

Chapter 11

Industry





Industry

Introduction

Egyptian industry is now launched thanks to the existing infrastructure and many ISO-certified companies, which is a positive indicator for industry future. Furthermore, all investment incentives are available following the Government's provision of opportunities for the private sector to grow and prove competence; modern technology is currently incorporated to all production stages.

With all success factors provided, all industrial manufacturers must update quality systems, observe the Environment Law and sustainable development. Although development is necessary for human life, but in most cases it is unsustainable, at the expense of the environment through increased waste of raw materials and pollution of water, air and soil in the surrounding environment. Controlling developmental activities requires more than binding and abiding.

Egypt is blessed with many factors that helped raise industry, such as cheap labor, capital (especially after the Government encouraged investors and created investment-friendly climate with many facilitations), transport (with multi-modal transport network for carrying products locally and internationally), and availability of raw materials necessary for manufacturing, including plant materials (vegetables, fruit, cotton, flax, sesame, sugarcane, beet, etc.) animal material (milk and leather for leather products), and mineral materials (copper, zinc, lead, chromium, iron, nickel, tungsten, phosphate, basalt, aluminum, coal, sulfur, table salt, manganese, kaolin, tin, graphite, quartz, titanium, lithium, and potassium), all of which are used in different industries.

Pollution Sources

Industry is one of the most significant pollution sources. Table (13.1) as follows shows industrial facilities all over Egypt registered in 2007.

Table (13.1) Industrial facilities all over Egypt registered in 2007

Sector	Total plants in 2007
Spinning and weaving, garments, leather	6256
Foods and beverages and tobacco	5841
Wood and products, and upholstery	2520
Basic chemicals and products	3250
Construction materials, porcelain, china and thermal industries	1971
Paper and products, printing and publishing	1693
Basic metals	568
Metal products and transport machines and equipment	5521
Other transformational industries	564
Total	28184

In 2007, 1548 industrial facilities were established in addition to the 26,636 facilities existing till 2006, so that total industrial facilities registered till the end of 2007 number 28,184.

MSEA Efforts in Controlling Industrial Pollution Projects:

1– Ongoing and Finalized Programs and Projects

Table (13.2) MSEA Efforts in Controlling Industrial Pollution Projects

Project	Project duration	Number of projects	EGP million
Converting clay brick factories to operate with natural gas instead of fuel oil in Arab Abu Sa'ed	2004-2007	50	44.5
Public Business Sector Environment Protection Fund, by KfW	1996-2008	54	182.3
ACI, FEI	2002-2008	66	64
Total		170	290.8



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2– Current Programs and Future Vision

A– Industrial Pollution Control Project Phase II (2007-2012)

Background:

1. MSEA, in collaboration with our development partners has implemented the second phase of Egyptian pollution Abatement Project incepted on 7th December 2006, with a total funding of 1 bn EGP.
2. Greater Cairo is an exclusive hub for half of the total industrial facilities in Egypt where large pollution loads from air and water pollutants are produced cement, iron and steel, chemical and tanning factories.
3. A field survey and quantification was conducted for investments needed for industrial facilities (about 200 facilities) to comply, which were estimated by EGP 2bn. **MSEA has provided about 1bn EGP from co-financers (our development partners) to support industrial facilities for complying, and is currently coordinating with international organizations to cover the rest of investments needed for achieving full compliance.**

Phase II Funding Sources:

Total grants and loans amount about \$ 175m (EGP 1bn)

- World Bank (WB): \$ 20m
- The Japan Bank for International Cooperation (JBIC): \$ 40m
- The European Investment Bank (EIB): € 40m
- The French Development Agency (AFD): € 40m
- The European Investment Bank (EIB): € 3m
- Government of Finland: € 0.9m
- Global Environment Facility (GEF): \$ 7.5m

End Users:

Large, medium and small enterprises

Project Objectives:

1. Achieving industrial facilities compliance with environmental laws;
2. Reducing pollution loads from industrial facilities in improve air quality and abatement of severe pollution;
3. Establishment of Sustainable mechanisms to activate the pollution abatement projects and raise the capacity of environmental compliance and the promotion of Egyptian industry agrees with the requirements of export production projects that to compete in world markets; and



4. Support for cleaner production projects that contribute to reducing the use of raw materials and reduce waste generated and therefore increase production.

Eligible Projects:

1. Supplying pollution abatement equipment (air pollution, water pollution, pollution of the work environment);
2. Supplying of new production lines works with new and clean technologies compatible with the Egyptian requirements laws; and
3. Supply equipment for treatment of hazardous waste within the industrial facilities.

Table (11.3) shows the companies participating in the Pollution Abatement Project—Phase II in Greater Cairo and Alexandria

Cairo (large enterprises)					
Ref. No.	Applicant Company Name	Localization	Project Name	EPAP II Finance (Million US\$)	Status of Implementation
1	National Cement Co.	Helwan (Cairo)	Supply of one Mobile suction unit and one auto cleaning unit for cement Dust.	0.46	Contracted and currently supplying
2			Rehabilitation of electrostatic precipitators for both Kilns & cement mills of both wet proc-	15	Preparing the technical specification
3	Tura Cement Co.	Helwan (Cairo)	Electrostatic Precipitators Replacement of Kiln n.8 and Bypass & Gravel Bed Filters Replacement for Tourah plant	15	waiting for no objection from donors
4	Egyptian Starch & Glucose Co.	Tourah Cairo	Fuel switching of the boiler	0.34	contract on the internal piping and currently contract on boilers & external piping
5	Cairo Oil & Soap	Ghamra	Fuel switching of the boiler	0.18	waiting for Misr gas cost sheet
6	Nasr for Coke	Helwan (Cairo)	Install a new power generation plant using coke gas	7	Agreement made with Cairo branch to provide application form for 100 oven doors
7			Install 400 oven doors to reduce emissions	8	



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Qalyubia (large enterprises)					
Ref. No.	Applicant Company Name	Localization	Project Name	EPAP II Finance (Million US\$)	Status of Implementation
8	Abu Zabaal Fertilizer Company	Qalyubia - Abu Zaabal	Installation of a cooling tower	0.367	Open L.C and currently supplying
9			Replacement of existing phosphate belt weigher	0.103	Open L.C and currently supplying
10			Rehabilitation of phosphoric acid factory	4.2	Contracted and currently supplying
11			Replacement of 5 Bradley mills by 2 new mills work by new technology	4.2	Contracted and currently supplying
12			Install new heat exchanger	0.2	Contracted and currently supplying
13			Change line 1 & 2 of single super phosphate	2.76	Contracted and currently supplying
14			Revamping of Lupolco mills	0.78	Contracted and currently supplying
15			Supply new pumps for phosphoric acid plant	0.6	Contracting
16			Rehabilitation of unit 5 in sulfuric acid plant	0.45	Contracting
17			Egyptian Starch & Glucose Co.	Mostorod (Qalyubia)	Replacement of glucose production line
18	Misr for Glass	Rehabilitation of furnace no. 4 to reduce emissions	5.4		Contracted and currently supplying (Self finance)



Giza (large enterprises)					
Ref. No.	Applicant Company Name	Localiza-tion	Project Name	EPAP II Finance (Million US\$)	Status of Imple-mentation
19	Egyptian Sugar & Integrated industries Company	Hawamdia	Rehabilitation & modifica-tion of Vinasse concentrator	2.7	Preparing Environ-mental Audit
20			Full automatic tube filling cream & sealing machine	0.46	Preparing Environ-mental Audit
21			Switching boiler fuel to natu-ral gas	4.45	Preparing Environ-mental Audit
22	Town Gas Company (Arab Abu Sa'ad & El Saff Brick Factories)	Arab Abu Sa'ed	Fuel switching for 168 brick factories from mazzot to natural gas	20	Environmental studied prepared and sent to donors for review and giving no objection for the project
23		El Saff	Fuel switching for 168 brick factories from mazzot to natural gas	23	Town Gas Survey



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Alexandria (large enterprises)					
Ref. No.	Applicant Company Name	Localization	Project Name	EPAP II Finance (Million US\$)	Status of Implementation
24	Wael Tex	Alexandria Bakos	Replacing the old open type dyeing system (haspel machines)	0.36	Offers received and currently reviewing offers
25			Supply, install, commissioning of heat setting finishing machine (RAM)	1.52	
26			Supply, install, commissioning of printing line	1.84	
27	Egyptian Petrochemical	El Ameriya	Revamping of vinyl chloride unit	1.2	Currently PMU studying the project
28			Revamping of chlorine production unit	2.35	
29			Install waste water treatment unit	9	
30	Ameriya for Cement	Borg El-Arab	Rehabilitation of filter in line 1 & Line 2	15	Prepare Credit worthiness certificate from the Bank & Currently PMU studying the project
31			Revamping of ventilation unit & Dedusting Unit	0.7	



B– Private Public Sector Industry Project (2008-2012)

Background

The Private Public Sector Industry Project (PPSI) is one of the main projects managed by Egyptian Environmental Affairs Agency (EEAA) and financed under the German Financial Cooperation between German and Egypt. Its main goals are to assist the Egyptian industry (large or small and medium) comply with the environmental laws, and regulation as well as improve its environmental performance altogether.

PPSI’s Objective:

- To provide Grant to support industrial pollution abatement projects in industrial establishments from both public and private sectors, small and medium enterprises and specific business services;
- To develop sustainable financial/technical and institutional mechanisms for pollution abatement and decrease the pollution loads in selected hot-spots areas in Egypt particularly Delta and Upper Egyptian governorates in order to improve local environmental conditions; and
- To introduce suitable environmental management approaches, improve the quality of inspection activities, develop technical capacity of environmental institutions, raise awareness and activity relating to industrial environmental affairs in Egypt, particularly in Delta and Upper Egypt Governorates.

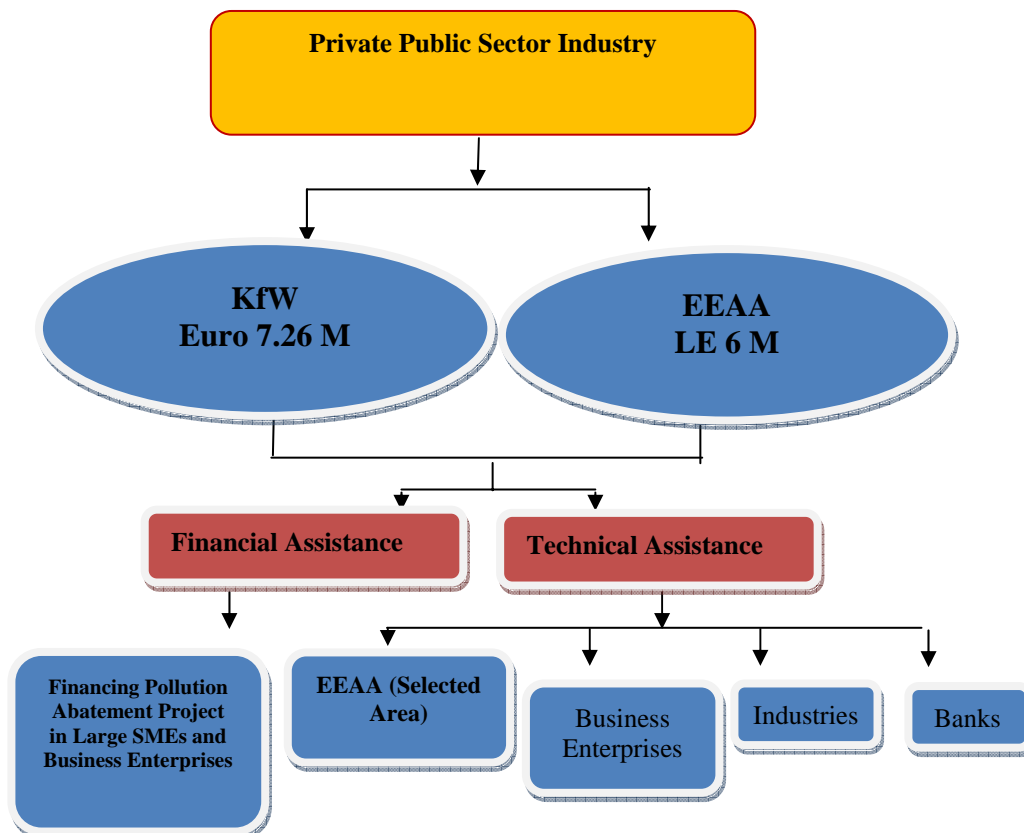


Fig. (11.1) Private Public Sector Industry



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Investment Component:

◆ The Finance:

- For large enterprises (average turnover last three years more than 20 M. LE) the finance is consist of a grant of 20% of the total investments cost including the civil works (and supervision and training max. 5% of investment costs), and 80% self finance (own resources or commercial loan).

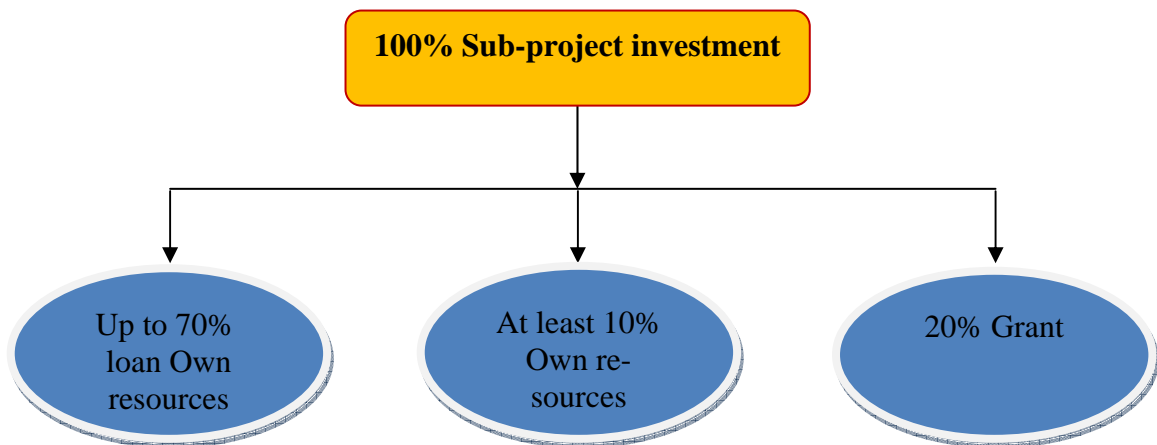


Fig. (11.2) Large enterprises sub-project investment

- For SMEs (average turnover last three years less than 20M. LE) the finance is consist of a grant of 30% of the total investments cost including the civil works (and supervision and training max. 5% of investment costs), and 70% self finance (own resources or commercial loan).

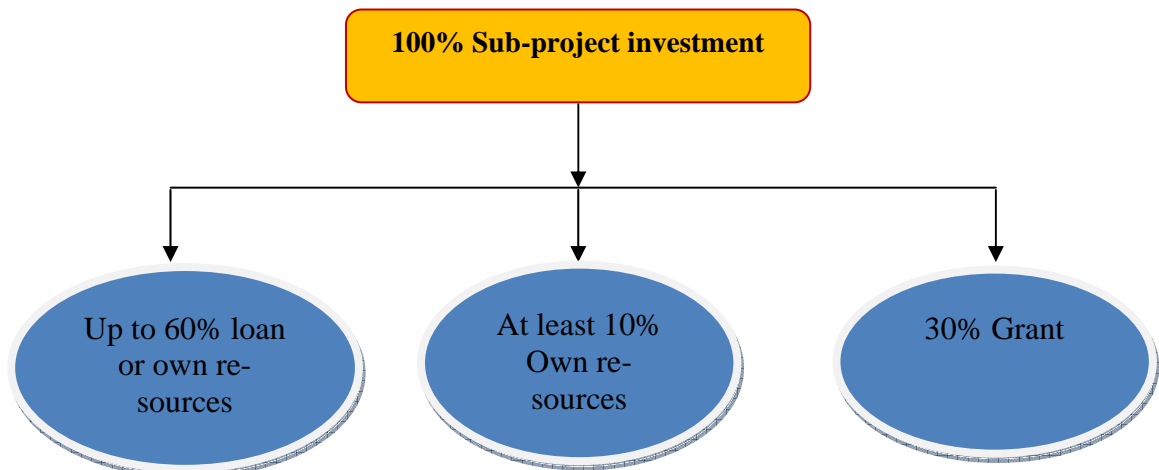


Fig. (11.3) Small and Medium Enterprises Sub-project Investment



The Technical Support Component (TSC) is financed by the KfW. This component provides technical support to the industry for planning the upgrading of their environmental performances, institutional support through the capacity building of the inspection environmental law enforcement and support of awareness efforts of EEAA. Under the TA component large company granted 20% of the technical studies cost of the project (max. 5% of investment costs). In case of SMEs, 50% of the technical studies cost is granted (max. 5% of investment costs). The technical study includes the feasibility study, the compliance action plan (CAP) and the environmental impact assessment if needed (EIA).

Eligible projects:

Industrial investment projects in Egypt in all industrial sectors for:

- A. End-of-pipe investments: such as air emission treatment and wastewater;
- B. Resource conservation: particularly water;
- C. Integrated measures: such as adoption of clean technology, processing/recycling of industrial waste (within the enterprise), industrial waste minimization, pollution prevention, and resource recovery and fuel substitution;
- D. Sub-projects, which prevent the production of solid waste and sub-projects to treat solid waste (generated by the enterprise itself), i.e. technical measures aimed at reducing residues produced in the enterprise(s) or at using these substances in the said enterprise(s) or measures which reduce the harmful effect of the residual waste; and
- E. Work place environment: Sub-projects, which improve working conditions and work place safety.

Data Sources:

- (1) **Central Department for enhancing and improving environmental industry**
- (2) **Project Management Unit**