Investment Law to require all businesses soliciting finance for environmental purposes, to establish, maintain and have frequently audited financial statements;*

- *Design and implement concessions and incentives (detailed in the* **Recommendations** *section) as part of the Government's environmental management plan;*

- *Emulate the standards of financial institutions in neighboring countries, to place Jordanian banks on an equal competitive footing;*

- *Encourage the establishment of a private sector credit bureau;*

- *Encourage the establishment of a private sector collection agency and a company prepared to purchase bad debts;*

- *Modernize pension fund legislation;*

- *Encourage the development of Mutual Funds;*

- *Eliminate price controls on all financial transactions;*

- *Have the Central Bank of Jordan develop an environmental policy;*

- *Have the Tax Department support environmental activities as a qualified beneficiary for the allocation of revenue sources.*

II. Purpose and Scope

Purpose

The objective of Task 3, Component 2 of the Water Quality Improvement and Conservation Project (WQIC) Project in Jordan (hereafter referred to as "the Study" or "the Report") is to design and assist in the implementation of financial mechanisms for investment in technologies related to pollution prevention and water conservation. As such, the study follows the audit reports and feasibility studies prepared by DAI/Harza as part of Component 2.

However, the study did not confine itself to those companies and industries for which audit reports and feasibility studies were prepared. Rather, that information was used as a guide in determining the nature and extent of the pollution/conservation-related issues facing the Jordanian business sector. The Study expanded beyond those particular industries to focus on financial issues and constraints facing all types of production-oriented businesses.

Scope and Methodology

The study team, consisting of Michael McKone, Manager, Commercial Services, Development Alternatives, Inc.(DAI), and Peter Hanney, Hanney Associates, (hereafter referred to as the "study team" or the "team"), arrived in Jordan on September 25, 1995 to begin work on the approved Scope of Work. The main elements of the work plan are summarized as follows:

- Review financing schemes available from multilateral and bilateral development agencies;
- Review pollution prevention/water conservation audits and feasibility studies performed under sub-component 2 of the current WQIC program and analyze their financial impact;
- Evaluate the current financial, market, regulatory and policy issues affecting the business sector's willingness and ability to implement water conservation and pollution prevention measures;
- Develop a matrix of financing options based upon the above findings; and
- Recommend new financing options and provide other recommendations regarding constraints to implementation as appropriate.

The team performed all of the above activities with the exception of detailed financial analysis for specific firms based on the audit reports and feasibility studies. The team requested financial data from several firms, but the data was not detailed sufficiently to allow for proper cash flow analysis. The data was, in any event, unaudited and may not have reflected the true financial situation of those companies. Additionallu, several of the firms visited - the Municipality of Greater Amman Slaughterhouse being one- are wholly or partially government-owned. As such, the managers of those firms have limited control over day-to-day financial management. Many of the operating costs are paid by the government directly, and operating revenues flow directly to government financial departments. It is, therefore, extremely difficult to develop a clear understanding of the financial situation of those firms.

The team, therefore, focused its efforts on all other activities in the work plan.

During the course of its work the team met with representatives from a wide variety of organizations in order to develop a broad picture of the issues facing the business sector in financing pollution control/water conservation techniques. Those organizations included:

- Large-, medium- and small-scale businesses (12);
- Government agencies and ministries (8);
- Commercial sections of foreign embassies (10);
- Commercial and investment banks (13); and
- Other organizations and agencies (4).

Our observations, conclusions and recommendations are based on those interviews as well as written information reviewed. A complete list of the team's contacts is contained in Attachment 1.

Three additional items are worth noting with regard to the team's analysis and final conclusions: (1) although the study, like the WQIC Project itself, focusses on issues related to the Zarqa Valley region, the overall conclusions and recommendations have relevance for businesses throughout Jordan; (2) the financial issues raised in the report apply equally to investments in other types of pollution control and conservation besides those related to water; and (3), that the study is by no means exhaustive, since a great deal of weight was placed on personal interviews rather than systematic research. Still, the team feels its conclusions are valid and the recommendations reflective of the investment climate in Jordan.

II. Introduction

Water resources in Jordan are critically limited. In the future the overall amount of water will most likely decrease because of the over-pumping and likely depletion of some aquifer systems. With continuing growth and development in the municipal and industrial and agricultural sectors, the anticipated increase in demand for water beyond the year 2000 reveals a large gap between supply and projected demands. Therefore, Jordan must immediately initiate measures which address water conservation -- using less water and ensuring availability for reuse.

Most of Jordan's major industries - including power generation fuel refining, textiles, paper production, leather tanning, steel fabrication, soap and detergent manufacturing, chemical manufacturing, and phosphate mining - are situated in the Zarqa River Basin. These industries are major contributors to the pollution of the Zarqa River Basin resources. In addition to industrial organic wastes, heavy metals are being discharged into the river basin and subsequently the King Talal Reservior (KTR).

Approximately half of the industrial installations discharge directly into the waters in the basin. Although information about the impact of these industrial wastes is very limited, they appear to be concentrating in the KTR. Hazardous materials, likely of industrial origin, have been identified in the sediments of KTR and surface and groundwater of the Zarqa River Basin. Industrial discharges to the As-Samra Wastewater Treatment Plant also contain pollutants not removed in the plant which reduce the operational capacity of the plant.

A commonly stated reason for the present state of industrial pollution is the absence of capital for pollution control equipment and lack of experienced engineers and scientists in both governmental and industrial firms. There is an urgent need for public and private sector groups to gain hands-on experience in analyzing and solving industrial and municipal pollution problems.

Historically, businesses in Jordan have not born the social cost of this valuable resource. Various studies have determined that water rates are subsidized by the(Government of Jordan (GOJ). The GOJ has in the past attempted to force compliance with pollution standards but met with little lasting effect. Business generally remains skeptical of the GOJ's efforts at enforcement, and is adopting a "wait and see" attitude regarding implementation of the new Environmental Act.

In spite of that skepticism, there appears to be a relatively high level of awareness within the business sector that Jordan faces real environmental issues, especially with regard to water pollution and water conservation. Businesses seem to be willing to be part of the solution, not the problem, as long as they are engaged properly in the process.

The business sector has historically focussed on trade, and only recently has government made an effort to develop seriously the industrial sector. As a result, the country's productive capacity lacks depth and diversity and is dominated by a few large enterprises, a significant number of which are monopolies and or are owned partially or in total by the government. That concentration of power has also hindered enforcement of environmental standards, with the GOJ often resorting to moral suasion to achieve its desired aims.

In 1991, the Ministry of Health closed approximately 30 factories for violation of pollution standards. Within three weeks, virtually all of those plants were back in operation, reflecting the inordinate influence and market concentration that exists in the production sector. The GOJ itself appears torn between encouraging new business (and employment) and enforcing environmental regulations.

The GOJ recently passed a new Environmental Act which will create a separate Agency responsible for enforcing compliance with environmental standards through penalties. The private sector seems divided on the effectiveness of applying punitive measures only to achieve compliance with environmental standards; many remember the government's inability to keep factories closed during 1991. Still, the business sector recognizes that water conservation is an important issue, but feels that punitive action should be combined with incentives so that the burden of internalizing those social costs is shared fairly by government and the businesses themselves.

With the above in mind, the team's overriding objective was to look for financing solutions and mechanisms which would be perceived as fair by the business sector. In that way, compliance would be more likely to occur in the shortest time possible. The team also sought solutions that were practical and feasible given the regulatory, legal, and general business climate of Jordan.

In order to develop such solutions, it became important to understand the overall financial environment, the characteristics of the enterprises themselves, the legal and regulatory environment in which they operate, and the financial and environmental policies of the GOJ.

From the above, the key constraints to financing conservation and pollution control technologies could be developed, and new options could be explored as necessary.

The team's findings and recommendations are organized in this report as follows:

- **The Regulatory Environment**, which gives a brief overview of the GOJ's economic priorities and analyzes legislation that bears directly on pollution and investment issues;
- **The Financial Environment**, which summerizes the main contributions of the major financial institutions in Jordan and discusses the major issues associated with each;
- **The Business Environment in Jordan**, which disusses the structure of that sector in general terms and outlines the main financing constraints it faces;

- **International Donor and Bi-Lateral Agencies**, which details important funding mechanisms either currently available or which could be accessed;

- **Summary of Findings**, which summerizes the team's observations and recommendations; and

- **Recommendations,** which provides short-term and long-term solutions for implementing the team's suggestions.

III. The Regulatory Environment

Overview

Jordan is currently at an important economic juncture, which, if well managed, can help it achieve the economic objectives of sustainable growth, increased employment generation, and increased private investment in the productive sector. To achieve those objectives, it will be necessary to continue to implement economic reforms designed to stimulate private investment, to decrease the GOJ's role in economic activity, to address the issue of a large debt overhang, and to utilize the opportunities offered by the peace process to reestablish trade linkages in the region.

Although good progress has been made in implementing the structural adjustment program imposed by the IMF, further micro-economic and macro-economic reforms are needed to sustain at least a moderate rate of growth over the short-, medium- and long-terms. The country faces three macro-economic challenges which are:

- Pursing stringent demand management without risking stagnation and high unemployment;
- Reducing its debt service burden; and
- Increasing private and public (social) investments.

These challenges largely dictate the country's current development strategy which consists of three main elements:

- An aggressive, private sector-based, export-oriented strategy aimed at increasing economic efficiency, overcoming small market limitations, increasing debt servicing capacity, and stimulating capital flows;
- Within the continuing financial and natural resource constraints, a focus on efficiency gains (and growth), which will come from: (1) high return investments, (2) a shift in the roles of the public and private sectors, and (3) a shift from the relatively inefficient, protected industries to more competitive and export-oriented industries; and
- An acceleration of micro-economic, liberalizing reforms in the goods, services and financial markets as a complement to macro-economic reforms and structural changes, the overall effect of which is to increase private sector investment.

The regulatory environment is at a point of major change and new legislation is about to be or has recently been enacted, which is aimed at achieving the above objectives. The most prodonent legislation that impacts on businesses's ability to cope with water conservation and environmental controls are outlined below:

The Environmental Act

The new Jordan Environment Act, scheduled for approval by the end of 1995, creates a new Environmental "Corporation" or Agency reporting directly to the Minister of Municipal and Rural Affairs and the Environment. The Agency replaces the Environmental Department which reportsin a less direct manner to the same Minister. Presumably, the Agency will be staffed with the same personnel as the current Department.

The Agency will be responsible for formulating standards and specifications for water, air, soil, flora and fauna, and effluent discharge. The Agency will also be responsible for monitoring and licensing firms from the standpoint of environmental compliance. The Agency is also charged with developing and imposing a system of fines and penalties for non-compliance.

The Act requires that firms either purchase insurance or self-insure against civil liabilities which could arise from damage to the environment caused by the activity of their business.

The Act also authorizes the Agency to establish and manage an Environmental Protection Fund, the objective of which is stated broadly as " the improvement and protection of the environment." The Fund is to be financed through several sources: GOJ budget allocations, other public and private allocations (not specified), grants and donations from regional and international donors, levies due for the protection of the environment, and revenues from fines and penalties. The Fund is to be operated on a commercial basis, presumably along the lines of a revolving fund.

Comments:

The Act is an important step in making environmental issues a top government priority. However, the act does not appear to go far enough in that direction. While the Act transforms a ministry department into an agency, its ultimate reporting responsibility remains the same. In conversations with public and private sector officials, responsibility for the environment is spread over several agencies, resulting in duplication of effort and overlapping mandates and goals (for instance, it was the Ministry of Health, not the Ministry of Municipal and Rural Affairs and the Environment, that forced the closure of 30 industries in 1991).

The same sentiment was expressed indirectly in the GOJ's Economic and Social Development Plan 1993-1997. The Plan characterizes the operations of the public sector as lacking a clear vision of the most appropriate structure to implement tasks, poorly defined and overlapping responsibilities, and lack of qualified management.

While the Agency will be responsible for coordinating environmental policy among the various ministries, it is not clear whether it will be the sole entity responsible for enforcement of environmental standards, or will merely attempt to provide enforcement criteria for the various ministries already involved in environmental issues. If the latter is the case, the GOJ runs the risk of alienating the private sector, since attempts at monitoring and enforcing environmental standards are at present viewed by the private sector as duplicative, poorly organized and arbitrary.

The team believes that the private sector will be more willing to adopt the new environmental standards if promulgation and enforcement reside clearly and completely in one organization. Furthermore, the GOJ should consider making the Environmental Agency a ministry-level position - in this way, it would have a higher degree of authority to coordinate the activities of other ministries, and it would draw greater public awareness to the GOJ's commitment to environmental issues.

Cooperation from the business sector is important to the success of the new Agency. While the Agency will have punitive measures for non-compliance at its disposal, businesses need to see the regulations as fair if the productive sector of Jordan is to continue to grow. One way of bringing business and government closer together on environmental issues is to have independent, for-profit companies perform the functions of environmental licensing and monitoring. Such businesses would be bonded and licensed, for a fee, by the Environmental Agency. In that way, monitoring and compliance would be done on a "business-to-business" basis, lessening the risk of antagonism developing between government and private sector business. Such action would also provide employment opportunities in a new business sector.

Finally, the team feels the GOJ should reconsider placing the management and operation of the Environmental Protection Fund under the Environmental Agency. Since the Fund is meant to run on a commercial, i.e. private sector, basis, it would be more appropriate to establish the Fund as a independent, for-profit investment company or have the Fund managed by an existing financial institution.

The Tax Law

The new Income Tax Code, which goes into effect on January 1, 1996, is much more supportive of business, particularly with regard to capital accumulation. The following are the most important changes:

- The penalty levied on the capitalization of accumulated earnings is to be eliminated. Simultaneously dividends will be taxed at the rate of 10%;

- The new law permits the full deductibility in the year they were incurred of expenses for training, marketing, research and development. An unofficial opinion of the tax department was that capital expenditure incurred for environmental purposes could be expensed in the year they are incurred, as they could be interpreted as development expenses. Support of the Director of Income Tax would be required, in order for the issue to be tabled before the Minister of Finance; it would appear more likely, however, that environmental equipment would be treated to accellerated depreciation (say, over two or three years, rather than seven) as opposed to an immediate write off.

- Taxation for the production sector has been changed to a flat 15% , as compared to the previous rate of 35%. The change is meant to stimulate investment in that sector, which is consisent with the GOJ's stated developmental objectives.

Comments:

The new tax code provides much greater incentive to retain profits and build the capital of firms. The previous law, which in fact double taxed retained earnings, resulted in the decapitalization of companies. The new law should also improve the borrowing capacity of firms as they now have greater incentive to invest in new, productive assets.

It should be noted, however, that those changes do not by themselves increase the likelihood that firms will invest in pollution technologies. Pollution control and prevention solutions in most cases require an investment with no corresponding stream of (cash) benefits. However, the tax law changes provide incentives for companies to retain earnings, which could improve their ability to finance those new technologies, either through retained earnings, debt, or a combination of both.

If approved, the ability to accellerate the charge-off as a "development expenses" the costs associated with pollution control equipment would be a definite incentive. The new law now allows for accelerated depreciation of capital equipment over seven years; a writeoff of two or three years would result in significant tax deferment, and, in some cases, significant tax loss carry forwards. While tax incentives do not address the issue of financing the equipment itself, it does provide a means by which the firm can ultimately recoup those costs.

The Investment Code

A new investment law has been passed and publication in the official gazette is scheduled before the end of 1995. The law sets down, albeit in very general terms, the code under which new and existing investments will be treated. It substantially modernizes the previous legal frame-work.

Article 26 of the code requires that businesses establish and maintain proper bookkeeping and accounting records and employ a certified auditor (public accountant) to perform regular audits on enterprises.

The same law requires businesses to maintain a detailed record of fixed assets of the business (project). Article 34 of the same law facilitates the mortgaging of machinery and equipment of any business or project.

Comments:

The most widely used form of collateral in Jordan is first mortgage security over real estate. Machinery and equipment are rarely used because there is no central registry to verify ownership, register liens or property transfers. As a result, businesses cannot fully leverage those assets. In the Action Plan section below we have detailed the enhancements required to make the registry system more effective.

The Companies' Law and Property Rights

A number of laws govern market entry, exit and market structures. Two laws are particularly relevant: The Companies' Law and the Property Rights Law. Both are currently under review. The former requires significant revisions as outlined below. The latter has supported one of the most active markets in the region, but now needs revising and updating. Presently, these laws do not facilitate the most efficient use of private property rights or the most effective mobilization of finance.

The Companies' Law

The Companies' Law (Law # 1 of 1989) is administered by the Controller of Companies. Reporting to the Controller is an Issuing Committee, which has authority in setting share prices for stock offerings and reviewing bond issues, as well as setting the limits on mergers. The Issuing Committee's activity is often cited by private businessmen as a source of frustration and a limitation on entry and growth.

The Law is overly detailed and allows the GOJ to micro-manage business activity. Ideally, a companies' law should facilitate the maximum mobilization and use of private financial resources and rights.

In terms of market entry, the Law lacks clear provisions for collective investments to be made other than by an individual company. Additional provisions are needed to allow open- and closed-end mutual funds to operate. The Law also constrains debt offerings by limiting corporate gearing to a very low ratio of 1:1 unless special approval is granted by the Issuing Committee; otherwise no criteria for such approval are provided.

Property Rights

A significant gap in Jordan's legal system is the absence of effective means for private sector firms to leverage their property rights, other than land. The Civil Code provides for mortgages on land and those tangible, specific movables continuously in possession of the creditor. Other than for automobiles and vehicles, there is no registry for chattels or liens, making the hypothecation of machinery and equipment an ineffective collateral for credit. This results in a lesser amount of credit becoming available to the private sector, especially in newly emerging firms, despite increasing liquidity in the banking system.

In Jordan, self-financing and bank loans are the two primary sources of financing for the private sector. Under existing rules Jordanian banks accept only real estate as collateral for loans or the personal guarantee of the someone who owns real estate, or who can provide cash or in-kind collateral in possession of the lending institution. As with chattels, banks do not accept collateral liens over inventory, receivables, and livestock without demanding a supplemental guarantee based directly on the ownership of real estate or substantial cash or securities' deposits. These lending rules and practices lead to high interest rates which discourage borrowing for both short- and long-term purposes that results ultimately in lower output and income.

The legal system's limitation of collateral to real estate also affects the allocation of funds for investment purposes, in addition to its volume and price.

Even for businessmen who own land, a credit system tied so rigidly to land limits the country's development and ties up large amounts of capital that could be leveraged for business loans. Different types of businesses require different mixes of fixed and working capital to operate most efficiently. For example, as a distributor's business expands, he needs both physical space and increased inventories; however, the legal system is biased toward the former. Credit to finance inventories is harder to obtain in Jordan, since inventory cannot effectively serve as collateral. Similarly, in agriculture, commercial credit is limited as livestock and machinery cannot serve as collateral.

In addition to the gaps and limitations that establish a bias for collateral, there are additional factors related to the system that caused lenders to regard loans secured by factors to the legal system that cause lenders to regard loans secured by moveable/intangibles as more risky than real estate related loans. These factors relate to:

- An inability to use several modern widely recognized contracts for some important economic transactions as a result of the inadequate definition in the law of collateral and guarantees;

- The complex and time consuming measures to enforce collateral security, as currently exists in the legal system, than not-uncommonly takes longer than the economic life of the hypothecated asset;

- Inadequate registries that make it hard to trace claims, pledges, mortgages and liens, and to identify collateral in a manner that satisfies the courts; and

- Inadequate judicial training and streamlined procedures rendering legal recourse a risky proposal that is fraught with undeterminable dangers.

IV. The Financial Environment

The Central Bank

The Central Bank (CB) is banker to the GOJ in addition to being its economic and financial advisor, issuer and defender of the Jordanian Dinar, manager of monetary policy and architect and supervisor of the financial system. It acts as lender of last resort and, to date, the principal depository for the surplus funds of the commercial banks.

While CB management acknowledges the importance of control of the environment, it has no specific component of policy that focuses on management of environmental issues through the banking system. As chief policy maker of the financial sector, potentially it has a very important role and contribution to play in the enforcement of compliance throughout the economy. As agent of the GOJ, it has the ability to fortify the efforts of the Ministry of Water and Irrigation, and the new Environmental Agency in achieving greater public awareness and enforcement of environmental quality standards.

In the administration of economic policy, the CB encourages commercial banks to lend to certain sectors requiring assistance. That may be accomplished through the mandatory reserve that banks are required to keep with the CB. Reserves may vary from 5% to 35% of deposits, and it is within the CB's powers to allow special dispensation for loans to priority sectors or for special purposes.

Comments:

The CB could be an important alley in mobilizing financial resources for investment in pollution control and prevention equipment. The CB's ability to allocate funds to priority sectors by adjusting reserve requirements can be used to create incentives for financial institutions to make environmental-type loans; the CB could exempt or greatly reduce the reserve requirements on an amount of deposits equivalent to loans made for that purpose. In so doing, the CB lowers a financial institution's cost of funds (since the institutions must pay an opportunity cost for having funds on deposit at the CB, funds that earn no return). The net result is that the financial institutions would earn an overall better financial return, assuming no increase in the overall riskiness in their portfolios.

For reasons mentioned below, lowering the reserve requirement will not in itself achieve the broad-based investment in pollution technologies that the team envisioned. However, it is part of an overall mix of incentives to achieve an allocation of scarce resources to enterprises for environmental investments.

Commercial Banking

The banking sector in Jordan is somewhat of an anomoly. Given the population and relative size of the economy, the market would appear to be "over banked". The financial community is comprised of 15 commercial and investment banks, including branches or subsidiary/ affiliates of foreign institutions; those banks are complemented by 6 other specialized credit institutions.

On the other hand, the high level of pre-tax profitability registered by most banks is not reflective of a highly competitive environment. In fact, financial innovation is weak and there appears to be a considerable number of financing opportunities available that are not actively pursued by the commercial banks. The gross interest margin, being the difference between average interest paid on deposits and interest collected on loans, is considerable; short-term deposit rates are between 6 and 8 percent, and loans average between 10 and 14 percent.

There are several possible explanations for those anomolies. First, the banking environment in Jordan tends to be extremely conservative and risk averse - loans are made to only the best credit risks, and loans are often over collateralized. Second, there appears to be oligopolistic behavior among the banks, as they appear to be willing to share the high (and relatively small) end of the credit market, rather than compete for market share. This could be due to the high margins the banks are achieving from their current activities, which act as a disincentive to new product innovation or competition on price.

The banking climate is also reflective of the GOJ's desire to maintain the conservative nature (and, therefore, profitability) of those institutions as well as maintain a tight monetary policy.

The financial institutions are also constrained in their lending activities by the character of the deposit base in Jordan. Individual and corporate depositors have a preference for short-term deposits in the range of one to three months. Banks lending "longer" than that period take on additional risk as their asset and liability bases become mismatched. When mismatches occur, the banks are compensated for that increased risk by being able to charge higher returns and make greater profits.

As mentioned, financial institutions lend selectively, and it appears that most banks do not see the need to lend to the small- and medium-sized (SME) business sector except on a very short-term (less than one year) and fully collateralized basis. SMEs often lack the collateral for longer term lending, and are inexperienced in dealing with banks, in the preparation of financial statements, and in writing business plans.

As mentioned, banks will lend on a longer term basis to the their best clients, which tend to be the largest and most credit worthy businesses in Jordan. Terms can, on an exceptional basis, extend to seven years, with a one to two year grace period, but most often the terms are between three and five years.

Under the current tax law the banks are taxed at the rate of 50%. The new tax law coming into effect in January 1996 reduces the rate to 35%, which enhances the return to investors and provides the banks with a better cash flow for investment in new products. However, given the sector's current structure, it remains to be seen whether that additional incentive will have the desired effect of stimulating new product innovation or investment in new market sectors.

The team was also advised that the GOJ plans to raise the minimum bank capitalization from JD10 million to JD 20 million in an effort to encourage bank consolidation and further strengthen the banking system. It is unclear what affect, if any, the change will have on the competitive nature of the system.

Comments:

The commercial banking sector is skewed heavily in favor of Jordan's most powerful businesses and is targetted toward working capital for both domestic and international (i.e. trade) activities. While the most credit worthy clients have some access to long-term finance, SMEs are in large measure excluded from that segment of the market. As mentioned below in more detail, SMEs play an important role in Jordan's economy, and their inability to access term debt financing seriously hampers efforts to improve their environmental performance.

It also appears doubtful that commercial banks will overcome their bias against SMEs in the short-term unless new, longer term sources of capital become available for lending. Those funds will have to be properly packaged along with the incentives alluded to in this report to open the SME market. The rationale for and structure of the financing package is presented in the Recommendations section of the report.

Obstacles to Financing via Commercial Banks:

Obstacles to financing via the commercial banks may be summarized as:

- Money lent through commercial banks is more expensive, as GOJ-sponsored banks enjoy exemption from taxes on earnings from real estate loans, and for which purpose they may lend at below market rates of interest;

- Credit ceilings imposed by the Central Bank as a move to contain inflation. These were recently abandoned and are being replaced by indirect instruments of monetary control (bonds);

- The asymmetrical tax on credit instruments and transactions; and

- The lack of incentives to develop new financing mechanisms.

Investment Banking

Investment banking licences are held by five institutions that otherwise operate in a manner similiar to commercial banks. Investment banking activity is hindered by the lack of long-term savings, the absence of leverage, inadequate financial information, lack of a diverse financial instruments, and the lack of depth in the debt and equity markets. Also, a variety of GOJ-imposed restrictions constrain meaningful development of those markets.

Comments:

The investment banking sector suffers from a lack of sophistication on the part of investors, as well as the lack of depth in trading activity. As mentioned above, investors tend toward short-term, relatively straight forward financial instruments. A few larger firms have floated bonds, but the lion's share of debt market belongs to the GOJ. The team was advised that one investment bank attempted to float a private debenture issue, but was unsuccessful in attracting public interest.

There is virtually no secondary bond market, and most trading activity is done between banks.

It is therefore unlikely that the bond or equity markets could be used in the short-term to finance pollution control and prevention equipment.

Specialized Financial Institutions

Jordan Loan Guarantee Corporation (JCGC)

This company was founded in 1994 to assume management of the USAID-sponsored Loan Guarantee Project founded in 1988. Under the original terms of the agreement with USAID, USD10 million was to be disbursed over a period of four years.

Subsequently in the same year, the grant was reduced to USD 7 million, of which USD 1.5 million was used for technical assistance, training and research. The remaining USD 5.5 million loan fund was transferred to Industrial Development Bank to capitalize the JCGC and implement the revised program.

The guarantee program was designed specifically to assist SMEs raise development funds by providing guarantees and other assistance to participating commercial banks. The program also gives priority to businesses owned by females and those operating outside the municipality of greater Amman in particular.

The program accomplishes its objectives in several ways, including:

- Issuing guarantees to commercial banks to a maximum of 75% of the value of the loan, up to a maximum guaranteed amount of JD 40 thousand;

- Providing training and technical assistance to participating commercial banks geared toward the SME sector, in the areas of credit management, small project analysis, and designed to emphasize cash flow analysis rather than dependence on real estate or other conventional collateral, as the primary determinant for granting loans.

The loan guarantee project commenced operations in October, 1990. During the period up to 1993, the number of loans guaranteed totaled 326 for a total of value of JD 3.4 million, with ten banks and one financial intermediary as beneficiaries. Geographically, the greater Amman area received 48 percent of the loans facilitated and the balance was widely scattered throughout the country.

The project's performance was considerably below the 1,650 guaranteed projects projected for the end of 1993.

In its revamped form, the Central Bank is the largest shareholder of the JLGC. Jordanian-owned financial institutions were obliged to take up the balance of equity participations, which individually range from JD 100 thousand to JD 350 thousand. The start up capital of the new JLGC was JD 7 million.

Comments:

Commercial banks consulted on the subject said they were generally disappointed with the return on investment achieved when utilizing the guarantee program and felt that the Corporation should consider a more aggressive approach in structuring and marketing the program. Changes recommended include providing coverage beyond the current limit 75 percent, increasing the lending limit beyond JD 40 thousand, extending the term limits of the guarantees, and relaxing the reporting and other statutory requirements.

In spite of the program's current constraints and limited success to date, the team feels that the corporation is well situated to support the SME business sector investment in environmental technologies. Our recommendations for changes to the structure of the corporation are contained in the Recommendations section of the report.

The Industrial Development Bank

The GOJ-controlled Industrial Development Bank (IDB), was established in 1965 by special decree which specifies its objectives, structure and organization. It has been the sole conduit for the intermediation of funds from international institutions destined for industrial development.

To meet its objectives as a development bank, the IDB was granted special privileges including tax exempt status. To a large extent those privileges have discouraged the mobilization of long-term private sector debt funds for the productive sector. The IDB has been managed competently and its loan portfolio is healthy and profitable. The Bank can be mobilized easily into the existing regulatory system for licenced commercial and investment banks.

The GOJ recently negotiated a DM 5 million fund with the German development bank, Kredit Fuer Wiederaufbau (KFW), the purpose of which is to assist SMEs finance environmental equipment and machinery. Details of the program are outlined in the International Donor and Bi-Literal Agency section below.

Comments:

The IDB is an excellent vehicle to implement pollution- and conservation-related financing strategies. It has the necessary infrastructure and experience with the productive sector to make project-oriented risk analysis. It also appears to have the best understanding of the financial needs of the SME sector as well as large-scale enterprises.

A few issues, however, remain unresolved. The preferential treatment given the IDB by the GOJ has tended to "crowd out" investment by other financial institutions to the productive sector, the very sector the GOJ is trying to encourage. The team was advised that the CB is considering removal of the IDB's special privledges and placing it on the same footing and bringing it under the same legislation as Jordan's commercial banking institutions.

The IDB plays an important role in the team's recommendations; details are found in the Recommendation section of the report.

The Housing Bank

The Housing Bank (HB), a public owned and traded corporation, was established by a special Law #4 of 1974, designed to promote construction and development activities in the Kingdom. In January 1994, the HB was authorized to operate as a full commercial bank, meaning it could expand its lending activities outside the construction sector to exploit commercial banking opportunities.

While operating as an autonomous financial institution, the HB, like the IDB, was granted certain privileges under its original charter. Those privileges include: tax exempt status; exemption from the 10 percent properties' transfer tax on all owned property; exemption from mortgage fees; and a priority claim against property that ranks ahead of first mortgage security rights held by third parties. The HB claims it does not exercise those priority claim rights; however, until the law is formally amended, the situation represents a disincentive and unacceptable threat to other banks who could more extensively rely on real estate mortgages to collateralize loans.

Comments:

The HB has a greater share of its loan portfolio in long-term (mortgage) loans than any other financial institutions. Apart from its unique privileges, the HB has an extremely broad deposit base comprised of small, individual savers. Although those savers have a clear preference for short-term instruments, the consistency, predictability and breadth of the deposit base has allowed the HB to treat them as long-term deposits. In that way the bank has been successfully able to "mismatch" long-term lending (assets) with short-term deposits (liabilities).

As with the HB, the GOJ is considering repealing the HB's special privledges and bringing the bank under the law governing commercial banks. The GOJ hopes in that way to increase competition in the housing/construction sector.

While HB has experience in term lending in the residential and commercial real estate sector, without specialized credit training, their staff lack the skills needed to effectively develop and administer a term lending portfolio to industry. Given the bank's initiative to harmonize with commercial banks, this situation is considered transitory and could be overcome with an appropriate intensive credit training program.

V. The Business Environment in Jordan

Overview

The Jordanian economy continues to be dominated by services (government and non-government) and trade, which together accounted for 48 percent of gross domestic product (GDP) in 1992; that figure is only slightly different than those sector's 53 percent share of GDP in 1986. By contrast, manufacturing and utilities (traditionally the biggest threat to the environment), represented only 17 percent of GDP during 1992.

The government remains a major force in the economy; accounting for 55 percent of employment and dominating the infrastructure services, mining and tourism sectors, which together accounted for 30 percent of GDP in 1993.

Still, there has been a considerable increase in new business activity in recent years. According to a recent World Bank report, the rate of company registrations doubled from 1988-1994 and authorized capital increased 10 fold, with much of the increase owing to the influx of returnees after the Gulf war during the 1992-1993 period.

According to the Chamber of Industry, the breakdown of industries according to size is as follows:

Type	No. Companies	No. Employees
Large-scale	11	500+
Large-scale	98	100-499
Medium-scale	119	50-99
Medium-scale	259	25-49
Small-scale	611	10-24
Small-scale	4,548	6-9
Micro	7-8,000	1-5

While the economy is dominated by medium-, small-, and micro-scale enterprises in terms of total numbers of businesses and total employment, according to representatives in the banking sector, those same sectors account for only 40 percent of Jordan's output, with large-scale industry accounting for the remaining 60 percent. Furthermore, according to those same sources, 70 percent of Jordan's economic activity is involved in trade activity, as opposed to production.

The above data indicates that Jordan's economy at present lacks a great deal of depth and diversity, and makes it vulnerable to fluctuations in the market for its key minerals and chemical derivatives industries.

The government has made economic diversification a priority in the 1993-1997 Economic Development Plan, with a special emphasis on strengthening the SME sector. To accomplish that the GOJ plans to focus efforts on overcoming the following obstacles.
:

- Revisions in the tax code that encourage capital formation through earnings retention;

- Revisions in the Investment Code to eliminate complete tax holidays for new businesses (this incentive had the unwanted result of discouraging new investment in ongoing enterprises); and

- Streamlining the regulatory environment to make it easier for businesses to operate on a day-to-day basis.

Still, the businesses surveyed by the team felt that dealing with government in general, continues to be time consuming and expensive, as most medium- and large-scale enterprises have to employ lawyers and other intermediaries to secure various permits, or help resolve disputes. SME's however, generally lack the financial resources to employ these services, which further impedes their growth.

To identify the more important constraints faced by the private sector, the World Bank recently carried out a survey. According to the survey results, the most serious constraints ranked in order of importance are: (1) tax procedures, (2) dealing with tax authorities, (3) input procurement, (4) inadequate demand, and (5) customs procedures.

Less important but nevertheless significant constraints were identified as: (a) lack of water supply, (b) lack of electricity, (c) inadeqaute access to finance, (d) land acquisition procedures, and (e) industrial licensing, municipal permits and company registration.

Revised tax, investment and enviromental laws have been issued and are discussed above. Those will contribute to the achievement of some of necessary changes; however, they have yet to be refined and interpreted and, in our view, only partially address the changes needed to carry the Jordanian economy forward to become a competitive component of the world economy. More comments in this regard are contained in the Summary of Findings section below.

Large-Scale Enterprises

As mentioned, the GOJ, through various ministries, municipalities and agencies, has a direct role in Jordan's economic activity. While Jordan's development plans call for a lessening of the GOJ's role through privatization, freeing price controls, and deminished protectionism, the productive sector will, in the short-term at least, have to deal with the GOJ as a major factor in that sector.

The team visited several firms that were either directly under government control or felt the effects of direct intervention by the GOJ in the market. The team's objective was to access the particular financing needs of those firms, and, from those observations, determine appropriate financing mechanisms.

Jordan Petroleum Refinery Co., Ltd.

Jordan Petroleum Refinery Company (JOPETROL) is a publically- owned and traded company that operates under a concession agreement with the GOJ (specifically, the Ministry of Energy). As far as the team was able to ascertain, the agreement "guarantees" the shareholders a 7.5-16 percent return according to a pricing formula determined by the Ministry of Energy and the Ministry of Finance. .

The refinery's management does not have responsibility for the complete financial operations of the company. Revenues are paid directly to the Ministry of Finance, and many of the refinery's operating costs and capital expenditures are paid out of the central budget. As a result, the company's management has little knowledge of the overall financial picture of the firm.

The team felt that the company had a fairly good knowledge of the environmental problems it faces. However, the financing of those alternatives did not appear to be under management's direct control.

Because the GOJ controls pertoleum prices and fixes the rate of return to the refinery, large loans are guaranteed by the GOJ. The team was told, however, that banks are beginning to request guarantees for even short-term loans as the Ministry of Finance is experiencing cash flow problems due to slow payment settlement for oil by other government ministries.

Ain Ghazal Slaughtehouse

This business is partially owned by the Municipality of Amman. It is located within the city limits on the Zarqa River and is a service business that the Government developed to control the health aspects of meat processing. Annual revenues are reportedly JD 1 million, and the business provides employment for 400.

The finances of the business are centralized with the Municipality, and management of the slaughterhouse have no control over financial operations.

The business generates a high quantity of bio-degradable waste that pollutes the adjacent river. Compliance with pollution control targets requires the installation of a wastewater treatment plant. Water conservation is also an area where improvement is required. Estimates for improvement of the wastewater treatment based on European specifications and Jordanian labor costs is put at USD 1.1 million.

Corrective action also includes training of two employees on the operation and maintenance of the necessary equipment.

There is no apparent way the slaughterhouse could finance the equipment required to meet pollution control targets. The decision remains, does the Government make the investment from centrally controlled financing sources or close the business down. If it is politically expedient to keep the slaughterhouse open, financing supported by the Municipality, possibly with a Central Government guarantee, is the only viable solution to their financing needs.

Arab Chemical Detergent Company

This is a public owned company that was established in 1976. It is located at Marka Industrial Estate in northeast Amman, where it occupies 1.5 hectares of land in an area that is surrounded by numerous small industries, close to a densely populated area of the city.

The main products are soap powder and liquid detergents, many made under license from European corporations. The products are marketed locally and increasingly to foreign markets including Iraq, to which market it supplies on a barter basis with payment coming through the CB of Jordan from the import of petroleum.

The company operates independently of bank credit and appears to enjoy a high level of liquidity. The JD 15 thousand required to finance equipment plus incremental costs to overhead of running the additional machinery would appear to be well within the scope of the group's financial resources without resorting to bank credit. The main shareholders are also owners of an Amman Bank.

Jordan Paper and Cardboard Factories Co.

This company was established in 1962 in the Zarqa valley, where it occupies 30,000 sq. meters. It is a privately owned, with a quotation on the Amman Stock Exchange. It has a staff of 265 employees. Its entire process is the recycling of waste paper and carton for packing cardboard. Its products are sold to the domestic and neighboring country markets, with an increasing concentration on the latter, due to Government price controls on products sold to the domestic market.

According to an environmental audit developed by the World Bank, the company has minimal investment still to make in order to comply with water conservation and pollution control targets, and this is estimated at USD 35 thousand. The equipment is primarily for the recycling of water effluents.

The company is currently producing about 10 thousand tons of cardboard and paper per annum, is undergoing a major expansion program that will more than triple production up to the year 1998. Five year term loans were obtained from IDB to finance the purchase of new machinery. The firm has invested heavily in water conservation and was the first recycler of water in Jordan.

In the context of its business, and from a financing point of view, it should have no difficulty in complying with conservation and pollution targets. The firm was fined 10 Piasters per liter by the authorities for using water from a well on their own premises. It claims treatment from the GOJ on that matter was arbitrary and inflexibly applied.

70 to 75 percent of production will be directed to export markets when the company completes its expansion program. That would make it eligible to take on debt in foreign currency, to finance additional equipment, including environmental controls.

Medium- and Small-scale Enterprises

Arabian Steel Pipes Manufacturing Co. Ltd.

This company, located in the Sahab Industrial Estate, occupies 14 thousand sq meters of covered industrial warehouse. It produces black and galvanized welded steel pipes. There are two processes employed - the making of the pipes and the galvanization of the pipes.

Arabian Steel employs 140 workers and produces about 20 thousand tons of piping per year, although it has capacity for over 30 thousand tons. It has a high acidity wastewater problem, and so far, claims it has not been able to locate the technology to resolve the matter, and consequently the effluent must be physically removed by a subcontracted service company and disposed of elsewhere. Some of the wastewater is being recycled which addresses the conservation issue. The estimated investment required to resolve their water pollution problem is about USD 300 thousand. This is a very large demand on the company's cash flow and would seriously prejudice its business activities, if financed at current rates over the relatively short terms of financing available.

The additional cost of running the technology is not known exactly, but it has been estimated to require an additonal power consumption of an estimated 115 thousand kilowatts per year. This medium-sized business requires some concession(s), in order to comply with its pollution control targets. In addition to the substantial additional debt load required in order to comply, the business is running below maximum capacity, as a consequence of the Gulf war and recession suffered by the Jordanian economy.

Universal Electro-Plating & Trading Co. Ltd.

This company is located in the Sahab Industrial Estate, where it employs about 45 workers. Little detail of the volume of business generated by this company is available. It had a wastewater problem, which it managed to resolve, at a cost of over JD 100 thousand, that the company claims was financed out of short-term working capital facilities through its bank. The business is fairly capital intensive and although it resolved its pollution control problem without going to the bank for term financing, the lack of readily available term credit placed a heavy burden of its working capital resources, with obvious negative repercussions over at least the medium term.

The company complained also that the Government provided little support in resolving its problem from an informational standpoint, which was an added burden and cost to the business.

Yeast Industries Co. Limited.

This yeast manufacturing business is a privately owned monopoly and is the primary supplier of yeast to the national bread industry. Yeast prices for the domestic market are regulated by the Government and little margin remains for additional financial burdens resulting from their having to comply with wastewater treatment and conservation targets.

The company has equity of JD 725 thousand and is faced with an investment in wastewater treatment and conservation equipment estimated at between USD 500 thousand and USD 1 million. No details of the profitability of the company are avaliable; however, the cost of compliance with pollution standards would seem to be excessive in relationship to the size of the company. Concessions will have to be made available, given the strategic nature of the business in the local economy.

Yeast Industries is currently operating near full capacity of six thousand tons per year. There is currently a scarcity of yeast in the world, and for the past few years the company has directed increasing resources in the development of its export market, which now absorbs over 40% of its production.

The business generates a pollutant that many attacks the aquifer, and was one of the 30 businesses closed down by the GOJ in 1991, for failing to comply with wastewater treatment regulations.

United Universal Garment Manufacturing Corporaiion

This is a small- to medium-sized company located in the Sahab Industrial Estate. It produces clothing such as jeans and casual clothing, primarily for the export market. The garments have to be washed after assembly which generates a bio-degradable pollutant. In addition to the additional cost imposed by having to comply with the GOJ's environment audit, the company is faced with insufficient space on its current premises to accomodate the water treatment equipment. The company is faced with having to move, which, we were advised, would involve costs substantially in excess of double the USD 20 thousand required to purchase the wastewater treatment equipment.

Concessions in the form of a grant, coupled with access to term financing over five to seven years would substantially assist this company. It is a strong foreign exchange earner as well as a labor intensive business; and prejudicial action against it by the GOJ will therefore hurt more than the businesses' owners.

New Nahda Business Corporation

This small company produces sesame seed puree (the principal ingredient of hommus), for the domestic and export markets. The raw seeds are dehusked and ground to produce a puree and from which a bio-degradable pollutant is produced and must be disposed of using a wastewater treatment plant. The process also generates a lot of dust which has to be filtered from the air prior to being exhausted out of the premises.

The company was obliged to invest in wastewater treatment and air filters, and was able to obtain two year financing at 13 percent from Union Bank. This was the longest term available, despite being a customer of long standing with the bank. The investment has placed a heavy burden on working capital resources.

Comments:

Meeting small- and medium-scale enterprises' credit needs and increasing their access to credit are perennial problems in Jordan as elsewhere. SMEs are far the largest source of employment in the private sector of the economy, and their access to markets and expansion are an important vehicle for economic growth and labor absorption.

The obstacles specific to financing SMEs in Jordan are summarized as follows:

- The poor financial and management acumen of most SME owners;
- Poor credit analysis capability within the banks;
- Inadequate information about the potential borrower's background;

- Inadequate collateral security;
- High transactional costs;
- Lack of medium and long-term financing;
- IMF constraints on the expansion of credit;
- Lack of credit collection agencies and buyers of delinquent debts;
- Lack of credit bureaus;
- Social pressures inhibit enforcement of credit conditions and realization of collateral security; and
- The high real cost of bank credit (currently about 14 percent versus an inflation rate of 4.5 percent).

Micro-enterprises

Until the economy becomes more developed, there is no viable way for conventional credit to reach the micro-enterprise sector for environmental purposes. The sector's main weaknesses may be summarized as:

- Diminished business and financial acumen of business owners;
- The lack of reliable financial information, records, statements, etc.;
- The lack of consistency of business practices;
- The lack of available acceptable collateral security to guarantee credits; and
- The lack of credit culture to qualify them for bank credit.

Against this backdrop, support for environmental projects and programs to the micro-enterprise sector will have to be in the form of grants from or channeled through a Government-sponsored bank such as the IDB or The Housing Bank. As with SMEs, support will have to be multi-facetted, to include training workshops, public awareness programs, and most likely grants to help businessmen acquire techniques and equipment to permit them to comply with regulations and standards. Most micro-businesses on their own, represent an insignificant impact on the environment; however, collectively they are too numerous to be discounted. Grants should be leveraged and conditioned to compliance with certain environmental targets.

VI. International Donor and Bi-Lateral Agencies

Overview

International donor and bi-lateral development agencies are taking an increasingly active role in environmental safety and protection. Their methods are both direct - through the use of funds dedicated for those purposes - and indirect - by means of conditionalities on loan disbursements. The World Bank Group, for example, has established minimum environmental quality standards for each industrial sector as a pre-disbursement condition of each loan extended.

Individual governments treat the subject with varying demands on borrowers. Canada and Germany, two countries with high environmental quality standards, require that borrowers and beneficiaries of aid meet the same environmental quality standards as those imposed on their own domestic markets.

As a general rule, environmental regulation and quality standards will become more comprehensive and demanding as time goes by. A proactive posture in this respect would be beneficial to any party considering loans from multilateral and donor agencies as part of future development plans. In fact, all cross border loans from commercial and development banks in the industrialized world are conditioned to compliance with environmental standards that meet international criteria.

As part of the peace process, industrialized countries have conceded to concessions on Jordan's external debt that vary from unconditional forgiveness, to partial forgiveness conditioned to compliance with certain strategically important objectives.

In the case of the German Government, 50 percent of the country's DM 79.5 million of loans to the Jordanian Government are to be forgiven, on the condition the JD proceeds are invested in water conservation and treatment programs. This is explained in greater detail below.

Below is a detailed summary of the various programs and funds available to Jordan through the international development community. Time and the unavailability of certain representatives, such as France, make the list exhaustive but not complete.

Kredit Fuer Wiederaufbau (KFW)

In conversations with management of the subject agency of the German Government, the team learned there are two potential sources of term credit that are about to be funded by the KFW.

SME Environmental Grant

The Industrial Development Bank is in the process of negotiating a grant from the KFW, the proceeds of which are to be made available to small- and medium-sized enterprises specifically for environmental purposes. Although subject to final confirmation, the parameters are expected to be according to the following profile. Funds will be made available in local currency equivalents to the following DM limits:

- Total amount of fund DM 5 million (approximately JD 2.5 million);
- Purpose:

  DM 750 thousand, for consulting costs, including project identification, feasibility studies etc., to a maximum of DM 20 thousand per project;

  DM 4.25 million by way of loans for the purchase of equipment of an environmental nature. There is no restriction from which country the equipment may be purchased, and funds may finance local content of environmental projects;

  - The maximum credit available from this funding source is DM 200 thousand per project;
  - Interest will be nominally above official inflation, and at commencement, the lending rate is expected to be 6 percent per annum. The maximum term of credits extended under this facility is seven years including up to two years of grace. Application should be made at the offices of the Industrial Development Bank;
  - In the event the DM 200 thousand limit is insufficient to make up the cost of equipment that qualifies under this facility, IDB will consider supplementary credits through its regular development fund program, wherein repayment terms would be matched to the DM related tranche, and funds would be made available at interest rates in the range of 10 percent to 11 percent per annum.

KFW - Debt Forgiveness Facility

As part of the peace process several goverments have considered certain concessions to the Jordanian Government. These range from agreeing to extend additonal financing for priority sectors to partial or total foregiveness of debt. The German Government has agreed in principal to foregive 50 percent of country's DM 79.5 million debt on the condition that:

- The JD proceeds of the foregiven external debt are directed into the water sector; and

- The Jordanian Government commit to the installation of water meters in all homes and businesses, and agree to increase water tariffs by 12.5 percent.

The JD proceeds of this concession could be made available to establish a revolving fund from which loans could be directed to water conservation and pollution control programs. The Ministry of Finance should make application in writing firstly to the local representative of KFW, for agreement in principal, followed by a formal application for funds allocation to the Ministry of Planning.

GTZ - German Technical Cooperation

The GTZ makes available technical support specifically for the protection of the environment in Jordan. A GTZ mission made an evaluation of the framework for future cooperation in the field of the environment between Germany and Jordan in late 1994. The starting points of the mission were eight project proposals submitted to the German Government by the Jordanian Ministry of Planning. The proposals covered a wide range of topics and, also tackled the problems by various methods. Specifics of the mission's findings were not made available during the compilation of this report and the Ministry of Planning should be contacted for further details.

Most foreign governments withdrew their export credit facilities for Jordanian importers as the result of the Gulf war and consequential economic down-turn. Some governments are currently reviewing their official policy in this respect and are expected to consider some degree of support over the near term. To quote details of support to importers would be nothing more than a speculative guess. This report limits its covereage of programs that are known to exist.

Ex-Im Bank of the United States of America

Ex-Im Bank is currently on cover for Jordan, and has designed a special Environmental Export Program that provides enhanced levels of financial support to importers of a broad range of environmental equipment manafactured in the United States. The program demonstrates the agency's resolve to reach out to small- and medium-sized enterprises.

The main benefits of the medium term export credit insurance for environmental services are:

- The repayment terms are the maximum permitted under OECD guidelines;
- Finance is available for the cost of:
    - feasibility studies;

- energy service contracts; and
- environmental remediation, monitoring and assessment.

- Coverage:

  The maximum coverage available under the medium term policy is USD10 million. Larger amounts are available by way of Ex-Im Bank loans and guarantees. Ex-Im Bank indemnifies an insurance for 100 percent of the financed portion including interest at the rate provided in the promissory note. In all cases the buyer/importer must provide 15 percent of the contract price out of his own resources.

  The insurance covers non-payment by the buyer in the event of loss caused by specified commercial or political risks.

- Policy format: medium-term insurance policies are issued in one of the two following formats:

  (1) A documentary policy is issued to financial institutions wherein the insured bank is required to obtain specific documents (signer/buyer obligation, invoices) which evidence conformity with the policy requirements. The insured financial instutition is protected against fraud, disputes and other defects of the underlying transaction.

  (2) A non-documentary policy is issued to exporters. This policy is assignable to financial institutions and a documentary assignment is made available to provide the same protection to the assignee financial institution as the documentary policy.

- Eligible repayment terms:

  The length of the repayment terms available as available by the OECD Agreement, depends on the total value of the service contract as follows:

Contract Price of Transaction	Maximum Payment Term
Less than $75,000	Two Years
$75,000 - $150,000	Three Years
$150,000 - $300,000	Four years
$300,000 and above	Five Years

Information of this program is available from the Commercial Section of the Embassy of the United States of America. Involvement could also be possible via the US-based supplier of the equipment.

Medium- and long-term support for environmental projects and services consider the following parameters:

- The local costs equal to 15 percent of the US contract price;
- Capitalization of interest during construction; and
- Maximum allowable repayment terms permissable under OECD guidelines.

Amongst other environmental controls and abatements, the program is specifically designed to finance water and ground contamination or pollution, and products and services that provide protection in the handling of toxic substances.

The Global Environmental Fund Group

The Global Environmental Fund is a private US based investment group with sizeable sums under management in the enviromental sector. Two groups are worthy of mention:

Global Enviromental Emerging Markets Fund (GEEMF) makes equity investments in environmentally oriented companies, projects and privatizations in emerging market countries, with a particular focus on environmental infrastructure and environmental services such as clean water (potable water treatment and delivery, wastewater treatmentfor municipalities and industry), and waste management. The GEEMF especially seeks co-investment opportunities with established companies engaged in joint venture or other operational partnerships with local firms serving environment related services in eligible emerging market countries. Investment size generally ranges up to USD 10 million, though on occasion this could be greater.

Global Enviroment Water Infrastructure Fund (BWEF) is in the documentation stage and will be dedicated to investments in water infrastructure in emerging markets. This fund, to be launched in cooperation with major international finance institutions, is expected to be complete by late 1995. In the mean time, GWEF's other funds are focussing on water infrastucture as a priority sector.

No specific acknowledgement of interest in the Jordanian market was available from this group.

The Global Environmental Facility

Specifics on the applicability of resources from the Global Environmental Facility (GEF) to water and environmental situations in Jordan are not available. The program, sponsored by UNDP and the World Bank, support diverse projects including those that contribute to the prevention and control of land degradation and biodiversity conservation **in a transnational context**. The UNDP extends grants for evaluations and related feasibility studies and The World Bank extends loans for these purposes.

The local offices of UNDP should be contacted for assistance with project identification and further information on the form of support available.

The Commodity Import Program

Special financing terms are available to private sector Jordanian importers of a wide range of US made products under the Commodity Import Program (CIP) grant #278-K-643 to the Jordanian Government.

Most local Jordanian banks are participating in this program which offers the following terms:

- Downpayments of 10 percent in local currency upon establishing an import letter of credit;

- The balance to be paid from the bill of lading date, within 36 months for light manufactured goods and five years for capital goods;

- The local currency amounts of repayments, are calculated at the lowest exchange rate prevailing within the period between the date when the letter of credit is opened and the date the bill of lading is issued; and

- Interest rates start at a minimum of 7 percent per annum and corresponds to the Central Bank of Jordan's discount rate (i.e., 1.5 points below CBJ disount rate).

These facilities have an aggregate limit of USD 10 million and the cost of environmental equipment and devices qualify for financing under this program for small and medium sized businesses. The credit risk is taken by the Jordanian intermediary bank. Application for this facility should be directed to local commercial banks.

The European Investment Bank

The European Union (EU) has signed several protocols with the Jordanian Government that facilitate the extension of direct grants via Government agencies and loans via the European Investment Bank mainly to IDB, Agricultural Credit Corporation (ACC), Cities and Villages

Bank. The facilities are for sectoral development, including environmental programs and pollution control. The loans are not approved for specific purposes and, the team was advised, the usage is determined by the intermediary institution or agency.

Since the Ministry of Planning is the controller and allocator of development funds from donor agencies, and they or the above mentioned lending institutions should be contacted for the latest details, which were not available during the compilaton of this report.

The funds are available for all sizes of businesses, including micro-enterprises and small farm operators.

Recently formulated European Commission guidelines outline the conditions under which EU budget allocations may be made for enviromental purposes.

VII. Summary of Findings (Constraints and Opportunities)

Based on the above, the team has drawN the following conclusions regarding the constraints and opportunities facing Jordanian businesses in financing pollution control equipment:

Finding (1): *Using only punative measures to enforce environmental standards will be counterproductive to the GOJ's desire to encourage investment in the productive sector.*

Without incentives, businesses will be forced to bear the full cost of internalizing pollution and conservation measures. Some firms, such as the Yeast Industries Company, cannot pass on the increased capital and operating costs through price increases and may be forced out of business. Other firms that can raise prices may jeopardize their international competitiveness.

In addition, the imposition of new restrictions may decrease the amount of new investment in productive enterprises as entrepreneurs seek better returns in other sectors.

In any event, the pace of investment in environmental technologies will be accellerated greatly if business perceives the standards as being applied fairly; i.e., that the costs to implement are offset partially through incentives.

Finding (2): *The GOJ must streamline its approach to enforcement of environmental standards and find ways to be more responsive to the business sector.*

As regulations are developed under the new Environmental Act, the GOJ needs to keep in mind that cumbersome and overlapping regulations increase the cost of doing business. Also, the regulations should be transparent so that businesses understand the actions needed to be taken to comply with those regulations.

An appeals process for fines and penalties should also be developed, so that business feels it has a "court of last resort" to discuss problems with compliance.

Finding (3): *The new Environmental Act calls for coordination of monitoring and licensing activities, as well as the establishment of an environmental fund - as much of that activity as possible should be placed in the hands of the private sector.*

Through the licensing of third party companies to perform licensing, monitoring and other activities, the GOJ would create a buffer between productive enterprises and the government, as well as encouraging business activity in a new sector.

The environmental fund will have a greater chance of success if it is run, not just on a commercial basis, but by investment professionals.

Finding (4): *Other acts and laws should be examined and modified as necessary, not only from the standpoint of environmentally-related financing, but from the perspective as to how they constrain investment generally. Also, certain laws, such as the tax law, could be powerful incentive vehicles to accellerate investment in pollution prevention and control equipment.*

Finding (5): *Large-scale enterprises generally have the technical capability and access to financial resources to fund pollution control and prevention equipment. However, the proper incentives will accellerate their investment decision.*

Non-governmental enterprises, particularly those that operate without market interference from the government, seem capable of funding new investments, either through debt or equity.

Government enterprises also seem to have access to funds through government-guaranteed bond issues or goverment guaranteed loans from commercial banks. However, it should be noted that the decision-making process within those firms would be greatly improved if they were either privatized, or if management were given full financial control for capital budgeting decisions.

Finding (6): Medium- and small-scale businesses, on the other hand, are undercapitalized, have limited access to term financing, and lack the awareness and technical skills to implement environmentally-oriented technologies. Those firms would benefit from an "environmental package" consisting of technical support, training, financial, and access to term financing.

The Action Plan section details the team's recommendations for an Environmental Assistance Fund, which will act as the delivery mechanism for that package of services.

Finding (7): *The preferential treatment given the specialized banks - the IDB and the Housing Bank - contribute to the commercial banks' reluctance to lend to the SME sector.*

The implementation of the Environmental Assistance Fund is meant to engage the commercial banks in lending to the SME sector, which will have long-term positive benefits beyond environmental considerations. The Fund's incentive structure will give preference to certain segments of the commercial banks' portfolios while maintaining the non-specialized status of those institutions. The team wishes to avoid creating another specialized institution which, although well-intentioned, can create unfair competitive advantages and create market disfunctions.

Finding (8): *The structure of the Jordan Loan Guarantee Corporation's programs needs to be modified to better serve the needs of the SME sector and to be of more benefit to the commercial banks which utilize directly those programs.*

Specific recommendations for program improvements are found in the Action Plan section immediately following.

Finding (9): *There is a lack of awareness within the business sector of the various domestic and international financing mechanisms already available.*

The Recommendations section makes recommendations for improving the packaging and marketing of those sources, as well as using existing sources to complement the proposed Environmental Assistance Fund.

VIII. Recommendations

It is unrealistic to discuss financing water conservation schemes, environmental programs, equipment and devices without alluding to programs designed to stimulate compliance and facilitate enforcement. A straight forward formula for financing does not exist, and the solutions for one business may not apply in the same proportions to the next. Much relates to the attitude of business ownership and management, the degree of non-compliance with environmental regulations and the financial make-up of the business.

In many cases, the imposition of environmental laws, represents an out-right increase in the cost of production, with no definable monetary benefit. In a society that has contended with the costs of war, and which is often over-burdened with government regulations, the reception to increased compliance with laws, will be less than warm without a clear definition of the benefits to society and the world. This message must also emphasize that the program requires the full participation of every citizen. Even then, willing compliance from the lower end of the economic spectrum will not be easy to accomplish.

Short-Term Recommendations

- ***Establish a fund, hereinafter known as the Environmental Assistance Facility ("EAF")***

The market has many mechanisms available to finance different sectors and environmental programs; however, the market requires both an additional funding source as well as source of technical and general support. We propose the establishment of a revolving fund or EAF, to act as the vehicle into which certain development funds will be injected.

The objectives of the EAF are:

- To provide funding to intermediary banks at concessionary rates of interest, and on terms that permit business to undertake financial commitments mandated on them by the Environmental Agency;

- To provide technical assistance to business in the resolution of their environmental problems including, but not limited to helping them:

    - Define the best and most cost effective solution to their problems;

    - Locate and negotiate the most cost effective financing plan;

    - Locate the sources of solution to their environmental problems;

    - Act as "Ombudsman" for business and assist resolve disputes between business and Government on environmental issues;

- Obtain feasibility studies in pursuit of a solution to their environmental problems;

- Act as advisor in public awareness programs; and

- Become better aware of the financial mechanisms available in the market.

- To operate on a "Not-For-Profit" basis and therefore qualify for tax exempt status;

- To generate sufficient income from consulting services, to cover expenses of operation;

- Operations of the EAF would consist of the following:

  - Governance of the fund is to be vested in a Board of Directors comprised of private sector, banking and business communities;

  - A non-executive Advisory Board will be comprised of a diverse group of influential businessmen, chosen for their potential contribution to EAF;

  - Management of the EAF will be placed in the hands of group of professional fund managers;

  - The EAF will establish and maintain accounting records according to international accounting principals;

  - Annually EAF will employ external accountants to undertake an audit that complies with Internationally Accepted Accounting Principals; and

  - Funding will be negotiated with donors.

A formal Business Plan should be developed for EAF, to give the project credibility and status.

- ***Have withholding tax payable on interest payments due on off-shore funding for environmental purposes eliminated.***

There is a 10% withholding tax on the remittance of interest on off-shore loans. In so much as financing for environmental purposes is a national`priority, exemption would cheapen the available funding. There are numerous plans available in foreign currency, that represent cheaper financing than is currently available in local currency. Granted an exchange risk exists; however, this risk can be hedged to the extent that businesses have access to export proceeds. Many of the businesses visited, generate considerable income in hard foreign currency.

- ***Request the Central Bank to accommodate resources employed in environmental projects, by exempting them from statutory reserves.***

The Central Bank is empowered to modify reserves on banks' deposits, in the achievement of Government objectives. Its collaboration should be enlisted in support of the Environmental Program, by reducing or eliminating reserves on resources employed in the finance of environmental projects and equipment.

Many of the regulatory reforms and modifications recommended above, will make a contribution to an enhanced financial environment and facilitate the mobilization of capital towards the private sector in general and the SMEs in particular.

- ***Modify the parameters of support to SMEs exclusively for the finance of water conservation and pollution control equipment by the* Jordan Loan Guarantee Corporation.**

Specifically to:

- Expand the coverage up to 90 percent of the cost of the project;
- Expand the amount of coverage to a maximum of JD 100 thousand;
- Expand terms to a maximum of 10 years; and
- Enact that obligations extended under the JLGC program for the above purposes, be irrevocable on the businesses that borrow, their owners and guarantors.

Bankers and businessmen consulted on the subject, similarly criticized the JLGC for deficiency in its service to the sector it was designed to support. One concern of JLGC is the instability and inconsistency of the SME sector. Adoption of our recommendations should enhance the much needed support to the sector, while providing adequate recourse to JLGC. The lack of collateral security will be made up by reinforcing JLGC's future rights against borrowers and guarantors. Those rights should extend to commercial banks who lend for the same purposes.

- ***Have HB and IDB special privileges except tax exemption formally withdrawn.***

- ***Have the services of IDB more aggressively promoted.***

Since the HB has been authorized to carry on commercial banking, and the Central Bank intends to take it under its supervisory wing, its harmonization with other commercial banks should enlist the market's recognition that a more level playing field is emerging.

From a survey of the people with whom the team met, it is apparent that there is a low public awareness of the services offered by IDB. It could better serve industry by more widely publicizing the scope of its services and technical assistance.

The above initiatives would show commercial banks they can compete on even terms with the market. It would also open the door to a competitive environment for loaning opportunities and funding sources alike.

If it is deemed politically expedient to perpetuate the promotion of mortgages on a tax exempt basis, then the benefit should accrue to all banks which participate in this market.

Long-Term Recommendations

Other remedies that the Government should consider given its needs to better manage environmental programs and the business sector's need to finance water conservation and pollution control equipment and devices are summarized below:

- ***Have fixed assets of all corporations and business registered with a central registry of corporate and business names. This registry would also be the official record of property transfers, assignments, liens and mortgages.***

The new Investment Law, Article 34, alludes to the establishment of a system whereby the fixed assets of companies are to be registered with the Investment Promotion Corporation, with the purpose of facilitating the raising of credit against such property. This initiative is a good start to providing the infrastructure for leveraging corporate assets for raising loan capital. It is deficient in its scope and the Government should consider these enhancements.

The registry would also facilitate the recording:

(a) of fixed and floating revolving liens and assignments of rights over inventory, receivables and other short-term liquid assets.

(b) of all legal obligations of businesses, including but not limited to guarantees issued in favor of third parties, mortgages, liens, embargoes and protests, law suits.

The most visible benefits of the above initiative are:

- The liberation of considerable capital tied up in business balance sheets that heretofore has not been available as collateral for business loans; and

- Establishment of a reliable and transparent record of business transactions that will gender greater confidence amongst lending institutions when considering loans for business purposes.

A priority of this registry must be to handle all registrations and title searches swiftly and proficiently, otherwise the service runs the risk of becoming an obstacle to business, a quality it should avoid at all costs.

- ***Modify the law to have the costs of environmental clean up made the responsibility of the polluter, be he an individual, business or government agency. This should include, obliging lenders to business that pollutes, potentially responsible for the cost of toxic clean up.***

Environmental risks have not been viewed by either the public or the insurance industry as justifying specific insurance coverage. Placing greater responsibility on business to cover the cost of clean-ups and damage from toxic effluents will encourage the business community to protect itself from clean-up costs. The insurance industry is one of the more obvious sources of such protection.

Public liability for environmental damage should be considered by the new Environmental Agency, as a way to enforce compliance. Following the dictum "he who owns or controls, pays", would contribute to enhanced compliance. This policy would extend to lenders to industry and business, who find themselves in the position of controlling the business of the borrower, or as owners of borrower's assets, following default and foreclosure. Adoption of this policy forces banks and borrowing customers alike to become more focussed on the environmental aspects of business. The costs of environmental clean-up are sometimes considerable and have frequently been known to exhaust any equities a bank may have had in real estate mortgaged to secure a loan.

This will have the benefit of assuring the government, that financial resources are made available for environmental clean-ups and institutionalizing the national environmental program. The insurance sector will be brought in to insure the risks with the effect of fortifying the sources of recourse.

- ***Create a regulatory climate that encourages the development of diverse financial institutions.***

There is little diversity of financial institution in Jordan. Leasing, credit cooperatives, finance companies and credit card services all contribute to the mobilization of funds to the productive sector. They also contribute to the development of a credit and savings culture, both of which are relatively undeveloped in Jordan.

- ***Reform legal process to accelerate recourse against delinquent borrowers.***

This will boost the confidence of the financial institutions, and encourage them to be more aggressive in their mobilization of resources towards to production sector.

- ***Expand the range of acceptable collaterals via legal reforms.***

- ***Extend the Investment Law to require all businesses soliciting finance for environmental purposes, to establish, maintain and have frequently audited financial statements.***

The new Investment Law, Article 26, requires that companies functioning under the new law, establish and maintain proper accounting records and that they be audited frequently.

This requirement, if not balanced properly with incentives could become a disincentive to compliance. However, on balance, the team considers it will help development of the market for SMEs. The effect will be to enhance the credibility of SMEs before the banking community, with the result that credit should become more accessible.

- ***Design and implement the following concessions and incentives as part of the Government's environmental management plan.***

  Concessions:

  - Tax holidays
  - Tax exemptions
  - Accelerated depreciation

  Incentives:

  - Grant programs
  - Technical support
  - Training
  - Liability for clean-up costs

Other moves considered imperative in the efficient mobilization of capital are to have the CB to:

- ***Emulate the standards of financial institutions in neighboring countries, to place Jordanian banks on an equal competitive footing.***

- ***Encourage the establishment of a private sector credit bureau.***

- ***Encourage the establishment of a private sector collection agency and a company prepared to purchase bad debts.***

The establishment of a credit bureau was to have been proposed at the October, 1995 Amman Summit by a group of bankers headed by Dr. Maher Shukri, Managing Director of Amman Bank for Investments. This is an excellent contribution towards fostering confidence in the financial market.

To be successful, this initiative will require the establishment of a private sector company to develop the bureau, and the collaboration of all financial institutions and the business sector. Its parameters of operation and performance targets, would be most effectively defined in a document to which all financial institutions and major businesses are signatories.

The success of a credit bureau is contingent upon obtaining the full support of the business and banking community. Its benefits to the community will require promotion and once it becomes effectively established, it should stand as a central register of debt, payment record, and profile of direct and indirect financial undertakings.

An effective credit bureau imposes a higher level of objectivity on the administration and collection of debt obligations. This would mitigate the risk of intervention in the collection process, which has so far been one of disincentives to lending in some sectors by the banking community. The agencies should be developed and run by the privates sector, otherwise the results of the activities run the risk of being hampered by bureaucracy.

The Central Bank is in the process of implementing a data base of all borrowers and the value of their loans. This will facilitate verification of total market exposure to individual borrowers or groups of borrowers. The integrity of the system will require testing, however, the initiative is a positive contribution to the credit risk management process.

The lack of a long-term investment vehicles and confidence of savers to commit to terms beyond one year are major obstacles to financing private sector capital needs. The Gulf war and regional tensions have precluded the development of a source of long-term financing. Banks fund themselves from current accounts, savings accounts and terms deposits on terms up to one year. To fund assets beyond this term is fraught with danger and can be disastrous, in moments of shaken public confidence, especially amongst privately owned banks. Initiatives to foster a long-term savings market should be encouraged.

- ***Modernize pension fund legislation.***

- ***Encourage the development of Mutual Funds.***

Under the time proven pension fund framework, all workers may contribute a portion of their income to a pension fund, and their employers complement their payments. In this way the beneficiary employees can choose among competing private sector pension funds for the management of their savings. The pensions are portable from one job to another. These pension funds are supervised by a central authority, which establishes the main categories of investments in which the workers may invest, including bonds, shares, mutual funds, government debt etc. This system have been proven to increase the average savings rates well as develop the more efficient management of the resources.

Draft legislation has been developed and presented to the Ministry of Finance; however, adoption and implementation have encountered inordinate delays. These funds would substantially promote the development of long-term savings and provide a market for the other instruments discussed.

- ***Eliminate price controls on all financial transactions.***

This is a primary cause of the lack of long-term savings. To cite an example, the premiums on automobile insurance have remained the same for nearly ten years, whereas the related costs have increased considerably.

- ***Have the Central Bank of Jordan develop an environmental policy.***

As a contribution to the Government's p''blic awareness program on environmental issues, and to promote compliance with water conservation and pollution regulations, the Central Bank should develop an environmental policy. Am igst other things, and in line with internationally adopted standards, the Central Bank should encourage all lenders in the market to establish their own environmental policy within their credit policy. This component of lending, would require that:

  - All loans qualify as being for environmentally acceptable purposes;
  - That borrowers be required to provide environmental impact certificates on an annual basis, and/or a documented plan indicating by which date compliance will be accomplished.

- ***Have the Tax Department support environmental activities as a qualified beneficiary for the allocation of revenue sources.***

The allocation of revenues from the cause to the solution scenario, is an effective way to finance programs designed to enforce compliance with national objectives. By way of example, an additional tax on cigarettes could be directed into programs to help better manage the environment. An allocation from the national lottery could provide a regular, albeit small contribution to environmental public awareness programs. Once funding needs are defined, an application for an allocation could be filed.

The environmental aspects of the Jordanian economy are too complex to be resolved through one medium, and comprehensive control and amelioration of the environment will only be accomplished through the application of a mix of public awareness programs, fiscal incentives, financial vehicles, effective information disclosure and liability for environmental damage.

In closing, it is important to emphasize that management of the Government's water conservation and pollution control program must be tailored around a "carrot and stick" process, if it is to be successfully carried through. The program will require a careful application and balance of incentives and concessions, that are replaced by a graduated scale of penalties, once it becomes clear that the way to compliance has been cleared of all obstacles. Until this situation is attained however, a collaborative role must be played by Government, if it wishes to gain and retain the respect and support of the public, which is also a pre-requisite to its success.

ATTACHMENT 1

PEOPLE INTERVIEWED

1) Industry & Business (Small and Large)	Name	Title
Ain Ghazal Slaughter House	Dr. Othman Kilani	General Manager
Ain Ghazal Slaughter House	Naim Mustafa	Director of Research
Arab Chemical Detergents Co. Ltd	Said Muasher	Chairman of the Board
Arabian Steel Pipes Mfg.	Mohammed Khalil	Maintenence Manager
Arabian Steel Pipes Mfg.	Haroun Barakat	Internal Auditor
Jordan Paper & Cardboard Factories Co. Ltd	Dr. A.Habayeh	Managing Director
Jordan Petroleum Refinery	Taiseer M.O. Sa'adeh	Assistant Head of Accounting
Jordan Phosphates Mines Co. Ltd.	Marwan Rishaydat	Managing Director of Finance
New Nahda Business Corporation	A.S. Alauddin	Manging Director
New Nahda Business Corporation	Hussein Salhi	Executive Director
Saba - Deloitte ToucheTohmatsu	Naim Khoury	Partner
Saba - Deloitte Touche Tohmatsu	Mazen Dajani	Partner in Charge
Universal Electro-Plating & Trading	Mohammed Al-Sharif	General Manager
United Garment Mfg. Corp.	Amer M. Fareez	Vice President
Universal Metal Exrusion Co.	Mohammed Al-Sharif	General Manager United Universal
Yeast Industries Co. Ltd.	Remon Halteh	General Manager
2) Amman Chamber of Industry	Ahmad Sa a'di	Director, Energy Dept.

3) Government Agencies & Ministries

Central Bank of Jordan	Dr. Ahmad Mustafa	Executive Director
Central Bank of Jordan	Omar Ahmad Ali	General Controller
Customs Department	Hamdi Al-Hayri	Director of Tariffs & Classifications
Dept. Of Customs	Hamdi Al-Hayri	Head of Tariff
Income Tax Department	(No Name)	In House Counsel
Investment Promotion Dept.	Asem Al-Hindawi	Diiector General
Investment Promotion Dept.	Mazim Dejani	Deputy General Manager
Ministry of Finance	Sodqi Rashed Abdul Hadi	Director Finance
Ministery of Planning	Nadia Juhari	Environemtal Science & Technology
Ministry of Water & Irrigation	Dr. Mohammed Beni-Hani	Secretary Gen., MWIDirector
Ministry of Water & Irrigation	Ms Rania Abdel Khaled	Engineer
Municipality of Greater Amman	Dr. Hussein Zaki Said	Under Secretary Assistant for Health

4) Commercial Sections of Foreign Embassies

British Embassy - Commercial	Roger Sykes	Commercial Secretary
British Embassy - Commercial	Randa Annab	Bilateral Aid Program
Canadian Embassy - Commercial	Daniel Joly	First Secretary
European Union	Ramon Mestres	First Secretary
European Union	Natasha Ariff	Attache
German Embassy - Commercial	Michael Boch	Counsellor
German Embassy - Commercial	Stefanie Becker	Commercial Attache
GTZ - German Technical Cooperation	Ingo Leutiger	Advisor Management Accounting
GTZ - German Technical Cooperation	Reinhold Werr	Regional Manager
Italian Embassy - Commercial	Raffaele De Benedictus	First Secretary
Japanese Embassy - Commercial	Hideo Shibuya	First Secretary
Kredit Fuer Wiederaufbau "KFW"	Rudolf Krueger	Chief Technical Advisor

5) Commercial Sections of Foreign Embassies (con't)

	Name	Title
United Nations Develoment Program	Montaser J. Oklah	Program Officer
United Nation Development Program	Munir Adgham	National Coordinator GEF
US AID	Donald Reese	Director, Program Support
US AID	Sahm Yaghi	Commodity - Manager
US AID	Khalid Al Naif	Senior Consultant

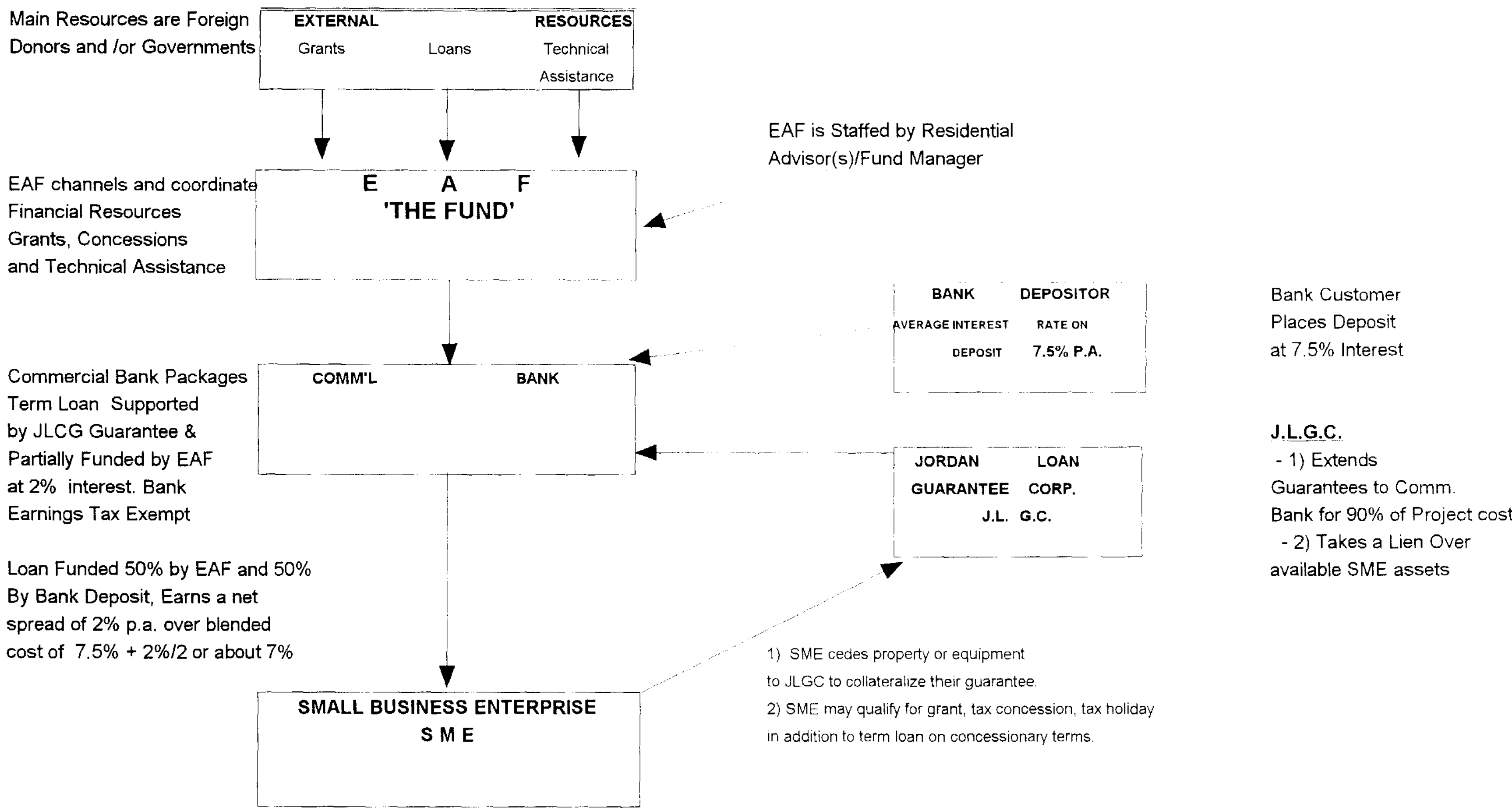
6) Commercial and Investment Banks

Amman Bank for Investments	Maher Shukri	Managing Director
ANZ Grindlays	Nabil Wahbeh	Deputy General Manager
Arab Bank PLC	Mufleh Akel	Senior Manager, Credit
Arab Jordanian Investment Bank	Sa-Ed J. Budeiri	Assistant Deputy Manager, Banking
Arab Life & Accident Ins.	Fathi H. Ibrahim	Deputy General Manager
Arab Life & Accident Ins.	Nabil Arbed	Senior Manager
Bank of Jordan	Hani Abu-Elrub	Supervisor
British Bank of the Middle East	Edward Far	Deputy Chief Executive
Central Bank of Jordan	Ahmad Mustafa	Executive Director
Central Bank of Jordan	Omar Ahmad Ali	General Controller
Indistrial Development Bank	Tayseer Wahbah	Manager - For. Rel
Jordan Kuwait Bank	Zakaria Kawasmi	Credit Manager
Jordan Loan Guarantee Corp. Ltd.	Jamal Moh'd Salah	Dir. General
The Housing Bank	Ali Hamedeh	Credit Dept. Manager
The Housing Bank	Abdelhaleim Abu Marhieh	Manager Branch
Union Bank for Savings & Inv't	Ammar Haddidin	Ass't Deputy General Manager
Union Bank for Savings & Inv't	Fadia Mobaydeen	Branch Manager

7) Other Organizations

Friedrich Naumann Foundation	Walter Rudel	Representative
DAI/Harza	Shawn Niaki	Program Director - Pollution
Jordan Environmental Society	Ziyad Jaber Alawneh	NEIEP Manager
Jordan Industrial Estates Corp.	Fayiz Soheimat	General Manager

ENVIRONMENTAL ASSISTANCE FACILITY 'EAF' or 'THE FUND'



SME receives loan for JD.XXX at blended interest rate of 7% p.a.
with up to ten years repayment including two years of grace

10/1995 This Flow Chart Outlines The Principal Parameters of EAF Support to SME for Environmental and Water Conservation Purposes.

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