

Task Order No. 832

USAID Contract No. PCE-I-00-96-00002-00

**Egyptian Environmental Policy Program
Program Support Unit**

Tranche 2, Objective 5

***Review of Private Sector Environmental
Business Opportunities in Egypt***

House of Egypt/PSU Staff

October 2001

PSU-68

for
**U.S. Agency For International Development
Cairo**

by
**Environmental Policy & Institutional Strengthening
Indefinite Quantity Contract (EPIQ)**

A USAID-funded project consortium led by **International Resources Group, Ltd.**

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Fact Sheet

USAID Contract No.:	PCE-I-00-96-00002-00 Task Order No. 832
Contract Purpose:	Provide core management and analytical technical services to the Egyptian Environmental Policy Program (EEPP) through a Program Support Unit (PSU)
USAID/Egypt's Cognizant Technical Officer:	Holly Ferrette
Contractor Name:	International Resources Group, Ltd.
Primary Beneficiary:	Egyptian Environmental Affairs Agency (EEAA)
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Work Assignment Supervisor:	Dr. Jan Laarman
Work Assignment Period:	October 2001

Preface

Through competitive bidding, the U.S. Agency for International Development (USAID) awarded a multi-year contract to a team managed by International Resources Group, Ltd. (IRG) to support the development and implementation of environmentally sound strategic planning, and strengthening of environmental policies and institutions, in countries where USAID is active. Under this contract, termed the Environmental Policy and Institutional Strengthening Indefinite Quantity Contract (EPIQ), IRG is assisting USAID/Egypt with implementing a large part of the Egyptian Environmental Policy Program (EEPP).

This program was agreed-to following negotiations between the Government of the United States, acting through USAID, and the Arab Republic of Egypt, acting through the Egyptian Environmental Affairs Agency (EEAA) of the Ministry of State for Environmental Affairs, the Ministry of Petroleum's Organization for Energy Planning, and the Ministry of Tourism's Tourism Development Authority. These negotiations culminated with the signing of a Memorandum of Understanding in 1999, whereby the Government of Egypt would seek to implement a set of environmental policy measures, using technical support and other assistance provided by USAID. The Egyptian Environmental Policy Program is a multi-year activity to support policy, institutional, and regulatory reforms in the environmental sector, focusing on economic and institutional constraints, cleaner and more efficient energy use, reduced air pollution, improved solid waste management, and natural resources managed for environmental sustainability.

USAID has engaged the EPIQ contractor to provide Program Support Unit (PSU) services to EEPP. The PSU has key responsibilities of providing overall coordination of EEPP technical assistance, limited crosscutting expertise and technical assistance to the three Egyptian agencies, and most of the technical assistance that EEAA may seek when achieving its policy measures.

The EPIQ team includes the following organizations:

- Prime Contractor: International Resources Group
- Partner Organization:
 - Winrock International
- Core Group:
 - Management Systems International, Inc.
 - PADCO
 - Development Alternatives, Inc.
- Collaborating Organizations:
 - The Tellus Institute
 - KBN Engineering & Applied Sciences, Inc.
 - Keller-Bliesner Engineering
 - Conservation International
 - Resource Management International, Inc.
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 - The Urban Institute
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Acronyms and Abbreviations

CA	Competent Authority
CAIP	Cairo Air Improvement Project
CDA	Community Development Association
CIDA	Canadian International Development Agency
CIP	Commodity Import Program
CNG	Compressed National Gas
DANIDA	Danish International Development Assistance
DFID	Department for International Development
EEAA	Egyptian Environmental Affairs Agency
EEIF	Egyptian Environmental Initiatives Fund
EEPP	Egyptian Environmental Policy Program
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EMS	Environmental Management Systems
EPF	Environmental Protection Fund
EU	European Union
FEI	Federation of Egyptian Industry
FINNIDA	Finnish International Development Assistance
GEAP	Governorate Environmental Action Plan
GTZ	German Technical Cooperation
HW	Hazardous Waste
IBRD	International Bank for Reconstruction and Development
IT	Information Technology
JICA	Japan International Cooperation Agency
KFW	Kreditanstalt Fur Weideraufbau
MSEA	Ministry of State for Environmental Affairs
MSW	Municipal Solid Waste
NEAP	National Environmental Action Plan
NGO	Non-Governmental Organisation
O&M	Operation and Management
SME	Small and Medium Sized Enterprises
UNDP	United Nation Development Program
UNEP	United Nations Environmental Program
UNIDO	United Nations International Development Organisation
USAID	United States Aid for International Development
VET	Vehicle Emissions Testing
WHO	World Health Organisation
WTO	World Trade Organisation

1. Introduction

1.1. OBJECTIVES OF THE REPORT

House of Egypt Management Consultants were contracted by the Egyptian Environmental Policy Program (EEPP), a USAID-supported Program within the Egyptian Environmental Affairs Agency (EEAA), to conduct a short study into environmental business opportunities for the private sector in Egypt. It was emphasised to the consultants by the EEPP and EEAA, that this report is meant primarily for the private sector, as a basic information resource about environmental business in Egypt.

This report therefore aims to provide, in one short document, a summary of the economic and regulatory situation in which environmental business in Egypt operates, and an overview of the key business opportunities, for suppliers of equipment, facilities and services, in the air, water and solid waste sectors. Given the time and resource restrictions of the study, this report presents an overview of the main business opportunities in the three sub-sectors: water, waste management and air. The report is intended to highlight the key opportunities and constraints and thus serve as a starting point for a more detailed research for the private sector.

1.2. ENVIRONMENTAL OVERVIEW

Egypt has undergone rapid industrialisation and high population growth over the last 30-40 years, which has resulted in a number of public health and environmental risks caused by the pollution of air, and water, and by wastes and other substances. 80% of industrial activity is concentrated in the highly populated areas of Greater Cairo and Alexandria, exposing large numbers of people to industrial pollution. Air pollution from lead and dust represents the most serious health risk, particularly in Cairo where lead concentrations are way above recommended World Health Organisation (WHO) limits.

The Nile River is the source of more than 95% of the country's water¹, yet it is also the ultimate recipient of Egypt's wastewater, a large proportion of which is untreated. A rapidly expanding population, low levels of reuse, and the disposal of untreated wastes are putting heavy demands on the country's water supply, which in turn threaten the capacity to supply good quality water and preserve the drinking quality of its waterways².

Annual hazardous waste production by industries in Egypt is estimated at 50,000 tonnes per year. Limited storage, treatment and disposal facilities exist, so a considerable share of it is disposed by industries through their own arrangements, mainly into the sewers, open waterways or on the ground for liquids, and with the general waste, in dump sites, for solids.

Municipal solid waste (MSW) collection varies between regions, though in general, only a small fraction of the waste is professionally collected. Sanitary disposal facilities and proper maintenance facilities for truck and equipment are limited in Egypt. There is a large pollution problem with the open burning of MSW, both in open dumps, and in the streets as well as with dumping into the Nile and other waterways. Medical waste is disposed together with MSW, resulting in disease risk.

¹ Egypt Environmental Export Market Plan, 1998

² As above

The situation described clearly indicates that there is at least a *need* for environmental equipment and services in Egypt to tackle existing pollution problems, to prevent future ones, and to promote better environmental management. The remainder of this report provides a brief evaluation of the extent to which the need is translated into a *demand*, and into real opportunities for environmental business.

The Egyptian authorities are faced with a clear dilemma. Proper environmental controls would lead to high costs of compliance for a number of small and medium industries. With major restructuring of industries still taking place and many companies faced with a liquidity crisis, the Government does not want to improve the environment in Egypt, if the price is a large number of business closures.

1.3. Overview of Business conditions in Egypt

Egyptian businesses are not yet facing the pressures of European companies to comply with environmental legislation. Egyptian business in general views environmental compliance as a cost on their business. There is also a general lack of awareness of the principle that pollution prevention pays. This is not surprising. In the 1980s and for most of the 1990s European businesses regarded environmental compliance as a nuisance and a burden, not an opportunity. But in recent years the drive to improve standards on wastewater and air emissions as well as legislation on recycling of end of life disposal of hazardous waste is no longer regarded universally as a major cost or burden on companies. All companies need to comply and it is therefore a level playing field with no loss of competitive advantage by complying with the legislation. All companies are thus in the same boat.

European companies simply cannot afford to be environmentally unfriendly, as even with legislative loopholes, consumers, shareholders or pressure groups would soon ensure that the polluting company becomes compliant. Compliance and environmentally favourable activity is thus borne out of the combined pressures of consumers, shareholders, lobbyists as well as the teeth from the enforcement of the legislation. These four forces – though changing – remain weak in Egypt.

The business factors supporting the development of environmental business in Egypt will take time to be active. The Egyptian industrial sector is characterised by a small number of very large enterprises and a very large number of micro enterprises with comparatively few SMEs (small and medium sized enterprises). Seventy five percent of private sector employment³ is in enterprises with fewer than 50 employees. This structure is a legacy of the state planning system in the 1950s, which developed large import substituting businesses backed by heavy Government regulation. This stifled the development of SMEs and small family based shareholder companies. These large companies are too powerful to be overly concerned with regulation and the small companies do not have the awareness or funds to invest in environmentally friendly practices.

Other macroeconomic factors are currently placing a burden on smaller companies include:

- General liquidity crisis in the economy derived from cuts in public expenditure
- Lack of an adequate banking system to provide long term loans for investment

³ Capmas Establishment Survey 1996

- General problems in the enabling environment for small and medium enterprises to develop closer trading and commercial ties with overseas companies.
- Overvalued exchange rate.

The economic environment in Egypt is changing and the process of internal reform of its industry and privatisation of large state industries is ongoing. The government has become more proactive in actively opening up the economy to attract foreign investment. The Egyptian Investments Public Authorities in July 2001 announces that it was seeking to attract \$4-5billion in foreign capital investment. To date foreign investment has been concentrated in the oil and tourism sector. Investment outside of these sectors is likely to bring a greater awareness of compliance to environmental standards and in cost saving environmentally friendly practices.

Egypt is developing closer trade and commercial ties with the European Union following the signing of the Association Agreement in June 2001, which followed the signing of the WTO agreement in 1998. More free trade and competitive exchange rate should attract further investment into Egypt, and importantly bring European environmental standards, particularly to those companies seeking to export to the EU. However multinationals as with Egyptian companies will only comply if the teeth of regulation are present.

2. Regulatory Framework

2.1. Regulatory Summary

Egypt has gradually developed a framework of Laws and Executive Regulations over the last three decades, which address various aspects of pollution prevention and general environmental management. The adoption of the *National Environmental Action Program (NEAP) in 1992* served as a basis for an upgraded and extended national environmental policy and regulatory framework.

Drawing on the recommendations of the NEAP, Law 4 of 1994, The Environmental Conservation Law, was enacted with Executive Regulations issued in 1995. The Law has established a detailed framework of standards and monitoring, record-keeping and enforcement mechanisms, with respect to air pollution, hazardous and solid waste management, and environmental impact assessments (EIAs). Under the Law, the role of a new Egyptian Environmental Affairs Agency (EEAA), affiliated to the Minister for Environmental Affairs, was set out.

The EEAA is responsible for:

- formulating national environmental policy
- preparing environmental law and regulation; and
- monitoring compliance, and coordinating enforcement actions

The EEAA in coordination with a number of other Ministries, is the competent authority for administration of Law 4's provisions. The Egyptian Ministry of State for Environmental Affairs (MSEA) was formed in 1997, and the EEAA is now its executive arm.

In addition to Law 4, the regulatory framework in Egypt for environmental management consists of numerous sectoral laws, which a large number of government agencies are responsible for implementing. The following sections outline the main provisions in relation to air pollution, wastewater, water, and solid waste including hazardous waste.

2.1.1. Air

Air quality and emissions regulations are contained in the Executive Regulations of Law 4/1994⁴. The decree stipulates emission standards, universal for some pollutants and differentiated by type of industry in other cases. Penalty limits are also set out. The decree also contains specifications for fuel combustion and industrial stack heights, and allowable limits for indoor air pollutants.

2.1.2. Water/Wastewater

Wastewater discharge is regulated by Law 93 of 1962 (and its Executive Regulations, Decree 649 of 1962), and Law 48 of 1982, and its Executive Regulations, Decree 8 of 1983. Industries in Egypt are required to discharge their wastewater into public sewers except when they are located outside the coverage area. The types of industrial establishments that need licences to discharge wastewater into public sewers and the standards to which they must adhere to are listed.

⁴ Also known as the Prime Ministers Decree 338/1995

Law 48 prohibits the discharge of untreated wastewater into potable water surfaces and underground water reservoirs. To discharge treated wastewater into a waterway requires a licence from the Ministry of Public Works and Water Resources (MPWWR). Its Executive Regulations contain standards for treated industrial and municipal wastewaters to be discharged into potable and non-potable surface waters and groundwater. Penalties in relation to discharge standards under both Laws are set out.

Law 4/1994 and its Executive Regulations contain rules and procedures for the protection and remediation of marine pollution from ships, ports, and oil platforms, including certification requirements and penalty procedures. It also licenses the control of untreated substances, wastes of liquid discharges to the seashore or adjoining waters.

Law 27 of 1978, Ministerial Decree 109/1995 and Ministerial Decree 301/1995 regulates the public resources of potable water and its human use, through quality and health standards. The responsible bodies are the Ministry of Housing and Ministry of Health.

2.1.3. Solid Waste Including Hazardous Waste

The Executive Regulations of Law 4 require a licence for the handling of hazardous wastes including its generation, collection, storage, transport, treatment and disposal. The Ministry of Industry is the designated authority that issues the licences. The Decree also contains general rules and procedures for the handling of hazardous waste. Industries are required to maintain a register of all operations with hazardous wastes. Law 4/1994 delegates the listing of regulated substances and wastes as well as licensing to the line ministries (Ministry of Industry, Agriculture, etc).

The basic law for solid waste collection, treatment and disposal is Law 38/1967 with amendments from Law 31/1976. This Law regulates the collection and disposal of waste from houses, public places, and commercial and industrial areas. Amongst other things, it forbids the disposal of garbage in any place not specified by the local council. The Ministry of Housing, Utilities and New Communities is responsible for implementation of the Law, which it has delegated to the Governorates. Law 4/1994 prohibits dumping, treating or burning of solid waste except in a place specially designated for such purposes by a municipal authority, and sets out penalties in relation to this.

2.1.4. Environmental Impact Assessment (EIA)

Law 4/1994 stipulates that certain new and expanding facilities are subject to EIAs that must be conducted by the Competent Administrative Authority (CAA). The guidelines establish a screening system for new and expanding projects by dividing them into three classes or lists, requiring different levels of EIA according to potential environmental impact. The guidelines also describe the types of establishments likely to fall under each “list”, as well as their respective CAAs. The lists are classified into:

- “white list” projects requiring only a minor screening and no EIA;
- “grey list” projects, requiring an environmental screening form to determine need for a scoped EIA; and
- “Black list” projects that require a full EIA conducted according to relevant sectoral guidelines.

The CAA conducts an initial review of the EIA documents and resubmits them to the EEAA. The EEAA, with the assistance of outside technical experts, reviews and evaluates the

documents and provides environmental clearance for the facility to the CAA. The EEAA is responsible for ensuring all specified environmental impact mitigation measures are in place prior to the launch of the facility's operation. An appeal procedure is set out.

A summary of the regulations in the air, water and solid waste fields is set out in Annex 1.

2.2. Impact of Regulatory Framework on Environmental Business Demand

There is evidence to indicate that the recent changes to the regulatory framework are beginning to have some influence on the demand for environmental services and environmental equipment, although the impact is small so far. Discussions with the department responsible for Environmental Impact Assessments (EIAs) within the EEAA indicate increases in the volume of EIAs being received year on year. Commercial analyses indicate growth in the demand for environmental technologies and environmental consulting. However there are some constraints to the ability of the regulations to impact on environmental business.

The key issue here is that the regulatory framework is incomplete and where it has been translated into regulations the penalties that are imposed are in many cases insufficient to offer any effective deterrence to the polluting company. The main constraints arising from the regulatory environment are as follows.

(i) Institutional Capacity

The ability of the regulatory framework to generate demand for environmental equipment and services on a larger scale is restricted by inadequate institutional capacity. Staff resources, both in EEAA and the key Ministries, are insufficient in both numbers and technical capacity, to effectively implement standards. This includes the capability to: (i) record and use data; (ii) monitor compliance, and (iii) to make decisions on when and by how much to enforce the regulations.

The facilities and equipment within monitoring stations and analysis laboratories, and the overall regional coverage of such premises, is insufficient. The situation is improving through recent capacity development, training, and decentralisation Programs, implemented with government and donor support, but it is unlikely to reach ideal levels in the short term.

(ii) Deficiencies in Regulations

Amongst those areas of control of industrial activity and public service provision *not* covered by Law 4, including water supply and sanitation, MSW management, and surface and groundwater protection, the regulatory framework is at least 19 years old and somewhat outdated in terms of the penalties that apply⁵. This does not encourage companies to recognise the true environmental cost of their pollution and act accordingly, since the cost of taking steps to prevent or control pollution is so much higher.

There are other cases where the regulations supporting the Laws do not yet exist. For example there is no specific regulation of the storage and treatment of the hazardous component of medical waste. Many of the Executive Regulations within Laws relating to environmental management are being upgraded in depth and coverage, and in the detail

⁵ For example, the penalty for incorrect wastewater discharge under Law 48 is LE100 maximum for a first offence and double this for a repeat offence.

which explains *how* to comply. It is expected that this will begin to seriously increase the influence of regulations on demand for environmental business within the next 3 years.

(iii) Awareness of Pollution

Regulations are not able to influence the demand for environmental equipment and services if the companies that are potential or existing polluters are unaware of the issues or the measures to address and comply with the problem. Though many awareness and training initiatives are continuing to take place, the process is slow, particularly amongst very fragmented industries containing large numbers of micro enterprises in the metal, brick and cement industries.

Even amongst those that are fully aware and technically able to comply with regulations, many face difficulties in sourcing the levels of finance required for compliance. This is especially so for the SME sector who need to upgrade their facilities and are working in the context of an Egyptian economy grappling with a severe liquidity crisis.

In this context, the main areas of short term demand for environmental equipment and services, and consequent business opportunities that have occurred as **a direct result** of the regulatory framework are to be found in the following areas:

- Large multinational players who have a reputation to maintain and who demand technical services in environmental audit, EIA, in the development of Environmental Management Systems (EMS) to keep pollutants/emissions within legal limits, and to develop environmental problem solving techniques for pollution abatement/remediation. They will also require equipment for the management and/or monitoring of wastewater, air pollution, hazardous waste, liquid and solid waste, and installation and operation and management services.
- Companies that are commencing a new project are generally aware that regulations exist, and will build in a financial capacity to meet regulations within their budgets, requiring similar equipment and services as described above.
- An ongoing and gradual increase in the demand for EIAs and EMS across all companies as awareness begins to grow.

In the medium term, assuming that the depth and coverage of Executive Regulations within the relevant Laws is improved, and that the ongoing support Programs to EEAA and affiliated bodies result in improved institutional capacity, it is expected that some increase in demand from private companies will occur for the following:

- environmental audit and impact assessment services;
- services in feasibility studies for environmental investment;
- services in development and implementation of environmental management;
- water treatment equipment – particularly pumps, filters, evaporators, floatation systems, water recycling and re-use systems and monitoring equipment;
- air pollution equipment – particularly filters, monitoring equipment, separators
- solid waste collection, storage and stabilisation equipment;
- liquid waste collection, storage and stabilisation equipment; and
- hazardous waste minimisation, treatment and disposal technologies and equipment.

Changes to the depth and coverage of the regulations and of the institutional capacity to support them has the potential to result in increased demand for waste management facilities and services. Notable examples for the medium term are likely to include:

- hazardous medical waste collection, treatment and disposal; and
- general hazardous waste collection, treatment and disposal.

As a result of improved regulations, The EEAA and related competent authorities will also generate increased demand for environmental monitoring and testing equipment in order to be able to effectively control and enforce the emission limits imposed. They are also likely to continue to demand consulting and training services from environmental, legal and other technical experts to be able to effectively introduce, amongst other things: changes in monitoring procedures; changes to licence application and complaints procedures; changes to penalty issuance and complaints procedures.

Thus the message to the business sector is clear: the demand for environmental business is heavily dependent on the Government driving through changes in the regulatory environment in terms of developing the institutional capacity to monitor and enforce existing regulations, develop further regulations and establish penalties that deter. In the medium term the market will be generated by those international companies who have their own national/shareholder pressures to comply with Egyptian regulations.

3. Government Support and Incentives to Environmental Business

The Government recognises that to achieve the targets set out in the National Environmental Action Plan (NEAP) and to meet the obligations under the international conventions to which Egypt is a signatory, there is a need to generate environmental business activity that will promote the expansion of sound environmental management across industry and the service sector as well as in the provision of public services. The extent of support provided by government to promote environmental business is set out below.

(i) National/regional programming and projects

The Government provides support to the development of:

- The National Environmental Action Plan;
- Governorate Environmental Action Plans;
- National and regional strategies for different areas of environmental management, and
- Projects and initiatives requiring environmental consulting and equipment supply for both local and overseas companies and individuals.

(ii) Development of institutional capacity

The Government is implementing Programs with partial donor support to decentralise and increase the institutional capacity of the EEAA. Increased local capacity will also lead to more public sector driven regional initiatives and projects in environmental management, which in turn will generate their own demand for environmental equipment and services.

(iii) Development and administration of large investment Programs

The Government is rolling out a large investment Program to expand and upgrade the network of public water supply and treatment facilities. This incorporates a private sector participation unit to promote private sector participation in approximately 30 municipal water and wastewater treatment projects across Egypt, between now and 2017. The contracts will be through the use of Build Operate Transfer (BOT) and private sector contract mechanisms. This will result in substantial environmental business opportunities in, certainly the medium term, in:

- (a) consulting services to conduct pre-feasibility and investment plans prior to tendering;
- (b) consulting services to support tendering and contracting procedures;
- (c) engineering, construction, and other technical services;
- (d) training;
- (e) equipment, including most obviously water pumps and pumping stations, compact treatment units, water and wastewater treatment systems, pipes; and
- (f) services in operation and management

In the solid waste sector, large-scale municipal waste management contracts for private sector operation and management, are gradually being tendered by the government through the Governorates. To date 7 tenders have been conducted. It is likely that at least 10 other Governorates will be tendered over the next 2-5 years, presenting major private sector business opportunities for Egyptian/foreign joint ventures with previous experience to construct and operate municipal waste management systems, in:

- (a) consulting services to conduct pre-feasibility and investment plans prior to tendering;
- (b) consulting services to support tendering and contracting procedures;

- (c) engineering, construction, and other technical services;
- (d) training;
- (e) equipment, including most obviously landfill equipment, incinerators, collection, and transportation equipment, composting and recycling equipment and plant; and
- (f) services in operation and management.

(iv) Sourcing of finance for environmental projects/Programs

The Government plays an active role in sourcing donor, international financing institutions, and private sector financing for environmental projects and Programs. This in turn generates environmental business opportunities for local and overseas resources. However there are comparatively few lines of credit or grant aid available to bridge the gap between large scale donor-funded investment projects (e.g. the €340mn EU grant to the Helwan Wastewater project) and smaller sale credit and grants to SMEs. The Environmental Protection Fund (EPF) is thus one of the few funds available.

The EPF was established under Law 4/1994 to stimulate investment in the environmental sector in Egypt. The EPF provides financial assistance through soft loans, and through interest rate subsidies, which are used to offset existing commercial rates. Other financing mechanisms may also be provided by the EPF, such as loan guarantees and equity investment. In addition, grants are offered to non-profit/non-investment type environmental projects on a cost-sharing basis.

(v) Awareness Raising

The Government provides resources, facilities and funding to awareness raising and education initiatives that promote sound environmental practice at all levels of society. They also promote an awareness of the regulatory framework, and an understanding of how to achieve compliance. The Government has also been involved in developing voluntary compliance by industry, through such Programs as the industrial cities Program.

(vi) Investment incentives, guarantees and tax /benefits

Law 8 of 1997, the Investment Law, provides a series of financial benefits and guarantees for investors operating in a range of sectors, who wish to establish a business or a project in one of the Free and Inland Zones of Egypt. Under the Law, the General Authority for Investment and Free Zones (GAFI) is responsible for: administering the application for the project; securing the appropriate business licences permits and documentation; helping the investor in site selection and land acquisition; and for making sure that all applicable guarantees and benefits are secured by the investor. In addition, GAFI is involved in helping potential investors to secure local partners or find foreign partners. The aim is for GAFI to become the main organ for investment promotion into Egypt.

There are 16 applicable sectors, including:

- Infrastructure operations including drinking water, wastewater treatment, roads and communications;
- Financial leasing;
- Venture capital;
- Maritime transport;
- Oil and gas;
- Agriculture, fisheries and land recultivation and reclamation;
- Tourism;
- Aviation transportation; and

- Goods transportation

The main provisions of the Law are as follows:

- Guarantee against confiscation, sequestration, or nationalisation;
- The right to own land, the right to maintain foreign currency bank accounts;
- Freedom from administrative attachment or guardianship;
- Guarantee of non-impeded export of products and import of input materials;
- The right to repatriate capital and profits, and the right to equal treatment regardless of nationality;
- In Inland Zones, exemption from taxation of profits and partners' shares in such profits for 5 years starting from the first fiscal year following beginning of production or activities;
- The exemption is extended to 10 years for companies/projects established in new industrial zones, new urban communities or remote areas (as determined by the PM's Decree)
- The tax exemption is extended to 20 years for companies maintaining their activities outside the Old Valley as well as profits on partners' shares in such profits, whether the establishment was started there or transferred there from.
- Complete exemption of taxation on profits and dividends of profits for projects established in the Free Zones. Instead companies are required to pay an annual fee of 1% of the value of good entering or leaving the free zone, or, 1% of the gross revenues realised by the project if its activity does not require entry or exit of goods.
- In Inland Zones, import of input materials and other essential items for investment projects free of normal customs duty fees and are charged at a nominal 5% CIF rate; and
- In Free Zones, imports of such materials are free of all duty import taxes.

Apart from the “infrastructure” sector which directly targets investments in water and wastewater treatment, the provisions of this Law are not directly targeted at supporting environmental spending. However they have the potential to support or enable the development of innovative financing and partnerships for environmental projects or investment. They can also provide greater financial flexibility for companies to spend on environmental equipment and services.

(vii) Internal reforms

In recent years, the Government has focused on reforming the financial sector, by opening it to foreign investment; commencing an upgrading Program of the stock exchange and streamlining capital market regulations; banking privatisation; and insurance sector privatisation.

The Government is also gradually opening key sectors to competition; most recently the telecommunications sector, but also a number of key infrastructure services, such as port services, and energy provision, cement production, and of course water and waste management, as described above. The new openness to the private sector is already, and will continue to, attract large-scale overseas investment into Egypt, which in turn has the potential to generate environmental business. These opportunities can only be viewed in terms of potential at this stage with little in the way of specific ‘bankable’ opportunities

(viii) Trade Policy

Since the early 1990s, the Government has been implementing trade liberalisation measures as part of overall economic policy reform, which has principally involved rationalisation of the tariff structure and reduction of the maximum Most Favoured Nation tariff from 100% to 40%.

Whilst companies within the Inland and Free Zones receive tariff concessions, for the rest of the private sector, customs tariffs can range from between 5 and 40%, and there is also a sales tax of 10%. There are no specific tariff concessions for the importation of environmental equipment, which companies operating in the environmental sector have identified as a major limitation to investing in needed technology.

In addition, the administrative procedures regarding customs clearance tend to cause delays in bringing environmentally useful equipment into the country. Customs procedures are still rather subjective in determining whether one product fits into a certain tariff bracket or another. This decision may vary between shipments. Furthermore component parts of a complete facility may also be charged repeatedly.

(ix) Support to Donor-Funded Projects and Programs

The Government provides staff and facilitates resources to the implementation of a variety of small scale and large-scale environmental initiatives through memoranda of understanding with a range of different donors and financing institutions. Details are set out in section 4 and Annex 2.

(x) Funding

The summary details of the recent level of funding provided by Government to the Programs described above are provided in Table 3.1. The information is incomplete and may overlap, but provides some indication of the potential impact on environmental business.

Table 1 Funding Support By Government

Area of support	Sector (if applicable)	Amount	Timing
Industrial compliance with Law 4/1994	All	\$3.5billion	2000-2005
Environmentally friendly industrial development	All	\$1.25billion	2000-2020
National Solid Waste Management Strategy Implementation (including roll-out of large SWM projects in the Governorates)	Solid waste management	\$2.6 billion	2000-2007
Water Sector Reform Program (including roll-out of BOT projects)	Public water supply & wastewater treatment	\$11billion approx.	2000-2017
Environmental protection fund	3 of the 4 priorities are in: - water quality & quantity - air pollution control - hazardous & other SWM 9 of the finalised projects are in waste & wastewater management	\$4.5million for first 2 years	2000-2002
Environmental equipment	All	\$1.2billion	1998-2002

Source: Stakeholder discussion, US Commercial Service Report on Environmental Equipment & Services, 2000, *Solid Waste Management in Egypt*, AmCham, Sept. 2000,

4. Donor Support to Environmental Business

4.1. SUMMARY OF MAIN ACTIVITIES

The support of donor financing and technical assistance has been a crucial driver of environmental business opportunities in Egypt over the last 5-10 years. The range of support provided can be summarised as follows:

- **Strategic assistance:** Providing expertise to Governorates to prepare environmental action plans; support to preparation of integrated management plans, (e.g. in coastal areas, industrial cities; support to preparation of regional and national strategies; and support to the development of Governorate Environmental Management Units
- **Awareness raising Programs:** Training EEAA staff to raise public awareness of environmental issues and compliance requirements; raising awareness of environmental problems and how to combat them. Examples include air pollution abatement; supporting community organisations; support to NGOs in raising public awareness; and demonstration projects.
- **Developing monitoring and data use capacity:** Design and installation of regional and national monitoring systems for air quality and training in its use; support to water quality monitoring; and support to the development and use of environmental and pollution information.
- **Soft financing:** Pollution abatement projects for SMEs to promote sound environmental practice. Support to the importation of environmental equipment.
- **Support to Third Country cooperation:** Support from bilateral agencies to encourage joint ventures between Egyptian/foreign firms on capital investment projects.
- **Establishment of facilities:** Funding the construction/installation of treatment or disposal facilities for all types of waste, including hazardous waste, oily water, municipal solid waste, hospital waste, wastewater.

The support provided by donors to environmental management in Egypt has undergone some key changes in recent years. Large-scale projects involving funding the construction of major public facilities are still an important component, particularly through USAID. Many of the donor Programs are also still concerned with enhancing the technical and managerial capacity of the EEAA, and those responsible for environmental monitoring and management at the regional or Governorate level.

However there is a gradual move towards a greater element of cost-sharing within projects and Programs, whereby industry beneficiaries, community groups or SMEs are required to make a financial contribution before receiving technical assistance, or soft financing support. There is a greater focus on supporting SMEs, who have little access to private finance. The main areas of support are in pollution abatement and prevention initiatives, and on developing community-based initiatives, often with the support of NGOs and other groups. Pilot demonstration projects are also a major element of donor support.

Summary details on current projects and Programs being funded by international donors are presented in the tables in Annex 2. *The first table only includes those projects that could represent an ongoing environmental business opportunity, or those that could have the potential to act as a catalyst for environmental business opportunities in the future. Projects that are ongoing but that are probably already contracted, are excluded.* The development and implementation of donor projects is an ongoing process; for those interested parties, the information provided in the table should be supported by contacting the relevant donor agencies for the latest details.

In addition, a wide range of support Programs to promote inward investment in general, joint ventures between Egyptian and foreign firms, equipment purchase and technical assistance to managers are available. The second table in Annex 2 presents the ongoing projects that provide this type of funding support to Egyptian industry, which could be drawn upon to support environmentally related investment.

4.2. IMPACT OF DONOR SUPPORT ON ENVIRONMENTAL BUSINESS DEMAND

The sheer scale of donor support to the environmental sector in Egypt has undoubtedly increased awareness of environmental pollution problems, and the understanding of how to address them at industry, community and public sector level.

Donor Programs involving a cost-sharing element have increased awareness of the real value of environmental equipment and services, whereas many pilot schemes and demonstration projects have shown how financing can be organised and sustained independently of Governmental or aid support. There are several small examples across Egypt of individuals or groups taking the initiative to meet their environmental equipment and services needs themselves, as a result of understanding gained through a previous donor project.

Whilst donors have succeeded in acting as a catalyst in support of environmental business in some cases, their main impact is still to be found through the projects and Programs they implement or support.

A summary of *approximate* total funding commitment to all ongoing projects and Programs that are directly related to the environment is given below, for those on which financial information was available. Whilst these figures may not reflect the actual size of the resulting environmental opportunities generated, they are presented here to provide an indication of the level of funding by the donors to the environmental field, which in itself is a useful barometer of the “drivers” behind the markets for environmental equipment and services in Egypt.

Regarding those donor Programs that support inward investment in general, the total current support funding which applies to environment is difficult to pinpoint. An indication of the impact and importance of these Programs to environmental business can however be drawn from the USAID-supported Commodity Import Program figures for environmental equipment: In 1998 the value of these imports was US\$6.5million, in 1999 US\$12million, and in the year 2000 to September, US\$10.2million, demonstrating a clear increase in demand.

Table 2 Funding by Donor to the Environment Field

Donor	Funding (US\$mn)
United States Agency for International Development (USAID)	1,200.0
Canadian International Development Assistance (CIDA)	34.0
Danish International Development Assistance (DANIDA)	44.0
Dutch Development Corporation	9.0
Department for International Development (DFID)	5.8
European Union	16.0
European Investment Bank	19.0
Kreditanstalt Fur Wiederaufbau (KfW)	86.7
Switzerland	2.0
Finnish International Development Assistance (FINNIDA)	25.5
Italian Development Cooperation	5.0
International Bank for Reconstruction & Development (IBRD)	20.0
IDA	15.0
Japanese International Cooperation Agency (JICA)	5.2
United Nations Development Program (UNDP)	15.0+
Global Environment Facility (administered by the World Bank, UNDP and United Nations Environment Program)	100.0
Total Above	±1,500.0

In the *municipal water and wastewater sector*, the government is highly dependent on the continued extensive involvement of the donors, particularly USAID, to expand and upgrade its systems. The level of funding by donors on existing projects which have the potential to generate environmental business opportunities is *approximately* US\$ 200 million. Whilst this is not necessarily a reflection of the eventual actual size of the opportunity, this funding, has and will continue to, provide opportunities for environmental business in:

- Design, engineering and construction;
- Equipment manufacturing or sale (treatment systems, water pumps and pumping stations, compact treatment units and pipes);
- Consulting in institutional development, operations and management training, project design, tendering and contracting, e.g. for BOT contracts, and
- Operation and management of facilities.

In addition it is likely that donors will continue to be involved in supporting the preparation and/or implementation of the Government's planned strategy for continued development of the sector from 2002, thus supporting the generation of much larger business opportunities.

In the *industrial wastewater treatment sector*, the main impact of donor assistance has been through soft finance Programs for equipment and pollution abatement. Existing funding in this area from donors on actual environmental projects that have the potential to generate business opportunities is *approximately* US\$ 43 million.

The *air pollution control market* is still strongly driven by donors. Current approximate funding by donors on projects that have the potential to generate business opportunities is around US\$130 million, through soft financing, the installation of monitoring and analysis capacity for emissions, and air improvement projects. These Programs are generating equipment demand in cyclone separators, scrubbers, bag house filters, electrostatic precipitators, monitoring and emission testing equipment, catalytic converters, and Compressed Natural Gas (CNG) engines, and demand for consulting services in IT and data management, emissions control and some institutional development.

Donor generated demand in the *municipal and hazardous solid waste sector* is linked to soft financing Programs for pollution abatement and environmental equipment, pilot projects establishing new facilities such as landfills and incinerators, and technical assistance to waste management strategies, project design, tendering and contracting. The *approximate* current funding on projects that have the potential to generate business opportunities is US\$ 60 million. Similar to the development of the water sector, the establishment of essential facilities and regional systems is likely to continue to have some donor element in the near future. Environmental business opportunities are in waste recovery and recycling technologies, incinerators, landfill, collection and transfer equipment, composting equipment, construction, training in operation and management, consulting in systems design, and operation and management of waste management systems, e.g. through BOT contracts.

Donor involvement in policy and strategy development, institutional development, environmental education, training and awareness raising, environmental economics, information systems, and EMS, will continue to create a market for local and outside consulting services in these fields. Current donor funding in this area on projects that have the potential to generate business opportunities is approximately US\$ 290 million.

There are also a range of Programs providing financial incentives to assist companies to deal with pollution abatement activities and environmental management (see Annex 2). The most significant of these are the Canadian-funded Egyptian Environmental Initiatives Fund, the German-funded Private Sector Industry Program, and the World Bank/EIB/IDA/Finnish-funded Egyptian Pollution Abatement Fund.

Donor funding in the area of capacity building is likely to continue for many years and perhaps become more decentralised at the Governorate level. The emphasis on grants can be expected to continue in the area of poverty alleviation and improved living standards, which is likely to include water and sanitation facilities in urban and rural areas, and the involvement of communities in waste management. An increasing amount of donor support can be expected to be in the form of cost sharing and soft loans in all three areas of waste management, air pollution, water and wastewater.

The demand for environmental equipment and services created by donor presence is likely to remain strong for the next five years. Some Programs are likely to begin to phase out this support after this time. However there is the potential for the support frameworks put in place to assist in regional environmental planning, waste and water management, monitoring and analysis, and the demonstration projects executed in industry, to have a catalytic effect on generating similar opportunities within the private sector.

5. Environmental Business Opportunities

Taking into account the status of the regulatory framework, Government support and donor support summarised above, the environmental business opportunities that appear to be the most obvious are summarised below. The opportunities have been categorised in Table 5.1 into five categories, which require an increasing degree of Government support and finance:

- (i) **Stand alone**
- (ii) **Awareness raising support**
- (iii) **Some financial incentives to stimulate demand**
- (iv) **Greater enforcement**
- (v) **Full policy implementation**

Stand alone opportunities are those that will arise by themselves in the current market environment, without requiring any changes in policy, strengthening of regulations, or incentives. In most cases, awareness raising measures would assist, but are not essential for demand to grow.

In Egypt, where awareness and understanding of environmental issues is only gradually beginning to develop, many environmental business opportunities will not emerge unless assisted by **awareness raising** activities. These activities cover a range of initiatives that can be applied depending on the market segment being promoted. These could include:

- Promotion and explanation of the polluter pays philosophy to industry and to householders;
- Promotion of the need for resource/energy conservation;
- Explanation of simple, cost saving and environmentally friendly methods of production to SMEs;
- Increasing awareness of corporate responsibility to protect the environment, and the associated market benefits this may bring in the medium to long term;
- Increasing consumer awareness of environmentally friendly production processes and products; promoting householder responsibility to manage their waste; publicity campaigns for particular environmental initiatives; and
- Support to industry associations.

Awareness raising activities should draw on the support of private sector associations, community groups, donors or NGOs.

Financial incentives are needed to create many environmental business opportunities in Egypt at present, simply because there is not yet an effective requirement for companies to implement sound environmental management techniques. Companies who comply with the regulations, are therefore in most cases put at a competitive disadvantage. This is particularly so for companies supplying the Egyptian market, who do not have consumer pressure from “Western” markets to implement environmentally sound production processes and/or produce environmentally sound products. Thus in the short term it will be necessary to encourage “bottom up” initiatives to assist companies with regulatory compliance in the provision of equipment and/or systems. Poor awareness by SMEs will also require assistance and incentives to engage in EMS Programs.

In other cases, Egyptian companies may have identified outside equipment from overseas that they require to comply with regulations or to improve their environmental management, but are limited by the cost of the equipment. Finally, due to the relatively high level of economic risk in conducting business in Egypt, possibilities of securing joint ventures between Egyptian and foreign firms, that present a good opportunity to promote environmental investment, are often restricted.

Typical types of financial incentives used in this field include:

- Tax breaks for a set period on required equipment, technology or services
- Subsidies for the fees to review a waste management system, energy/water saving or EMS
- Support to studies and investigations relating to the provision of technical assistance conditional on taking out a loan for investment which includes environmental friendly systems
- Cost-sharing grants for equipment and services
- Provision of seed capital for environmental “revolving funds” channelled through commercial banks.

Greater policy monitoring and enforcement requires development in institutional and technical capacity within the agencies responsible. Laws exist but they are not fully enforced. The message from the business community is clear: environmental compliance requires the teeth of the law to be effective. The institutional capacity to measure, monitor, enforce and include the provision of fair arbitration procedures is lacking in most areas of environmental legislation.

Some potential environmental opportunities still require **policy development** before they can be fulfilled. This may include: the development and/or implementation of policy Programs, strategies or action plans at a National or Governorate level; the development of new laws, and regulations to meet gaps. Examples include regulations to govern the management of medical and other hazardous waste.

A summary is provided of the key opportunities in Table 5.1. with more detail provided in Table 5.2. Generally speaking, the ‘easiest’ opportunities are those marked with a cross on the left of the table, with a progressively increasing amount of commitment and financial support required, as crosses are included on the right hand side of the table. In some cases a combination of support is required as the measures required are not mutually exclusive.

Table 3 Summary Table of Opportunities

	Stand alone	Awareness raising efforts required	Financial incentives required	Greater enforcement/monitoring required	Policy development or implementation required
WATER					
Small scale, simple wastewater treatment for SME industry		X	X		
Manufacture and sale of simple and cheap units for water purification		X			
Development & implementation of low-cost sanitation in small towns/villages in upper Egypt.		X	X		
Large scale projects for construction of public water supply and treatment systems – design, equipment supply, construction, operation & management (O&M)					X
Water purification for the tourism sector	X				
Industrial wastewater treatment projects – equipment supply, construction/fitting, O&M.			X		
AIR					
Small-scale, simple air filter systems for SME industry		X	X		
Supply of equipment for public sector monitoring of air pollution/emissions				X	
IT support to air quality monitoring					X
Manufacture and sale of CNG buses		X	X		
Small-scale VET stations		X	X		
Conversion of vehicles to natural gas use instead of petrol/diesel		X	X		
Emission control for industry in general			X	X	
SOLID WASTE					
Small-scale waste management initiatives, particularly in recycling and composting		X	X		
Replication of Alexandria-type models for MSW to other large cities: equipment supply, construction, O&M.					X
Development of hospital/healthcare waste collection and disposal services			X	X	X
Construction and operation of HW treatment, incineration & landfill facilities			X	X	
MSW to fertiliser Programs		X	X		
CROSS SECTORAL					
Consultancy services to conduct EIAs	X			X	

	Stand alone	Awareness raising efforts required	Financial incentives required	Greater enforcement/ monitoring required	Policy development or implementation required
Support to achieving ISO14000	X				
Support to companies in sourcing finance for environmental investment	X				
Support to private companies to help them identify their environmental needs, detail tender documents for meeting them, and evaluate tenders effectively.	X			X	
Provision of high-tech equipment and systems for environmental management	X		X		
Assembly of simple environmental facilities/units	X				
Support to development and implementation of low-cost/low-tech. maintenance solutions to help companies improve their environmental management	X		X	X	
Support to development & implementation of EMS in industry	X			X	
Support to development and implementation of EMS on a local / regional level	X	X		X	

Table 4 Detailed Opportunities

		Requirement	Source	Area	Sector	Timing	Key Constraints/Comments
WATER							
1	Small scale, simple waste-water treatment for SME industry	Design	Egyptian	Greater Cairo, Alexandria	Textiles/leather, metallurgical, food, chemicals	Gradual growth, from now. Peak: medium term	Awareness raising of need and potential Financial incentive to designer
		Equipment manufacture & sale	Egyptian	As above	As above	As above	Marketing of design Financial incentives to purchaser
		Installation & O&M support	Egyptian	As above	As above	As above	
2	Manufacture & sale of simple & cheap units for water purification	Portable units for individuals	Egyptian	Urban areas	N/A	Solid growth potential Immediate opportunity	Awareness raising of need to purify “potable” water, and of the simplicity of technology involved.
		Units for apartment buildings	Egyptian	Urban areas	N/A	Solid growth potential Immediate opportunity	As above
3	Development & implementation of low-cost sanitation in small communities in Upper Egypt	Equipment manufacture and sale	Egyptian	Rural Upper Egypt	N/A	Solid growth potential Immediate opportunity	Financial “seed” capital required to start a community-based project. Awareness raising, drawing on existing pilot examples.
4	Projects for establishment and upgrade of public water supply and treatment systems	Engineering & systems design	Foreign	Across Egypt	N/A	Strong, 2002-2017 around 30 projects	Dependent on the roll-out of the government’s planned sectoral policy, involving the use of BOT and other private sector participation arrangements. Establishment of a local company may be required as a condition for private sector involvement
		Equipment supply	Foreign for pump stations & plant Egyptian for compact waste water facility components and pipes & valves	Across Egypt	N/A	As above	As above

		Requirement	Source	Area	Sector	Timing	Key Constraints/Comments
		Construction	Egyptian or foreign	Across Egypt	N/A	As above	As above
		O&M	Foreign/Egyptian	Across Egypt	N/A	As above	As above
		Consulting in training, project planning & management, & support to the tendering & contracting process	Foreign	Across Egypt	N/A	As above	As above
5	Water purification for tourism sector	Equipment for desalinisation	Foreign manufacture	Red Sea & Aqaba areas	Tourism	Current, strong demand	Financing is available & awareness is high
		Sale/distribution	Egyptian agents/distributors for foreign suppliers	Red Sea & Aqaba areas	As above	As above	As above
		Installation of equipment	Egyptian or Foreign	As above	As above	As above	As above
6	Industrial waste water treatment projects	Equipment	Control & other high-tech equipt. – foreign Egyptian potential for some simple parts	Main industrial areas of Greater Cairo and Alexandria, the new industrial cities	Food processing, chemical & fertilisers, cement, metallurgical, textiles	Steady growth from now for new facilities Weaker, slower growth for upgrades	New facilities being built tend to build these costs into their investment as they are aware of the regulations High need for financial incentives to stimulate D for older facilities that require an upgrade
		Engineering	Foreign	As above	As above	As above	As above
		Installation	Egyptian/Foreign	As above	As above	As above	As above
		TA in O&M	Egyptian/Foreign	As above	As above	As above	As above
AIR							
7	Small-scale, simple air filter and emission control systems for SME industry	Design	Egyptian	Greater Cairo & Alexandria	Metallurgical industries, small refineries	Gradual growth, from now, peak medium term	Need for some awareness raising efforts
		Equipment manufacture & sale	Egyptian	As above	As above	As above	Need for some awareness raising efforts and some small scale financial incentives
		Installation & O&M support	Egyptian	As above	As above	As above	As above

		Requirement	Source	Area	Sector	Timing	Key Constraints/Comments
8	Supply of equipment for public sector monitoring of emissions/air pollution	Equipment supply	Mainly foreign	All over Egypt	N/A	Short to medium term prospect. Large potential market	This market is still heavily donor driven so is reliant on financial support from ongoing and planned projects.
9	Outside IT support to air quality monitoring by EEAA	Provision of technical expertise in data collation and presentation, mapping	Egyptian	All Egypt	N/A	Medium term opportunity Large potential market	Policy/attitude change within EEAA required to allow involvement of private sector in this work.
		Use/supply of equipment for the above	Egyptian	As above	N/A	As above	As above
10	Manufacture & sale of CNG buses	Manufacture	Egyptian	All major public fleets in Egypt	N/A	Medium term opportunity. Potential to supply at least 25% of all major public fleets	Capacity already demonstrated in one facility. Need to increase awareness and may need to employ some financial incentives in relation to equipment purchase or start-up capital
		Supply of some components for the manufacture	Foreign supply, potential for Egyptian distribution/agency	All major public fleets in Egypt	N/A	As above	Awareness needs to be raised, combined with financial incentives for import.
11	VET Stations	Operation of small-scale private facilities	Egyptian	Areas outside of Giza and Cairo	N/A	Medium term, extensive opportunity	Awareness raising/promotion, combined with small scale financial incentives in relation to start-up
		Testing equipment for stations	Foreign supply	As above	N/A	Medium term, extensive opportunity	Awareness needs to be raised, combined with financial incentives for import
12	Conversion of vehicles to move to CNG	Equipment	Foreign	Areas outside of Giza & Cairo	N/A	Medium term, large scale opportunity	Awareness raising, combined with financial incentives

		Requirement	Source	Area	Sector	Timing	Key Constraints/Comments
		Conversion process	Egyptian	As above	N/A	As above	As above
13	Emission control for industry in general	Equipment, principally filters & combustion control	Foreign	Key industrial areas of Greater Cairo & Alexandria, new industrial cities	Cement industry, metallurgical, chemical	Medium term, large scale opportunity	Financial incentives are required to stimulate demand, combined with stronger enforcement
		Installation & O&M support	Egyptian	As above	As above	Medium term, large scale opportunity	As above
SOLID WASTE							
14	Small scale waste management initiatives in recycling and composting	Equipment	Egyptian	Areas not covered by planned Governorate tenders, or urban areas where supply of waste commodities is high	N/A	Medium term opportunity	Awareness raising is required, & some financial incentives regarding initial equipment provision
		Operation and management	Egyptian	As above	N/A	As above	Awareness & training/promotion
15	Replication of large scale Alexandria-type models for MSW to other large cities	Collection Equipment	Foreign	Areas of Egypt that have not yet been tendered	N/A	Short-medium term opportunity. At least 10 further Governorates to be tendered.	Awaiting continued roll-out of government policy to generate Governorate tenders Formation of a local company is required. Best potential is an Egyptian/foreign consortium
		Collection services	Egyptian	As above	N/A	Included in the above	As above
		Sorting upgrade and operation	Upgrade – foreign Operation – Egyptian	As above	N/A	Included in the above	As above
		Transfer services & equipment	Design – foreign Equipment – foreign Operation – Egyptian	As above	N/A	Included in the above	As above
		Disposal services & equipment	Foreign/Egyptian Foreign equipment	As above	N/A	Included in the above	As above

		Requirement	Source	Area	Sector	Timing	Key Constraints/Comments
		Recycling services and equipment	Foreign/Egyptian Foreign equipment	As above	N/A	Included in the above	As above
		Construction	Foreign/Egyptian	As above	N/A	Included in the above	As above
		Training	Foreign	As above	N/A	Included in the above	As above
		O&M	Egyptian/Foreign consortium	As above	N/A	Included in the above	As above
		Consulting in project preparation & tendering & contracting	Foreign	As above	N/A	Included in the above	As above
16	Development & operation of hospital/healthcare waste collection and disposal services	Design	Foreign	Cairo, Alexandria, other major cities	N/A	Medium term opportunity	Greater enforcement and more development of Executive Regulations required.
		Equipment	Foreign for high-tech, Egyptian for remainder	As above	N/A	As above	As above. Potential to make use of import support Programs
		Construction	Egyptian	As above	N/A	As above	As above
		O&M	Egyptian/Foreign	As above	N/A	As above	As above
17	Construction & operation of HW treatment, incineration and landfill facilities	Design	Foreign	Cairo, other major industrial areas	N/A	Medium term opportunity	Greater enforcement of regulations required. Will probably require financial leverage through donor assistance or government schemes
		Equipment	Foreign for combustion control and monitoring Egyptian for basic supplies	As above	N/A	As above	As above. Potential to make use of import support Programs
		Construction	Egyptian	As above	N/A	As above	As above

		Requirement	Source	Area	Sector	Timing	Key Constraints/Comments
		O&M	Egyptian/foreign	As above	N/A	As above	As above
18	MSW to Fertiliser Programs	Design	Foreign, drawing on existing examples	Small villages or governorate centres	N/A	Medium term opportunity	Awareness raising will be needed of existing approaches that have proved successful
		Equipment	Egyptian	As above	N/A	As above	Some financial support from Government on initial expenditures may be required
		O&M	Egyptian	As above	N/A	As above	Awareness raising/information support from other similar projects
CROSS-SECTORAL/SERVICE							
19	Consultancy services to conduct EIAs	Consultancy	Egyptian for simpler EIAs, Foreign for full-scale	All over Egypt	Coastal resorts, large scale utility developments, port upgrades and airport expansions, energy projects	Steady growth, likely to expand very rapidly in the medium term. Huge market potential	Greater enforcement and improvement of monitoring networks needed for the smaller scale industries
17	Support to achieving ISO14000	Consultancy	Foreign	All over Egypt	Those sectors with primary markets in West Europe/US. E.g. food processors and food exporters, textiles	Steady growth, likely to expand very rapidly in the medium term. Huge market potential	Already happening. Some awareness raising on the purpose of ISO would be useful
18	Support to companies in sourcing finance for environmental investment	Consultancy	Egyptian	All over Egypt	Small to medium sized companies	Gradual growth. Peak: medium to long term as donor presence declines and other financial mechanisms emerge	Already happening on a small scale

		Requirement	Source	Area	Sector	Timing	Key Constraints/Comments
19	Support to private companies to help them identify their environmental needs, detail tender documents for meeting them and evaluate tenders effectively	Consultancy	Egyptian/foreign	All over Egypt	All	Steady growth	Already happening on a small scale. Greater enforcement would promote this
20	Provision of high-tech equipment and systems for environmental management	Equipment design, manufacture	Foreign	Main industrial areas of Cairo, Alexandria, new industrial cities, coastal resort regions	Tourism, energy, construction, healthcare, aviation, ports.	Solid growth, short to medium term opportunity	Already happening on a stand alone basis in fast growing industries Some more traditional industries need financial assistance
		Equipment sale/brokerage	Egyptian	As above	As above	As above	As above
21	Assembly and sale of simple environmental facilities/units	Assembly & sale	Egyptian	As above	e.g. incinerators, pump systems, filters	Steady growth potential, medium term, large scale opportunity	Awareness raising required
22	Support to development and implementation of low cost/low tech. maintenance solutions to improve companies' environmental management	Design	Egyptian	Major industrial areas in Cairo and Alexandria	Textiles, metallurgical; cement/brick factories,		Greater monitoring and enforcement required first. Awareness raising also required of previous success stories.
		Manufacture and sale of equipment	Egyptian	As above	As above		As above.
		Installation and training	Egyptian	As above	As above		As above
23	Consulting support to development and implementation of EMS in industry	Consulting	Egyptian/Foreign	New industrial cities, Cairo, Alexandria	Those sectors with primary markets abroad e.g. food processors, textiles, metal finishing, chemicals	Strong growth, Short to medium term opportunity	Awareness raising of the economic value of EMS would assist. Greater enforcement would also increase pressure to adopted integrated environmental management

		Requirement	Source	Area	Sector	Timing	Key Constraints/Comments
24	Consulting support to development and implementation of EMS on a local/regional level	Consulting	Egyptian/Foreign	New industrial cities	N/A	Steady growth, medium term opportunity	Awareness raising of similar initiatives required, and greater enforcement. Financial support through government may also be needed

It is clear from the tables above that a range of potential and existing opportunities exist in environmental business. It is also clear that some opportunities are geared towards overseas suppliers, whereas others present more of an opportunity for local suppliers.

As an indication of the overall size of the market, the following estimates for the year 2000 were given on total market size for the key areas:

Table 5 Total Market Size

SECTOR	US\$ MILLION
Water & waste water treatment	700-800
Waste recycling services and equipment	250-300
Industrial waste treatment	200-350
Air pollution control	150-200
Water purification systems	60-80
Municipal solid waste	800-1000
Renewable energy	80-100
Mobile source air pollution	30
Air and water monitoring and testing	20-30
Engineering consulting	60
TOTAL	2,500-3,050

Source: US Commercial Service, 2000

This the latest available assessment of market size which indicates ongoing environmental business opportunities for that year, and is included purely to indicate the growth in this area; estimations of market size from 1998⁶ indicate a total size of US\$680 million. The environmental technologies market was estimated at US\$ 941.5 million in 1999, over 90% of which was supplied by overseas companies. This market has overall growth prospects of 10% per year for at least the next 3 years.

The market for environmental business is still significantly influenced by donor contributions, and is likely to remain so for at least the short term. This review has attempted to exclude those ongoing, fully contracted projects on which information is available in the overall assessment. However assessment of the market size should always take into account the possibility that some of the funds are already committed under projects.

The table below summarises the significance of the donors in each market segment, against the expected changes in the medium term, for the relevant sectors for this review. It must be emphasised that this data is based on the consultants' best estimates of the orders of magnitude and should not be interpreted as being a precise projection of market growth.

⁶ Egypt Environmental Export Market Plan, Environmental Technologies Experts, 1998

Table 6 Donor Influence and Market Changes

SECTOR	ESTIMATION OF CURRENT DONOR CONTRIBUTION TO BUSINESS OPPORTUNITY	CHANGES IN THE NEXT 5 YEARS
<i>Water & waste water treatment</i>	At least 60%, on supporting the establishment of public water supply and waste water treatment systems (equipment and expertise)	<ul style="list-style-type: none"> ▪ At least a 50% increase in market size and opportunity, dependent on roll-out of strategy to attract private sector investment, operation & management ▪ Reduced, though still significant, donor contribution, with focus on enabling strategy implementation (TA)
<i>Waste recycling services and equipment</i>	Around 50% through demonstration projects and capacity building (equipment and TA).	<ul style="list-style-type: none"> ▪ Overall around a 50% increase in market size and opportunities, partially dependent on regional SWM strategy implementation to attract private sector investment, operation and management. ▪ Reduced donor involvement as rollout of SWM schemes incorporates recycling elements into contracts. ▪ Smaller scale opportunities outside of regional schemes, likely to continue to be supported by donors (TA, equipment).
<i>Industrial waste treatment</i>	At least 60% through some key demonstration projects (equipment & TA), soft financing and support to importation of equipment	<ul style="list-style-type: none"> ▪ Market increase of 20%+. ▪ Reduced direct donor contribution to equipment and systems as the main polluting sources are dealt with. ▪ Overall continued high level of donor support to financing of investments and importation of equipment.
<i>Air pollution control (excluding monitoring & testing – see below)</i>	At least 60%, through demonstration projects and support to importation of equipment and soft financing	<ul style="list-style-type: none"> ▪ Expected increase in market size of 20%+ ▪ Continued donor involvement through financial incentives, away from actual projects.
<i>Water purification systems</i>	Negligible	<ul style="list-style-type: none"> ▪ At least a 50% expansion in this market, mainly driven by the demand of the tourism sector
<i>Municipal solid waste</i>	At least 60%, through demonstration projects (equipment & TA), support to strategy development and implementation (TA)	<ul style="list-style-type: none"> ▪ Overall at least a 50% increase in market size and opportunity, partially dependent on regional SWM strategy implementation to attract private sector investment, operation and management. ▪ Donor contribution will decline and be more focused on strategy support
<i>Mobile source air pollution</i>	At least 80%, through pilot Programs and demonstration projects (equipment & TA)	<ul style="list-style-type: none"> ▪ Expected increase in the market size of around 50%. ▪ Changes in emphasis of donor involvement from demonstration projects to financial incentives to support private sector investment in aspects such as vehicle emissions.
<i>Air and water monitoring and testing</i>	At least 60% in the set up of monitoring and testing systems (equipment and TA) in the public sector, and some contribution to equipment importation	<ul style="list-style-type: none"> ▪ Expected increase in market size of 20%+ ▪ Emphasis of donor involvement more on soft finance, import support and other financial incentives.
<i>Engineering consulting</i>	At least 80%, largely as part of big infrastructure projects	<ul style="list-style-type: none"> ▪ Expected increase in the market size of at least 50%.

The above table emphasises the continued significance of donor support to market size, and to resultant environmental business opportunities. However it also demonstrates the ways in which the private sector will gradually become more involved. This is expected to be through:

- Supporting the Government in the development of strategies for water supply, wastewater treatment, municipal solid waste and hazardous waste management, and in the design and management of the tendering and contracting of these services out to the private sector. The donors' role in these fields is finite. Providing that the full rollout of the strategies occurs, the private sector will be involved in operating all stages of the water supply and waste management cycle in many areas of Egypt.
- Capacity building of monitoring, testing and reporting services which will help them to operate effectively and autonomously in the future. There is considerable scope for private sector participation in the operation of these services in the future.
- Movement from total funding by donors of environmental equipment and investment services, to soft financing of them, promotes involvement of the private sector in the true costs. It is envisaged that in future private sector based funds will emerge to take on this role.
- Donors are expected to be involved in targeted financial incentives to support such activities as lead pollution abatement, clean up of SMEs, for at least the medium term. This involvement is expected to be phased out as demonstrations of economic benefits encourage private sector funding and financing mechanisms.

6. Summary of the Key Constraints to Environmental Business

Drawing on the information presented in the previous sections, the key constraints to the involvement of the private sector in the environmental business market are as follows:

Regulatory framework – to date the scope and coverage of the Regulations within the relevant environmental Laws, are insufficient to ensure that the competent authorities and responsible individuals understand and are forced to carry out the required activities to meet the legal limits. In other cases the penalties involved in failing to meet the legal requirements are insufficient to encourage proper pollution prevention and control by industry.

Institutional capacity – the capacity of the EEAA, its affiliated bodies and other key Ministries is inadequate, in terms of staff numbers, competencies, equipment and facilities, to effectively record and use data, monitor compliance and enforce the rules.

Policy development – because environmental protection and pollution prevention and control is still a relatively new area in Egypt, there are areas of government policy and strategy that still need to be completed. The implementation of these policies and strategies are crucial to the development of environmental business and the involvement of the private sector.

Awareness – although awareness of the damage caused by environmental pollution is increasing, and industry is beginning to realise the need to achieve regulatory compliance, there are still large numbers of private sector companies that are unaware of the extent to which they are polluting, and thus of the need to invest in environmental equipment and services. The general public are also unaware of the polluting impact of their activities, or of the pollute pays principle.

Business and economic environment – because a significant proportion of Egyptian businesses still do not trade outside the country, they do not face the pressures of international environmental compliance that comes from operating in the European and other western markets. The combined pressures of consumers, shareholders, lobbyists, and indeed regulatory teeth, are still weak in Egypt.

Although the process of financial market reform, promotion of inward investment and privatisation is ongoing, many companies, particularly SMEs, do not have access to sources of private sector investment with which to fund environmental equipment and services.

Civil society – civil society networks are essential to promote awareness of environmental pollution and the need to pay for it and control it, and to assist in the implementation of innovative, small-scale initiatives in areas where more standard approaches to environmental business are not feasible. The networks of NGOs, CDAs and other organisations is developing but is still very fragmented in Egypt.

This report has already set out the areas in which the Government and/or donors are working to minimise the constraints to environmental business. The impact of these activities will be felt in the medium term. However there are still a number of initiatives that could be developed to further reduce the constraints described. Sections 7 and 8 set out the main opportunities for environmental business in Egypt in the light of the main constraints, and

make recommendations for priority activities to continue to address the development of environmental business, accompanied by examples from around the world.

7. Summary of Key Opportunities in Environmental Business

The current situation in Egypt is that while there is a very large need for improvement in the environment in all three sub-sectors, this need is not being directly translated into business opportunities due to the shortcomings in the regulatory environment. There is every prospect that the business opportunities for the private sector in the environmental sector will increase as the Egyptian economy attracts greater business cooperation and investment from overseas. There is also a growing awareness of the severity of the environmental problems in Egypt and an increasing number of initiatives with EEAA and donor support, which are supporting private sector opportunities.

While there is a general move towards private sector involvement in public infrastructure projects, the realisation of a number of these initiatives in both water and waste management will require the full formulation of national and Governorate policies and action planning. This policy process will need donor facilitation assistance, particularly at the village and Governorate level.

But as highlighted above, most of the big opportunities in environmental business are dependent on a stronger regulatory framework. Until there are a number of key environmental regulations in place which are actively monitored and enforced, many awareness raising initiatives will be lost.

In the short term there will have to be economic incentives for companies (particularly the SME sector) to be environmentally friendly. This will either come from advice or support on ‘win-win’ initiatives on measures to save energy and water; and/or from grants and other financial incentives.

Apart from large public tenders in water and waste management, the environmental business opportunities in the short term are likely to be strongest in those ‘bottom up’ initiatives which support the environment, for example, through pilot water air and waste management schemes. Thus while the ‘sticks’ are still being designed and developed, most of the short term environmental business opportunities will come from the ‘carrots’.

In assessing the best business opportunities in the environmental sector it is important to distinguish between the areas of greatest environmental *need* which is probably water and waste water, from the most likely opportunity for which a market exists. Tables 5.1 and 5.2 have presented a matrix of opportunities with the key constraints described.

The immediate opportunities lie in the following areas:

- Design, manufacture and installation of small scale, simple systems for water management and air emissions amongst SMEs in the greater Cairo and Alexandria area. Demand could be boosted by the use of awareness raising, support to advisory services and small-scale financial incentives to support the design and initial purchase.
- In areas not reached by large-scale policy Programs or strategies, there are many opportunities for the involvement of the private sector on a smaller scale to address

service needs. The best examples are the provision of low-cost sanitation in rural areas, and the operation and management of small-scale waste management services (collection, composting, recycling) in urban areas. Both these types of initiatives have been proven to work sustainably in Egypt already, so the design and management capacity is there and can be passed on through awareness raising, and the financial incentives necessary are small. Much of this activity could be carried out by NGOs.

- The government's policy plans for public water supply and wastewater treatment, and for solid waste management, represent good business opportunities for the medium term across large areas of Egypt, for equipment supply, construction, and operation and management.
- Environmental technology is a solidly growing market for overseas suppliers to the tourism sector in Egypt. Environmental Programs for energy, water saving and desalination in this sector represents a major opportunity.
- Support to the development and implementation of low cost, low-tech environmental maintenance solutions for companies has already demonstrated some success in industries that are high water users, and has real potential to be rolled out further, if awareness raising of the economic benefits can be effectively publicised.
- Consulting services in EIA, ISO14000 and EMS will be a large growth market in the medium term future. Much of these activities will require awareness raising initiatives.

8. Recommendations and Priorities

This study has been designed to provide a brief overview of the business opportunities in the environmental sector and identify the key constraints facing these opportunities. Our purpose has not been to identify area of policy that would support or encourage the uptake of environmental business or to identify private sector solutions to environmental problems.

However the EEAA/EEPP has the capacity to develop a number of initiatives to assist in the design and analysis of a number of *Programs of incentives*. This includes:

- Designing tax incentives for environmental investments.
- Designing and coordinating grant/environmental fund schemes along the lines of the EPF and facilitating the availability of longer-term soft loans for environmental projects. This might include the introduction of privately managed soft credit lines for environmental investment.
- Encouraging the use of environmental funds to be privately run and thus widening the access to loans and grants tied to environmental management systems.

Example: Small Business Investment Companies in the US

Small Business Investment Companies (SBICs) are privately organised and privately managed investment firms licensed by the Small Business Administration (SBA). Using private capital and capital borrowed at favourable rates via the federal government, SBICs channel monies to small, fast-growing companies, both new and established. They provide equity capital, long-term loans, and expert management assistance to qualifying businesses. As profit-motivated entities, SBICs expect to share in the success of the small businesses in which they invest. There are two types of SBICs, regular SBICs and Specialized Small Business Investment Companies (SSBICs). SSBICs are targeted to the needs of socially or economically disadvantaged entrepreneurs. There is potential for SBICs to focus specifically on providing environmental investment capital, and on specific types of borrowers such as start-up companies or companies in specific sectors, for example the brick making industry or the lead smelting industry. SBICs benefit from government leverage and are eligible for tax benefits.

- Reviewing the impact and distortions of tariffs on environmentally friendly investments.
- Reviewing the implications of the pricing of energy and water (and waste water discharge) and electricity on industrial users.
- Devising innovative ways of encouraging the use by householders, industry and other organisations of newly established environmental facilities and services to ensure regulatory compliance.

Examples from the Czech Republic and Latvia

To prevent the continued use of non-compliant, open waste dumps in the Czech Republic, penalties were issued to waste producers that used them, that exceeded the cost of using the newly developed facilities. This allowed the old sites to be closed and remediated and the new facilities to generate sufficient revenues to operate effectively.

In Latvia, the Ministry of the Environment is developing a scheme to promote cost recovery and compliance for hazardous waste management. This involves the operation of an amnesty for a limited period, where waste producers are encouraged to use the newly developed facilities free of charge. This has the impact of identifying the hazardous waste producers, so that when tariffs are introduced at the end of the amnesty period, the authorities are able to pinpoint the producers and enforce the regulations.

Awareness raising measures are still needed across all stakeholders in Egypt: consumers, schools, micro-enterprises, SMEs, business associations and all other Government departments.

The EEAA is coordinating other donor activities in the environmental sector very effectively. But there could be more initiatives in raising awareness of environmental issues in other Government departments, notably the Ministry of Industry and the donor Programs they support.

- There are many policy initiatives in private sector development in Egypt⁷; relatively few of these Programs have any explicit environmental dimension. The EEAA could assist, for example, in raising awareness in developing Programs to assist in the upgrading of companies with EMS systems or water/energy saving Programs.
- Business Associations and Trade Associations in Egypt are still immature. A number of these private sector associations could be supported with capacity building initiatives in, for example, providing information on grants and business links, EMS advice and consultancy to members.

Example: South Yorkshire Green Business Club, UK

As a spin-off from the local Chamber of Commerce and Industry, a partnership venture has been formed with the University of Sheffield, Engineering Employers Federation, Sheffield Association and Sheffield City Council with the aim of bringing advice on environmental issues to SMEs. It initially received sponsorship from the UK Department of the Environment and the Department of Trade and Industry. The Club aims to provide information and advice on relevant environmental issues to the local business community, encourage members to develop and use sound environmental management practices, and maximise the involvement of the local business community with Club activities and other organisations in the region. An interesting service offered by the Club is a DIY Environmental Profile Booklet and Video, to help companies identify the level of their environmental risk, allocate resources to reduce the risk, and prepare the way for installation of an EMS.

⁷ EU Private Sector Development Programme; Industrial Modernisation Programme; USAID Expolink Egypt, etc.

- A specific trade association for the environmental business sector could be nurtured and supported in developing information and services to its members as well as support in advocacy on policy and regulatory issues.

Example: Environmental Business Association, New York State, United States

The EBA/NYS was established to promote the growth of environmental industry in New York State. Its members include environmental technology designers and manufacturers, waste management companies, consultancy companies, energy companies, and NGOs. It provides the following services: networking and educational seminars; an information clearing house on regulatory, technical and financial information; promotion of partnerships between businesses, NGOs, research organisations and government; advocacy on the key economic needs and issues affecting the business community; consultation support to environmental policy development. Membership fees are graded according to company/organisation size and type. To be a voting member an applicant company/organisation must be directly involved in the environmental industry. Non-voting membership is also open to Government. EBA/NYS is also actively involved in promoting international cooperation, for example through supporting visits by less developed country delegations to members' premises.

- Given that there is a vacuum in the regulatory clout of the EEAA and the monitoring and enforcement process will take time (and resources) to develop, the EEAA could develop a Program of incentives for businesses to encourage compliance and reward companies with environmentally friendly status. This might be in the form of an 'environmental quality mark'.
- The EEAA could develop the concept of an '*environmental business clinic*' to provide advice and support on a cost sharing basis with the specific aim of targeting SMEs in encouraging simple 'win-win' environmentally friendly technologies and preliminary scoping for EMS systems. The clinic could also be a source of information on suppliers, business collaboration opportunities, registered service providers and new technologies.

Example: West Lancashire Green Business Club, UK

The West Lancashire Business Club is a privately run initiative, funded by company member subscriptions and partially by the EC. The club aims to promote environmental awareness whilst highlighting the long-term financial benefits this can bring. The services are targeted mainly to SMEs in the region across a range of sectors. Membership of the club enables members to obtain the following services: bulletins on the latest legislation, best practice, local news; seminars on environmental issues; a help line providing environmental advice; consultancy visits to company premises to undertake basic waste, energy or environmental reviews; and company tours, hosted by other member companies to exchange ideas and see environmental management in practice. The Club are also beginning to develop other services, including a website directory, opportunities for environmental work placements, and waste brokerage.

- Alternatively the EEAA could develop the concept of a central information and advisory resource, to assist businesses in their environmental management, such as the example given below.

Example: Environmental Technology and Best Practice Program, UK

The Environmental Technology and Best Practice Program (ETBPP) is a Government Program, run by UK environmental consultants. The ETBPP operates as a central information and advice resource for UK industry to draw upon, a 'one stop shop', on the Internet and by phone. Its Environment and Energy Help line provides expert advice to callers on environmental management and regulatory issues, to address urgent problems or provide general assistance to longer-term strategies. ETBPP provides free good practice guides, environmental performance guides, case studies and other publications to promote awareness of money saving approaches and practical ways to address environmental management. Detailed technical information is also provided to explain more complex technologies and the methods of implementing them. ETBPP also offers free consultation visits for SMEs by energy or environmental specialists, to assist with basic cost-cutting measures. Group activities, involving a network of local authorities, business support organisations, individual companies etc are offered, including seminars, workshops, training events, for specific sectoral areas, or more general issues such as packaging management. Companies can sign up to their specific area of interest (e.g. furniture production, chemicals), and as a result network with other companies and obtain the latest environmental management information specific to their sector.

The EEAA could also be involved in developing solutions to support **financing of environmental business in general**, both within the private sector, and to support public sector investment needs. This could include the following:

- Working with stakeholders to continue to develop public-private partnership schemes to help finance large-scale facilities not already covered by the existing strategies and plans, and also to consolidate the lessons learnt from existing schemes.
- Co-ordinating investment fora between industry, the banking sector and other investment intermediaries, economic development experts, to support the networking process to attract environmental investment.
- Involvement in the development of leasing methods and schemes for environmental investment.
- Involvement in the development of small scale financing mechanisms such as credit unions, community funds.
- Designing an approach to develop private sector participation in some aspects of EEAA and affiliated organisations' activities. One example could be the contracting out of the operation/management of some monitoring and testing activities, which, despite donor support, is still likely to experience a shortfall in the necessary equipment, facilities and staff.
- Assistance in designing approaches to involve large overseas companies in supporting local environmental investment.

Example from Slovenia:

The operation and management of the local bus services in Lublijana and the surrounding district was contracted out to a private company, who then captured the revenues and profit from the provision of the service. As part of the contract terms, the company undertook to purchase a completely new fleet of buses, that use lead free fuels.

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Annex 1 - Regulatory Framework Summary

SECTOR	LAW/ REGULATION	ACTION	RESPONSIBILITY
All	Law 4/1994 Article 2-5 Exec Regs Chap II Articles 2-6	<p>Establishment of an Environmental Affairs Agency with an independent budget and its own Board of Directors. Responsibilities are to formulate general policy and lay down necessary plans for the protection and promotion of the environment, and follow-up and implementation of such plans in coordination with the competent administrative authority (CA), implementation of some pilot Programs, and to strengthen environmental relations between Egypt, other countries & regional & international organisations. Includes:</p> <ul style="list-style-type: none"> • Legal/regulatory preparation & review • Formulation, & budgeting of national plans & associated projects • Environmental mapping and urban area development • Control of construction projects • Register of national institutions, organisations & individuals for use in development of Program activities • Monitoring & enforcement of criteria & conditions binding to agencies & establishments • Setting & follow-up of pollutant limits • Gathering, publication, and evaluation of environmental information • Publication of main environmental indicators • Setting principles and procedures for assessing environmental effects of projects • Preparation & coordination of environmental contingency planning • Planning & supervision of environmental education for the public, and training Programs within the basic educational curricula • Involvement in preparation & implementation of national Program for environmental monitoring • Coordination with other CAs to set & regulate safety standards for hazardous material transport • Administration & supervision of natural protectorates • Follow up of implementation of international & regional conventions • Propose economic mechanisms to promote pollution prevention • Coordinate with Ministry of International Cooperation to ensure donor funds are used in line with environmental safety considerations • Participation in hazardous waste and substance pollution prevention plan • Participation in preparation of integrated national plans for the administration of coastal areas • Preparation of an annual report on the environmental situation.. 	EEAA
All	Law 4/1994, Article 14, Article 7& 8 of Exec Regs.	Establishment of an Environmental Protection Fund, whose resources are to be used for, amongst other things: experimental & pioneering projects in environmental conservation and pollution prevention; transfer of low-cost technologies; financing manufacture of model equipment/plant; assistance in financing grass root projects.	EEAA
All	Law 4/1994, Article 17 Exec Regs Article 9	Establishment of a system of incentives to be presented to other agencies, establishments, individuals and others for their environmental protection activities or projects/	EEAA & the Ministry of Finance
All	Law 4/1994, Article 24 Exec Regs Article 20	Formation of environmental monitoring networks with their stations & working units who shall undertake to monitor the components and pollutants of the environment on a regular basis and make the results available to the concerned authorities	EEAA
All	Law 4/1994, Articles 25-27	Contingency planning for environmental disasters	Preparation & control – EEAA Implementation – public & private sector

SECTOR	LAW/ REGULATION	ACTION	RESPONSIBILITY
All	Law 4/1994 Articles 19-23 Exec Regs Article 10-19	Establishment of EIA criteria, EIA process, licensing procedure, register of environmental impact.	EEAA, with support of CA and Licensing Authority in follow-up, enforcement, licence issue Register - Owner
Hazardous waste	Law 4/1994 Article 29-33 Exec Regs Article 25-33	Control of transportation of hazardous substances & waste through licensing. Control of hazardous waste management. Regulation of HW treatment facilities & operation Prohibition of import of hazardous waste, or its passage through Egypt Regulation of HW passage on ships Registry of HW production & circulation, and of its disposal from each premises	List of hazardous substances & waste regulated by the Law: relevant Ministry in cooperation with Minister of Health & EEAA Licensing: CA in consultation with EEAA Sites for HW facilities: Min. of Housing in consultation with Min. of Health & Industry & EEAA Registry – Owner Liability for damage - Owner Monitoring & enforcement of HW management at all stages - EEAA
Solid and Hazardous Waste	Law 38/1967 Articles 1-7, Exec Regs. Article 1-21	Regulation of collection and disposal of waste from houses, public places, and commercial and industrial areas. Prohibition of disposal of garbage in any place not specified by the local council.	Ministry of Housing/Governorates
Air	Law 4/1994, Article 34-47 Exec Regs Articles 34-49, Annex 2, Annex 3, Annex 5-9	Regulation of location, and of emissions and leakages in relation to vehicles, solid waste/garbage, pesticides, excavation, construction/demolition waste, fuel, oil and gas, and other general economic activity, both inside and outside of premises	Setting of emission limits – EEAA, Min. of Interior, Min. of Petroleum Activities in relation to specific products – CA Licensing – CA in consultation with EEAA Management of emissions, leakages & protection of employees – Owner Monitoring & enforcement - CA
Air	Presidential Decision 864/1969, all Articles	Composition of Air Pollution Prevention High Committee	Ministry of Health
Air	Min. Dec 380/1975, annex of pollutant limits	Limits inside establishments and their related industrial units	Ministry of Health
Water	Law 4/1994, Articles 48-68, 76-83 Exec Regs Articles 50-56, 61-63 Exec Regs Annex 1, Annex 10	Pollution prevention, discharge and storage management and accident procedure on ships, oil platforms and in ports – oil, sewage, garbage and other harmful substances.	Port facilities – Port Authority Enforcement procedures - CA with assistance as requested from relevant Ministries/authorities & in consultation with EEAA Certification provider – Ports & Lighthouse Dept./Min. of Maritime Transport Cargo register – ship owner/master Notification of accident – ship owner/master Remediation of pollution – ship owner/master

SECTOR	LAW/ REGULATION	ACTION	RESPONSIBILITY
Water	Law 79/1961, Ill. Mem. Presidential Dec. 421/1963, Presidential Dec. 1948/1965, Ministerial Dec. 5/1991, all Articles	Marine Ships Catastrophes and oil pollution prevention	EEAA, Port Authority, Dept. of Ports & Lighthouses
Water /Land	Law 4/1994, Articles 69 – 77 Exec Regs Articles 57-60, Annex 1, Annex 2, Annex 3, Annex 10	Pollution prevention in relation to untreated substances, wastes or liquids discharged to the seashore or adjoining waters.	Building permitting – coastal governorate, EEAA, Egyptian Gen. Auth. for the Protection of Beaches & competent authority Provision of treatment units – permit holder Control of discharge – industrial establishment Monitoring of compliance – Min. of Health Enforcement - EEAA
Water	Law 57/1978, Tech. Committee Memorandum	Identifying methods of treating ponds and marshes	Ministries of Housing, Agriculture, Health, Irrigation, & Local Authorities
Water	Law 48/1982	Protecting the Nile & waterways from pollution	Ministries of Irrigation, Health, Agriculture & Industry, & Local Authorities
Water	Exec Reg of Law 38/1967, Articles 18-20 Exec Reg of Law 4/1994, Articles 26 & 38	Protection of underground water	Ministry of Housing, Cleanliness Authority, and Local Authorities EEAA & Competent Authorities
Water Management	Law 27/1978, all Articles, Ministerial Dec 108/1995 quality standards for potable water Ministerial Dec. 301/1995, Specific health standards for drinking water inlets & quality	Regulating public resources of potable water and human use	Ministries of Housing and Health
Wastewater	Law 93/1962 (Min. Dec. 44/2000), Section 6 (limits), Section 7 sampling & analysis procedure	Requirement to discharge wastewater into public sewers, if located inside the sewage coverage area. Licensing of discharge to sewers Specified Discharge standards for 11 parameters	Ministry of Housing
Wastewater	Exec Regs Law 48/1982, Section 2 and 6 (limits), Section 5 (sampling & analysis procedure)	Prohibition of discharge on untreated wastewater into potable water surfaces and underground water reservoirs. Licensing of discharge of treated wastewater into a waterway Implementation of standards for treated industrial and municipal wastewaters to be discharged into potable and non potable surface waters and groundwater Specified discharge standards for 11 parameters	Enforcement and licensing - Ministry of Public Works & Water Resources, supported by Ministry of Health, and Police of the Waterways
All	Law 4/1994 Articles 84-101, Exec Regs 64-65	Penalties for violations of different Articles within the Law.	Enforcement – EEAA and Min. of Interior

SECTOR	LAW/ REGULATION	ACTION	RESPONSIBILITY
All	Law 4/1994 Exec Regs Article 10-22, Annex 2 and 3	Implementation of procedures for gaining a licence for a new economic activity, or change in use or expansion of existing premises, including: procedures for application; EIA process; requirement to register environmental impact of establishments activities, and inform the EEAA of any deviation of permissible pollutant levels, detailing procedures to rectify the situation; monitoring and follow-up; procedures for close down, suspension of activities and compensation; and emergency planning.	Owner – preparation & submission of application EIA – either owner or recognised EEAA-registered expert Review & approval of EIA – EEAA Registry of environmental impact or activities – owner Notification of deviation and clean-up – owner Penalty procedures – EEAA& competent authority Emergency planning – EEAA with governorates, Ministries, general authorities & other concerned bodies

Source: Law 4/1994 and Executive Regulations.
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Annex 2 - List of Current Donor Projects that May Have an Impact on Environmental Business

ASSISTANCE PROVIDED DIRECTLY TO THE ENVIRONMENTAL SECTOR						
DONOR	TITLE OF SUPPORT	ASSISTANCE	TIMING	FUNDING	ONGOING OPPORTUNITIES	POTENTIAL OPPORTUNITIES
CIDA	Egyptian Environmental Initiatives Fund (EEIF) , including: <ul style="list-style-type: none"> • Environmental Management & Technology Fund (EMT) • Environmental Enterprise Fund (EEF) • Community Environmental Initiatives Fund (CEIF) • Communication & Public Awareness 	<p>EMT: Focus on textile, metal industry, chemical & food industries. Provides <i>technical support</i> in environmental audits, EIA, feasibility studies, pollution prevention & control, and industrial waste treatment. Provides <i>financial support</i> (25% grant, subsidized loan, 30% client contribution) to pollution abatement activities.</p> <p>EEF: Support to green business, through technical and financial support to SMEs. Each project requires 30% client contribution.</p> <p>CEIF: Support to advocacy & lobbying, environmental awareness & education, wastewater management, greening & beautification, to solve a community environmental problem. Support provided to NGOs, ENGOs, CDAs and scientific & cultural NGOs. Required community contribution of 25%</p> <p>Communication & Public Awareness</p>	1997-2004	<p>450,000LE for pollution abatement activities.</p> <p>100,000 to 2 million LE per project</p> <p>20,000-100,000LE per recipient</p> <p>Total for the whole Fund: CD\$20million.</p>	<p>Small-scale opportunities in environmental audit, EIA, feasibility study & general environmental management.</p> <p>Small-scale opportunities in environmental consulting (as above), equipment and lab services.</p> <p>Opportunities in provision of technical expertise on environmental planning and management, awareness and education. Small scale equipment opportunities</p>	<p>Equipment and environmental consulting opportunities as private sector beneficiaries carry out follow-on projects.</p>
	Egyptian Environmental Information System (EEIS)	Development & implementation of a computerised technical system for environmental monitoring and reporting.	1996-2004	At least CD\$13,283,000		Medium term : environmental monitoring & analysis equipment plus training as a result of rollout of strategic plan.

ASSISTANCE PROVIDED DIRECTLY TO THE ENVIRONMENTAL SECTOR

DONOR	TITLE OF SUPPORT	ASSISTANCE	TIMING	FUNDING	ONGOING OPPORTUNITIES	POTENTIAL OPPORTUNITIES
DANIDA	Environmental Management in the Governorates	Demonstration and community projects	2001-2006	DKK 101.36 million	Equipment for demo/pilot projects, & environmental consulting.	Medium-term: environmental consulting & equipment as a result of developed EAPs.
	Decentralised Environmental Management	Support to the decentralisation of EEAA activities	2001-2006	DKK20.37 million	Office and field equipment, local and overseas TA and training	As above.
	Communication for Environmental Management	Support to EEAA communication initiatives relating to environmental awareness and environmental management	2001-2006	DKK19.64	IT equipment, training & technical specialists	
	Achieving Cost-Effective Compliance with Env. Regs in Industry	Assisting industry to improve compliance with environmental regulations through cleaner production	2001-2006	DKK100.61	Equipment for model projects, technical/environmental consulting expertise	Medium term: private sector generated demand for equipment and consulting expertise as economic success of pilots are demonstrated.
	Hazardous Waste Management	Demonstration project for managing hospital HW in specified hospitals in the Cairo area, for potential application throughout Egypt. Establishment of a safe landfill for industrial HW from greater Cairo, and assistance to strategy for HW handling.	Ongoing	DKK22.4 million DKK 20 million		Medium to long term demand for equipment and consulting services through replication of the projects by other initiatives
	Environmental NGO Community Action for the Environment	Support to capabilities of environmental NGOs through and NGO support unit in EEAA Support to selected communities in Aswan, Qena, Sohag and Fayoum by enhancing institutional capacities of 40 community development associations			Small-scale opportunities for equipment provision and consulting.	Small-scale opportunities in equipment and consulting within projects that develop in future as a result of capacity building
FINNIDA	Hazardous WM Project in Alexandria	Establishment of a model for industrial HW management systems, covering industrial transportation, collection, temporary storage, land filling, treatment & possible reuse	1998-2001	US\$20million		Medium to long term demand for equipment and consulting services through replication of the projects by other initiatives

ASSISTANCE PROVIDED DIRECTLY TO THE ENVIRONMENTAL SECTOR

DONOR	TITLE OF SUPPORT	ASSISTANCE	TIMING	FUNDING	ONGOING OPPORTUNITIES	POTENTIAL OPPORTUNITIES
Dutch Development Cooperation	Support to Environment Sector	Ongoing Program of water management with the Ministry of Water Resources & Irrigation and the governorates. Local Environmental Fund supporting small-scale projects of Govt. and NGOs	2001-2004	NGL 30million NGL900,000	Ad hoc expertise in water resources management, policy and strategy for un contracted components. Small scale opportunities in equipment or TA	
German Development Cooperation (KfW)	Support to Private Sector Industry and Environmental Protection	Intended to promote environment-related investment in the Egyptian private sector industry. Provision of medium term loans (5-8 yrs) in LE at fixed interest rates or in forex at fixed or floating rates. Environmental protection measures are eligible for a grant, for up to 15% of investment cost of “integrated measures” that involve adaptation of production processes showing important effects of environmental protection, and up to 30% of investment cost for distinct measures such as filters. Grant component can only be used in conjunction with a loan.	Ongoing	Total funding €30.68 million Credit component €16.87 million, Grant component €12.24 million	Opportunities to provide equipment.	Potential for provision of equipment and consulting services (EIA, audit, feasibility), as private sector beneficiaries initiate their own follow-on projects.
	Support to EPF		1997-2001	US\$16million	Equipment & consulting services	
JICA	Support to EEAA	Establishment of a Regional Environmental Monitoring Network; aims to establish RBOs for EEAA capable of conducting ambient & point source monitoring for air, water and industrial solid wastes.	Ongoing	JPY600million		Supplying equipment & assisting companies with environmental pollution control as monitoring & reporting capacity of pollution increases

ASSISTANCE PROVIDED DIRECTLY TO THE ENVIRONMENTAL SECTOR

DONOR	TITLE OF SUPPORT	ASSISTANCE	TIMING	FUNDING	ONGOING OPPORTUNITIES	POTENTIAL OPPORTUNITIES
<p>UNDP/UNEP/World Bank (Implementing Agencies)</p>	<p>Global Environmental Facility</p>	<p>A series of projects, covering renewable energy usage, water pollution reduction, alternative technology for bus transport, development of groundwater resources, climate change. Includes an element of private sector participation, and demonstration projects to promote low-cost technology or energy efficiency</p> <p>Small Grants Program to provide support to community based groups and NGOs for activities that address local problems in GEF areas of concern. Funds assessment and planning, pilot demonstration activities, capacity development, monitoring and analysis, dissemination, networking & policy dialogue.</p> <p>Several major regional projects supporting development & implementation of environmental strategies, demonstration projects.</p> <p>Involvement of the private sector through: their participation in a GEF supported operation; provision of grant, loan or loan guarantee to a new GEF project to be co-sponsored by an implementing agency; provision of project preparation support; their participation in the medium-sized grant Program or small grants Program for micro enterprises</p>	<p>Ongoing</p>	<p>Operational Programs (major long-term projects) US\$2-6 million each</p> <p>Project Development Facility - \$25,000-\$1million, depending on stage</p> <p>Small Grants Program – up to \$50,000 to local community groups</p> <p>Enabling Activity – up to US\$350,000 per activity to help countries prepare strategies, action plans and reports in relation to international conventions</p> <p>Up to \$1million for Medium-size Projects</p> <p>Short term response measure funding</p> <p>Total Program funding, upwards of \$100million</p>	<p>Opportunities in a wide range of equipment supply. Opportunities in a range of consulting including project planning and development, strategy and policy development, environmental consulting, training and TA.</p>	<p>Opportunities in equipment and consulting as a result of private replication of demonstration projects, particularly the ones based around low-cost solutions.</p>
<p>UNDP</p>	<p>Capacity 21</p>	<p>Funds projects aimed to build capacity within EEAA, research institutes and Governorates</p>	<p>Ongoing</p>	<p>N/A</p>	<p>Opportunities to provide equipment and technical expertise to projects</p>	

ASSISTANCE PROVIDED DIRECTLY TO THE ENVIRONMENTAL SECTOR

DONOR	TITLE OF SUPPORT	ASSISTANCE	TIMING	FUNDING	ONGOING OPPORTUNITIES	POTENTIAL OPPORTUNITIES
	Regional Projects	Capacity development of national environmental institutions (Centre for the Environment and Development for the Arab Region & Europe), METAP I, II & III to promote sustainable human development. In Egypt this has included a METAP Phase II Support to Environmental Management Units in Ismalia and Sharkia, and under Phase III, the most urgent economic public health and NRM problems that result from environmental degradation & mismanagement will be addressed in these regions.	Ongoing	METAPII US\$1million Rest N/A	As above	
	Energy Efficiency Improvements & Greenhouse Gas Reduction	Stabilisation & reduction of greenhouse gas emissions from power generation and industrial fuel combustion	1997-2002	US\$4.9million		Supply of equipment & environmental assessment & management expertise to industries interested in improving energy efficiency as a result of the demonstrated projects.
	Engineering Wetlands at Lake Manzala	Establishment of an engineered wetland as a demonstration of a low-cost technology for treatment of large quantities of wastewater of mixed industrial, municipal and agricultural origin	1997-2001	US\$4.5 million		Supply of equipment and technical expertise to replicated projects.
USAID	Integrated Environmental Program for the 10th Ramadan City	TA to industries, training and promotional materials	Ongoing	US\$1.8 million	Provision of TA and training expertise	Supply of technical expertise and equipment to projects arising from the IEP after end of donor assistance.
	Energy Utility Management Project	Expanding access to water & wastewater services by developing water supply and wastewater systems in the above cities, and by improving the infrastructure of Alexandria WW authority	1997-2004	US\$315million	Provision of technical and training expertise and equipment to projects not yet contracted	

ASSISTANCE PROVIDED DIRECTLY TO THE ENVIRONMENTAL SECTOR

DONOR	TITLE OF SUPPORT	ASSISTANCE	TIMING	FUNDING	ONGOING OPPORTUNITIES	POTENTIAL OPPORTUNITIES
	Cairo Air Improvement Project	<p>CNG – Compressed Natural Gas component, introduction of pilot bus fleet Programs to demonstrate technical and financial feasibility of converting the Greater Cairo Bus Company and Cairo Transport Authority fleets to CNG</p> <p>VET – Vehicle Emissions, Testing, Tune up and Certification component. Aim to develop a network of testing stations, and a technical/training centre, and enhance vehicle repair capacity to include low emissions tune-up.</p> <p>LPA – Lead Pollution Abatement component to support implementation of the Govt's Lead Smelter Action Plan. Preparation of a design model for a large private sector smelter and a baghouse design. TA to SME smelters for upgrade. Relocation Program away from urban areas.</p> <p>AQM – Air Quality Monitoring component establishment of a network to monitor lead and fine particulate matter in Greater Cairo, monitor improvements due to air quality Programs, and to provide training for local agencies and staff to assume complete administration and operation of the Program.</p> <p>Public Awareness & Communication – targeted media and communications campaigns on air quality, working with local environmental lobbying network.</p>	Ongoing	US\$56,000,000	Up coming opportunities in equipment supply, technical assistance and training.	Equipment supply, environmental assessment & management services if this work is replicated elsewhere by the private sector
	Egyptian Environmental Policy Program	Support to EEAA on a range of issues	1999-2002	US\$170million	Ad hoc provision of policy, environmental, economic, business and other technical expertise	
World Bank/IDA/ Finnish contribution/EIB	Egyptian Pollution Abatement Fund for Industry EPAP	Financing environmental initiatives and providing TA including preparation of environmental audits and action plans for the most polluting industries	Ongoing	IBRD US\$20 million IDA US\$15 million Finnish US\$5.5 million EIB US\$19 million	Equipment supply, environmental and technological expertise.	

ASSISTANCE PROVIDED DIRECTLY TO THE ENVIRONMENTAL SECTOR

DONOR	TITLE OF SUPPORT	ASSISTANCE	TIMING	FUNDING	ONGOING OPPORTUNITIES	POTENTIAL OPPORTUNITIES
DFID	Support for Environmental Assessment and Management	Targeted to Sohag and Dakahlia. Support to development of EAPs, particularly aiming at efficient provision and management of infrastructure and environmental services. Solid waste demonstration projects. Community environmental projects.	Ongoing	£5.75million	Equipment for demo and community projects. Environmental, engineering and other technical expertise.	Potential for equipment supply and services to follow-on community projects and to resultant projects emerging from the EAPs.
European Union	Development of St Catherine Protectorate	Aims to protect ecological systems and natural heritage, through Bedouin support, improving infrastructure, implementing training and awareness Programs	Ongoing	€6,000,000	Opportunities in consulting in natural resource management, environmental infrastructure, training and education.	
	Development of Gulf of Aqaba Protectorates Sector	Support to project management in the natural protectorates eco-tourism development in South Sinai, training Programs & awareness raising activities	Ongoing	€10,000,000		

Sources: *Industry Sector Analysis, Environmental Equipment & Services*, US Commercial Services, 2000
Egypt Environmental Export Market Plan, Environmental Technologies Experts 1998.
Donor support to Egyptian Industry: A Survey of Services, Magued Youssef, for EEPP PSU, October 2000
Donor meetings/contact, August 2001

ASSISTANCE THAT MAY BE DRAWN UPON FOR ENVIRONMENTAL INVESTMENT				
DONOR	TITLE OF SUPPORT	ASSISTANCE	TIMING	FUNDING
CIDA	Industrial Cooperation Project	Support to Canadian firms who have contacts with Egyptian firms in the manufacturing & services sectors, to form JV of licensing agreements– viability studies & project support Support for professional advice and assistance relating to capital projects – capital project preliminary studies, detailed studies & project support	N/A	Up to CD\$100,000CD for viability studies, up to CD\$500,000 for project support Preliminary study: CD\$350,000 Detailed study: CD\$500,000 Project support: CD\$500,000
	Privatisation of Egyptian Public Sector Enterprises	Diagnosis & evaluation of a public enterprise, preparation of privatisation plans, assistance with plan implementation (now finished)	N/A	CD\$4,200,000
USAID	Credit Guarantee Company for SMEs	Egyptian joint stock company formed in cooperation with the Ministry of Industrial Cooperation, established to guarantee loans from banks to small businesses. CGC administers a Program of financial support (50% of loans & credit facilities offered by banks to SMEs), ad technical support through training, project identification, consultant sourcing for feasibility studies	N/A	LE10,000-700,000 loan guarantees offered to a bank or credit facility. Loans available to SMEs LE20,000 – LE1,400,000
DANIDA	Private Sector Development Program	Support to planning phase (grants for advisory services), project phase (subsidies to make cooperation operational) and start up (short term subsidisation), to assist private sector businesses, for Egyptian companies that have formed a long term cooperation with Danish companies	1996-2001 (extension foreseen)	DKK750 million between 6 countries, not earmarked in advance

ASSISTANCE THAT MAY BE DRAWN UPON FOR ENVIRONMENTAL INVESTMENT

DONOR	TITLE OF SUPPORT	ASSISTANCE	TIMING	FUNDING
Dutch Development Cooperation	Private Sector Support	Netherlands Managers Cooperation Program – placement of retired Dutch managers in Egyptian companies. Centre for Promotion of Imports from Developing Countries – TA & training aimed at promoting exports to Dutch markets by Egyptian companies, targeted at SMEs, Trade Promotion Organisations, and European importers. Program for Economic Cooperation – subsidisation of feasibility studies for Egyptian/Dutch projects. Program for Cooperation with Emerging Markets – instrument for attracting Dutch investments in Egypt through pilot projects by subsidising costs. Development Related Export Transaction – grants to help Egyptian companies purchase Dutch equipment/services. Investment Facility for Emerging Markets – provision of some of the risk capital for newly established Egyptian/Dutch JVs Matching Fund – creation of a level playing field for Dutch companies to compete on the Egyptian import market by providing fund to match the extent of subsidisation by third country governments. Joint Implementation Facility – to stimulate cooperation to reduce greenhouse gas emissions. EC Investment Partners – to support cooperation through JVs between Egyptian & EU companies	Up to 2004, after which all Dutch assistance is to be phased out	NGL42.5million annually from 1999 for all assistance 600,000LE max per project. 67% of costs NGL1.5 million average/project. 67% of costs 35% of costs
Italian Development Cooperation	Egyptian-Italian Commodity Aid Program	Support to public and private sector, including JVs, through funding to support imports from Italy (equipment and services). Selection of Italian supplier through public tender	N/A	LE 36.2 million allocated. LE200,000 to LE6,000,000 per transaction
Japan Official Development Assistance	Japan International Cooperation Agency (JICA)	Technical Cooperation – training for overseas project participants, Third Country Training Program, equipment supply, development studies. General provision, and through projects. Grant aid: planning assistance, equipment acquisition, TA and training.	N/A	N/A
	Japan External Trade Organisation	Trade promotion Program, including product and process development for Egyptian companies, trade fair participation, business support centres, information resources.	1990 to date	N/A

ASSISTANCE THAT MAY BE DRAWN UPON FOR ENVIRONMENTAL INVESTMENT

DONOR	TITLE OF SUPPORT	ASSISTANCE	TIMING	FUNDING
SIDA	International training Programs	Transfer of know-how by participation of middle and top managers in short training Programs of 3-8 weeks. Includes the environmental sector	N/A	Participation fee & accommodation
	Concessionary Credits	Credits for high priority investment projects in the public sector, with 35% grant element. Credits are tied to financing of contracts with Swedish suppliers. Only for non-commercially-viable projects.	N/A	Total credit volume SEK685 million with grant element of SEK220million
	Technical Cooperation	Financing of studies, training and advisory inputs and study visits. Requires cost sharing.	Ongoing	Range SEK0.5-1 million per program/recipient
Swedfund		Joint venture financing between Swedish and Egyptian companies	Ongoing	Participation fee & accommodation
GTZ	Technical Cooperation	Assignment of expatriate experts and contracting with local experts Project-related training of qualified personnel for the project partner Supply of project materials Appraisals & studies Financial contribution for planning and implementation Salary subsidy for many sectors including sanitation and environment and trade	Ongoing	Total credit volume SEK685 million with grant element of SEK220million
UNIDO	Integrated Support Program	Supported by the Italian Government and the General Authority for Investment and Free Zones in Egypt for development of local industrial SMEs through cooperation with Italian counterparts. TA in preparation of business plans, promotion of investment project in Italy, formulation of long-term JV agreements, problem diagnosis. Financial assistance through a credit line for soft financing for acquisition of Italian origin equipment, technical training and assistance, industrial patents & licensing. Priorities include clean production and technology upgrade and innovation	1998 - ongoing	Range SEK0.5-1 million per program/recipient
USAID	Private Sector Commodity Import Program	Implemented through 31 Egyptian banks. Provides US dollars at fixed exchange rates and short to medium credit terms with an interest free grace period, to Egyptian private sector firms to finance importation of US commodities from the United States	Ongoing	Participation fee & accommodation
	American Chamber of Commerce Business Link	Business matchmaking service between US suppliers and Egyptian private companies	Ongoing	Total credit volume SEK685 million with grant element of SEK220million
Frank Hawkins Kenan Institute	Global Technology Network	Business matchmaking service between US suppliers and Egyptian private companies	Ongoing	Range SEK0.5-1 million per program/recipient

Sources: Donor meetings/contact, August 2001.
Donor Support to Egyptian Industry: A Survey of Services, Magued Youssef, for EEPP PSU, October 2000