Acknowledgements

The first edition of this National Profile for the Management of Chemicals in Egypt was issued in January 1999.This enhanced and updated edition is issued within the framework of the Egyptian Hazardous Substances Information and Management System (EHSIMS) project activities supported by the Swiss Agency for Development and Cooperation (SDC).

Special Thanks are due to:

- *Mr. Andri Bisaz, Division Head, MENA, SDC.*
- *Mr. Jean Bernard Dubois, Division Head, NRU, SDC.*
- *Mrs. Nadine Speich, Natural Resources and Environment Division, SDC.*
- *Mr. Kamal Rathle, Swiss Embassy in Cairo.*
- *Mr. Alain Pasche, SDC Consultant.*

The ceaseless efforts of the EHSIMS team members are gratefully acknowledged

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Introduction

Chemicals including pesticides, industrial chemicals, and consumer chemicals have become indispensable in many economic activities and are increasingly used in the industrial and agricultural consumer sectors of all societies. However, increasing evidence suggests that chemicals can contribute to health and environmental problems at various stages during their life cycle from production/import through disposal. Such problems include pollution generated during production processes, improper handling, storage, transport accidents, occupational accidents and diseases, as well as environmental contamination due to unsound disposal methods. The majority of such evidence is associated with the use and misuse of pesticides in the agricultural sector, but increasingly industrial and consumer chemicals are reported to cause severe health and environmental problems as countries develop from agricultural to industrial societies.

It is now widely recognized that chemicals need to be managed properly in order to achieve a sustainable level of agricultural and industrial development and a high level of environmental and human health protection. One important step in strengthening national systems for the management of chemicals is a comprehensive assessment of the national infrastructure relating to the legal, institutional, administrative and technical aspects of chemicals management along with an understanding of the nature and extent of chemical availability and use in the country.

In 1992, the United Nations Conference on Environment and Development - UNCED (Rio-de Janeiro Conference) marked an important event towards the goal of achieving sustainable economic development, which meets the needs of the present without compromising the needs of future generations. Heads of States or Governments from more than 150 member countries of the United Nations adopted " Agenda 21", a comprehensive document outlining responsibilities of States towards the achievement of sustainable development. The Commission on Sustainable Development (CSD) monitors implementation of the aims described in Agenda 21.

Chapter 19 of Agenda 21 is entitled " Environmentally Sound Management of Toxic Chemicals including Prevention of Illegal International Traffic in Toxic and Dangerous Products" and it contains objectives for environmentally compatible handling of toxic chemicals including measures for the prevention of the illegal international trade in toxic and dangerous products. An essential part of chapter 19 concerns the coordination of international and regional activities as well as the intensification of international cooperation.

For the purpose of controlling compliance with Chapter 19 and its harmonized implementation, in April 1994 the United Nations Environment Program (UNEP), the Intentional Labor Organization (ILO) and the World Health Organization (WHO) held the Chemical Safety Conference in Stockholm. It was at this conference, which was attended by participants from 130 countries, that the Intergovernmental Forum on Chemical Safety (IFCS) was established. The IFCS elaborates recommendations for governments as well as for international and transnational organizations. Also through IFCS countries now regularly discuss their activities and priorities for the sound

management of chemicals. The Stockholm conference, also marking the first meeting of the IFCS, adopted “a priorities for action plan to implement the recommendations of chapter 19 of Agenda 21.

As an important element in improving global cooperation in the field of chemicals safety, the IFCS recommends that, as a matter of urgency, the individual states should take stock of the national structures for chemicals management in the form of a so-called "National Profile" (NP) The aim of the National Profile is to provide relevant information on the areas of responsibility and procedures associated with chemical substances as well as to make statements on the effectiveness of the specific rules and regulations. In addition, the National Profiles from the industrialized nations can serve as a model for developing countries and countries undergoing economic change. Together with the IFCS secretariat, the United Nations Institute for Training and Research (UNITAR) has published a guidance document in 1955 which, by laying down a structure and providing useful advice on how to proceed, assists in the production of a NP and helps ensure international comparability.

In response to the recommendation adopted by the IFCS on National Profiles, UNITAR initiated a program in 1995 to assist countries to prepare National Profiles to assess the national infrastructure for the management of chemicals. The UNITAR National Profiles Program is conducted within the framework of the Inter-Organization Program for the Sound Management of Chemicals (IOMC) and in close co-operation with the Secretariat of the IFCS.

Publication of a National Profile for Egypt that is to say, a survey of the national system for management of chemicals is expected to have a number of positive effects, like:

- Increased effectiveness of the work performed by the government/ competent authorities through the provision of clear information on the management of chemicals
- Initiation or simplification of the information-exchange and dialogue procedures between authorities on the one hand and between authorities and non-governmental organizations on the other;
- Critical analysis of the procedural channels in order to avoid duplication of work;
- The provision of more comprehensive information to the general public and to industry as a result of readily comprehensible description of areas of responsibility;
- The provision of practical information on ongoing programs and activities in the country which are concerned with the management of chemicals;
- The establishment of a process which can facilitate the exchange of information and dialogue among government Ministries concerned with the sound management of chemicals, and to assist Ministries in learning from each others experience as a basis for improved cooperation;
- The strengthening of the national decision-making capabilities related to the management of chemicals;
- To facilitate the exchange of information and dialogue between government and parties outside of government such as industry, labor and grass-roots organizations, and
- The establishments of an authoritative document, which can serve as a basis for further efforts to strengthen the national system for the management of chemicals through involvement of all concerned parties.

The NP was intended to record the production, the import and export as well as the use of chemical substances and the treatment of chemical wastes. For example, areas such as industrial chemicals (existing and new chemical substances), plant protection products containing pesticides and fertilizers, pharmaceutical and medical products, dangerous drugs, food as well as cosmetics were envisaged. Relevant regulations and voluntary agreements, the participating authorities and the non-governmental organizations, the areas of competence and the dividing lines separating areas of competence as well as the available stocks of data were to be described in order to ensure that the stocktaking process was as comprehensive as possible.

The Egyptian Hazardous Substances Information and Management System (EHSIMS) took the responsibility of preparing and updating the Egyptian National Chemical Profile; and thus served as the coordinating body for the preparation of the NP in Egypt. A national planning meeting to initiate the work of preparing and updating the National Profile was organized. The meeting focused on defining the objectives for preparing the National Profile and developing a workplace for the tasks to be accomplished including division of responsibilities among relevant parties. Following this meeting, communications have been established to strengthen links between the EHSIMS and the various stakeholders in Egypt concerned with the management of chemical

It is hoped that the process of preparing and updating the N P resulted in a more accurate picture of the national chemical management situation in Egypt and established procedures to facilitate the exchange of information amongst all concerned parties.

The editorial team wishes to thank all those who have supported the production of this document.

Further help, comments corrections and additions will be gratefully received.

CAIRO, January 2002

The editorial team

Chapter 1: National Background Information

1.1 Physical and Demographic Context

(Soures of data is statistical year book for year 2000 - CAPMAS)

➢ Location

Egypt enjoys a unique geographical location. It is an Arab African country, being situated on the northeastern corner of the African continent. It is also partly an Asian country, being linked to Asia by the Sinai Peninsula, which has always played a pivotal role over history as a crossing point between the continents of Asia, Africa and Europe. Due to its singular geographical situation, Egypt has always been a connecting link between the world continents. Although Egypt's position was affected following the discovery of the Cape of Good Hope route, the country later regained its vital role after the digging of the Suez Canal. Egypt lies between latitudes 22" and 32" and between longitudes 24" and 37" to the east of Greenwich line.

➢ Geographical Borders

Egypt is bounded as follows:

- To the north, by the Mediterranean Sea with a 995 km long coast.
- To the east, by the Red Sea with a 1941 km long coast.
- To the northeast, by 265 km long borders with Palestine and Israel.
- To the west, by 1105 km long borders with Libya.
- To the south, by 1280 km long borders with Sudan.

Geography of Egypt

The Nile Basin:

The River Nile, which is 6690 km long, is the second longest river in the world. It runs through the following countries:

- Tanzania
- Congo
- Borondy
- Rowanda
- Kenya
- Uganda
- Ethiopia
- Sudan
- Egypt

It may be divided into the following climatic regions: -

- The Equatorial Plateau, where the weather is hot and rainy the year round;
- The Sudan Valley. Two seasons are distinguished: hot and rainy, and hot and dry;
- The Nubian Desert and Upper Egypt (from Atbara to Cairo): hot and dry in summer; cold in winter;
- Lower Egypt (from Cairo to the Mediterranean): hot and dry in summer; rainy in winter;
- The Ethiopian Plateau: heavy rain in summer;
- The Egyptian coasts have total length of approximately 2936 km, of which 995 km is on the Mediterranean and 1941 km is on the Red Sea.

The Major Geographical Regions are: -

I. The Nile Valley

(4% area of A.R.E.) It begins southern form north of Wadi Halfa to Mediterranean Sea and it is divided into: -

1. Upper Egypt

(Form Wadi Halfa to south of Cairo):

The Nile Valley, south of Aswan is a desert region where the mountainous land on both sides of the valley is 1000 meters above sea level in the east and 800 meters in the west. This area is an extension of the Sahara Desert, and is the least fertile part of the Valley .The Nile runs from Aswan to Cairo through a valley, which is from 2 to 15 km wide. It is widest at Kom Umbou, where it is 15 km wide. On both sides of the Valley, there are chains of rock hills, which are 300 meter above level.

2. Lower Egypt

(Extended from south of Cairo to Mediterranean coast in the north):

Twenty-five km north of Cairo, the Nile forks into two main branches namely the Rosetta and Damietta branches between these two branches lies the Delta which is the most fertile land in the world.

II. The Suez Canal Zone:

This Zone extends from the Gulf of Suez to the Mediterranean Sea its length is about 160 km

III. The Eastern Desert:

(28% of area of Egypt.) It extends from Nile Valley to the Eastern Borders of Egypt at the Red Sea till Rafah & it is divided into: -

1. The Northern Zone (Sinai desert):

Sinai is veritable gateway to Egypt from the east. It is triangular in shape, and stretches for 400 km from north to south, and 200 km from east to west. It is generally hot during the summer, stormy and exposed to cold air currents during the winter.

Sinai is divided into:

i. The Northern Part: Includes the coastal strip, which extends from Rafah to Port-Said. Water is abundant in this area due to heavy rainfalls.

ii. The Central Part: This is a steep rocky plateau 3000 feet above sea level. Water in this part is scarce.

iii. The Southern Part: This is a steep rocky area 10000 feet above sea level, water are abundant due to heavy rainfall.

2. The Southern Zone:

It extends from Southern of Cairo – Suez desert road till the boundaries of Egypt and Sudan. This is a sterile area characterized by a range of mountains 2000-meters high and stretches along the coast of the Red Sea. It is rich with minerals and quarries. Kusair, Ghardaka, Ras Gharb and Safaga are small Red Sea harbours.

IV. The Western Desert:

This desert extends from the Nile Valley in the east to the Egypt-Libyan boundaries in the north to the southern boundaries of Egypt. It represents two-thirds of the total land area of Egypt (680000sq km), its average altitude is 500 meters.

1. *The Northern Zone:* This is the northern plateau and the region of the Great Depressions, it includes Siwa Oasis, Qattara Depression, Wadi EI-Natroun and Baharia Oasis.
2. *The Southern Zone:* Includes the Farafra, Kharga, Dakhla and Owaynat Oasis.

➢ Climate

Climate is determined by many factors, chief of which are location, terrain and overall system of atmospheric pressure and water surface. Basically Egypt lies within the dry tropical region, except for the northern parts that lie within the warm moderate region, with a climate similar to the Mediterranean region, characterized by hot dry summers, and moderate winters with little rainfall, increasing along the coastal areas.

➢ Water Resources

Egypt depends, for its water supply on three fresh water sources namely: surface water from the River Nile, rain and storm water and subterranean water. While the Nile remains, for Egypt, as the main source of fresh water, there are additional, albeit limited resources consisting of the following:

- Recycling agricultural drainage water resulting from irrigating cultivated land, either used as such or mixed with fresh Nile water;
- Treated sanitary wastewater;

Quantity of water available for use at present is 61.61 billion cubic meters per annum, broken down as follows;

- 53.3 billion cubic meters of Nile water from the Aswan Dam reservoir, to irrigate cultivated land (old and newly reclaimed);
- 3.3 billion cubic meters of underground water, in the Delta, Upper Egypt and Sinai, for drinking purposes;
- 7.2 billion cubic meters of recycled agricultural drainage water, for non-consumer purposes;

➢ Area

Egypt has a total area of about 1002000 Sq. kilometers, of which only 35189 Sq. kilometers, i.e.; 3.6% are populated.

➢ Population

- The earliest census in Egypt is dated to be in 3340 BC. In modem times, censuses began in 1800, when Egypt's population was 2.5 millions.
- This estimate was followed by a mid-century 19th count of 4.5 millions.
- In 1882, population in Egypt reached 6.7 millions.
- In 1996 CAPMAS carried out the twelfth population, Housing and Establishment Census.
- The final results of the 1996 Census indicated that, the total population inside Egypt reached 59.3 millions against 48.3 millions in 1986.
- According to the 1996 Census, nearly 40% of the total urban population lived in Cairo and Alexandria. Cairo, the capital, had a population of nearly 6.8 millions and nearly 3.3 millions in Alexandria.
- The population growth rate decreased from 2.8% in the period 1976-1986 to 2.1% in the period 1986-1996.
- The estimates of population inside Egypt on 1st of January 2001 reached 64.7 millions and on 1st of July 2001 reached 69.5 millions
- The estimates of population growth rate in 2001 reaches 1.69%
- The crude death rate declined from 6.7 per thousand in 1995 to become 6.4 per thousand in 2000.
- Life expectancy at birth for males increased from 62.8 years in 1991 to 67.1 years in 2001 and from 66.4 years to 71.5 years for females.
- The reported crude birth rate declined from 27.9 per thousand in 1995 to 27.4 per thousand in 2000 (Including Egyptian abroad). ***((datistical year book for year 2002 .))***

The 1996 Census shows the following:

- Total number of population as of 1996, is 61492914 against 50405238 according to the 1986 Census, with an increase of 11087676.
- Males accounted (30.352million) for 51.2% of the population and females (28.961 million) for 48.8%, reflecting the same percentage of the 1986 census.
- The number of people residing within the country rose to 59312914 from 48254238 in 1986; Egyptian expatriates abroad, on temporary immigration basis

fell to 2180000 against 2151000 in 1986, in addition to 720000 permanent Egyptian immigrant's abroad. According to United Nations' data, Egypt ranked, in terms of population, seventeenth among world countries.

- Population of Cairo Governorate rose to 6800992 in 1996, with an increase of 720784 at a percentage of 11.9% compared to the 1986 census. In terms of population, Cairo ranks the twenty first in the order of world cities. The labor force rose to 17795647 accounting for 35.4%of the total population, compared to 13,400,387 accounting for 34.4% of total population in 1986.
- Rate of immigration of population from rural to urban areas decreased by 1 %.
- Family size decreased to 4.7 persons compared to 4.9 persons according to the 1986 census.

Table 1-A: Population Growth Rate

Indicator	***Rate***	***Year***
Population Growth Rate	2.1%	1996-2000
Birth Rate/1000	27	1999
Mortality Rate /1000	6.4	1999
Total Fertility Rate	***3.4***	***1996-1998***

➢ Capital

Cairo, the capital of Egypt is a time-honored city with an outstanding position among world capitals. It has a population of 6800992 (1996 Census) ranking twenty first among world cities in order of population, and the largest in the Arab world and Africa.

➢ Language

Arabic is the official language of Egypt.

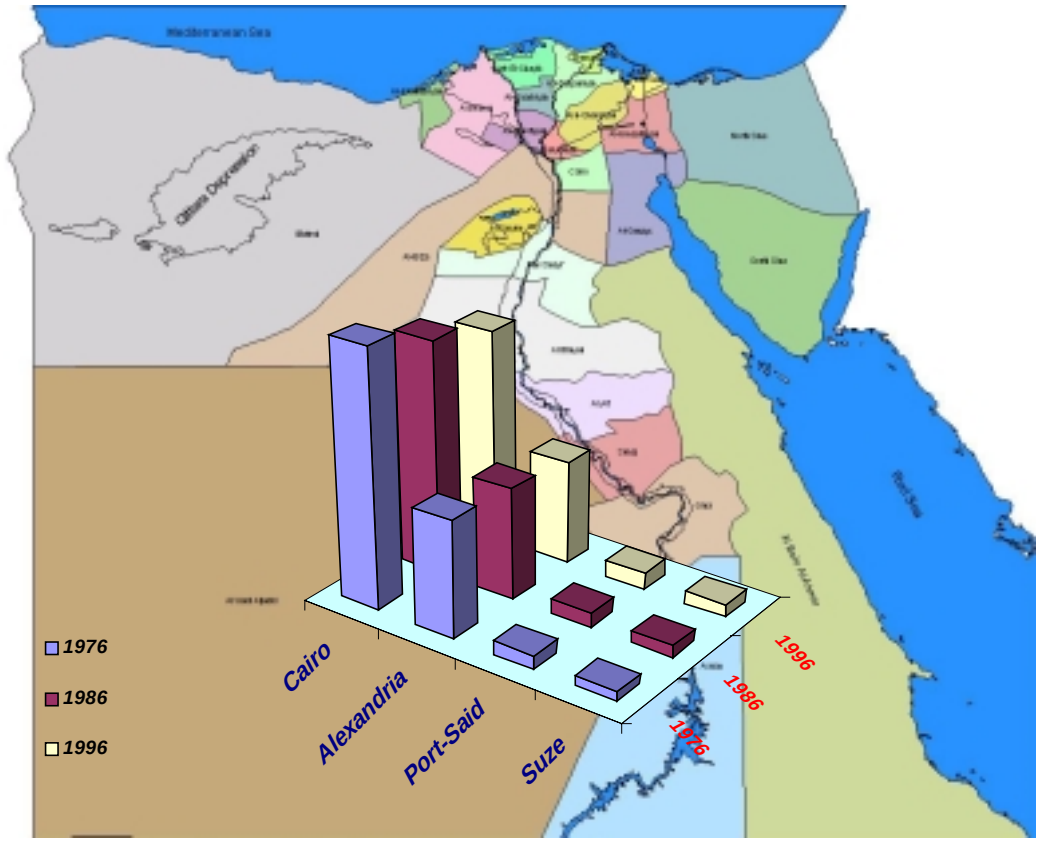
Table 1-B: Some Basic Information About Egypt by Census Years (1986 -1996).

Item	***Census Years***	
	1996	***1986***
Total population in (000) (excl. Egyptian abroad)	59313	48254
Major cities in urban governorates (Capitals)	4	4
percentage of population in major cities	18.6	20.2
Number of towns in Lower Egypt (towns and capitals of governorates)	108	90
Number of towns in Upper Egypt (towns and capitals of governorates)	78	70
Percentage of urban population in Lower and Upper Egypt.	23.2	23.1
Number of villages in Lower Egypt.	2468	2467
Number of villages in Upper Egypt.	1664	166.2
Percentage of rural population in Lower and Upper Egypt.	56.8	55.5
Number of towns in frontier governorates	37	31
Percentage of rural population in Lower and Upper Egypt.	1.4	1.2
Total area of Egypt (in 000.sq.km)	***1002***	***1002***

Table 1-C: Percentage Distribution of Population by Governorate (1986 and 1996 Censuses)

Governorate	***1986***		***1996***	
	Order	***Percent to pop***	***Order***	***Percent to pop***
Cairo	1	12.58	1	11.50
Alexandria	6	6.06	7	5.60
Port-Said	20	0.83	20	0.90
Suze	21	0.68	21	0.68
Total Urban Gov.		***20.15***		***18.68***
Damietta	18	1.54	18	1.54
Dakahlia	3	7.22	4	7.10
Sharkia	4	7.08	3	7.20
Kalyoubia	9	5.21	9	5.60
Kafr Al-Sheikh	14	3.75	14	3.70
Al-Gharbia	7	5.98	6	5.70
Al-Monofia	12	4.60	12	4.70
Behera	5	6.73	5	6.73
Ismailia	19	1.13	19	1.20
Total Lower Gov.		***43.24***		***43.47***
Al-Giza	2	7.72	2	8.10
Al-Fayoum	15	3.22	15	3.40
Beni Swaif	16	3.00	16	3.10
Menya	8	5.48	8	5.60
Asyout	13	4.59	11	4.70
Sohag	10	5.07	10	5.30
Qena	11	4.10	13	4.10
Aswan	17	1.68	17	1.60

Luxur	22	0.60	22	0.60
Total Upper Egypt Gov.		***35.46***		***36.50***
Red Sea	25	0.20	25	0.30
Al-wadi Algdeed	26	0.20	26	0.20
Mersa Matrouh	24	0.30	24	0.40
North Sinai	23	0.40	23	0.40
South Sinai	27	0.10	27	0.10
Total Frontier Egypt Gov.		***1.20***		***1.40***



	Cairo	Alexandria	Port-Said	Suze
1976	13.85	6.33	0.72	0.53
1986	12.58	6.06	0.83	0.68
1996	11.5	5.6	0.9	0.68

Table 1-D: Urban/ Rural Population by Sex in Census Years (1886-1996)

Census Years	*Urban / Rural*	*Male*	*Female*	*Total*	*Urban to Rural*
1986	Urban	10909	10307	21216	44.0
	Rural	13800	13238	27038	56.0
	Total	***24709***	***23545***	***48254***	***100.0***
1996	Urban	12958	12328	25286	43.0
	Rural	17394	16633	34027	57.0
	Total	***30352***	***28961***	***59313***	***100.0***

Table 1-E: Growth Rates in Intercensal Periods

Period	*Average Growth Rates*
1897-1907	1.46
1907-1917	1.28
1917-1927	1.09
1927-1937	1.16
1937-1947	1.75
1947-1960	2.34
1960-1966	2.52
1966-1976	1.92
1976-1986	2.75
1986-1996	2.08

Table 1-F: Estimates of Population by Sex and Governorates, 1/1/2001 (in 000'S)

Governorates	*Total*	*Female*	*Male*
Cairo	7283	3557	3726
Giza	5208	2517	2691
Sharkia	4691	2279	2412
Dakahlia	4570	2242	2328
Behera	4339	2128	2211
Menia	3687	1802	1885
Gharbia	3661	1810	1851
Kalyoubia	3584	1735	1849
Alexandria	3577	1750	1827
Suhag	3481	1700	1781
Asyout	3122	1520	1602
Menofia	2994	1453	1541
Qena	2697	1340	1357
Kafr-el-shiekh	2403	1195	1208
Fayoum	2208	1062	1146
Beni-Suef	2062	1009	1053
Aswan	1043	520	523
Damietta	995	486	509
Ismailia	789	386	403
Port Said	506	247	259
Suez	452	220	232

Luxor	392	191	201
North Sinai	280	134	146
Matrouh	240	114	126
Red Sea	172	74	98
El-Wadi El-Gidid	156	75	81
South Sini	60	23	37
Pop inside Egypt	***64652***	***31569***	***33083***
Egyptian's Abroad	***1900***		
Total population.	***66552***		

Table 1-G: Population Forecasts Broken Down by Sex and Specific Age Groups (1/1/2000)

Age group / ***Description***		***Population below 6***	***Education Age 6-24***	***Productivity Age (Working age) 15-64***	***Old Age 65+***
Population (in thousand)	***Male***	4598	13825	18939	1135
	Female	4366	12791	18336	1016
	Total	8964	26616	37275	2151
% of total population	***Male***	14.19	42.68	58.47	3.50
	Female	14.12	41.38	59.32	3.29
	Total	14.16	42.04	58.88	4.00

Table 1-H: Expectation of Life at Birth, by Sex

YEAR	***Female***	***Male***
1960	53.8	51.6
1976	57.7	52.7
1986	63.5	60.5
1991	66.4	62.8
1996	69.0	56.1
1999	70.5	66.3
2001	71.5	67.1
2006	73.6	69.2
2011	75.5	70.9
2016	77.2	72.5
2021	78.7	73.9

- Rate of immigration of population from rural to urban areas decreased by 1%.
- Family size decreased to 4.6 persons compared to 4.9 persons according to the 1986 census.

➢ Education

- The following results have been achieved due to the efforts excerted in the field of education.
- Increasing number of general primary education classes by 2.7 % in 99 / 2000 compared with 95 / 96, and the percentage of AI-Azhar primary classes increased by 10.8%.
- Increasing number of general preparatory classes by 16.2% in 99/2000 compared with 95 / 96, and increased by 40.4% in Al-Azhar.
- Increasing number of general secondary classes by 19.7% in 99 / 2000 compared with 95 / 96, and increasing number of classes in AI-Azhar by 56%.

(Soures of data is statistical year book for year 2000 - CAPMAS)

Rate of illiteracy dropped by 11%. According to the 1996 census, the number of illiterate persons at the age of ten and above was 17347745 representing, 38.6% of the total population, compared to 17147597 illiterates according to the 1986 Census, representing 49.6%.

Table 1-I : Population (10 Years and Over) by Educational Status and Sex in Urban/ Rural Areas (The final results of the 1996 census)

Educational Status	***Total***			***Rural***		***Urban***	
	Total	***Female***	***Male***	***Female***	***Male***	***Female***	***Male***
Illiterate	17646025	11005746	6640279	7721025	4616042	3284721	2024237
Read & Write	8399253	3209817	5189436	151740	2929775	1692677	2259661
Primary	4155224	1829547	2325677	915416	1291568	914131	1034109
Less than University. Certificates [(1)]	12069101	5026752	7042349	1932839	3397005	3093913	3645344
University	2547995	852998	1694997	121145	442895	731853	1252102
N.S.	13822	6067	7755	3949	4845	2118	2910
TOTAL	***44831420***	***21930927***	***22900493***	***12211514***	***12682130***	***9719413***	***10218363***
Percentage distribution							
Illiterate	39.36	50.18	29.00	63.23	36.40	33.80	19.81
Read & Write	18.74	14.64	22.66	12.42	23.10	17.42	22.11
Primary	9.27	8.34	10.16	7.50	10.18	9.41	10.12
Less than University. Certificates [(1)]	26.92	22.92	30.75	15.83	26.79	31.83	35.67
University	5.68	3.89	7.40	0.99	3.49	7.53	12.25
N.S.	0.03	0.03	0.30	0.03	0.04	0.02	0.03
TOTAL	***100.00***	***100.00***	***100.00***	***100.00***	***100.00***	***100.00***	***100.00***

[(1)] ***Excluding primary***

1.2 Political/ Geographic Structure of the Country

(Soures of data is statistical year book for year 2000 - CAPMAS)

➢ Country name:

Conventional long form: Arab Republic of Egypt

conventional short form: Egypt

local long form: Jumhuriyat Misr al-Arabiyah

local short form: Misr

former: United Arab Republic (with Syria)

➢ Government type:

Republic

➢ Capital:

Cairo, which is the seat of government and is the place where most diplomatic missions, have their offices.

➢ Administrative divisions:

26 governorates (muhafazat, singular - muhafazah); Al Daqahliyah, Al Bahr al Ahmar, Al Buhayrah, Al Fayyum, Al Gharbiyah, Al Iskandariyah, Al Isma'iliyah, Al Jizah, Al Minufiyah, Al Minya, Al Qahirah, Al Qalyubiyah, Al Wadi al Jadid, Ash Sharqiyah, As Suways, Aswan, Asyut, Bani Suwayf, Bur Sa'id, Dumyat, Janub Sina', Kafr ash Shaykh, Matruh, Qina, Shamal Sina', Suhaj

➢ Executive branch:

Chief of state:
President Mohammed Hosni MUBARAK (since 14 October 1981) head of government: Prime Minister Atef OBEID (since 5 October 1999)
Cabinet:
Cabinet appointed by the president
Elections:
President nominated by the People's Assembly for a six-year term, the nomination must then be validated by a national, popular referendum; national referendum last held 26 September 1999 (next to be held NA October 2005); prime minister appointed by the president.

➢ Legislative branch:

Bicameral system consists of the People's Assembly or Majlis al-Sha'b (454 seats; 444 elected by popular vote, 10 appointed by the president; members serve five-year terms) and the Advisory Council or Majlis al-Shura - which functions only in a consultative role (264 seats; 176 elected by popular vote, 88 appointed by the president; members serve NA-year terms)

Elections:
People's Assembly - three-phase voting - last held 19 October, 29 October, 8 November 2000 (next to be held NA November 2005); Advisory Council - last held 7 June 1995 (next to be held NA)

Election results:
People's Assembly - percent of vote by party-NDP(National Democratic Party) 88%, independents 8%, opposition 4%; seats by party - NDP 398, NWP(New wafd party) 7, Tagammu 6, Nasserists 2, LSP(Socialist Liberal party) 1, independents 38, undecided 2; Advisory Council - percent of vote by party - NDP 99%, independents 1%; seats by party - NA

Table 1-J: Percentage of Population and Area by Governorates (1/1/2000):

(Soures of data is statistical year book for year 2000 – CAPMAS)

Provinces located at North Delta

Governorate	***Population (%)***		***Total area in (Km2)***	
Cairo	11.5	11.31	2142	19042
Alexandria	5.60	5.55	267936	167550
Al-Behera	6.70	6.72	1012948	694362
Kafr Al-Sheikh	3.80	3.73	343712	374825
Al-Gharbia	5.70	5.68	194221	1942411
Al-Monofia	4.70	4.63	153213	243593
Al-Kalubia	5.60	5.55	100109	107272
Al-Sharkia	7.20	7.24	417955	476428
Al-Dekhailia	7.10	7.08	34709	347100
Damietta	1.50	1.54	58917	66887

Provinces located at Upper Egypt

Governorate	***Population (%)***	***Total area in (Km2)***
Al-Giza	8.10	119100
Al-Fayoum	3.40	185600
Beni Swaif	3.10	136941
Menya	5.60	241165
Assiut	4.70	157400
Sohag	5.30	159392
Qena	4.70	174072
Aswan	1.60	100473
Luxur	0.61	22673

Provinces located at Suez Canal Area

Governorate	***Population***	***Total area in (Km2)***
Port Said	0.79	132068
Ismailia	1.22	506696
Suez	0.70	900221

Provinces located at Sinai

Governorate	*Population*	*Total area in (Km2)*
North Sinai	0.43	405865
South Sinai	0.09	1679100

Provinces located at the Border of the country

Governorate	*Population*	*Total area in (Km2)*
Red Sea	0.27	7113
Mersa Matrouh	0.37	171641
Al-wadi Algdeed	0.24	108224

1.3 Industrial and Agricultural Sectors

(Soures of data is statistical year book for year 2000 - CAPMAS)

Industrial & Mining Sector:

Data in this section reflects some achievements in the field of industries. By comparing data of 99/ 2000 with 1995/1996 we can notice the following.:

- The value of food products increased by 24%.
- Quantity of iron ore increased by 40%
- Quantity of hydrogenated oil increased by 74%
- Quantity of natural gas increased by 49%
- Sources of data in this section are the Ministry of Industry and related authorities

The major industries in Egypt are:

- Textile and Cotton industry
- Mining (Petrol oil, Natural gas, Phosphate, Manganese, Iron)
- Fertilizers industries (Phosphate & Nitrogenous fertilizers)
- Aluminum industry
- Steel and iron industries
- Cement industries
- Carpet industries

Agricultural Sector:

The agricultural sector plays a major role in the structure of the national economy of Egypt. Agricultural production is closely connected with the livelihood of the people. In addition, the agricultural exports represent a major part of the foreign trade of Egypt. Accordingly, the Government initiated programmes for a horizontal expansion

in order to increase the area under cultivation, and a perpendicular expansion, which increases the yield of the cultivated areas.

The reclaimed area during the period 1952 to 99/2000 reached 3158 thousand feddan. Both of the cultivated areas with winter crops and summer crops increased by 6%, 3% respectively in 1999 compared with 1995. The production of fish increased by 60% during the comparison period.

The use of agrochemical is decreased than before due to the restricted regulations and awareness of the public to the harmful impact of chemicals.

Table 1-K: Overview of the Industrial and Agricultural Sector

Sector	***Number of Employees***	***Major Products in each Sector/Governmental***
Industrial/ Manufacturing Sector	729286	Textile, Cement, Iron & Steel, Chemicals, Wood, Food and Paper
Mining and Extraction	16018	Petroleum, Phosphate , Coke and Natural Gas
Agricultural Sector	6778000	Cotton, Rice,Wheat, Sugar-Cane, Vegetable and Fruits
Total	***7523304***	

Table 1-L: Structure of the Manufacturing/Agricultural Sector/Governmental

Sector	***Micro Farms Facilities[1]***	***Small Farms Facilities[2]***	***Medium Farms Facilities[3]***	***Big Farms Facilities[4]***
Industrial/ Manufacturing Sector	5455	22924	99301	620860
Agricultural Sector	658300	42000	25000	2000
Total	***663755***	***64924***	***124301***	***622860***

[1]: 1 to 10 employees (Industrial)/1 to 10 Acres (Agricultural)

[2]: 10 to 100 employees (Industrial)//10 to 20 Acres (Agricultural)

[3]: 100 to 500 employees (Industrial)/20 to 50 Acres (Agricultural)

[4]: More than 500 employees (Industrial)/More than 100 Acres (Agricultural).

Table 1-M: Breakdown of Agricultural Production by Region

Region	*Major Crops*	*Total Quantity Of Crops 1999*	*Size of Productive Areas(Feddans) 1999*
Delta	Cotton [1]	3076	539573
Delta&upper Egypt	Wheat [2]	6.3	1678651
Delta	Rice [2]	5.6	1501167
Upper Egypt	Sugar-Cane [2]	13.7	271218
Delta&upper Egypt	Vegetables [2]	15.2	613732
Delta&upper Egypt	Fruits [2]	7	429005

[1] ***Metric Qantar in thousands***

[2] ***Ton in Million***

Table 1-N: Breakdown of Industrial Production by Region (1997/1998 for public sector; 1998 for private sector):

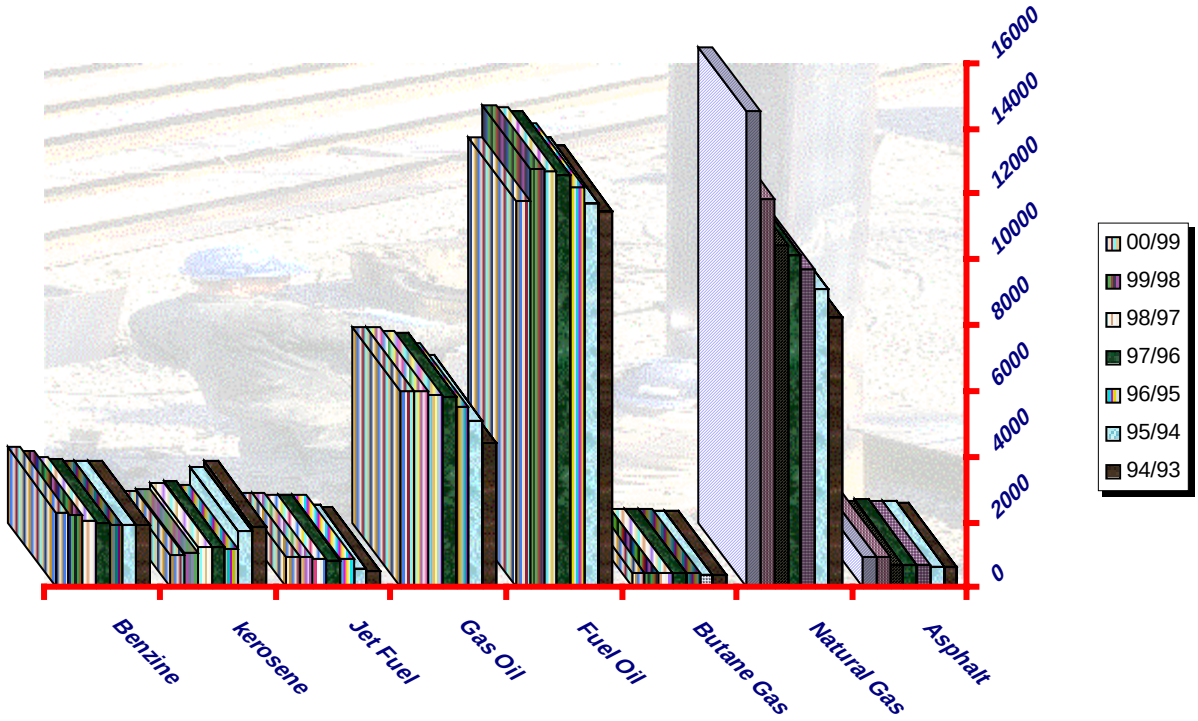
Region	*No. of Establishments*		*Value of Production (in 1000 L.E.)*		*No. of Employees*	
	Public	*Private*	*Public*	*Private*	*Public*	*Private*
Cairo	262	2135	8241076	12462895	145662	115055
Alexandria	141	1101	9664807	9605785	99474	95036
Port Said	11	94	200477	702142	6352	8783
Suez	12	112	3864070	950853	10767	8287
Damietta	8	102	178696	128992	5366	2618
Dakahlia	34	375	636485	1431275	16607	11379
Sharkia	30	760	291065	10813166	10592	88475
Kalyubia	77	678	4915997	2698249	54458	48146
Kafr.El Sheik	24	153	209560	240423	950	4332
harbia	44	587	2940081	1286259	58503	27435
enaufia	17	276	549860	1255614	9049	15527
Behera	45	271	960266	244584	43302	7353
Ismailia	8	100	65033	492696	1365	6648
Giza	97	955	3241849	8447853	41326	98763
Beni Suef	14	144	394071	82164	3709	3184
Fayum	12	250	129572	380140	2798	5671
Menia	22	397	437960	117658	6056	6676
Asyut	20	94	2005343	118806	9797	2199
Suhag	10	159	497447	399409	5154	5179
Qena	7	104	2463124	275023	19220	2802
Aswan	14	56	631275	180020	9961	2461
Red Sea	7	13	493353	7265963	3913	6300
El-Wadi El-Gedid	1	14	5911	8218	45	621

Matruh	3	26	145559	1928874	357	2443
South Sinai	1	6	44654	18242	900	140
North Sinai	3	15	96641	3590548	819	3344
Luxur	1	10	8	2836	5	142

Table 1-O: Some Petroleum Production by Product

(In thousand metric ton)

Product	***00/99***	***99/98***	***98/97***
Benzine	2300	2208	2030
Kerosene	1011	1072	1260
Jet Fuel	920	939	860
Gas Oil	5989	6007	5889
Fuel Oil	11785	12773	12700
Butane Gas	486	436	445
Natural Gas	14500	11872	10434
Asphalt	957	954	714



1.4 Industrial Employment by Major Economic Sectors.

(Soures of data is statistical year book for year 2000 - CAPMAS)

Table 1-O: Industrial Employment by Major Economic Sectors

(Value in 1000 L.E)

ISIC Rev. 3	***Description***	***Total Employment***		***Output Value /Year***	
		Public 97/98	***Private 98***	***Public 97/98***	***Private 98***
15	Manufacture of food products	81414	141810	7730745	11970706
16	Manufacture of tobacco products	13662	3779	1913210	289179
17	Manufacture of textiles	169779	89180	3450389	5680221
18	Manufacture of meaning apparel	4165	58370	73429	225438
19	Tanning and dressing of leather	4207	7695	53573	217897
20	Manufacture of wood and products	4129	5848	103267	198838
21	Manufacture of paper and paper products	6557	11308	245191	119595
22	Publishing, printing and reproducts	1024	21864	18793	196774
23	Manufacture of coke refined	24751	24109	14073171	17867
24	Manufacture of chemicals and chemical products	56814	36291	3497915	821813
25	Manufacture of rubber and plastics	7236	19407	366477	150658
26	Manufacture of other non-metallic products	33179	54123	3238081	362313
27	Manufacture of basic metals	52328	16808	3859227	40428
28	Manufacture of fabricated metal products	21203	19856	607783	1117009
29	Manufacture of machinery and equipment	20490	24428	619324	296676
30	Manufacture of office accounting and computing	-----	597	-----	183309
31	Manufacture of electrical machinery and apparatus	4262	13647	234754	182994
32	Manufacture of radio televIsion and communication	5428	4529	404910	62485

33	Manufacture of medical precisian and optical	5261	1101	93676	65052
34	Manufacture of motor vehicles and trailers	11127	9459	810753	249105
35	Manufacture of other transport equipment	13056	858	560036	36068
36	Manufacture of furniture	1520	11844	6869	69815
37	Recycling	-----	100	-----	1190

Chapter 2: Chemical Production, Import, Export and Use

2.1 Chemical Production, Import and Export

(Soures of data is statistical year book for year 2000 - CAPMAS)

The production and import of chemicals for local use are considered to be high quantities where the export is medium. Table 2.A: shows Chemical production ton/ year.

Table 2-A: Chemical Production, Import and Export in year 2000.

	Import		***Export***	
Chemical Category	***Quantity***	***Value***	***Quantity***	***Value***
Fertilizers	2770294	154717	638257	270784
Petroleum products	3600004	3579987	7461566	589534
Industrial (used in manufacturing/processing facilities)	Not available	Not available	Not available	Not available
Total	***3870298***	***3734704***	***8099823***	***860318***

Imports and Exports are for all sectors (Governmental, private investment)

Table 2-B: Some Chemical Industries Production, by product

Product	***Unit***	***00/99***	***99/98***	***98/97***
Carbon Dioxide	1000 Ton	8	12	9
Tanned Leather	Mill. L.E.	868	874	898
Glue	1000 Ton	12	11	11
Ferro silicon (75%)	Ton	6221	6704	7081
Tyres, outer	1000.Tyre	1037	1426	1498
Tubes, inner	1000.Tube	1625	2172	2004
Soap	1000 Ton	216	224	224
Glycerin	Ton	2642	2884	2884
Detergents	1000 Ton	64	64	66
Caustic Soda	1000 Ton	44	58	51
Paper & Cartoon	1000 Ton	118	103	182
Super Phosphate	1000 Ton	390	378	365

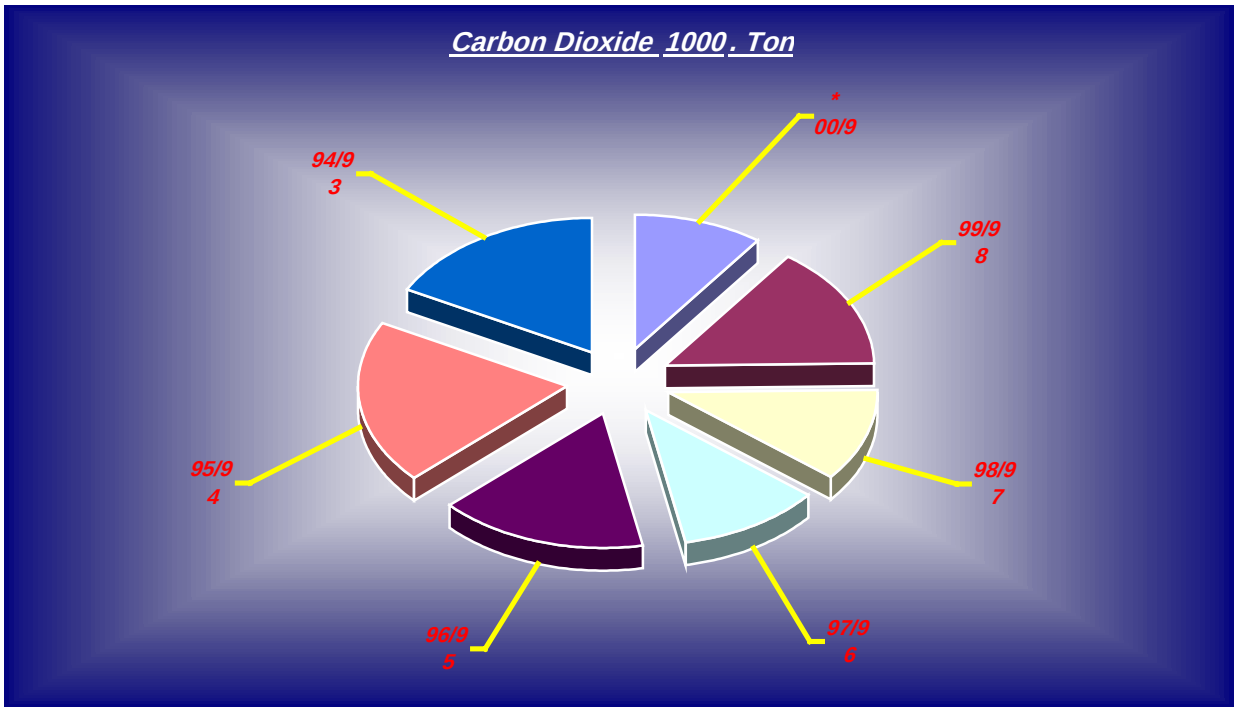


Table 2-C: Value of Some Industrial Production [(1)] (In mill. L.E.)

Sector	***00/99***	***99/98***	***98/97***
Food Industries	19477	17190	17371
Engineering and Electric Industries	7409	6772	7860
Refractors & Mining Industries	…	4014	4664
Spinning & Weaving Industries	6431	6944	7719

(1) Excludes governmental workshops, military factories, ginning and grinding industries, bakery, tea packing, press and publishing.

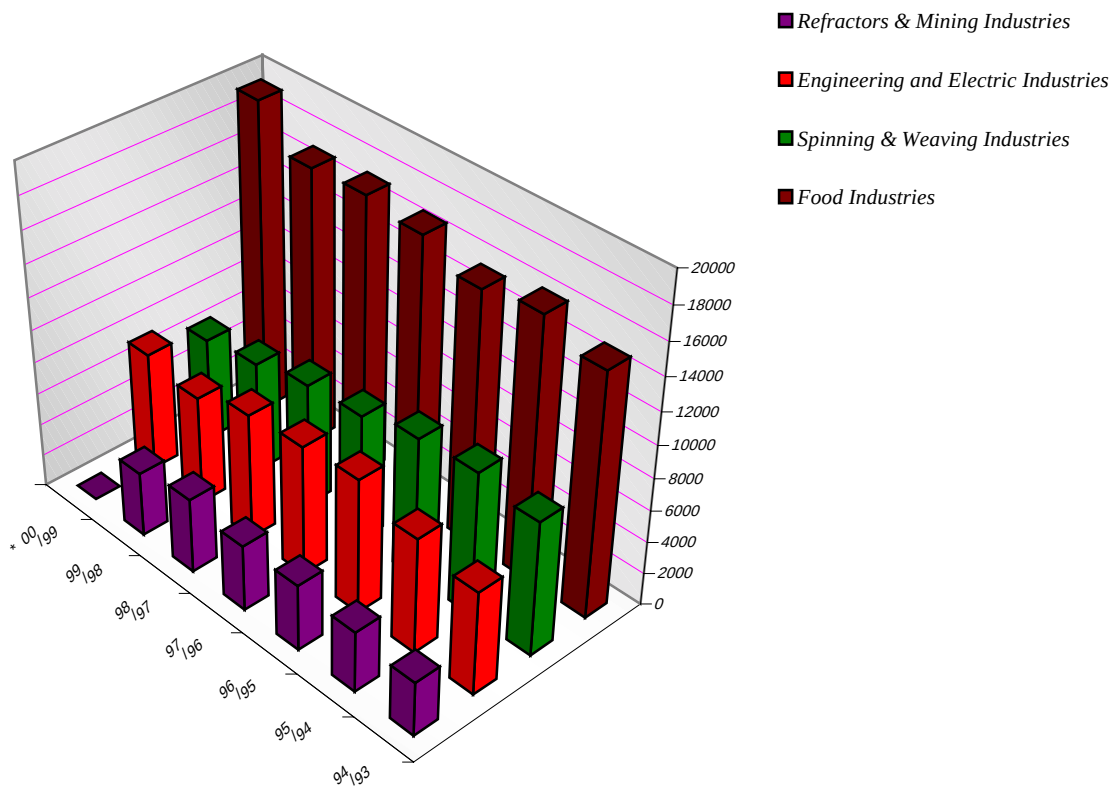


Table 2-D: Some Mining Production, by Type of Product

Product	***Unit***	***00/99***	***99/98***	***98/97***
Phosphate	1000 Ton	1177	1165	1059
Iron ore	1000 Ton	2932	3002	3001
Salt (common)	1000 Ton	1990	2588	2488
Kaolin	1000 Ton	205	314	286
Quartz	1000 Ton	63	103	94

Table 2-E: Some Food Industries Production, by Product

Product	***Unit***	***00/99***	***99/98***	***98/97***
Glucose	1000 Ton	41	62	45
Chocolate	Ton	5701	7273	7105
Vegetables Preserved	Ton	13678	14197	15493
Tomato Paste (canned)	Ton	1817	2339	3420
Yeast	Ton	24380	25610	27547
Starch	1000 Ton	23	27	37
Cotton Seed Oil	1000 Ton	260	290	306
Molasses	1000 Ton	346	240	255
Cigarettes	Milliard	53	51	52
Tobacco Products	Ton	37356	37356	37356
White Cheese	1000 Ton	286	288	274
Processed Cheese	1000 Ton	17	18	16
Pasteurized Milk	1000 Ton	5	5	7
Hydrogenated Oils	1000 Ton	143	130	96

Table 2-F: Some Spinning and Weaving Production, by Product

Product	***Unit***	***00/99***	***99/98***	***98/97***
Cotton Textiles	Mill. L.E.	1559	1524	1559
Wool Yarn	1000 Ton	15	12	12
Wool Textiles	Mill.M	6	7	8
Textiles from Silk	Mill. L.E.	208	188	152
Jute Yarn	1000 Ton	5	10	15
Jute Textiles	1000 Ton	4	9	13
Blankets & Rugs	Mill. L.E.	193	96	168

Table 2-G: Exports, by Items Exported (In thousand L.E.)

Item	*2000*	*1999*	*1998*
Fats, oils, and related products	82907	97374	24270
Prepared foodstuffs, beverages and tobacco	199839	120122	112776
Mineral products	7008325	4514877	3336353
Chemical products	1024192	781389	881817
Artificial resins and plastic materials, cellulose and rubber	296542	405156	156596
Raw hides, skins, furs and fur products	79186	46969	59231
Paper, paperboard, paper-making materials, and related articles	90368	80654	89447
Textiles and textile articles	3242643	3035427	3272047
Footwear, headgear, umbrellas, and artificial flowers	58924	30445	23071
Products of stone, cement, asbestos, and glass	1375232	351373	260792
Pearls, precious semiprecious stones, costume jewellary, and coins	3353	2663	2240
Base metals and related products	1066077	790411	981252
Machinery and mechanical and electrical appliances	161866	124163	76680
Vehicle, aircraft, and related parts	16046	22448	77476
Optical, cinematographic, surgical instruments and watches	7118	6533	9466

Table 2-H: Imports by Items Imported

(In thousand. L.E.)

Item	*2000*	*1999*	*1998*
Fats, oils, and related products	1050461	1426197	1833244
Prepared foodstuffs, beverages and tobacco	2638041	2764893	2805049
Mineral products	4471032	4846896	4098470
Chemical products	3971241	4455873	4380969
Artificial resins and plastic materials, cellulose and rubber	2685415	2914790	2693460

Raw hides, skins, furs and fur products	51922	36129	22232
Paper, paperboard, paper-making materials, and related articles	1220052	1713164	1921246
Textiles and textile articles	992177	1461408	1733576
Footwear, headgear, umbrellas, and artificial flowers	127113	134573	82789
Products of stone, cement, asbestos, and glass	587269	570913	565885
Pearls, precious semiprecious stones, costume jewellary, and coins	58541	183211	242658
Base metals and related products	4136795	5249910	5857483
Machinery and mechanical and electrical appliances	10783751	11997856	12146812
Vehicle, aircraft, and related parts	1927221	2200790	2504229
Optical, cinematographic, surgical instruments and watches	952151	1065330	1208569

Table 2-I: Exports of Some Commodities, by Commodity

(In thousand L.E.)

Item	***2000***	***1999***	***1998***
Petroleum oil, crude	1208465	998709	550704
Cotton, raw	672905	816086	537774
Cotton, yarn	515504	420837	766958
Cotton, fabrics	182533	118033	184468
Clothing, manufactured	1089181	947600	1133108
Petroleum shale oils other than crude	5393518	1608114	1314378
Sugar cane, refined	29	18	615
Aluminum bars, rods, angle shapes, and sections	40285	13752	20007

Table 2-J: Imports of Some Commodities, by Commodity

(In thousand. L.E.)

Item	*2000*	*1999*	*1998*
Sugar refined	28564	191906	331639
Organic and inorganic chemicals	1570875	1583216	1531870
Cement	282940	701039	462854

2.2 Chemical use and regulatory structure by categories

Pesticides are mostly imported as technical material and formulated in the country.

Pesticides used in Egypt are regulated by Agricultural Law No. 53 that was issued in 1966, as well as the Ministerial Decrees issued after that an interagency Pesticides Committee, under the umbrella of the Ministry of Agriculture has been formed which is responsible for pesticide registration and licensing of imports. Before registration a pesticide is evaluated for efficacy for three successive years. At the time of registration it is examined for chemical and physical properties The Central Agricultural Pesticides Laboratory (CAPL) regulates pesticides through its enforcement system and penalizes violators.

There is an "Association for Agrochemical Producers and Affiliates" in the country, but there is no NGO s involved with pesticides.

2.3 Chemical Waste

A huge amount of chemical waste is generated during manufacturing processes.

The main categories of waste generated are summarized in Table 2-K.

Table 2-K: Chemical Waste Generation types.

Nature of Industry	*Type of Chemical Waste*
Industrial Governmental Sector	Mercury Lead Chromium Cadmium Copper
Paper Industries	Organic &Inks
Engineering Industries	Sludge
Mineral Industries	Sludge
Electroplating Industry	Grease and oil product Sludge
Pesticides Manufacturing	Volatile organic compounds Particulate matter Sludge Spent catalysts Container residues
Pharmaceutical Industry	Sludge Spent catalysts Spent solvents Toxic organic
Dairy Industry	Dissolved sugars and proteins Residues of additives
Textiles Industry	Heavy metals Phthalates

Chapter 3: Priority Concerns Related to Chemical Production, Import, Export, and Use.

3.1 Priority Concerns Related to Chemical Production, Import, Export, and Use

As stated in the previous sections, Egypt imports most of its chemicals needs. The chemicals are used in mining, processing, manufacturing and agriculture. From the foregoing, a whole spectrum of problems arising from the use of chemicals has to be anticipated as indicated in the following sections.

The manufacturing industries are mostly situated in greater Cairo, Alexandria, and upper Egypt while agriculture cover all parts of Delta and along the River Nile.

- **Air Pollution**

  Air pollution attributable to the use of chemical substances has been associated in large part with areas where mining, fertilizer manufacturing, cement production and quarrying are located. The most polluted region is Greater Cairo due to:

1-Cement production and quarrying that produce dust and particulate matter.

2-In the mining sector (Phosphate, Manganese) which produce emissions of oxides of sulfur, nitrogen and carbon.

3- lead foundries are polluting a greater part of the town (North of Greater Cairo- Shoubra El Kheima)

- **Pollution of inland Water**

  Effluents from industries are a major source of pollution of the water streams and River Nile systems. which is the main source of domestic drinking water.

  Drainage from agricultural activity has also contributed to pollution via the use of fertilizers and pesticides

- **Pollution of Ground Water**

  The main source of ground water pollution is attributed to man made activities such as discharge of industrial wastes and drainage of agrochemical.

- **Drinking Water Contamination**

  Most of drinking water in or near towns is treated against microorganisms. This reduces the level of contamination to acceptable standards as far as microorganisms are concerned. Heavy metals are not completely eliminated during this process.

- **Soil Contamination**

  Soil contamination is due to discharge of wastes form industrial, petroleum, & agriculture activities.

- **Hazardous Waste Treatment**

  Most of the industrial effluents either partially treated or not treated before disposal, the wastes from hospitals and laboratories are currently incinerated at locally manufactured and imported hazardous waste incinerators.

- **Occupational Health**

  The non-adherence to rules requiring the use of appropriate protective clothing during use, handling and application of chemicals has been a major cause of problems.

- **Chemical Accident: Industrial**

  Few industrial accidents are reported.

- **Chemical Accident: Transport**

  Most of the reported incidents have been associated with tankers carying petroleum products, concentrated acids and chlorine.

- **Storage and Disposal of Obsolete Chemicals**

  The absence of designated storage and disposal sites has contributed to indiscriminate dumping. Depending on the quantities being generated, some of the wastes are kept on the premises. The security at such storage sites is usually low, increasing the risk of scavenging of dangerous materials by scavengers.

- **Nile River Contamination**

  Nile River is the main source of fresh water in Egypt and it is the source of fishing wealth, electricity generation and river transportation which links south Egypt with Delta. Due to increasing the number of population and the industrial projects, the industries dispose the liquid wastes to the river. that pollutes water of the Nile and changes its physical and chemical properties.

According to the final report of the 2nd study on water quality of the River Nile, May 2000, the results are:

1. BOD values of many points were 3 mg/l particulary in the two branches. BOD more than 3 mg/l affects primary sedimentation and filtration processes in conventional water treatment plants, resulting in upgrade to advance water treatment.

2. Nitrate concentrations in the two branches were higher than those around Cairo.

3. Total phosphorous concentrations around Cairo were low. However, those of the two branches were high.

4. Cadmium, which affects human health, was not detected. While lead and nickel, which also affect human health, were over 0.01 mg/l in many points.

5. Pesticides were small amount.

6. Both CCC and ECC Laboratories measured nitrate and nitrite.

7. Pesticides were low.

➢ Persistant Organic Pollutants (POPs)

Major sources of POPs are waste incineration, thermal metallurgical processes, power plant combustion of fossil fuels, residential combustion and firing of wood and coal at households, specific chemical processes releasing intermediates, use of chlorinated fuels in furnace installations, firing of chlorinated compounds, use of solvents and wood preservers and electric are furnaces also as a by-products of numerous industrial activities and combustion processes.

The current statues of POP's pesticides, industrial chemicals and unintended by- products in Egypt are:

1.	DDT	Banned in 1996
2.	Aldrin	Banned in 1996
3.	Dieldrin	Banned in 1996
4.	Chlordane	Banned in 1996
5.	Endrin	Banned in 1996
6.	Heptachlor	Banned in 1996
7.	Hexachlorabenzene	Restricted by Ministry of Industry
8.	Mirex	Banned in 1996
9.	Toxaphene	Banned in 1996

10. Polychlorinated Biphenyls (PCBs) — Controlled by EEAA and the Ministry of Health

11. Polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD)/ (PCDF) — Controlled by EEAA and the Ministry of Health

Table 3-A: Priority Concerns Related to Chemicals

Nature of problem	***Scale of problem***	***Level of problem***	***Ability to control problem***	***Availability of statistical Data***	***Specific chemical creating concerns***	***Priority ranking(1)***
Air Pollution	National	High	Medium	Insufficient	SOx,NOx, CO,CO2, H.Metals, O3,H.C, Smoke,TSP	1
Pollution of Inland Waterways	National	High	Medium	Insufficient	H.C&Bect.,H. metals, Pesticides,	2
Marine Pollution	National	Medium	Medium	Insufficient	Oil, H. metals & Bect.	3
Ground water Pollution	Regional	High	Medium	Sufficient	H.C&Bect, H.metals, Pesticides,	1
Soil Contamination	Local	Medium	Low	Insufficient	Acidity, H.metals, Pesticides	4
Chemical Residues in Food	National	High	High	Sufficient	Color, oxidizing & preserving agents	1
Drinking Water Contamination	National	High	High	Sufficient	Bect., H. Material, Micro Organism	1
Hazardous Waste Treatment/ Disposal	National	High	Medium	Insufficient	Hazardous Chemical, pesticides	3
Occupational Health (Agriculture)	Local	Low	Low	Not available	Pesticides	5
Occupational Health (Industrial)	National	High	Medium	Insufficient	Carcinogenic Toxic Chemicals & H.metals	3
Public Health	National	High	High	Insufficient	Pb,Cd,Hg, Pesticides	1

Chemical Accidents: Industrial	National	Medium	Medium	Insufficient	Flammable Substances & Explosive Suspense	3
Chemical Accidents: Transport	National	High	Medium	Insufficient	Flammable Substances, Toxic gases & Vapors	3
Unknown Chemical Imports	National	Medium	Medium	Not available		4
Storage/ Disposal of Obsolete Pesticides	National	High	Medium	Not available	Hazard chemicals, Pesticides	4
Chemical Poisoning/ Suicides	Local	High	Low	Not available		4
Persistent Organic Pollutants	National	High	Medium	Insufficient	DDT, Aldrin, Dieldrene, Endrin, Heptachlor, HCB, Mirex, Toxaphene, PCBc, PCDD/ PCDF	1

(1) ***Provide relative ranking from 1 to 5:***

1= most severe problem
2= second most severe problems
3= third most severe problems
4= fourth most severe problems
5= fifth most severe problems

Chapter 4: Legal Instruments and Non-Regulatory Mechanisms for Managing Chemicals

4.1 Overview of the National Legal Instruments which Address the Management of Chemicals

The control on using chemicals is one of the ways through which chemical risks to humans and the environment can be adequately managed. The control through legislation's, regulations and guidelines, as minimum requirements to be observed in handling, use, storage and disposal of chemicals. Legal instruments can contribute to more efficient approach to the sound management of chemicals if adhered to their enforcement. The regulatory framework is depicted in table 4-A.

Table 4-A: References to Existing in Legal Instruments, which address the management of Chemicals

Legal Instrument(Type, Reference, Year)	*Responsible Ministries or Bodies*	*Chemical Use Categories Covered*	*Objectives of Legislation*	*Enforcement Ranking[1]*
Law No.4 of 1994	MSEA	Industrial chemicals, Agricultural chemicals (pesticides – fertilizers), Petroleum products Consumer chemicals and Chemical waste.	Environmental Protection and Pollution Control in Egypt	(2)

Decree No. 338 of 1995	MSEA	Industrial chemicals, Agricultural chemicals (pesticides – fertilizers), Petroleum products consumer chemicals and chemicals waste.	Executive Regulations for Law No.4/1994	(2)
Decree No.55 of 1983	MOMI	All chemicals used in the industrial field	Regulate and control use, handling, and storage of chemicals and conditions required for industrial safety and health in the work places	(2)
Decree No.116 of 1991	MOMI	All chemicals used in industrial field	Strengthening the facilities with training for directors and workers	(2)
Decree No. 60 of 1986	MOA	Pesticides	Regulates & controls of using of restricted compounds	(2)
Decree No.258 of 1990	MOA	Fertilizers	Regulates and controls the importation of fertilizers	(2)
Decree No. 7330 of 1994	MOIn	Explosives	Determination of substances that are considered as explosives	(2)
Decree No. 18039 of 1995	MOIn	Explosives	Issue of license for import and use of explosives	(2)
Decree No. 499 of 1995	MOI	Poisonous and non poisonous substances in industry	Control of handling the poisonous & non-poisonous substances in industry	(2)

Labor Law No. 137/1981	MOMI	Industrial Chemicals	Labor and industrial safety protection of industrial Environment	(2)
Law No. 21/1958	MOI	Industrial Chemicals	Rules regulating industry and production, handling and importing of chemicals.	(2)
Decree No. 480/1971	MOHP	Industrial Chemicals	Air pollution criteria for industrial establishment	(2)
Agriculture Law No. 53/1966	MOA	Agricultural Chemicals	Rules regulates production, import, use of pesticides and fertilizers.	(2)
Decree No. 50/1967	MOA	Pesticides	Toxic properties of pesticides and procedures for recording it.	(2)
Decree No. 590/1984	MOA	Fertilizers	Rules regulate production, import, and use of fertilizers.	(2)
Decree No. 278/1988	MOA	Veterinary Insecticides	Regulates importing of veterinary insecticides.	(2)
Decree No. 874/1996	MOA	Pesticides	Regulates importing, handling and using of pesticides.	(2)
Law No. 59/1960	MOHP	Ionized Radiation's	Regulates the work with Ionized radiation's and protection from their danger	(2)
Decree No. 630/1962	MOHP	Ionized Radiation's	Executive regulations for law No.59/1960	(2)

Decree No. 348/1996	MOHP	Banned Insecticides	A list of insecticides not allowed to be imported, produced or used	
Decree No. 392/1964	MOHUUC	Explosives	Determinations for conditions for explosive warehousing	(2)
Decree No. 138/1958	MOI	Industrial Chemicals	Regulates importing, handling and using of industrial chemicals.	(2)
Law No. 113/1962	MOHP	Pharmaceutical Chemicals	Regulates importing, manufacturing, and trade of pharmaceutical chemicals.	(2)
Decree No. 413/1996	MOHP	Hazardous Chemicals & Wastes	How to get license for handling of hazardous chemicals and wastes.	(2)
Decree No. 8/1990	MOHP	Natural and Artificial Colors	Determination of natural and artificial colors allowed to be used in food Industry	(2)
Decree No. 673/1999	MOP	Petroleum Hazardous Chemicals	A list of hazardous chemicals for Ministry of Petroleum	(2)
Decree No. 82/1996	MOHP	Hazardous Chemicals (for Health)	A list of hazardous chemicals for Ministry of Health	(2)
Decree No. 55/1996	MOT	Banned Chemicals	A list of chemicals not allowed to be imported, produced or used.	(2)
Decree No. 151/1999	MOI	Hazardous Industrial Chemicals	A list of hazard chemicals for ministry of industry which can not be used without license	(2)

(1) Effective (1), fair (2) or weak (3) enforcement

4.2 Summary Description of Key Legal Instruments Relating to Chemicals

Egyptian Regulations Governing Management Of Chemicals:

Egypt has issued a large number of environmental legislations governing importing, manufacturing, trade, usage of chemicals covering different areas as indicated before (Table 4-a).

Of particular interest is the Environmental Law No. (4) has been issued in 1994 & its Executive Regulations have been issued in February 1995. A full chapter of this Law regulates the management of hazardous substances including chemicals.

By this law, it is forbidden to deal with hazardous substances without authorization from the competent authorities. The competent ministries, in cooperation with EEAA and the Ministry of Health should develop and promulgate a list of hazardous substances, which should be controlled and shall be revised from time to time as appropriate.

The competent ministries, after consulting with the EEAA, shall promulgate regulations establishing standards necessary to the protection of public health and the environment and applicable to those who handle chemicals. The standards shall cover the following:

1. Record keeping practices that accurately identify the quantities of such chemicals, constituents that are significant in quantity or in potential harm to human health or the environment.
2. Use of appropriate containers for such chemicals.
3. Labeling practices for the identification of any containers used for storage, transport of such chemicals.
4. Furnishing of information on such chemicals to persons transporting storing, or using it.
5. Use of a manifest system and any other reasonable means to assure that all such chemicals are handling in the proper way.
6. Contingency plans for effective action to minimize unanticipated damage from any chemicals' accident.

The Way to Get A License for Hazardous Substances & the Conditions for Granting this License

Article (26) from the Executive Regulations of Law No. 4/1994 shows how to get the hazardous substances license; the applicant shall submit a written application to the competent authority, as defined in Article (25) of these Executive Regulations, in accordance with Article (26) as the following:

Procedures for acquiring a license

The individual or the establishment wishing to obtain a license for handling of hazardous substances or wastes shall submit an application containing the following data:

- Information about the establishment & the handler of hazardous substances and wastes.
- Producers of hazardous substances or wastes.
- A complete description of the hazardous substances or waste intended to be handled.
- The amount of hazardous substances or wastes intended to be handled annually and a description of the method of packing.
- The means to be used in storing hazardous substances or wastes and the storage period.
- The available means of transport, their routings and schedules.
- A complete statement of the method intended to be used for the treatment and disposal of the hazardous substances or waste for the displacement of which a license is sought.
- A commitment to keep registers containing detailed accounts of the sources, quantities and types of hazardous substances or waste, the rates and periods of their collection and storage and the means of their transport and treatment to furnish such data on request and not to destroy the registers for a period of five years running from the date they are first opened.

- A commitment to take all procedures as are necessary to ensure the proper packing of hazardous substances or waste during the collection, transportation and storage phases and not to mix them with any other type of wastes, as well as placing written description on the container & a previous experience certification in this field.
- A details description of the emergency plan for confronting all unforeseen circumstances which guarantees the protection of human beings and the environment.

Conditions for Granting License:

- Completion of all required data.
- Availability of personnel trained in the handling of hazardous substances and wastes.
- Availability of means, resources and systems required for the safe handling of these substances.
- Availability of requirements to control the risks which may result from accidents occurring during the handling of these substances.
- That no harmful effects to the environment and public health shall result from the activity for which a license is sought.

The Period of License for Handling Hazardous Substances or Wastes and Revoking or Suspending Cases:

1. **The licenses period:**

The license shall be valid for a maximum period of five years subject to renewal.

2. **Revoking or suspending cases:**

The license authority may revoke the license or suspend the authority by reasoned decision in the following cases:

- If the license was issued as a result (of the submission) of incorrect data.
- If the license violates the conditions of the license.
- If the performance of the activity results in dangerous environmental effects which were unforeseen at the time the license was issued.
- The emergency of sophisticated technology, which may, with minor modifications, be applied, and the use of which would lead to a marked improvement in the environment and the health of the workers.
- If The Egyptian Environmental Affair Agency (EEAA) concludes that it is unsafe to handle any of the substances and wastes.

3. **The other necessary conditions to ensure the safe handling of these substances:**

- The licensing authority in coordination with the EEAA and the Ministry of Health may request the applicant to fulfil such other conditions as it deems necessary to ensure the safe handling of these substances.

The Required Precautions in Producing or Handling the Hazardous Substances:

Article (33) of Law states that those engaged in the production or circulation of hazardous materials, either in gas, liquid or solid form, are held to take all precautions to ensure that no environmental damage shall occur.

Article (31) form the Executive Regulations declared the required precautions as the following:

- The sites on which these substances are to be produced or stored is selected with due regard to the condition prescribed according to the type and the quantity of these substances. In addition, the design of the buildings inside which hazardous substances are to be produced or stored conforms to the engineering standards to be observed for each type of such substances, as determined by a decree to be issued by the Minister of Housing. The buildings design shall be adequately fitted out with safety, alarm, protection, compact, fire fighting and first aid systems and equipments in the number and quantities determined by the previous a authorities.

- The conditions prescribed in respect of the means of transport or the storage sites of such substances are provided so as to guarantee that no harm shall come to the environment or to the health of employees or citizens.

- The technology and equipment used in the production of such substances shall not result in damage to the establishment, the environment or harm the staff.

- An emergency plans is in place to confront any potential accidents which may occur during the production, storage, transportation or handling of such substances. The staff in these establishments has to be subjected to periodic medical checkup.

- The workers handling such substances and the inhabitants of the regions surrounding these places are informed of the dangers involved and of the necessary precautions to be taken when handling them, that they are fully aware of all this information and that they have received adequate training in this regard.

- Other administrative precautions.

Conditions have to be Followed by Establishments producing Hazardous Substances:

Article (32) from the Executive Regulations declared that establishments engaged in the production or importation of hazardous substances shall observe the following conditions:

1. **Container specifications:**

   The type of container in which these substances are placed must be suitable for the type of substances therein, tightly closed, difficult to damage, easy to lift or transportation without exposing it to damage or harm.

2. **Container information:**

   Content of container, their active substance, the degree of its concentration, total and net weight, and name of producer, date of production, production number, Nature of danger, symptoms of toxicity, first aid procedures, safe storage methods and methods of disposal of empty containers.

   All information shall be written in Arabic in a style that is easy for an ordinary person to read and understand and the word must be legible and prominently displayed on the container. They must be accompanied by diagrams indicating the method of opening, emptying, storing and disposing of the containers as well as by the international symbols for danger and toxicity.

The Crimes in Law No. 4 of 1994 Concerning the Environment Protection (which is related with handling the hazardous substances):

Articles No. 29,30,31,32,33 and 47 show the violations concerning handling the hazardous substances. The articles 85,88,95 and 101 are the imposed penalties on those who commit these crimes as shown in the following tables:

Table 4 -B The Felonies in Law No. 4 of 1994 Concerning Environmental Protectiont which is Related to Handling Hazardous Substances

S	***Violation***	***The Penalty***	***Article No.***
1	Handling the hazardous substances with no permit from the competent authority (article 25 - Executive Regulation) *The executive Regulation shows the procedures and conditions for granting the license (article 26, 27 - Executive Regulation). *Tables of hazardous substances and waste are issued by specialist Minister in coordination with the minister of Health (article 25 – Executive Regulation)	Imprisonment from 5: 15 years and a fine of 20.000 to 40.000 Egyptian pounds.	Article (29) And Article (88)
2	The importation of hazardous waste or allowing its introduction in to or its passage through Egyptian territories. The passage of ships carrying hazardous waste in territorial seas or in the exclusive maritime economic zone of the ARE without a permit from the competent authority (article 30 - Executive Regulation)	Imprisonment from 5 : 15 years and a fine of 20.000 to 40.000 Egyptian pounds. + Held to re-export the hazardous wastes subject of the crime on the criminal own expense	Article 32/1,32/2 And Article (88)
3	Exceeding the level of radioactivity or concentration of radioactivity substances in the air (as issued by the competent authorities)	Imprisonment from 5 : 15 years and a fine of 20.000 to 40.000 Egyptian pounds.	Article (47) And Article (88)
4	Violating the provisions of this law causing a permanent incurable disability to an individual *if the violation results in causing this infirmity to three or more persons *if the violation results in a death of a person *if the violation results in a death of three or more persons	Imprisonment not more than 10 years Imprisonment from 3 :15 years Temporary hard labour from 3: 15 years Permanent hard labour No prejudice to the imposition of any more sever penalty prescribed in another law	Article 95/1 Article 95/2 Article 95/2 Article 95/2 And Article 101 Article (95) compared with Article (88)

Table 4-C: -The Misdemeanor in Law No. 4 of 1994 Concerning Environmental Protection, Which is Related To Handling Hazardous, Substances

S	*Violation*	*The Penalty*	*Article No.*
1	Violating the rules and procedures of management the hazardous wastes in the executive regulation (article 30 – Executive Regulation)	Imprisonment for a period of not less than one year and /or a fine of ten thousands to twenty thousands Egyptian pounds.	Article (30) And Article (85)
2	The constructor of any establishment for the treatment of hazardous wastes without a license issued by the competent administrative authority (article 29 - Executive Regulation)		Article (31) And Article (85)
3	The disposal of hazardous wastes by violating the conditions and criteria issued by the executive regulation. (The Minister of Housing shall, after consulting with the Ministries of Health and Industry and the EEAA, designate the disposal sites and determine the conditions of the license to dispose of hazardous wastes)		Article (31) And Article (85)
4	Not taking the precautions in producing and circulating hazardous wastes (either in gas, liquid or solid form) so as not to damage the environment. (articles 31,32 - Executive Regulation)	Imprisonment for a period of not less than one year and /or a fine of ten thousands to twenty thousands Egyptian pounds.	Article (33) And Article (85)
5	When the owner of an establishment whose activities produce hazardous wastes doesn't keep a register of such wastes indicating the method of disposing and the agencies contracted with to receive the hazardous wastes (article 33 - Executive Regulation)		Article (33) And Article (85)

Egyptian Laws and Regulations for Managing Chemicals

1.Environmental Law No. 4/ 1994 and its Executive Regulation:

Article 29

It is forbidden, without a license from the competent administrative authority, to handle hazardous substances and wastes. The Executive Regulations of this Law explain the procedures and the conditions for granting such a license.

The Ministries, each in its field of competence, shall issue, in coordination with the Minister of Health and EEAA, a list of the hazardous substances and wastes as aforementioned in paragraph one of this article.

Article 30

Management of hazardous wastes shall be subject to procedures and regulations stated in the Executive Regulations of this Law. The Executive Regulations designate the competent authority, which, after consulting EEAA, will issue the tables of dangerous wastes to which the provisions of this Law shall apply.

Article 31

It is forbidden to construct any establishment for treating dangerous wastes without a permit from the competent administrative authority and before consulting EEAA. Disposal of dangerous wastes shall be according to the norms and conditions stated in the Executive Regulations of this Law. The Minister of Housing, Utilities and New Communities shall assign, after consulting with the Ministries of Health, Industry and EEAA, the disposal sites and the required conditions to authorize the disposal of dangerous wastes.

Article 32

It is forbidden to import dangerous wastes or to allow its entrance into or passage through Egyptian territories. It is forbidden, without permit from the competent authority, to allow the passage of ships carrying hazardous wastes through territorial seas or the exclusive economic zone of the ARE.

Article 33

It is mandatory for all those who produce or handle dangerous material, either in gaseous, liquid or solid form, to take precautions to ensure that no environmental damage shall occur.

The owner of an establishment whose activities may result in hazardous wastes shall, according to the provisions of this Law, maintain a register of these wastes and the method of disposing thereof, as well as contracting agencies for receipt of these wastes. EEAA is responsible for following up the register to ensure its conformity with the truth.

Article 47:

The level of radioactivity or concentration of radioactive substances in the air shall not exceed the permissible limits as determined by the competent authorities in accordance with the executive regulations of this Law.

Article 85:

Whoever violates the provisions of Articles 30, 31 and 33 of this Law shall be imprisoned for a period of not less than one year and/or fined ten thousand to twenty thousand Egyptian Pounds.

Article 88:

Any person who violates the provisions of articles 29, 32, and 47 of the present law shall be punished by imprisonment for a term of not less than five years and a fine of twenty thousand Egyptian Pounds to forty thousand Egyptian Pounds. Whoever violates the provisions of Article 32 shall be held to re-export the hazardous wastes subject of the crime at his own expense.

Article 95:

Whoever intentionally violates the provisions of this Law shall be punished by imprisonment for a term of not more than 10 years if such violation results in causing a permanent incurable disability to an individual. The penalty shall be imprisonment if the violation results in causing this infirmity to three or more persons.

If the violation results in the death of a person, the penalty shall be temporary hard labour, and if it results in the death of three persons or more the penalty shall be permanent hard labour.

Article 101:

The imposition of the penalties stipulated in this Law shall be without prejudice to the imposition of any more severe penalty prescribed in another law.

2. Regulations Governing Handling Of Industrial Chemicals:

Law No. 499/1995:

Stated that the Ministry of Industry is the responsible agency for handling of poisonous and non-poisonous chemicals used in Industry.

The Ministry of Industry issued the rules and regulations for importation and trade of these chemicals.

Decree No. 471/1995:

The Ministry of Industry must be informed of any activity concerning trade in poisonous or non-poisonous substances including the name of the shop owner, the number of this license and the kind of trade.

Decree No. 138/1958, Amended by Decree No. 91/1959:

1. For trading in poisonous or non-poisonous chemical used in industry, a license must be issued from the Industrial Control Authority (ICA).
2. It is prohibited to have such a license together with ownership of any pharmaceutical enterprise.
3. This licenses is personal and cannot be transferred or inherited.
4. Poisonous materials should be kept in suitable packages with a label showing the name of the material, the supplying factory, the quantity contained. The word poisonous should be written in Arabic and one foreign language in red and in a clear place.
5. The owner of the shop or store must keep a logbook with its pages serially numbered and stamped by the ICA. Any supply or selling should be indicated in this book.

Decree No. 342/1962:

Added the following to MD 138/1958:

The non-poisonous material which are imported or bought by the factories for manufacturing their products are to be excluded from the license mentioned in MD 138/1958.

Law No. 21/1958 Concerning Organization and Development of Industry:

Chapter 2, articles 14, 15 authorize the Ministry of Industry to put specifications for raw materials and industrial products. The Minister of Industry issued the rules to be strictly followed in the production of more than 150 commodities.

Law No. 21/1957 Concerning the Egyptian Organization for Standardization and Quality:

The organization issued specifications for chemicals and household commodities such as: Red lead oxide primer, Matches, paint solvents, fuel, pigments, dyes, food additives, perfumes, soap detergents, clothes and blankets.

3. Regulations Governing Pesticides Use:

Agricultural Law no. 53/1966

Article 78

Agricultural pesticides are those chemicals and formulations used to control plant diseases, pest insects, rodents, weeds, other organisms detrimental to plants, animal insects and parasites.

Article 79

Pesticide Committee is to be formed by a ministerial decree from the Minister of Agriculture. The task of the Committee is to specify pesticides to be used in country, determine their specifications, procedure of their registration and condition for use.

Article 80

Based on the recommendations of the Committee, the Minister of Agriculture issues ministerial decree that put the articles of the agricultural law into action particularly those concerning:

1. Kinds of pesticides to be imported for local use, their specifications, conditions of importation and handling.
2. Conditions and procedures of licensing for pesticides importation and trade.
3. Procedures of pesticides registration, registration renewal, registration fees.
4. Methods of pesticides sampling and analysis, ways of disapprobation by the producers on results of chemical analysis, procedures to be followed in considering approbation and judging its validity, and the fees to be paid for such approbation.

Article 82

Advertising or distribution of information on pesticides should comply with its specification and conditions for handling and registration and also with the recommendations of the Ministry of Agriculture for their use.

4. Regulations Governing Handling of Pharmaceutical and Chemicals in Consumer Goods of Ministry of Health:

Law No. 127/1955 (Pharmacy Practicing)

It regulates pharmaceutical affairs including establishments, personnel, products and ingredients. According to this law the ministry of the health apply full control over dosage forms of drugs, cosmetics, household insecticides and disinfectants, biological preparations and diagnostics, and medical devices.

Law No. 183/1960 Concerning Narcotics Control:

It sets regulations for handling and control of narcotics.

Ministerial Decree No. 429/1969

It sets conditions for storage and licensing procedure concerning narcotic substances.

Presidential Decree No. 450/1980

Concerning establishment of the national council for addiction control.

Ministerial Decree No. 487/1985

Deals with psychoactive substances and its preparations. It annexes three tables dealing with three different levels and categories.

Law No. 367/1954 Chapter 2,3,4.

It regulates medical diagnostic laboratories, scientific research lab. And biological preparations laboratories.

Law No. 10/1966 and its Amendments

Concerns food control.

Ministerial Decree No. 163/1967

It controls importation of food additives.

Decree No. 798/1957 and Ministerial Decree No. 679/1983

Deal with the requirements to be fulfilled in cooking ware containers and packages used for food processing and packaging.

Ministerial Decree No. 178/1975 and its Amendments

Concerning coloring additives permitted in foods.

Ministerial Decree No. 16/1964 and its Amendments

Regulates the use of food preservatives.

Law No. 53/1966

Authorizes the Minister of Agriculture to regulate and organize investigation of food products of animal origin and the freeze foodstuff.

Ministerial Decree No. 10/1957

Concerning licensing of household insecticides.

Law No. 118/1979

Concerning import and export of pharmaceutical and chemicals in consumer goods section 5, chapter 1, article 73 defines the role of the general organization for control of imports and exports. Under this law it is prohibited to import or export any commodity not fulfilling the specifications laid down by this organization (GOCIE). The minister of economy issued more than decrees dealing with control of many goods and commodities.

Ministerial Decree No. 315/1993

Prohibits the importation of blue asbestos among a list comprising six other chemicals.

Occupational health and safety legislation is a principal instrument for regulating the conditions under which work is carried out. According to the law No.137 of 1981 by Ministry of Manpower and Immigration and its DecreeNo.55 of 1983 is a comprehensive Act on the work environment, which constitutes a frame work for the most important occupational health and safety principals and which provides the bases for more details lower level provisions or adjacent legislation.

Annex (2): Lists of Banned Chemicals.

4.3 Existing Legislation by Use Category Addressing Various Stages of Chemicals from Production/ Import to Disposal

Table 4-D: Overview of Legal Instruments To Manage Chemicals by Use Category

Category of Chemical	*Import*	*Production*	*Storage*	*Transport*	*Distribution / Marketing*	*Use/ Handling*	*Disposal*
Pesticides (agricultural, public health and consumer use)	✓	✓	✓	✓	✓	✓	✓
Fertilizers	✓	✓	✓	✓	✓	✓	✓
Ind. Chemicals (used in manufacturing/ Processing facilities)	✓	✓	✓	✓	✓	✓	✓
Petroleum Products	✓	✓	✓	✓	✓	✓	✓
Consumer Chemicals	✓	✓	✓	✓	✓	✓	✓
Chemical Wastes	✓	☐	☐	✓	☐	☐	✓

☐ Not Available
✓ Available

4.4 Comments / Analysis

this Chapter covers in detail the various legislative and regulatory aspects pertaining to the management of chemicals. Various Laws and decrees are compiled in table 4.A.

In essence and through the Environmental Law No.4 of 1994 and its Executive Regulations (ER) of 1995,the MSEA undertakes the national coordinating regulatory function for environmental protection and pollution control. The Law has a specific comprehensive chapter regulating the management of hazardous substances including chemicals.

In addition other ministries and agencies have issued many other legislation's governing import, manufacture, trade and use of chemicals covering different areas as:

1- The Ministry of Industry has issued laws and regulations governing importing, manufacturing, trading, and handling of chemicals used in industry.
2- The Ministry of Agriculture has issued laws and regulations governing importing, manufacturing, trading, and handling of chemicals used in Agriculture.
3- The Ministry of Petroleum has issued laws and regulations governing importing, manufacturing, trading, and handling of chemicals used in petroleum.
4- The Ministry of Health has issued laws and regulations governing importing, manufacturing, trading, handling and usage of pharmaceuticals, radioactive substances and insecticides.
5- The Ministry of Interior has issued laws and regulations governing importing, manufacturing, trading, and possessing and usage of explosives.
6- Regulations governing operation of nuclear reactors and atomic energy activities and monitoring of radiation levels and disposal of radioactive wastes are the responsibility of Atomic Energy Authority affiliated to the Ministry of Electricity and Energy.

Analysis of the present situation and in view of previous working experience tends to indicate that the present regulatory infrastructure is to an extent compatible with international trends. Perhaps it may need some adjustments, reinforcement and ultimately unification to meet fully the national and international mandates. The most important aspect however, would indulge proper enforcement coupled with educated general and technical awareness.

Chapter 5: Ministries, Agencies and other Institutions Managing Chemicals

5.1 Responsibilities of Different Government Ministries, Agencies and other Institutions

The responsibilities of different ministries and concerned agencies are set by laws, regulations, and guidelines. Key ministries and agencies responsibilities, are outlined in Tabel 5-A.

Table 5-A: Responsibilities of Government Ministries, Agencies and other Institutions

Stage of Life Cycle /Ministry Concerned	*Impor-tation*	*Prod-uction*	*Stora-ge*	*Tran-sport*	*Distri-bution / Mark-eting*	*Use/ Handl -ing*	*Dispo-sal*
Environment	✓	✓	✓	✓	☐	✓	✓
Health	✓	✓	✓	✓	✓	✓	✓
Agriculture	✓	✓	✓	✓	✓	✓	✓
Labor	☐	✓	✓	✓	☐	✓	✓
Foreign Trade	✓	☐	☐	✓	☐	☐	☐
Industry	✓	✓	✓	✓	✓	✓	✓
Finance	✓	☐	☐	☐	☐	☐	✓
Transport	☐	☐	☐	✓	☐	☐	☐
Interior/Civil Defense	✓	✓	✓	✓	✓	✓	✓
Justice	✓	✓	✓	✓	✓	✓	✓
Petroleum	✓	✓	✓	✓	✓	✓	✓
Electricity	✓	☐	✓	✓	✓	✓	✓

☐ Not Available
✓ Available

5.2 Description of Principal Ministerial Authorities and Mandates

Ministry of State for Environmental Affairs /Egyptian Environmental Affairs Agency(EEAA):

- EEAA administers the environmental law No.4 for the year 1994 and its Executive Regulations, which formulate the general policy and prepare the necessary plans for the protection and promotion of the environment and follow up the implementation of such plans in coordination with the competent administrative authorities.
- EEAA is the competent national authority for strengthening environmental relation between Egypt and other countries and regional and international organizations.
- EEAA establishes the necessary norms and standards to assure compliance with the permissible limits of pollutants and to ensure that these norm standards are followed.
- EEAA prepares the Environmental Contingency Plan and coordinates with the competent agencies for the preparation of programs confronting environmental disasters.
- EEAA coordinates with other competent authorities for the organization and handling of hazardous materials.
- EEAA coordinates with the competent ministry for international cooperation to ensure that projects financed by organizations and donor countries are in accordance with environmental requirements
- MSEA & EEAA; set the national policy for chemical management including:
  1. Control hazardous substances at the various stages of their life cycle to be regulated by adequate legal instruments;
  2. Chemical risk communication necessitates harmonized classification and labeling of chemicals.
  3. Preparation of an inventory in Egypt.
  4. National plan for prevention of illegally imported HS.
  5. Environmentally safe and sound methods for reduction and control of chemical risks are needed including possible development of non-toxic alternatives.

Ministry of Health and Population

MOHP through its directorates and centers, is involved in chemical safety. The General Directorate of Occupational Health has a unit for chemical safety and keeps a register of hazardous chemicals used in Egypt. It supervises chemical safety in work places and keeps record of cases of chemical intoxication that are treated in the MOHP .The Directorate co-operates with the WHO in implementing various programs in the field of chemical safety. It is active in the field of training and public, awareness. It also supervises the poison information centers run by the MOHP, which are complemented by three other centers run by universities; two in Cairo and one in Alexandria. the Directorate of Emergency Medical care is responsible for the immediate care of cases of chemical intoxication.

The General Directorate of Environmental Health supervises hazardous, materials and hazardous waste generated by health establishments and license clinical waste disposal. The Directorate runs the air-monitoring network, does water analyses as appropriate and approves chemicals used for water treatment. The MOHP sets standards and specifications for water used for drinking, household purposes and for recreation. the General Directorate of Food Control sets limits for food additives and food contaminants, inspects and analyses imported and locally produced foods and those on the market for safety and investigates food poisoning outbreaks. The Directorate of Central Laboratories does laboratory analyses for water, food and biological fluids to help implement various legislation of the MOHP and other agencies .It does regular analyses required for the implementation of law no. 48/1981 concerning the protection of the water of the Nile River and waterways from pollution. The research institute of Medical Entomology carries out laboratory and field research to examine the efficacy of pesticides and provide information important for registration of pesticides used for public health and household purposes. This information is used by the Drug Policies and Planing Center, which gives approval for registration of these pesticides as well as pharmaceutical chemicals to the Central Directorate of Pharmacy, for

registration, which is its responsibility. The General Organization for Health Insurance carries out Periodic medical examinations for workers exposed to hazardous chemicals.

Ministry of Manpower and Immigration

This Ministry is responsible for the administration and enforcement of the provisions of the Factories Act (Law No.137 of 1981 and its decrees). The Factories Inspectorate Department, a specialized wing on Occupational Safety and Health, enforces this Act. This legislation is aimed at protecting workers against occupational accidents and diseases. The department carries out systematic inspections of all premises covered by the factories act, i.e., factories, construction sites, and general engineering construction workers, The inspectors assess the risks of the exposure to workers from chemicals and physical hazards and also biological, physiological, mechanical and psychological hazards.

Ministry of Agriculture:

The Ministry of Agriculture provides services to farmers in animal and crop production and also administers the fertilizers and pesticides, to controls the importation and use of fertilizers and pesticides through different departments to prevent plant diseases and pests from inside and outside the country. Also these department test and control services administer to general animal Health and diseases monitoring and control. Specialized departments provide services through contact with farmers. It acts to prevent the introduction of plant pests and diseases from inside and outside the country. The department of Veterinary and Taste Control services administers the Taste Act, in addition to general animal health and disease monitoring and control.

Ministry of Industry:

The Ministry of Industry has the responsibility for:

1. Registration of chemical projects after review of all aspects including the chemical used.
2. Issuing permits for import, manufacturing, trade and marketing of chemicals.

3. Issuing permits for importing hazardous substances for industrial firms according to registered capacity and for commercial firms serving these industries.
4. Analysis of industrial products for ingredients and standards.
5. Issuing standards for chemicals and chemical products.
6. Preparing lists of imported hazardous substances.
7. Issuing permits for chemical stores and their inspection.
8. The Minister of Industry in consultation with the Ministers of health and Environment defines places and methods of hazardous industrial waste disposal.

Ministry of Foreign Trade:

This Ministry monitors and controls the importation and exportation of goods to ensure that only registered products are imported into country.

Ministry of Business Sector :

It observes environmental safety in industries under its authority.

Ministry of Housing Utilities and Urban Communities

MOHUUC issues standards and-safe procedures for industrial, commercial and other work places, which are implemented by the inspectors of the Ministry of Manpower.

Ministry of Water Resources:

MOWR implements legislation to protect the Nile River and waterways from pollution with all kinds of waste. Permits may be issued for the disposal of treated liquid waste provided certain standards are observed. Standards are issued by the Minister of Water Resources after consultation with the Minister of Health. Regular inspections of the waste disposed of in the waterways are carried out with. the assistance from the Surface Water Police and the MOHP

Ministry Of Petroleum:

MOP implements chemical safety precautions in petroleum companies and has its own emergency plan for dealing with oil spills.

- **Civil Defense Authority** of the **Ministry of Interior:**

  MOIn has plans for emergency actions, trains personnel, inspects sites of potential risk and co-operates with other agencies in case of emergency.

- **Customs Authority and the General Organization for Control of Export and Import:**

  They make sure that all imported chemicals comply with specifications and that restricted chemicals are not permitted. They cooperate with agencies for which these chemicals are imported.

- **General Organization for Investment and Free Zones:**

  It observes safety procedures in establishments that are set under the Investment regulations.

Chapter 6: Relevant Activities of Industry, Public Interest Groups and the Research Sector

The institutions in this category vary, ranging from universities and research institutions, professional, industrial organizations and NGOs to individuals. Their effectiveness depends on how wide their membership is and the relevance of their activities to national issues and chemicals management. Some relevant examples are listed below.

6.1 Description of Organizations/ Programs

Industrial Organizations and Entities:

General Organization for Industrialization (GOFI)

Address:	6 Khalil Agha St. Garden City
Contact:	Eng. Imam Abd El Monem
Tel:	(202) 7940677 (202) 7944984
Fax:	(202) 7944984

Federation of Egyptian Chambers

Address:	4 El Falki Sq. downtown ,Cairo
Contact:	Mr. Mahmoud El Araby- Chairman of the Board of Directors
Tel:	(202) 3551136 (202) 3551813
Fax:	(202) 3557940

Federation of Egyptian industries (FEI)

Address:	28 Cornish El Neil St. Cairo

Contact: Mr. Abd El Moniem Seuodi ,Chairman

Tel: (202) 5796590
(202) 5796591

Fax: (202) 39228075

Association of Enterprises for Environment Conservation (AEEC)

Address: 86 Moohy El Din Aboul Ezz Street, 122411.
Dokki, Guiza, Egypt

Contact: Eng. Ismail Osman – Chairman

Tel: (202) 3943239
(202) 3925480

Fax: (202) 3925728

Association for the Protection of the Environment (A.P.E):

Address: Hakim Attallah st. El Zabbalin Area, El Mokkatam

Contact: The Chairman

Tel: (202) 5102723

Fax: (202) 5100149

Cairo House Green Business Incubator

Address: 30, Misr Helwan Road, Maadi, Behind Sofitel Hotel, Cairo.

Contact: Dr. Ibrahim Abdel Galil – Chairman of EEAA

Tel: (202) 5256439
(202) 5256439

Fax: (202) 5256490

Industrial Technical Support Project Regional Center for Research and Development

Address: 9, El Zaher St., Mansoura.

Contact: Mr. Mohamed Oweida, Project manager

Tel: (050) 350 431

Fax: (050) 350 431

USAID
Global Technology Network (GTN)

Address: 106 Kasr El Aini St., 6th floor, Garden city, Cairo.

Contact: Dr. Alaa Ezz

Tel: (202) 336 7016

Fax: (202) 336 7017

Universities, Research Institutes, Private Laboratories

Cairo University Center for Environmental Hazard Mitigation (CEHM)

Address: P.O.Box: 453 Al Orman- Giza

Contact: Prof. Dr. Yehia Abdelhady

Tel: (202) 5719688

Fax: (202) 5719687

E- mail: cehm@ hazard2.cairo

Meteorology and Astronomy Center for Studies and Environmental Constancy (MACSEC)

Address: Faculty of Science- Cairo University.

Tel: (202) 5676839

Fax: (202) 5727056

Alexandria University, the Public Health Institute (PHI)

Contact: The Chairman

Tel: (203) 5920067

Fax: (203) 5922780

Institute of Graduate Studies and Research (IGSR)

Address: 163 Horeya Avenue .El Chatby-Alexandria

Contact: Dr. M. El Raey

Tel: (203) 4225007

Fax: (203) 4215792

Environmental Studies and Research Institute (ESRI)

Address: Ain Shams University El- Abassia, Cairo

Contact: Prof. Dr. Abed El Azeem El Hammady

Tel: (202) 4053210
(202) 4053212

Fax: (202) 4053211

Environmental Monitoring & Studies Center (EMSC)

Address: Ministry of Health

Contact: General Manager

Tel: (202) 3118978

Fax: (202) 3118978

Scientific and Research Governmental Organizations

Ministry of Scientific Research

Scientific Research Academy

Address: Address: 101 El Kaser El Einy St., Cairo

Tel: (202) 5941286 - 5941287

Fax: (202) 5941270

National Center for Research

Address: El Tahrir St., Dokki, Cairo

Tel: (202) 3371010 – 3371849

Fax: (202) 3601877 – 3370931

Genetic Engineering and Bio-Technology Research Institute

Address: Burg El Arab, Alexandria

Tel: (202) 03/4341367 – 03/4341368

Fax: (202) 3601877 – 3370931

Genetic Engineering and Bio-Technology Research Institute

Address: Burg El Arab, Alexandria

Tel: (203) 4341367 – 4341368

Fax: (203) 4341365

Petroleum Research Institute

Address: Ahmed Ramez St., 8th district, Nasr City

Tel: (202) 2747847 – 2747917

Fax: (202) 2747433

National Institute for Calibration

Address: Tersa St., El Haram, Giza

Tel: (202) 3867451

Fax: (202) 3867451

Ministry of Agriculture

Ground, Water and Environment Research Institute

Address: 9 El Gamah St., Giza

Tel: (202) 5725549

Fax: (202) 5720608

Central Agricultural Pesticides Laboratory - Ministry of Agriculture

Address: El Seid club St., El- Doki, Giza

Contact: Dr. Salwa Dogaim

Tel: (202) 3602209

Fax: (202) 3602209

Ministry of Health and Population

The General Egyptian Agency for Serum and Vaccine (VACSERA)

Address: 51, Al Batal Ahmed Abd Al Azez St.- Doki

Tel: (202)7483192-748319294

Fax: (202) 7483187

Ministry of Business Sector

The Egyptian Center for developing fertilizers

Address: Headquarters of El Nasr Company for Fertilizers and Chemical industry, Talkha

Tel: 050/521950 – 050/526810

Fax: 050/525695

Plastile Industry Developing Center

Address: In front of 25 Zaki Atala St., Vectoria, Alexandria

Tel: (203) 5705356

Fax: (203) 5715516

Ministry of Industry and Technological development

El Tebin Institute for Metal Studies

Address: El Tebin, Helwan, P.O Box 109

Tel: (202) 5010172 – 5010176

Fax: (202) 5010170

Chemical Agency

Address: 12 Ramsis St., Cairo - 11522

Tel: (202) 5743433 – 5743214

Fax: (202) 5743214

General Egyptian Organization for Unifying measurements and production quality

Address: 2 Latin America St., Garden City, Cairo

Tel: (202) 3549720

Fax: (202) 3557841

Ministry of Electricity and Power

Atomic Energy Authority

Address: 3,Ahmed El Zumor St, Nasr City – Cairo

Tel: (202) 2620235 -2620236

Fax: (202) 2620238

Ministry of Petroleum

- ***Research Center – Egypt Company for Petrol – General Egyptian Organization for Petroleum.***

Address: Petroleum Companies St., Gahmra, P.O Box 228, Cairo

Tel: (202) 2356711 – 2356813

Fax: (202) 2745436

Ministry of Manpower and Immigration

- ***National Institute of Occupational Safety and Health (NIOSH)***

Address: Hegaz. St, - Cairo

Tel: (202) 2452635

Fax: (202) 2424355

The Labor and Trade Unions:

- ***Egyptian Labor Union***

Address: Extension of Ramsis Street, Cairo

Contact: The Chairman

Tel: (202) 4023873

- ***Federation of Egyptian Chambers***

Address: 4 El Falki Sq. downtown ,Cairo

Contact: Mr. Mahmoud El Araby- Chairman of the Board of Directors

Tel: (202) 3551136
(202) 3551813

Fax: (202) 3557940

- ***Union Committee of Employee in Gravite Company***

Address: Extension of Ramsis Street, Cairo

Contact: The Chairman

Tel: (202) 4023873

- ***Union Committee of Employee in Arabic Company of Drugs***

Address: 5,El Massanee- El Amiria, Cairo

Contact: The Chairman

Tel: (202) 2572491
(202) 2575294

Union Committee of Employee in Hochest Company of Drugs

Address: El Massanee- El -Amiria

Contact: The Chairman

Union Committee of Employee in Trade & Chemical General Company

Address: 26 Sheriff Street, Cairo

Contact: The Chairman

Tel: (202) 3935767

Union Committee of Employee in Painting & Chemical Industries Company

Address: El Massanee- El -Amiria, Cairo

Contact: The Chairman

Tel: (202) 2578980
(202) 2596198

Union Committee of Employee in Miser Company for Chemical Industry

Address: El -Max. Street, Alexandria

Contact: The Chairman

Tel: (203) 4454389
(203) 4458420

Union Committee of Employee in National Paper Company

Address: El Tabia Street- Rashed line, Alexandria

Contact: The Chairman

Tel: (203) 5601810

- ***Union Committee of Employee in the Egyptian Plastics & Electricity Company***

  Address: Mostafa Kamel Street, Alexandria

  Contact: The Chairman

- ***Union Committee of Employee in the Nile Company for Matches***

  Address: Qena Street El- Mahmodia, Alexandria

  Contact: The Chairman

  Tel: (203) 4223885
  (203) 4207224

- ***Union Committee of Employee in Abo-Zaabal Company for Fertilizers & Chemical Industries***

  Address: El Moaada Road, Abo-Zaabal El kaliobia

  Contact: The Chairman

  Tel: (202) 698682
  (202) 698082

- ***Union Committee of Employee in the Privet Plastic Company***

  Address: Nady El Plastic Road, El kaliopia

  Contact: The Chairman

  Tel: (202) 2202504

- ***Union Committee of Employee in Middle East Company for Paper***

  Address: 2 Bahteem Street- Mostoroad, El kaliobia

  Contact: The Chairman

  Tel: (202) 2205740

- ***Union Committee of Employee in Kema Company***

  Address: Kema, 3D flat, Aswan

  Contact: The Chairman

  Tel: (2097) 303867

- ***Union Committee of Employee in Development Company for Chemical Industries***

Address: Osman Moharem Street - Talbia, Giza

Contact: The Chairman

Tel: (202) 5850922

Union Committee of Employee in Maser Company for Artificial Silk

Address: Kafr- El dawar, Behera

Contact: The Chairman

Tel: (2045) 4013408

6.2: Summary of Expertise Available Outside the Government

Table 6-A: Summary of Expertise Available Outside of Government

Field of Expertise	*Research Institutes*	*Universities*	*Industry*	*Environment / Consumer Groups*	*Labor Union*	*Professional Organization*	*Other (Specify)*
Data Collection	✓	✓	✓	✓	✓	✓	
Testing of Chemicals	✓	✓	✓	☐	☐	✓	Ministry of Industry
Risk Assessment	✓	✓	✓	✓	☐	☐	
Risk Reduction	✓	✓	☐	✓	☐	✓	Ministries of Agriculture & Industry
Policy Analysis	✓	✓	☐	✓	☐	✓	
Training and Education	✓	✓	✓	✓	✓	✓	
Research on Alternatives	✓	✓	✓	✓	☐	☐	Ministries of Agriculture, Public Works &Industry
Monitoring	☐	☐	☐	✓	☐	☐	Ministries of Agriculture, Interior &Industry
Enforcement	☐	☐	☐	✓	☐	☐	Ministry of State for Environmental Affairs, EEAA, Ministry of Manpower & Emigration Ministry of Interior
Information to Public	☐	✓	☐	☐	☐	☐	Ministry of State for Environmental Affairs, Ministry of Information and Syndicates (Science & Engineering)

☐ Not Available
✓ Available

Chapter 7: Inter-Ministerial Commissions and Coordinating Mechanisms

7.1 Inter-Ministerial Commissions and Coordinating Mechanisms

Table 7.A would provide an overview of any relevant mechanisms for coordinating activities among relevant institutions. This table is just an example of how information on such mechanisms can be summarized.

Table 7-A: Overview of Inter-Ministerial Commissions and Coordinating Mechanisms

Name of Mechanism	***Responsi-bilities***	***Secrétariat***	***Members***	***Legislative Mandate/ Objective***	***Effectiveness[1])***
Country Protective Committee against leakage of hazardous substances and wastes causing environmental pollution	Protection of the country against leakage of hazardous substances and wastes	Hazardous Substances Department Egyptian Environmen-tal Affair Agency (EEAA)	Egyptian Environmental Affair Agency (EEAA), Ministry of Health, Ministry of Industry, National Security Agency, Ministry of Interior, Civil Defense, Ministry of Agriculture, Ministry of Petroleum, Ministry of Electricity and Customs Authority	Laying down a plan to secure the country against any leakage of hazardous substances and wastes causing environmental pollution	2

Hazardous Substances and Wastes Committee	Handling of hazardous substances and wastes in MOH	Ministry of Health	Ministry of Health, Egyptian Environmental Affairs Agency (EEAA), Ministry of Agriculture and Ministry of Industry	Agreeing on exporting, producing or handling hazardous substances and wastes in the Ministry of Health	2

(1) Rank between 1 and 3: excellent (1), adequate (2), or poor (3). 1

7.2 A list of Relevant Non- Governmental Organizations

National Council for Women

Address: 1113 Cornish El Nile St., Cairo

Contact: The Chairman

Tel: (202) 4023873

Egyptian Labor Union

Address: Extension of Ramsis Street, Cairo

Contact: The Chairman

Tel: (202) 4023873

Federation of Egyptian Chambers

Address: 4 El Falki Sq. downtown ,Cairo

Contact: Mr. Mahmoud El Araby- Chairman of the Board of Directors

Tel: (202) 3551136

(202) 3551813

Fax: (202) 3557940

Federation of Egyptian industries (FEI)

Address: 28 Cornish El Neil St. Cairo

Contact: Mr. Abd El Moniem Seuodi ,Chairman

Tel: (202) 5796590

(202) 5796591

Fax: (202) 39228075

Egyptian Association for Industry and Environment

Address:	El Mahad El Ali, 165 El Horreya St., Alexandria
Contact:	The Chairman
Tel:	(203) 421 5575
	(203) 421 5576
Fax:	(203) 422 8379

The Society of Writers on Environment and Development S.W.E.D

Address:	3 B Bahgat Ali, Zamali;, Cairo P.O. Box: 195 COD.N: 12411
Contact:	The Chairman
Tel:	(202) 340 1823
Fax:	(202) 341 3331

Chapter 8: Data Access and Use

8.1 Availability of Data for National Chemicals Management

Adequate Information is the basic problem tool for decision making .The quality of the decision depends on the quality of Information which depends on the relevancy, precision and the speed of access. Information must be continuously reanalyzed and renewed. It becomes volatile if it is not registered, indexed and updated. While data relate to facts, information refers to a series of data analyzed and processed to provide a decision.

Being complex and multi-disciplinary in nature, the management of chemicals often requires inputs from a wide range of stakeholders. Potential contribution includes data, expertise, financial inputs and physical facilities. In order to cooperate in a coherent, cost-effective manner, it is clear that a guiding framework is needed to focus stakeholder contribution on common goals.

The development of national guidelines for the safe storage, transport and packaging of hazardous substances, as well as the development of a national labeling system in Egypt involve a collection of data sets and information that have some relevance for the study and/or monitoring and/or exploration of the environment which will lead as well to a collection of socio-economic indicators; a contact list of consultants or a list of chemicals that are used in the life cycle. It can be a set of data files, or a highly integrated information system; a standalone system, running on a personal computer or a sophisticated system, based on super-computers. It can rely on proven technology - such as database management system based on the latest hot technology (currently the www, world wide web). Its scale can be as wide as the globe, national, local, or it might not relate to any geographical scale.

In recognition of the importance of establishing an information and management system for the identification, registration, categorization and management of chemicals, EEAA through a national coordinated effort developed a comprehensive database for hazardous substances including chemicals. Efforts were directed towards the collection of data from different sources, which include producers, users, importers and distributors of chemicals. Categorization and specifications of these substances will follow the international codes this is referred to as:

- ***The Egyptian Hazardous Substances Information & Management System (EHSIMS)*** and which is considered one of the best practices in the field of environmental information systems.

➢ Objective:

The objective of this project is to initiate a management system for hazardous substances in Egypt, through providing basic guidelines and information for the purpose of ensuring sound and safe handling of such substances and through disseminating such information through an information network.

➢ The Management System

The project aims to set up a hazardous substances management system to enable EEAA to fulfill, its mandate as specified in Law 4/1994, hereafter designated as the Law, concerning the coordination of the management of hazardous substances in use in Egypt. This includes both imported and locally produced hazardous substances. The project streamlines the functioning of the six line Ministries that implement the management of hazardous substances.

The management system is equally instrumental in assessing existing legislation and administrative rules and procedures concerning, hazardous chemicals, and proposes to amend them and draft new legislation where deficiencies exist. Another role for the EEAA in connection with hazardous substance management concerns capacity building, including education, training and awareness campaigns for different levels of managers, and users of hazardous substances.

The project ensures ways of improving interdepartmental cooperation and the exchange of information so that information on hazardous substances may be smoothly shared between governmental departments.

➢ The Information System

The information development component comprises the development of national guidelines for the safe storage, transport and packaging of hazardous substances, as well as the development of a national labeling system.

This system and guidelines would be based on already existing international ones, adapted to the Egyptian needs and conditions. This component would also address the permitting procedures as detailed by Law 4/1994 and article 26 of its Executive Regulation, coordinating between the concerned authorities (six line ministries) with the purpose of developing one common format to be used for permitting issuing. Moreover, it would provide information concerning the properties of hazardous substances and methods of handling them in case of accidents.

The Information dissemination component comprises the installation of a computerized network between EEAA and the partner authorities, composed of the six line Ministries, as well as the Customs Authority and the Authority for Civil Defense. The network encompasses a center placed in EEAA, and focal points in each of the partner authorities. It would support a continuous flow of information

between the center and the focal points (and vice versa), thus insuring wide and easy access to it. This information would be composed of:

- The guidelines for safe handling.
- Format and information concerning the permitting procedures.
- Information database of hazardous substances.
- The computerized tables and lists of hazardous substances and wastes.

The project management is carried out through a steering committee composed of the concerned EEAA departments, as well as a working group from the partner ministries and agencies

Project Main Activities

- Production of Guidelines :
    1. Identification of the groups of hazardous substances.
    2. Definition of the initial focus of the guidelines (storage, labeling, transporting and packaging).
    3. Collect and retrieve international guidelines.
    4. Adaptation of international guidelines to be suited for Egyptian needs.
    5. Translation and publishing of finalized guidelines.
    6. Computerization of the guidelines.
    7. Production of a CD catalogue.
    8. Development of the system web sit/www.ehsims.org
- Computerization of the Permitting Procedures :
    1. Establishment of the network (EEAA - 6 Ministries / Customs Authority, Civil Defense).
    2. Retrieve different formats used for permission.
    3. Develop a common format for permission.
    4. Computerize the common format for permission.
    5. Workshop & training.

- Computerization of tables & lists of hazardous substances:
    1. Computerize the tables and lists.
    2. Training EEAA staff to use the computerized lists.
    3. Training EEAA staff to handle queries regarding hazardous substances.

- Setting up of the Information Network:
    1. Design & define technical specification for the network equipment.
    2. Purchase the equipment.
    3. Customize the software (database for lists and permission procedure).
    4. Install the system.
    5. Training for the system users.

The **EHSIMS** became the sole provider of hazardous substances information in Egypt; An assigned Research and Development team keeps tuned to the updates in the field of hazardous substances.

The services and products are aimed to guide and save time for people dealing, searching and seeking information about hazardous substances in Egypt and trying to comply with Law No. 4/1994.

Target audience: Manufacturers, suppliers or importers who are dealing with hazardous substances in Egypt.

<u>Services & Products of EHSIMS - Main Achievements</u>

1. Hazardous Substances Information Service:

   Providing Technical Information, when requested by enterprises to do so, the EHSIMS provide technical comprehensive information on specific hazardous substances that include:

   - On site evaluations: EHSIMS will work with enterprises at the plant level to resolve hazardous substances related problems. An important form of this kind of technical assistance is on site hazardous substance assessments.

2. Emergency Response Sheet (ERS)

   ERS are documents that provide summaries of the relevant emergency information concerning the potential effects of the hazardous substances upon human health and environment.

   It is primarily a guide to aid first responders in a quick way to identify the specific or generic hazards of the substances involved in the incident as well as protecting themselves and the general public during the initial response phase of the incident.

3. Internet Information Service that includes:
   - Procedures of granting a license for chemical substances from each ministry.
   - Law No.4 with its articles for managing hazardous chemicals in Egypt.

     EHSIMS Web Site: www.EHSIMS.org

4. Developing of labels and warning signs in Arabic language

   A selection of compliance labels to help meet all regulatory and safety requirements of the law No. 4. Label content help to ensure the health and safety of workers and the work places.

   (The labels and warning signs follow the international standard format)

5. Developing of label content: A collection of container labels. The label data is prepared from the information contained in EHSIMS database. Label content help ensure the health and safety of the workers and the work place. The label data helps meet all regulatory and safety requirements of the law No. 4/1994.

6. Awareness and Outreach: One of the activities of the EHSIMS is raising awareness levels about the use of hazardous substances through providing presentations that demonstrate the project objectives and goals.

Table 8-A: An Overview of Available Information

Data needed for/to:	*Industrial chemicals*	*Pesticides*	*Consumer chemicals*	*Chemical wastes*
Priority setting	Limited	Limited	Nil	Available
Assess Chemicals Impact	Limited	Limited	Nil	Limited
Risk assessment (environment/health)	Nil	Nil	Nil	Nil
Classification/labeling	Available	Available	Available	Available
Registration	Available	Available	Available	Limited
Licensing	Available	Available	Available	Limited
Permitting	Available	Available	Available	Limited
Risk reduction decisions	Nil	Nil	Nil	Nil
Accident preparedness/response	Limited	Limited	Limited	Nil
Poisoning control	Limited	Limited	Available	Available
Emissions inventories	Nil	Nil	Nil	Nil
Inspections & audits (environment/health)	Limited	Limited	Limited	Limited
Information to workers	Limited	Limited	Limited	Limited
Information to the public	Limited	Limited	Limited	Limited

8.2 Location of National Data

Thanks to a fairly sound statistical system, all the items listed in the table are available in Egypt. But the data are owned and controlled by different departments, and the management technology is backward. It is therefore very inconvenient to use these data. Advanced management technology, i.e. special agency and computer network management, should be adopted to facilitate full and effective utilization of data, so as to better serve the work of chemicals management. Table 8.B gives the location of national data.

Table 8-B: Location of National Data

Type of data	Location(s)	Data source	Who can access?	How to gain	Formats
Production statistics	Various production departments ,CAPMAS	Production enterprises, statistical bodies at various levels	People concerned, the public	Information services, publications, computer network	Documents, computer data
Import statistics	CAPMAS	Customs at various levels	People concerned, the public	Information services, publications, computer network	Documents, computer data

Export statistics	CAPMAS	Customs at various levels	People concerned, the public	Information services, publications, computer network	Documents, computer data
Chemical use statistics	CAPMAS	Departments in charge of petroleum and chemical industry as well as agriculture at various levels	People concerned	Information services	Documents
Industrial accident reports	MOHP, MOMI	Industrial departments at various levels	People concerned	Information services	Documents
Transport accident reports	MOT, Civil Defense	Departments in charge of communications at various levels	People concerned	Information services	Documents
Occupational health data (agricultural)	MOHP, MOMI, MOA		People concerned	Information services	Documents
Occupational health data (industrial)	MOHP, MOMI	Health and industrial departments at various levels	People concerned	Information services	Documents
Poisoning statistics	MOHP	Health and epidemic prevention stations at various levels	People concerned	Information services	Documents
Pollutant release and transfer register	EEAA	Environmental protection agencies at various levels	The public	Information services	Documents
Hazardous waste data	EEAA	Environmental protection agencies at various levels	The public	Information services	Documents
Register of pesticides	MOA	Various producers and importers	People concerned	Information services	Documents
Register of toxic chemicals	MOA, MOHP	Various importers and exporters	People concerned	Information services	Documents
Inventory of existing		Various production	The public	Information services,	Documents

chemicals		enterprises, importers		publications, computer network	
Register of first imports	Involved Ministries	Various importer	People concerned	Information services	Documents
Register of producers	MOI, MOFT	Various production enterprises	People concerned	Information services, publications, computer network	Documents
PIC decisions			People concerned	Information services	Documents

8.3 Procedures for Collecting and Disseminating National/Local Data

Chemical registration includes toxic chemicals import/export register, first import of chemical register, register of pesticides and register of the producers of toxic chemicals. Those who intend to import/export chemicals on the List of Toxic Chemicals Banned or Strictly Restricted (List A and B) in Egypt must apply to permitting from one of the six line Ministries. The related registration data are under the management and care of the EHSIMS. Data concerning the chemical properties, toxicology, effect, residue, impact on environment and labeling of the pesticides should be furnished with the permitting form application. Such data are under the management and care of the EHSIMS.

8.4 Availability of International Literature

International literature on chemicals safety is available mainly at such organizations as Research Institutes, EEAA, WHO, ILO, and UNEP international literature is sent to these organizations by international organizations or purchased from abroad. Due to changes in the institutions and personnel possessing international data, loose contact or lack of contact with international organizations, some international literature is out of date or incomplete in Egypt, affecting its utilization. Language is another problem significantly affecting the direct use of international literature.

The public gains access to international literature mainly through books, magazines, information services or the Internet. Table 8.C shows the availability of international literature.

Table 8-C: Availability of International Literature

Literature	Location(s)	Who can access?	How to gain
Health and Safety Guides (WHO)	WHO, ILO	Public	Information service
International Chemicals Safety Data Cards (IPCS/EC)	ILO	Public	Information service
APELL	UNEP	Public	Information service

Chapter 9: Technical Infrastructure

9.1 Overview of Laboratory Infrastructure

Table 9-A: Overview of Laboratory Infrastructure for Regulatory Chemical Analysis

	Name/ Description of Laboratory	***Location***	***Equipment/ Analytical Capabilities Available***	***Purpose***
1.	Agricultural Studies and Consultancy Center	Faculty of Agriculture, Ain Shams University, P.O. Box 68, Hadayek Shoubra, 11241, Cairo, Egypt. Tel: 4448816-4441454 Fax: 4444460 Email: mansour@asunet.eun.eg	Industrial Wastewater Monitoring and Analysis Equipment, Industrial/ Municipal Wastewater Equipment, Water Monitoring and Analysis Equipment, Domestic Water Treatment Equipment, Industrial Water Treatment Equipment	Environmental Consulting Services, Water Analysis Services, Industrial Wastewater Analysis Services, Training Services in Environmental Management Systems, Solid Waste Management Services, General Environmental Training Services.
2.	Center for Environmental Sciences Technologies-Tanta University	El- Geish St., Tanta, Egypt Tel: 040-3312498 – 3317928 Fax: 040-3312498 Email: env-stce@decl.tanta.eun.eg	Air Pollution Control Equipment, Hazardous Waste Management Equipment, Industrial/ Municipal Wastewater Equipment, Solid Waste Management Equipment, Domestic Water Treatment Equipment,	General Environmental Training Services, Certifying Organizations, Training Services in Environmental Management Systems, Environmental Consulting Services, Water Analysis Services, Industrial Wastewater Analysis Services,

			Industrial Water Treatment Equipment.	Solid Waste Management Services.
3.	Center of Studies & Designs for Water Project (CWP)	Irrigation & Hydraulics Department, Faculty of Engineering, Cairo University, Cairo, Egypt. Tel: 5732949 Fax: 5732948 Email: ghanem_ashraf@hotmail.com	Industrial Wastewater Monitoring and Analysis Equipment, Industrial/ Municipal Wastewater Equipment, Solid Waste Management Equipment, Water Monitoring and Analysis Equipment, Domestic Water Treatment Equipment, Industrial Water Treatment Equipment	Feasibility Studies, Training Services in Environmental Management Systems, Water Analysis Services, General Environmental Training Services, Environmental Consulting Services, Solid Waste Management Services, Industrial Wastewater Analysis Services.
4.	Central Chemical Labs – Egyptian Electricity Holding Co.	Shanan St., Saptia, Cairo, Egypt. Tel: 5768250-5770269 Fax: 5778268		Air Measurement and Analysis Services, Industrial Wastewater Analysis Services, General Environmental Training Services, Water Analysis Services.
5.	Central Lab	Faculty of Agriculture, Ain Shams University, Shoubra El Khemia, Cairo, Egypt. Tel: 4441172 – 4441711 Fax: 4444460	Industrial Wastewater Monitoring and Analysis Equipment, Industrial/ Municipal Wastewater Equipment, Water Monitoring and Analysis Equipment, Domestic Water Treatment Equipment, Industrial Water Treatment Equipment	Air Measurement and Analysis Services, Water Analysis Services, Certifying Organizations, Industrial Wastewater Analysis Services, Solid Waste Management Services, Training Services in Environmental Management Systems, General Environmental Training

				Services,.
6.	Chemonics Egypt, Ahmad Gaber and Associates	6 Dokki St., Giza. Tel: 3360559 – 7600764 - 335186 Fax: 7492472	Air Pollution Control Equipment, Industrial Wastewater Monitoring and Analysis Equipment, Solid Waste Management Equipment, Water Monitoring and Analysis Equipment, Domestic Water Treatment Equipment.	Solid Waste Management Services, Feasibility Studies, Training Services in Environmental Management Systems, General Environmental Training Services, Environmental Consulting Services.
7.	Commandos for Contractors and Industrial Services	16 Salaby St., Manshayat El-Sader, Hadayek El Kobba, Cairo, Egypt. Tel: 6429346 – 4823483 – 012-2429614 Fax: 4823483	Noise Monitoring and Measurement Equipment	Noise Monitoring and Measurement Services
8.	Commerce – Mostafa El-Kady & Co.	19 El-Nozha St., Golf Area, Helioplis, Cairo, Egypt. Tel: 4170022 – 4173350 Fax: 2914480 Email: commerce@eis.egnet.net	Air Measurement and Analysis Equipment, Air Pollution Control Equipment, Water Monitoring and Analysis Equipment.	
9.	Consulting Unit in Benha High Institute of Technology	Benha El-Gedida, P.O. Box 13512, Benha, Egypt Tel: 013-229264 – 229263 – 230297 Fax: 013-230297	Industrial/ Municipal Wastewater Equipment, Solid Waste Management Equipment, Domestic Water Treatment Equipment, Industrial Water Treatment Equipment	Environmental Consulting Services, Industrial Wastewater Analysis Services, Feasibility Studies, General Environmental Training Services, Certifying Organizations, Air Measurement and Analysis Services, Water Analysis Services,

				Solid Waste Management Services, Training Services in Environmental Management Systems.
10.	Danilei & CSPA – Represented by Danieli Egtpt Rep. Office Egypt	37 Mohamed Farid St., Helioplis, Cairo, Egypt. Tel: 6379229 Fax: 6379525 Email: danegypt@intouch.com	Air Measurement and Analysis Equipment, Air Pollution Control Equipment, Hazardous Waste Management Equipment, Industrial Wastewater Monitoring and Analysis Equipment, Industrial/ Municipal Wastewater Equipment, Solid Waste Management Equipment, Water Monitoring and Analysis Equipment, Industrial Water Treatment Equipment.	Feasibility Studies, Air Measurement and Analysis Services, Training Services in Environmental Management Systems, Solid Waste Management Services, Industrial Wastewater Analysis Services, Environmental Consulting Services, Water Analysis Services.
11.	Dominant Water Technology (a.s.e)	43 Abbas El-Akkad St., Nasr City, Cairo, Egypt. Tel: 4012280 Fax: 4032971 Email: dominant@gega.net	Air Pollution Control Equipment, Industrial/ Municipal Wastewater Equipment, Solid Waste Management Equipment, Domestic Water Treatment Equipment, Industrial Water Treatment Equipment.	Environmental Consulting Services, Training Services in Environmental Management Systems, Air Measurement and Analysis Services, Industrial Wastewater Analysis Services, General Environmental Training Services, Water Analysis Services.

12.	Egypt for Information and Technology (EGYFIT)	72 Gameat Al-Dowal Al Arabia St., Mohandessen, Giza, Egypt – 4th Floor Tel: 389151-2-3-4-8 Fax: 3368308 - 3389158 Email: vgouda@egyfit.com.eg	Air Pollution Control Equipment, Hazardous Waste Management Equipment, Industrial Wastewater Monitoring and Analysis Equipment, Industrial/ Municipal Wastewater Equipment, Solid Waste Management Equipment, Domestic Water Treatment Equipment, Industrial Water Treatment Equipment.	Training Services in Environmental Management Systems, Environmental Consulting Services, Solid Waste Management Services, Feasibility Studies, General Environmental Training Services.
13.	Egyptian Association for Science and Technology Services (EASTS)	4 Street 9, Mukattam, Cairo, Egypt. Tel: 5072712 – 5077694 Fax: 5072712	Air Pollution Control Equipment, Hazardous Waste Management Equipment, Industrial/ Municipal Wastewater Equipment, Solid Waste Management Equipment, Water Monitoring and Analysis Equipment, Domestic Water Treatment Equipment, Industrial Water Treatment Equipment.	Air Measurement and Analysis Services, Certifying Organizations, Water Analysis Services, Solid Waste Management Services, Feasibility Studies, General Training Services, Industrial Wastewater Analysis Services, Environmental Consulting Services.
14.	Engineering for the Petroleum and Process Industries (ENPPI)	1A Ahmed El-Zomor St., 8th District, Nasr City, Cairo, Egypt. Tel: 2748115 – 2762214 –	Air Measurement and Analysis Equipment, Air Pollution Control Equipment, Hazardous Waste Management	Environmental Consulting Services, General Environmental Training Services, Feasibility Studies, Training

		2762220 Fax: 2744981 – 2744382 Email: gmail@enppi.com	Equipment, Industrial/ Municipal Wastewater Equipment, Solid Waste Management Equipment, Water Monitoring and Analysis Equipment, Domestic Water Treatment Equipment, Industrial Water Treatment Equipment.	Services in Environmental Management Systems.
15.	Environmental Resources (ER)	12 Omar Ibn El-Khatab St., Ramo Gardens Building, Nasr City, Cairo, Egypt. Tel: 4193624 – 4197117 (012) 2117597 Fax: 4193624 - 4197117 Email: envirors@ritsecl.com.eg		Water Analysis Services, Training Services in Environmental Management Systems, Feasibility Studies, Certifying Organizations, General Environmental Training Services, Solid Waste Management Services, Environmental Consulting Services.
16.	Fermanation Biotechnology and Applied Microbiology (Ferm – BAM) Center - Faculty	Al-Azher University, adjacent to Faculty of Science Building (of Boys), Nasr City, Cairo, Egypt. Tel: 4042166 - 4044802 Fax: 2629356 Email: WWW.A-Mokhtar oo@hotmail.com		Feasibility Studies, Air Measurement and Analysis Services, General Environmental Training Services, Water Analysis Services, Training Services in Environmental Management Systems, Solid Waste Management Services.

17.	Institute of Graduate Studies and Research	163 El-Horreya Ave., El-Shatby, P.O. Box 832, Alexandria, Egypt. Tel: 03-4227688 – 4225007 Fax: 03-4285792 Email: mraey@igsrnet.net		Air Measurement and Analysis Services, Industrial Wastewater Analysis Services, Solid Waste Management Services, Training Services in Environmental Management Systems, General Environmental Training Services, Feasibility Studies, Environmental Consulting Services.
18.	Lab Sector of EGSMA	1 Ahmed El-Zayat St., Dokki, Giza, Egypt. Tel: 3370551 Fax: 3371168 Email: egsma@link.net		Air Measurement and Analysis Services, General Environmental Training Services, Water Analysis Services, Certifying Organizations, Industrial Wastewater Analysis Services, Training Services in Environmental Management Systems, Feasibility Studies, Solid Waste Management Services.
19.	Measurement and Calibration Lab (MCL)	Faculty of Engineering, Cairo University, Giza, Egypt. Tel: 5739855 – 5678546 – 5678495 Fax: 5739855 Email: abouarab@alphal-eng.cairo.eun.eg	Air Measurement and Analysis Equipment, Air Pollution Control Equipment, Hazardous Waste Management Equipment, Industrial Wastewater Monitoring and Analysis	Solid Waste Management Services, Training Services in Environmental Management Systems, Air Measurement and Analysis Services, Environmental Consulting Services,

			Equipment, Industrial/ Municipal Wastewater Equipment, Solid Waste Management Equipment, Water Monitoring and Analysis Equipment, Domestic Water Treatment Equipment, Industrial Water Treatment Equipment.	Industrial Wastewater Analysis Services, Feasibility Studies, Certifying Organizations.
20.	Medcopharma	8C Ali Adham St., Sheraton, Heliopolis, Cairo, Egypt. Tel: 2676422 Fax: 2663732 Email: Nkmedeg@gega.net	Air Measurement and Analysis Equipment, Air Pollution Control Equipment, Hazardous Waste Management Equipment, Industrial/ Municipal Wastewater Equipment, Solid Waste Management Equipment, Water Monitoring and Analysis Equipment, Domestic Water Treatment Equipment, Industrial Water Treatment Equipment.	Industrial Wastewater Analysis Services, Feasibility Studies, Solid Waste Management Services, Training Services in Environmental Management Systems, General Environmental Training Services.
21.	Medical Equipment Center (MEC)	123 Zahra'a, Nasr City, Cairo, Egypt. Tel: 2752402 - 4097714 Fax: 7605615 Email: sherinef@link.net		Water Analysis Services, Air Measurement and Analysis Services, Solid Waste Management Services, Training Services in Environmental Management Systems, General Environmental Training Services,

				Environmental Consulting Services.
22.	National Environment, Petroleum & Conultancy "NEPSCCO"	16 Gamal El Shayal St., 7th Sector, Nasr City, Cairo, Egypt. Tel: 202-4033983 – 4045811 – 012-2119498 – 3597 Fax: 202-2618159 Email: helewa@etsent.com.eg / asccoeg@yahoo.com		Industrial Wastewater Analysis Services, Air Measurement and Analysis Services,. Environmental Consulting Services.
23.	Tebbin Institute for Metallurgical Studies (TIMS) Energy and Environment Research Center (E2RC)	P.O. Box 109, Helwan, 11421, Cairo, Egypt. Tel: 5017107 – 5020540 – 5010170 - 5010171 Fax: 5021680 – 5010170 - 5010171 Email: E2rc@thewayout.net	Air Pollution Control Equipment, Industrial/ Municipal Wastewater Equipment, Solid Waste Management Equipment.	Industrial Wastewater Analysis Services, Environmental Consulting Services General Environmental Training Services, Training Services in Environmental Management Systems, Feasibility Studies, Certifying Organizations, Solid Waste Management Services.
24.	The Academic Center of Scientific & Environmental Consultation	20 Nagui Farid St., (from Mohie El-Din Abu Abu El-Eaz), El-Mohandessen, Cairo, Egypt. Tel: 5739855 – 5678546 – 5678495 Fax: 5739855 Email: abouarab@alphal-eng.cairo.eun.eg		Industrial Wastewater Analysis Services, Environmental Consulting Services, Air Measurement and Analysis Services.
25.	Unit for EIA and Environmental Audit Center for Environmental Consultation	Ain Shams University, Institute of Environmental Studies and	Air Pollution Control Equipment, Industrial/ Municipal	General Environmental Training Services, Solid Waste Management

		Research, Cairo, Egypt. Tel: 6370327 – 2434259. Fax: 6370327.	Wastewater Equipment, Solid Waste Management Equipment, Industrial Water Treatment Equipment.	Services, Water Analysis Services, Air Measurement and Analysis Services, Industrial Wastewater Analysis Services, Training Services in Environmental Management Systems, Certifying Organizations, Feasibility Studies, Environmental Consulting Services.

9.2 Overview of Government Information Systems/ Computer Capabilities

- Information & Decision Support Center (IDSC)
- Information Center of all Miniseries (Industry, Agriculture, Irrigation & Water Resources, Health & Population, Manpower & Emigration, Transportation, Foreign Trade, Interior, Petroleum and Electricity & Energy…etc.
- Central Agency for Public Mobilization and Statistics (CAPMAS)

Chapter 10: International Linkages

10.1 Co-operation and Involvement with International Organizations, Bodies and Agreements

The linkages with international organizations, especially those concerned with chemicals management, has benefited the country in many ways such as:

- Receiving international support through UN agencies, such as UNEP/IRPTC, FAO, UNITAR, as well as from other countries to address issues relating to chemicals;
- Receiving international information/literature from other countries relating to chemicals management, including measures or actions taken with respect to specific chemicals, such as PIC chemicals
- Receiving information on legislation and technologies used to reduce risks at the local level, through documents from US-EPA, and other countries.

Table 10-A: Membership in International Organizations, Programs and Bodies

International Organization/ Body/ Activity	***International Organization Office in Egypt***
Intergovernmental Forum on Chemical Safety (IFCS)	Name : Intergovernmental Forum on Chemical Safety - EGYPT Add. : 30 Misr- Helwan St., El-Maddi, Cairo, Egypt Tel. : 5256452 Fax : 202 – 5256790 E mail: hzwaste@eeaa.gov.eg
UNEP – IRPTC National correspondent IE PAC - cleaner production center	Name :United Nations Environmental Program Add. : 28 Adly St. – Cairo – Egypt Tel. : 3929733 – 3905996 – 3934046 Fax : 202 – 3950119 E mail: unep-allo@link.net Web site: www.unep.org Operating since : 1991

FAO	Name : Food & Agriculture Organization Add. : Agrarian Reform Bldg.– 11 Eslah Zerai Dokki Egypt Tel. : 3375182 Fax : 202 – 3378563 E mail: fao-egy@fao.org Web site: www.fao.org Operating since : 1945
WHO	Name :World Health Organization Rep. office Add. :Magles El-Shaab St. – MOHP – Egypt Tel. : 7953708 Fax : 202 – 7953756 E mail: wregypt@link.net Web site: www.who.scl.eg Operating since : 1989
	Name :World Health Organization Eastern Mediterranean office Add. :Abd El-Razek El-Sanhoury St. – Nasr City – Egypt Tel. : 6702535 Fax : 202 – 6702492 E mail: wregypt@intouch.com Web site: www..emro.who.eg Operating since : 1948
UNIDO	Name : United Nations Industrial Development Add. :5 Latin America St. c/o Ministry of Industry – Egypt Tel. : 7921184 Fax : 202 – 7921199 E mail: mgarzelli@unido.org Web site: www.unido.org Operating since : 1997
ILO	Name : International Labour Organization Add. :9 Taha Hussien St. – Zamalek – Egypt Tel. : 3412358 Fax : 202 – 3410889 E mail: bodossian@ilo.org Web site: www.ilo.org Operating since : 1996
WB	Name : World Bank Add. :1191 Corniche El Nil St. World Trade Center – Cairo Tel. : 5741670 Fax : 202 – 5741676 E mail: Web site: www.worldbank.org Operating since : 1992

Table 10-B: Participation in International Agreements / Procedures Related to Chemicals Management

International Agreements	*Primary Responsible Agency*
Agenda 21 – Commission for Sustainable Development	EEAA
UNEP London Guidelines (voluntary procedure)	EEAA
FAO Code of Conduct (voluntary procedure)	MOA
Montreal Protocol	EEAA,
ILO Convention 170	MOMI
UN Recommendation for the Transport of Dangerous Goods	MOT
Basel Convention	EEAA
GATT/ WTO agreements (related to chemical trade)	MOF, MOT
Chemical Weapon Convention	MOD
Convention on Early Notification of a Nuclear Accident	AEA
Convention Concerning Prevention and Control of Occupational Hazards Caused by Carcinogenic Substances and Agents	MOHP, MOMI
Convention on the Prohibition of the Development, Production and Stock-Piling of Bacteriological (Biological) and Toxin Weapons, and on their Destruction	MOFA, MOD
Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa	MOT, MOF
Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency	AEA
Vienna Convention on Civil Liability for Nuclear Damage	AEA
Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques	MOFA, MOD
Stockholm Convention on Persistent Organic Pollutants (POP's)	EEAA
Roterdam Convention on the Prior Informed Consent (PIC) procedure for certain hazardous chemicals and pesticides in international trade	EEAA

10.2 Participation in Relevant Technical Assistance Projects

Table 10-C: Participation in Relevant Technical Assistance Projects

Name of project	*International/ Bilateral Donor Agency Involved*	*National Contract Point*	*Relevant Activities*
EHSIMS	SDC	EEAA	The objective of this project is to initiate a management system for Hazardous Substances in Egypt, through providing basic guidelines and information for the purpose of ensuring safe handling of such substances and through disseminating such information through an information network.
(SEAM II)	DFID	EEAA	SEAM aims at Environmental Management amelioration and protection in an integrated fashion in the Governorates of Dakahleya, Sohag, Qena and Damietta. Its main outputs are represented in fully functional environmental management and planning systems in Sohag and Dakahleya (these systems to be replicated in Qeana and Damietta by EEAA), poverty alleviation in the four Governorate, and enhanced communication participation and awareness.
Regional Laboratories Network The Project for Supply of Equipment for Regional Laboratories Network (Japanese Grant Aid) 1st phase ,2nd phase, 3rd phase	JICA	EEAA	The project aims at equipping the EEAA RBOs in the Governorate with different needed supplies and equipment's.
Environmental Monitoring and Training Project	JICA	EEAA	The project aims at equipping the Environmental Central Lab in Cairo and the Laboratories Network of the EEAA RBOs in other Governorates with different needed supplies and equipment's. Further more, it provides training programmes to the laboratories staff on using these equipments for the target of tracing the compliance of various entities with the ratios and standards of the law.

(ESPS)	DANIDA	EEAA	ESPS immediate objectives basically are to enable EEAA to carry out its functions at the local level and effectively service-decentralized institutions involved in environmental management. Besides, it supports developing environmental management capacity in Aswan and Beni Suef governorates. In addition, ESPS aims at assisting the Egyptian industry to improve compliance with the environmental law. It also supports NGOs and Community Development Associations to be more participating and involved in the quality of life issues.
(EIMP)	DANIDA	EEAA	EIMP affords data and information about sources of pollution and their environmental impact on air and water quality, through establishing environmental monitoring network for air ambient and coastal water.
(EEPP II)	USAID	EEAA	EEPP supports policy, institutional, & regulatory reforms to reduce generation of air pollution and to manage natural resources for environmental sustainability. Policy reforms will be supported to overcome selected crosscutting economic, financial, and institutional constraints to improved environmental management.
(CAIP)	USAID	EEAA	The basic aim is the preparation and implementation of a plan of decreasing the emissions of the led smelters in Greater Cairo, plus transferring the public buses to operate with natural gas. Also it aims at monitoring the air quality in Cairo city to trace the project results.
(EEIS)	CIDA	EEAA	EEIS assists GOE decision-makers in the formulation and timely implementation of appropriate policies, legislation, programs and projects affecting water and land resources in Egypt. Major activities are: to increase the capacity and capability of EEAA to make sound decisions regarding environmental protection and management through implementation of an environmental information system; to increase and enhance the availability and accessibility of environmental data and information to EEAA from national government organizations, institutes and academic institutions; and to establish a sustainable linkage between EEAA and other organizations involved with the environment (Ministries, Departments, Institutes, other international donor-funded projects, non-governmental organizations, and academic centres).

(EEIF)	CIDA	EEAA	EEIF promotes the management and conservation of Egypt's natural resources, particularly soil and water, by the Egyptian private and voluntary sector. This is mainly achieved through strengthening the capacity of small and medium enterprises (SMEs) to improve environmental efficiency of their production process, enhancing the capacity of the NGOs and CADs to deliver local environmental initiatives, and supporting private sector in "green" business.
(NEAP)	UNDP	EEAA	Updating the National Environmental Action Plan is the milestone. Also, NEAP supports the process of preparing the Egyptian Environmental Sector prgrammes that EEAA carries out in close coordination with the concerned ministries, governorates, NGOs, local authorities and related donors activities and projects. The main activiteis are Problem definition, goal articulation, developing alternatives, evaluation of options, and recommendation of future actions.
(EPAP)	WB + European Bank for Investment + GO Finland	EEAA	EPAP provides technical and financial assistance to different industries reaching the aim of their compliance with the environmental laws. EPAP has a technical and financial component, institutional component, and awareness one.
Environmental Protection Fund for Public Sector Industries	KFW	EEAA	The project mainly aims at financing the needed investments to implement Public Sector industries in the field of industrial waste treatment.
Hazardous Waste Management Project in Alexandria	FINNIDA	EEAA	A pilot project to build a nucleus for the hazardous industrial waste, starting from the factories, through transportation, collection, temporary storage and disposal, ending with burring, treating and withdrawal.
Conservation of Wetlands Project	GEF	EEAA	It mainly seeks the conservation of the wetlands, biodiversity and ecological systems of the Mediterranean shores
Lake Manzala Engineered Wetlands	GEF	EEAA	The project encourages the sustainable development through raising the environmental and economic opportunities locally and internationally. Its main output is establishing and operating a pilot station able to treat 25-50 thousand m3/day from Bahr El-Baquar drainage water before being discharged in Lake Manzala.
Siting Safe Landfill for Solid Waste Study	EU	EEAA	The project main output is the preparation of a study of management and treatment of the industrial hazardous waste in Greater Cairo.

Egyptian – Italian Environmental Cooperation 1) Siwa Environmental Amelioration Project	Italian Government	EEAA	Development of sustainable agriculture through environmentally friendly practices, firm establishment of a self-sustaining micro-credit mechanism managed by a local NGO in the Oasis, declaration of Siwa Oasis Protected Area, and development of the Siwa region as a leading eco-tourism, cultural heritage-handicraft site in the Western Desert are all the milestones of Siwa component.
2) Wady El-Rayan Protected Area			The project aims mainly at ensuring the sustainability of Wady El-Rayan Protected Area management unit and promoting WRPA as leading site for environmental education and communication on biodiversity and sustainable development issues.
3) Gabal Elba Protected Area			The main output of the project would be a detailed management plan for Gabal Elba protected area ready for implementation
4) Fayoum Oasis Project			The project specific objective is to add value to natural and cultural resources through a cooperation strategy between EEAA and Supreme Council of Antiquities, concluding with the creation of "cultural district" in the Fayoum region.
5) Solid Waste Management Project in El-Minya Governorate			The project specific aim is to guarantee the essential framework, as well as clear engineering, administrative, and investment guidance for the execution of the field actions necessary to raise up to an adequate level of service the SWM practices in El-Minya Governorate.
6) Decision Support System for Water Resources Planning			DSS specific objectives are to refine and disseminate the methodology developed for the integration of environmental and socioeconomic aspects in the analysis of water resources scenarios and development measures, and to contribute to the capacity building of high level and technical staff of National Water Resources Center and of the end-users (EEAA and Ministry of Water Resources and Irrigation)
7) Cultural Heritage Conservation in Sakkara Area Project (Phase I)			
Integrated Industrial Waste Management	EU	EEAA	

Oil Spill Combating Centers (Sharm El-Sheikh and Neweiba)	EU	EEAA	The main objective of the project is to establish a centre for prompt-response in the emergency cases, and to set procedures and mechanisms for oil spill combating in Gulf of Aqaba.
Gulf of Aqaba Protectorates Development Program	EU	EEAA	Protection and development of the natural resources and ecological system of the Gulf of Aqaba as an essential base for supporting touristic development in South Sinai is the main target of the project. Additionally, it aims at building the EEAA capacity in the Nature Protection Sector.
St. Katherine National Park	EU	EEAA	Natural, religious and historical heritage protection in St. Katherine National Park and conservation of the ecological systems and natural resources of the area is the project immediate goal. Furthermore, it aims at the urban planning and the rational management of the natural resources of the protectorate.
Building National Capacity in the field of Climate Change (Phase II)	GEF	EEAA	This initiative is a continuation of the previous GEF-assisted Capacity Building Project aimed at institutionalizing climate change issues on the national level. This second phase focuses on assessing technology needs for adaptation measures for coastal zones, agriculture, and water resources. Other activities include studying impacts on coral reefs and human health, and assessing technology needs to alleviate negative effects.
Technology Cooperation Agreement Pilot Project (TCAPP)	UNCSP (U.S. Countries Studies Programme)	EEAA	The TCAPP is charactered to develop consensus among key Egyptian organizations on a set of high priority, climate friendly, and technology issues aimed at successful commercialization. Results are expected to produce candidate technology transfer areas for consideration under the guidance of the National Climate Change Committee. Market development plans for selected technologies are currently underway.
Fuel Cell Bus Demonstration Project	GEF + UNDP	EEAA	The overall objective is reducing the Green House Gases (GHG) emissions and other pollutants. The demonstration in Cairo features eight fuel cell buses with associated hydrogen production and supply facilities. With a focus on technology transfer, Egypt hopes to expand the success of this demonstration in its transportation fleet.

Natural Gas Motorcycles	Industry Canada	EEAA	The project aims at reducing the emission of GHG by converting two stroke engines used in motorcycles to compressed natural gas (CNG). The project is implemented in three phases: identification of capabilities and barriers, demonstration of the technology, and a hand-over and transition to the local market.
(CDM)	World Bank + Embassy of Switzerland in Cairo	EEAA	The study aims at identifying institutional national prerequisites for CDM, preparing a pipeline of projects for implementation under the CDM, and studying the international market for GHG emissions reductions for CDM projects. The scope of this study concentrates on the potential sectors for CDM projects in Egypt, including energy, industry, transportation, waste management and agriculture.

Chapter 11: Awareness /Understanding of Workers and the Public

The understanding by the workers and the public, of the characteristics of the substances that they deal with on a day to day basis is one of the important ways by which accidents may be forestalled. Workers knowledge of the likelihood of adverse effects that may result form handling the chemical substances brings out the sense of alertness. However, with time and experience disregard for full operational procedures may lead to accidents. To establish working environment standards for each industry, legal provisions have been made to ensure uniformity or adherence.

11.1 Legal information of the Awareness /Understanding of Workers and the Public

The Environmental Law No. 4/1994 and its Executive Regulation have some articles which: -

- Provide information to workers to protect their health and safety from the risks of chemicals
- Provide information to the pullie concerning the risks to the environment, health and safety from chemicals , and actions which should be taken in order to protect themselves from chronic or acute exposure to hazardous chemicals ,and …
- Raise awareness and educate the public for effective participation in national environmental management initiatives as stated in Agenda 21.
  - **Article 5: in the Environmental Law No. 4/1994 about EEAA responsibilities states :**
    - Prepare programmes for the environmental education of the public and assist in their implementation.
    - Participate with the Ministry of Education in the preparation of training programmes for the protection of the environment within the scope of the various curricula in the basic education stage.

- **Article 31: in the Executive Regulations of Law No. 4/1994 states:**

  - Those in charge of the production or displacement of hazardous substances, whether in their gaseous, liquid or solid states, shall take all due precautions to ensure the non occurrence of any environmental damage, and shall be held in particular to observe the following:

    1. That workers handling such substances are informed of the dangers involved and of the necessary precautions to be taken when handling them, that they are fully aware of all this information and that they have received adequate training in this regard.

    2. That the inhabitants of the regions surrounding the sites where hazardous substances are produced or handled are informed of the possible dangers of these substances and the method of facing such dangers, and that they are familiar with the alarm systems to be used in case of an accident and with the procedures to be followed on its occurrence.

The Ministerial decrees No.116 of 1991(MOMI) of 1determines the establishments, Occupational Health and Safety organizations and the authorities responsible for training in the field of Occupational Health and Safety (OHS). This includes training programs at the Industrial Safety Institute (ISI) by MOMI and National Institute of Occupational Health and Safety (NIOHS) for all industrial facilities. Safety instructions are given to all relevant workers; safety posters are rendered at appropriate intervals through the monthly meeting of safety committee, an information provided by management to workers and the information, which is passed between colleagues.

The provisions of extension facilities by OHS general department and inspectors, by ministries of MOMI and MOHP seems to increase awareness, however most of the extension services do not include enough information relating to the chemical hazards and most of the workers are not well aware of the fact that they use chemicals, or that these chemicals are potentially harmful.

Courses have been organized for training between OHS department and EEAA for selected target groups.

11-2 Related Activities to Provide Information to Workers and the Public

The Ministry of State for the Environment and the Egyptian Environmental Affairs Agency (EEAA) have been working very hard since it was established, to raise the public awareness concerning various environmental aspects.

For this sake, a **Central Department for Information and Environmental Awareness** was specially established, through which different activities were conducted. Not only several Seminars and Workshops were held to raise the public

awareness for all the society sectors; but also a number of scientists and journalists were dedicated to come up with creative and interesting TV and Radio programs to serve the purpose of maintaining and leading an environmentally sound life. Competitions on environment were held to increase the country children environmental laws awareness, and attractive awards were made for this purpose. Also, quite a good part in a number of daily newspapers was assigned to serve the idea of environmental orientation through newsletters that provide information and continuous updates on different environmental activities and events.

EEAA endeavored also, in coordination with the Ministry of Education, to include the environmental and chemical awareness in their curricula education.

➢ Related Activities of EEAA:

Objectives of the Central Department of Information and Environmental Awareness: -

- Increase the environmental awareness among the public;
- Provide environmental education;
- Improve education in the environmental field;
- Provide training and improve capabilities of the employees working in the environmental field; and
- Develop the vital role of the Non-Governmental Organizations (NGOs) as well as the national associations who are working in the environmental field.

➢ Objectives of the Training and Human Resources Development Department:

- Supervise the different training sessions given by the different projects (e.g. EPAP, OSP) for the employees in the different departments;
- Prepare training sessions for the Egyptian Labor Union and for Women and Childhood Affairs;
- Prepare training sessions for the governmental agencies and authorities in different fields including the safe management of hazardous wastes;
- Prepare training sessions for the Liberians in the field of environmental awareness as well as in increasing their awareness with the environmental laws;
- Prepare training sessions for the employees in EEAA and its branches on the way of handling the hazardous chemicals as well as managing the hazardous wastes; and
- Prepare training sessions for the young media representatives

➢ Objectives of the Public Awareness Department:

- Support the environmental papers in the different magazines and papers (in 26 magazine and paper);
- Issuing a set of newsletters in order to increase the public awareness with the local environmental problems;
- Issuing a special newsletter for the Egyptian Environmental Affair Agency (EEAA);
- Organizing a monthly youth competition about the environmental awareness;
- Preparing and organizing environmental competition programs in the radio and television channels among which is a weekly environmental episode in Good Morning Egypt on the Main Channel;
- Producing cartoon movies among the educational programs to increase environmental awareness;
- Preparing on field programs and activities for the schools and faculties;
- Producing video films, documentary movies and CDs dealing with different environmental problems such as the solid wastes, pollution of the River Nile and food pollution; and
- Preparing programs for environmental awareness for the different agencies and non-governmental organizations (NGOs).

➢ Objectives of the Student awareness and Media Department:

- Preparing seminars and competitions for increasing the environmental education and awareness among the university and school students; and
- Preparing training sessions for environmental awareness for the environmental committees and the community specialists.

➢ Objectives of the Environmental Educational Department:

- Preparing a plan to establish the green corner in every Governorate in Egypt;
- Organizing several fairs for Green Corner in the different Governorates;
- Preparing several competitions dealing with environmental awareness for the children and youth; and
- Participating in the environment friends festival.

➢ Related Activities of different projects at EEAA:

Awareness programs for EHSIMS includes:

- Awareness Posters and brochures for hazardous substances (HS) like
  - Material Safety Data Sheet (MSDS) for HS
  - Emergency Response Sheet (ERS)
  - Posters about classification of hazardous substances
- Production of CDs about EHSIMS
  - These CDs are used as awareness raising tools for different partners, also the CDs were distillated to Arab League for dissemination to Arab Countries to Promote the project (EHSIMS) among them.
- Field visits to : -
  - Federation of Egyptian Industries
  - National Institute of Occupational Safety &Health (NIOSH)
  - Numerous Egyptian companies from pullie and private sectors

  * For the purpose of increasing the awareness of workers about HS. and the importance of Risk Management and Risk Assessment.
- Issuing guidelines like:
  - Handily and Storage guidelines for safe storage of H.S.
- Holding workshops with:-
  - ILO (regarding hazardous substances handling, labeling and storage.
  - Donors (Danida, Finida, UNEP)
  - Civil Defense: for the Arab Civil Defense Officers.
  - Arab League.
  - Industrial facilities.

• The focus of these workshops is to increase awareness among all people of the community to hazardous that may exist during the handling of HS. In addition, one of the workshop objectives is to support industrial facilities in developing their on- site emergency response plans. Also the workshops aim to help the Civil Defense Authority to be better prepared for emergencies resulting from industrial accidents that threaten to an extend beyond the fence- line of industrial facilities.

Awareness programs for Industrial Pollution Abatement Project (IPAP):

- The main goal of the project is to assist industry in complying with environmental laws.
- The project has awareness component for increasing awareness on industrial pollution and Abatement which includes:
  - Media seminars for environmental staff and training courses for media staff of special fields and Local media.
  - Field visits for all media staff.
  - Publications, posters, video films, TV programs, etc
  - Supporting 4 NGOs activities.
  - Training different target groups through NGOs, industry, bank staff, Gos, religious leaders, etc….
  - Increasing public awareness through well trained university graduates in Environmental evenings.
  - Cooperation with Finnish NGOs.

Awareness Programs for Integrated Industrial Solid Waste Management Project (IISWM): -

- Holding workshops for the awareness of works in 6th of October City about the importance of the project for them.

Awareness Programs for Environmental Sector Program for Egypt (ESP): -

- Training in communication of EEAA and Environmental Management Units in governments.
- Supporting decision-makers in environmental information and messages for environmental management.
- Funding strategy for environmental communication program in EEAA and Environmental Management Units in governments.
- Support of the other SPS components, EEAA departments, and governments in environmental information.
- Establishing a window for funding of activities of Non Governmental Organizations.

- The Egyptian Environmental Affairs Agency (EEAA) has prepared a reference guide for the media representatives about the basic environmental issues so as to be of assistance when dealing with any environmental issue as well as to help them in practicing their vital role in raising the environmental awareness.

Abbreviations/Acronyms

AEA	*Atomic Energy Authority*
APELL	*Awareness and Preparedness for Emergencies at Local Level*
CAPL	*Central Agricultural Pesticides Laboratory*
CAPMS	*Central Agency for Public, Mobilization and Statistics*
CCC	*Cairo Central Center*
CSD	*Commission for Sustainable Development*
ECC	*Environmental Control Center*
EEAA	*Egyptian Environmental Affairs Agency*
EHSIMS	*Egyptian Hazardous Substances Information & Management System*
EIA	*Environmental Impact Assessment*
EPAP	*Industrial Pollution Abatement Project*
EQS	*Environmental Quality Sector at EEAA*
ESP	*Environmental Sector Program*
FAO	*Food and Agriculture Organization of the United Nations*
GATT	*General Agreement on Tariffs and Trade*
GOFI	*General Organization for Industrialization*
HCB	*Hexa Chloro Benzene*
IDSC	*Information and Decision Support Center*
IE/PAC	*Industry and Environment Program Activity Center*
IFCS	*Intergovernmental Forum on Chemical Safety*
IISWM	*Integrated Industrial Solid Waste Management*

ILO	*International Labor Organization*
IOMC	*Inter-Organization Program for the Sound Management of Chemicals*
IPCS	*International Program on Chemical Safety*
IRPTC	*International Register of Potentially Toxic Chemicals*
ISG	*Intersectional Group of the Intergovernmental Forum on Chemical Safety*
ISI	*Industrial Safety Institute*
ISO	*International Organization for Standardization*
MOA	*Ministry of Agriculture*
MOD	*Ministry Of Defense*
MOE	*Ministry Of Education*
MOEE	*Ministry Of Electricity & Energy*
MOF	*Ministry Of Finance*
MOFA	*Ministry Of Foreign Affairs*
MOFT	*Ministry Of Foreign Trade*
MOHP	*Ministry of Heath and Population*
MOHUUC	*Ministry of Housing,Utilities and Urban Communities*
MOI	*Ministry Of Industry*
MOIn	*Ministry Of Interior*
MOMI	*Ministry Of Manpower and Immigration*
MOP	*Ministry Of Petroleum*
MOT	*Ministry of Transportation*
MOWR	*Ministry of Water Resources*

MSEA	*Ministry of State for Environment Affairs*
NGO	*Non-governmental organization*
NIOHS	*National Institute of Occupational Health and Safety*
NP	*National Profile*
OECD	*Organization for Economic Co-operation and Development*
OHS	*Occupation Health and Safety*
PCB	*Poly Chlorinated Biphenyls*
PCDD/ PCDF	*Poly Chlorinated Dibenzo Dioxins and Dibenzo Furans*
SDC	*Swiss Agency for Development & Cooperation*
UNEP	*United Nations Environmental Program*
UNIDO	*United Nations Industrial Development Organization*
UNITAR	*United Nations Institute for Training and Research*
WHO	*World Health Organization*
WTO	*World Trade Organization*

List of Pesticides Not Allawed To Be Tested, Imported, Sold, Formulated Or Used In Any Form (Technical Or Formulated) That Are Classified Group B " Probable Human Carcinogen " & Group C " Possible Human Carcinogen " According To The Usepa And Iarc/Who Classifications Ministerial Decree NO 874 / 1996 And Pesticide Committee

GROUP B: Probable Human Carcinogen:

COMMON NAME & CAS No.	*CHEMICAL NAME*	*USES*	*TRADE NAMES*	*Type of Danger*	*Degree of Danger According to WHO Classification*	*Control Standards for Handling*
1. Propargite [2312-35-8]	*2- (4-tert-buty phenoxy) cyclo-hexyl prop-2-ynyl sulfite*	*Acaricide*	*Comite 73%EC-Comite 30% WP Comite El Nasr 75%EC- Propargite Technical*	*Toxic Probable Carcinogen (B)*	*Slightly Hazardous (SH) Class III*	*Banned*
2. Mancozeb [8018-01-7]	*Manganese ethylene bis-(dithiocarbamate) (polymeric) complex with zinc salt*	*Fungicide*	*Nemispr 80%WP-Dithane M 45 80%WP-Dithane M 45 KZ 80%-Tridex 45% Fl, 75%DG, 80%WP-Ferrocopper 90%WP-Trimiltox Forte 40% WP Galben Mancozeb 58 % WP-Mancoper 69.5% WP-Ridomil Mancozeb 72%-58%WP-Sandocore M 69.1%WP-Riboset M 67.2WP- Acrobat Mancozeb 69 % WP-Mancozeb Tech.88% Subthane 82.6 % WP*	*Toxic Probable Carcinogen (B)*	*Slightly Hazardous (SH) Class III*	*Banned*
3. Maneb [12427-38-2]	*Manganese ethylene bis – (dithiocarbamate)*	*Fungicide*	*Comaprop 37% WP-Sunphaneb 70% WP – Haris S 65.5 % WP-Maneb Tech. 80%*	*Toxic Probable Carcinogen (B)*	*Slightly Hazardous (SH) Class III*	*Banned*
4. Chlorothalonil [1897-45-6]	*Tetrachloro isophthalonitrile*	*Fungicide*	*Bravo 50% WP-Daconil 75 % WP-Daconil KZ 75 % WP-Dacobre 50% WP*	*Toxic Probable Carcinogen (B)*	*Slightly Hazardous (SH) Class III*	*Banned*
5. Folpet [133-07-3]	*N-(trichloromethyl) thiophthal-imide*	*Fungicide*	*Mikal 75 % WP*	*Toxic Probable Carcinogen (B)*	*Slightly Hazardous (SH) Class III*	*Banned*
6. Procymidone [32809]	*N- (3,5dichlorophenyl) 1,2-dimethyl cyclopropane-1,2-dicarboximide*	*Fungicide*	*Sumisclex 50% WP-Sumisclex 50% DFL*	*Toxic Probable Carcinogen (B)*	*Slightly Hazardous (SH) Class III*	*Banned*
7. Iprodione [36734-19-7]	*3-(3,5-dichlorophenyl)-N-iso-propyl 2,4-dioxoimidazolidine-1-carboxamide*	*Fungicide*	*Rovral 50% WP*	*Toxic Probable Carcinogen (B)*	*Slightly Hazardous (SH) Class III*	*Banned*

COMMON NAME & CAS No.	*CHEMICAL NAME*	*USES*	*TRADE NAMES*	*Type of Danger*	*Degree of Danger According to WHO Classification*	*Control Standards for Handling*
8. Captan [133-06-2]	*N-(trichloromethy thio) Cyclo-hex-4-ene-1,2-dicaroximide*	*Fungicide*	*Monceren Combi 70 % SD-Captan 50 % WP-Vitavax 300 75% WP*	*Toxic Probable Carcinogen (B)*	*Slightly Hazardous (SH) Class III*	*Banned*
9. Cyproconazole [94361-06-5]	*(2RS,3RS;2RS,3RS)-2(4-chloro-phenyl)-3-cyclopropyl-I-(IH-1,2,4-triazole-I-yI) butan-2-oI*	*Fungicide*	*Atemi SL 10%-Atemi s 80.8%*	*Toxic Probable Carcinogen (B)*	*Slightly Hazardous (SH) Class III*	*Banned*
10. Alachlor [15972-06-5]	*2-chloro-2;6-diethyl-N-methoxy-methyl acetanilide*	*Fungicide*	*Lasso 48% EC-Lasso 55% Suspen.*	*Toxic Probable Carcinogen (B)*	*Slightly Hazardous (SH) Class III*	*Banned*
11. Propoxur [114-26-1]	*2-isopropoxyphenyl methyl-carbamate*	*Insecticide*	*Unden 200 20% EC*	*Toxic Probable Carcinogen (B)*	*Slightly Hazardous (SH) Class III*	*Banned*

GROUP (C): Possible Human Carcinogen

COMMON NAME & CAS No.	*CHEMICAL NAME*	*USES*	*TRADE NAMES*	*Type of Danger*	*Degree of Danger According to WHO Classification*	*Control Standards for Handling*
1) Dimethoate [60-51-5]	*O,O-dimethyl S-methylcarbamoyl-metyl phosphorodithioate*	*Insecticide*	*Roger 40% EC-Saydon 40%EC-Perfikthion 40% EC-Teltox 40% EC-Dimethoate KZ 100, 40% EC-Digor 40% EC-B-I 58 40% EC-Comethoate 40% EC-Nasrthoate 40% EC-Roxion 40% EC-Roxion ElNasr 40% EC-Romethoate 40% EC-Bambythoate 40% EC-Dimethoate Tech.*	*Toxic Possible Carcinogen (C)*	*Highly Hazardous (HH) Class I*	*Banned*
2) Cypermethrin [52315-07-8]	*(RS) a-Cyano-3-phenoxybenzyl-(IRS)-cis-trans-3-(2,2-dichlorovinyl) 1,1-dimethyl cycloprpanecarboxylate*	*Insecticide*	*Polytrin 20%EC-poltyrin KZ 20% EC-Fenom 20% EC-fenom KZ 20%EC-Fastac 25% EC-Fastac Local 25%EC-Bestox 15%EC-Bestox 20%FL-Cympush% 10% EC-Cympush KZ 10%EC-sher 30%EC sher KZ 10, %EC-Ripcord 30%EC-Ripcord Local 30%EC-Cyperco 10%EC-Nurelle 20%EC-Cypermethrin Technical*	*Toxic Possible Carcinogen (C)*	*Highly Hazardous (HH) Class I*	*Banned*
3) Carbaryl [61-25-2]	*1-naphthyl methylcarbamate*	*Insecticide*	*Sevin 85% WP-Sevin KZ 85% WP*	*Toxic Possible Carcinogen (C)*	*Highly Hazardous (HH) Class I*	*Banned*
4) Tetrachlorovin phos [961-11-5]	*(Z)-2-chloro-1-(2,4,5-trichloro-phenyl) vinyl dimethylphosphate*	*Insecticide*	*Gardona 70% EC*	*Toxic Possible Carcinogen (C)*	*Highly Hazardous (HH) Class I*	*Banned*
5) Etofenprox [80844-07-1]	*2-(4-ethoxyphenyl)-2-methyl propyl 3-phenoxybenzyl ether*	*Insecticide*	*Trebon 30% EC*	*Toxic Possible Carcinogen (C)*	*Highly Hazardous (HH) Class I*	*Banned*

COMMON NAME & CAS No.	CHEMICAL NAME	USES	TRADE NAMES	Type of Danger	Degree of Danger According to WHO Classification	Control Standards for Handling
6) Dicofol [115-32-2]	2,2,2-trichloro-1,1-bis(4-chloro-phenyl)ethanol	Acaricide	Kelthame 18.5% Ec-Kelthame 35% wr – Tedifol 24%EC – Kelthame kz 18.5 % EC -	Toxic Possible Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
7) Clofentezine [74115-24-5]	3,6-bis(2-chlorophenyl)1,2,4,5-tetrazine	Acaricide	Apollo 50% SC	Toxic Possible Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
8) Fosetyl-Aluminium [9148-2408]	Ethyl hydrogen phosphonate	Fungicide	Aliettc 80% WP-Mikat 75% WP-Mikat-M 70% WP-fosctyl Aluminium Technical	Toxic Possible Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
9) Propiconazole [60207-90-1]	(+)-1-(2,4-dichlorophenyl)-4-propyl-1,3-dioxane-2-ylmethyl)-1-(1H-1,2,4-triazole-1-yl)butan-2-ol	Fungicide	Tilt 10 & 25% EC	Toxic Possible Carcinogen (C)	Moderately Hazardous (MH) class II	Banned
10) Triadimenol [55219-65-3]	(1RS,2RS; 1RS,2RS)-1-(4-chloro-phenoxy)-3,3-dimethyl-1-(IH-1,2,4-triazole-1-yl)butan-2-ol	Fungicide	Bayfidan 25% EC-Bayfidan Mo 20% SC	Toxic Possible Carcinogen (C)	Slightly Hazardous (SH) Class III)	Banned
11) Benomyl [17804-35-2]	Methyl-1-(butylcarbamoyl)benzimida-zol-2-yl carbamate	Fungicide	Benlate 50% WP-Benomyl Technical	Toxic Possible Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
12) Hexaconzaole [79983-71-4]	(RS-2-(2,4-dichlorophenyl)-1-(1H-1,2,4-triazol-1-yl) henxan-2-ol	Fungicide	Anvil 5% SC	Toxic Possible Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
13) Oxadixyl [77732-09-3]	2-methoxy-N-(2-oxo-1,3-oxazolidin-3-yl) arcet-2;6-xylidide	Fungicide	Sandofan Paste – Oxadixyl Technical	Toxic Possible Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned

COMMON NAME & CAS No.	CHEMICAL NAME	USES	TRADE NAMES	Type of Danger	Degree of Danger According to WHO Classification	Control Standards for Handling
14) Tebuconazole [107534-96-3]	(RS)-1-p-chlorophenyl-4,4-dimethyl-3-(IH-1,2,4-triazol-l-yl methyl)pentan-3-ol	Fungicide	Raxil 2% DS-Raxil 2.5% FS-Raxil 2% WS-Folicur 25% EC	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
15) Triadimefon [143121-43-3]	1-(4-chlorophenoxy)-3,3-dimethyl-l-(IH-1,2,4-triaazol-l-yl methyl) pentan-3-01	Fungicide	Bayleton 25%WP-Bayleton Local 25% WP – Antracol Combi 71.5% WP	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
16) Terbutryn [883-50-0]	N2 -tert-butyl-N4 - ethyl-6-methylthio-1,3,5-triazine-2,4-diamine	Herbicide	Igran 80% WP-Topogard 50% WP	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
17) Atrazine [1912-24-9]	6-chloro- N2 –ethyl- N4 –isopropyl-1,3,5-triazine-2m4-diamine	Herbicide	Gesaprim 50%-80% WP-Gesaprim Local 80% WP-Primextra 50% WP-Atrazix Local 80% WP Gesapax Combi 80% WP-Atrazine Tech.	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
18) Trifluoralin [1582-09-8]	A,a,a-trifluoro-N-(1-imidazol-l-yl-2-prpoxethylidene)-o-toluidine	Herbicide	Digermin 48% EC-Treflan 48% EC-treflex Local 48%EC- Triflouralin Technical	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
19) Bromacil [314-40-9]	5-bromo-3-sec-butyl-6-methyl uracil	Herbicide	Hyvar X 80% WP-Bromacil Technical	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
20) Metolachlor [51218-45-2]	2-chloro-6-ethyl-N-(2-methoxy-1-methyl ethyl)acet-0-toluidide	Herbicide	Pyradur 58%.6% WP-Cororan Extra 50% WP-Dual 96% EC	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned

COMMON NAME & CAS No.	CHEMICAL NAME	USES	TRADE NAMES	Type of Danger	Degree of Danger According to WHO Classification	Control Standards for Handling
21) Oxyfluorfen [72874-03-3]	2-chloro-a,a,a-trifluoro-p-tolyl-4-nitro-phenyl ether.	Herbicide	Goal 24% EC-Goal KZ 24%	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
22) Oxadiazon [19666-30-9]	5-tert-bytyl-3-(2m4-dichloro-5-isoprpoxy phenyl)-1,3,4-oxadiazol-2(3H)-one	Herbicide	Ronstar 25% EC- Ronstar KZ 25% EC- Ronstar PL 40% EC-Oxadiazon Tech.	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
23) Bromoxynil, [1689-84-5], [1689-99-2]	3,5-dibromo-4-hydroxy benzonitrile	Herbicide	Brominal 24% EC-Pardener 22.5% EC	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
24) Linuron [330-55-2]	3-(3,4-dichlorophenyl)-1-methoxy-1-methylurea	Herbicide	Afalon S 47.5 % WP	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
25) Simazine [122-34-9]	6-chloro-N2,N4-diethyl-1,3,5-triazine-2,4-diamine	Herbicide	Trevi 10 30% SC	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
26) Pendimethalin [40487-42-1]	2-N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidide	Herbicide	Stomp 50%EC - stomp KZ 50%EC-pendimethalin Tech	Toxic Probable Carcinogen (C)	Slightly Hazardous (SH) Class III	Banned
27) DiChlobenil [1194-65-6]	2,6-dichlorobenzonitrile	Herbicide		Toxic Probable Carcinogen (B)	Slightly Hazardous (SH) Class III	Banned

List of Banned Chemicals and Pesticide Formulations Used for Agricultural Pest Control According To The Egyptian Pesticide Committee And International Organizations Decisions, October 1, 1995 & Ministerial Decree No. 55/1996 .

COMMON NAME & CASRN	*CHEMICAL NAME*	*USES*	*TRADE NAMES*	*Type of Danger*	*Degree of Danger According to WHO Classification*	*Control Standards for Handling*
1. DDT (Zeidane) [50-29-3]	*P,P'-1,1,1-trichloro-2,2-bis-(4-chloro-phenyl)ethane*	*Insecticide*	*DDT-Anofex-Dedelo-Zerdane-pentachlorine-Chlorophenothane-Rukseam-Supracide Combi-Altracide-Cotton Dust. Discontinued names : Digmar-Heliotox-Genitox-Gesapon-Gesarol-Gexarex-Gyron-Ixodex-Copsol-Neocid-Damecta-Didimac-Arkotine-Noita Koisumu*	*Toxic Probable Carcinogen*	*Moderately Hazardous (MH)*	*Banned*
2. Lindane [Y-BCH,Y-HCH) [319-86-8]	*Amma isomer of 1,2,3,4,5,6-hexa-chloro cyclohexane*	*Insecticide*	*Lindane-Lindax-Acitox-Gammaphex-Hammer-Gammaxan-Lintox-Isotox-Gammex-Lidax-Chimac-germate Plus-Lindasun-Gamma-Up-Gamma mean-Lindagam-Sulbenz-Silvanol-Novigam. Discontinued names : Lindacol-Lindol-Nexit – Gammalin-Agronexit*	*Toxic Probable Carcinogen*	*Moderately Hazardous (MH)*	*Banned*
3. Camphechlor (Toxaphene) [8001-35-2]	*Polychlorcamphene*	*Insecticide*	*Toxaphene –Motox-Heliotox(mixed withDDT) Toxakil*	*Toxic Probable Carcinogen*	*Moderately Hazardous (MH)*	*Banned*
4. Aldrin [309-00-2]	*1,2,3,4,10-hexachloro-1,4,4,4a, 5,8,8a-hexahydro-exo-1,4-endo-5,8-dimethano-naphthalene*	*Insecticide*	*Aldrin – Octalene*	*Toxic Probable Carcinogen*	*Moderately Hazardous (HH)*	*Banned*
5. Heptachlor [76-44-8]	*1,4,5,6,7,8,8-heptachloro-1,3a4,7,7a-tetra hydro-4,7-methanoidene.*	*Insecticide*	*Dieldrin-Octaloxe*	*Toxic Probable Carcinogen*	*Moderately Hazardous (MH)*	*Banned*

COMMON NAME & CASRN	CHEMICAL NAME	USES	TRADE NAMES	Type of Danger	Degree of Danger According to WHO Classification	Control Standards for Handling
6. Heptachlor epoxide [76-44-8]	Oxidation product of heptachlor	Insecticide	Heptachlor- Biarbinex-phennotox-drinox-Heptox	Toxic Probable Carcinogen	Moderately Hazardous (MH)	Banned
7. Endrin (Nendrin) [72-20-8]	1,2,3,4,10-hexachloro-1,4,4a,5,8,8a-octa hydro-exo-1,4-exo-5,8-dimethanonaphthalene.	Insecticide		Toxic Probable Carcinogen	Moderately Hazardous (HH)	Banned
8. Isodrin [465-73-6][i]	1,2,3,4,10-hexachloro-6,7-epoxy-1,4,4a-5,6,7,8,8a-octahydro-exo-1,4exo-5,8-dimethanonaphthalene.	Insecticide	Endrin-Hexadrin-Endrex	Toxic Probable Carcinogen	Discontinued for use as pesticide	Banned
9. Chlordane [57-74-9]	1,2,4,5,6,7,8,8-octahloro-2,3,3a,4,7,7a-hexahydro-4,7-methanoindene	Insecticide	Isodrin	Toxic Probable Carcinogen	Moderately Hazardous (MH)	Banned
10. Ethylan [72-74-9]	1,1-dichloro-2,2-bis-[ethylphenyl]ethane	Insecticide	Chlordane-Octachlor-Intox	Toxic Probable Carcinogen	Highly Hazardous (HH)	Banned
11. Vamidothion [2275-23-2]	O,O-dimethyl-2 (1-methylcarbamoylethyl-thio) ethyl phosphorothioate	Insecticide	Perthane	Toxic Probable Carcinogen	Moderately Hazardous (MH)	Banned
12. Dieldrin [60-57-1]	1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a-5,6,7,8,8a-octahydro-endo-1,4-exo-5,8 dimethanonaphthalene	Insecticide	Kilval-Kilvar-Trucidor	Toxic Probable Carcinogen	Moderately Hazardous (HH)	Banned
13. Chlordecone [143-50-0]	1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctylhydro-1,3,4-metheno-2H-cyclobuta[cd]pentalene	Insecticide	Kepone	Toxic	Discontinued for use as pesticide	Banned

COMMON NAME & CASRN	CHEMICAL NAME	USES	TRADE NAMES	Type of Danger	Degree of Danger According to WHO Classification	Control Standards for Handling
14. Isobenzan [297-78-9]	*1,3,4,5,6,7,8,8-octachloro-1,3,3a-4,7,7a-hexa-hydro-4,7-methanoisobenzofuran*	*Insecticide*	*Telodrin*	*Toxic*	*Discontinued for use as pesticide*	*Banned*
15. Polychloroterpenes [2275-23-2]	*Heptachloro-2,2-dimethyl-3-methylene-norborane(chloronated mixed terpenes*	*Insecticide*	*Stobane*	*Toxic Probable Carcinogen*	*Moderately Hazardous (MH)*	*Banned*
16. Mirex [2385-85-5]	*1,1a,2,3,3a,4,5,5,5a,5b,6-dodeca-chlorooctahydro-1,3,4-methano-IH-cyclobutapenalene*	*Insecticide*	*Mirex-Dechlorane*	*Toxic Probable Carcinogen*	*Discontinued for use as pesticide*	*Banned*
17. Acrylonitrile [107-13-1]	*2-propenenitrile*	*Insecticide*	*Ventox – Acrylon-Carbacryl*	*Toxic Probable Carcinogen*	*Not Classified*	*Banned*
18. .Aramite [140-57-8]	*2-chloroethyl-2[4-(1,1-dicethyl-ethyl) phenoxy]-1-methylethyl sulphate*	*Acaricide*	*Aramite*	*Toxic Probable Carcinogen*	*Discontinued for use as pesticide*	*Banned*
19. Dibromochloro-propane [96-12-8]	*1,2-dibromo-3-chloropropane*	*Nimatocide*	*Fumazone –Nemagone*	*Toxic Probable Carcinogen*	*Highly Hazardous (HH)*	*Banned*
20. Chloropicrine [76-06-2]	*Trichloronitromethane*	*Fumigant*	*Telone-Vorlex-Ditrapex*	*Toxic Probable Carcinogen*	*Moderately Hazardous (MH)*	*Banned*
21. Leptophos [2275-23-2]	*O-2-bromo-2,5-dichlorophenyl-O-methyl-phenylphosphonothioate*	*Insecticide*	*Phosvel - Abart*	*Extremely Toxic Delayed neurotoxic*	*Highly Hazardous (HH) la*	*Banned*

COMMON NAME & CASRN	CHEMICAL NAME	USES	TRADE NAMES	Type of Danger	Degree of Danger According to WHO Classification	Control Standards for Handling
22. Chlorobenzylat [510-15-6]	Ethyl-4-,4-dichlorobenzilate	Acaricide	Kop Mite – Acarben – Akar – Folpex – Benzilan – Benz – O - Chlor	Toxic	Moderately Hazardous (MH)	Banned
23. Pentachlorophenol (sodium pentchloro-phenate) [608-93-5]	Pentachlorophenoxy sodium or sodium pentachlorophenate	Fungicide & Bactericide	Mitrol – Permatox – Dowicide – Santobrite – Napctor	Toxic Probable Carcinogen	Moderately Hazardous (MD)	Banned
24. Crimidine [535-89-7]	2-chloro-N,N-6trimethyl-4-pyrimineamine	Rodenticide	Castrix	Toxic	Discontinued for use as pesticide	Banned
25. Fluoroacetic acid and its derivatives [62-74-8]	Sodium monofluoroacetate or	Rodenticide	Fratol – Yasoknok – Rodex – Baran	Toxic	Highly Hazardous (HH)	Banned
26. Fenoprop (silvex) [93-72-1]	2-(2,4,5-trichlorophenoxy) proppionic acid	Herbicide	Kuron – Fruitone T	Toxic Probable Carcinogen	Moderately Hazardous (MH)	Banned
27. 2,4,5-T [93-76-5]	2,4,5-trichlorophenoxy acetic acid	Herbicide	Nettle Ban – Selvoxone – Ban Dok-Spontox	Toxic Probable Carcinogen	Moderately Hazardous (MH)	Banned
28. Morphamquat [6436-83-3]	1,1-bis-2-(3,5-dimethyl-4-morpholinyl)-oxoethyl-4-4-bipyridilium	Herbicide	Morphoxone	Toxic)	Discontinued for use as pesticide	Banned
29. Lead Compounds [7784-40-9]	Lead arsenate – Lead arcenite	Insecticid	Gypsine – Suprabel – Talbot.	Toxic	Moderately Hazardous (MD)	Banned
30. Mercuric Compounds [7487-94-7], [21908-53-2],[7784-40-9],[7564-30-7]	Mercuric chloride, Mercurous oxide, Mercurous chloride, phenl mercury salycylate, Methoxy ethyl mercury acetate	Fungicide	Merfusan – Mersil – Santar – Cyclosan – Calomel – Mercuran – Merculine	Toxic	Extremely Hazardous (EH)	Banned

COMMON NAME & CASRN	CHEMICAL NAME	USES	TRADE NAMES	Type of Danger	Degree of Danger According to WHO Classification	Control Standards for Handling
31. Arsenicals [12002-03-8],[7784-40-9],[75-60-5],[1327-53-3] [7778-39-4],[7778-44-1]	Copper acetoarsenite, Lead arsenate, Lead arsenite, Methyl arsenc acid, Arsenic acid, Arsenic trioxide, Potasium, Sodium, & Calcium	Fungicide	Paris green – Gypsine – suprabel – daconate – Ansar	Toxic Probable Carcinogen	Extremely Hazardous (EH)	Banned
32. Cadmium Compounds [12001-20-6], [7784-40-9]	Cadmium calcium copper zinc chromate complex , cadmium chloride, cadmium succinate, cadmium sebacate	Fungicide	Crab turf – Caddy – Cadiminate – Kormad	Toxic	Not Classified	Banned
33. Carbon tetra chloride (solvent) [56-23-5]	Carbon tetrachloride	Solvent	Not allawed to be used as a solvent in pesticide formulations	Toxic Probable Carcinogen	Highly Hazardous (HH)	Banned
34. Zineb [12122-67-7]	Zine ethylene bis (dithiocarbamate)	Fungicide	Dithane Z – Cuprosan – Mancozan – Comazin – Polyram (mixtures with Zineb)	Toxic produces ETU (B)	Moderately Hazardous (MH)	Banned
35. Dinitro ortho cresol (DNOC) [534-52-1]	Dinitro orthocresol	Insecticide & Herbicide	Trifocide – Trifrina – Universal oil – Kafrosal oil	Toxic	Highly Hazardous (HH)	Banned
36. Bitertanol [55179-31-2	1-(Biphenyl-4-1oxy)-3,3-dimethyl-1-(1H-1,2m4-triazo-1-yl) butan2-ol	Fungicide	Baycor – Bitrex – Baymat	Toxic	Moderately Hazardous (MH)	Banned
37. Ethylene dibromide [106-93-4]	1,2-dibromoethane	Fumigant	Dibrome – Bromfume – E D B – 58 – Dowfume	Toxic Probable Carcinogen	Extremely Hazardous (EH)	Banned
38. Antu [86-88-4]	1-naphthyl-2-thiourea	Rodentcide	Antu	Toxic	Highly Hazardous (HH) Discontinued	Banned
39. Inorganic fluoride compounds	Sodium fluoride, Sodium fluosilicate	Insecticide	Safsan, Superkite Cutworm Bait	Toxic	Extremely Hazardous (EH)	Banned

COMMON NAME & CASRN	CHEMICAL NAME	USES	TRADE NAMES	Type of Danger	Degree of Danger According to WHO Classification	Control Standards for Handling
[7681-49-4], [16893-85-9]						
40. Nitrofen [1836-75-5]	2,4-dichlorophenyl-4nitrophenyl ether	Herbicide	Tok – Tokorn – Nip	Toxic Probable Carcinogen	Moderately Hazardous (MH)	Banned
41. Binapacryl [485-31-4]	2-sec buty1-4,6-dinitropheny1-4-nitromethyl crotonate	Acaricide & Insecticide	Morocide – Endosan – Acricid	Toxic	Discontinued to be used as pesticide	Banned
42. Captafol [2425-06-1]	N-(1,1,2,2-tetrachloroethylthio)-cyclohex-4-ene-1,2-dicarboxymide	Fungicide	Difolatan – Foltaf – Hypen – Folcid	Toxic Probable Carcinogen (B)	Extremely Hazardous (EH)	Banned
43. Cyhexatin [13121-70-5]	Trichlorohexyl tin hydroxide	Acaricide	Silatin – Plictran – Dorvert	Toxic	Moderately Hazardous (MH)	Banned
44. Fentin hydroxide [76-87-9]	Tricyclohexyl tin hydroxide	Fungicide	Du ter – farmatin	Toxic	Moderately Hazardous (MH)	Banned
45. Fentin acetate [900-95-8]	Triphenyl tin acetate	Fungicide	Berstan	Toxic	Moderately Hazardous (MH)	Banned
46. Dinoseb [88-85-7]	2-sec. Butyl-4,6-dinitrophenol	Herbicide	Fanicide – lvocit	Toxic Probable Carcinogen	Highly Hazardous (HH)	Banned
47. Dinoterb [1420-07-1]	2-tert-butyl-4,6-dinitrophenol	Herbicide	Nixone – Herbogil – Tolkan	Toxic	Highly Hazardous (HH)	Banned
48. Ethylene dichloride	1,1-dichloroethane	Fumigant Insecticide	Granosan	Toxic Probable Carcinogen	Moderately Hazardous (MD)	Banned

COMMON NAME & CASRN	CHEMICAL NAME	USES	TRADE NAMES	Type of Danger	Degree of Danger According to WHO Classification	Control Standards for Handling
[107-06-2]						
49. Mevinphos [26718-65-0]	Methyl 3 (dimethoxyphosphioyloxy) butyl-2-enoate	Insecticide	Phosdrin – Duraphos – Mividrin	Toxic	Exremely Hazardous (EH)	Banned
50. Carbophenthion [786-19-6]	S-4-chlorophenyl thiomethyl-O,O-dimethyl phosphorothioate	Insecticide	Trithion – garathion – Trithion oil	Toxic	Highly Hazardous (MD)	Banned
51. Dioxathion [78-34-2]	S,S-(1,4-dioxane-2,3-diyl) O,O,O,O-tetraethyl bis (phosphorothioate)	Insecticide	Delnay – Hercules – Deltic - Navadel	Toxic	Highly Hazardous (HH)	Banned
52. Dimeton-S-methyl [919-86-8]	O,O-diethl-O,2-ethyl thioethyl phosphorothioate	Insecticide	Metasystox	Toxic	Highly Hazardous (HH)	Banned
53. Dimeton-S-methyl sulphon [17040-19-6]	S-2-ethylthioethyl-O,O-dimethyl phosphorothioate	Insecticide	Metaisoystox	Toxic	Highly Hazardous (HH)	Banned
54. Chloranil [118-75-2]	2,3,56-tetrachloro-1,4-benzoquinone	Fungicide	Spergon	Toxic	Discontinued to be used as pesticide	Banned
55. Chloraniformethane [20856-57-9]	N-[2,2,2-trichloro-1—3,4-dichloro-anilino)-ethyl]formamide	Fungicide	Imugan-Milfaron	Toxic Probable Carcinogen	Discontinued to be used as pesticide	Banned
56. Chlordimeform [6164-98-3]	N2 –(4-chloro-o-tolyl)-N1 ,N1-dimethyl-formanmide	Fungicide	Galecron-Fundal	Toxic	Highly Hazardous (HH)	Banned
57. Acrolein [107-02-8]	2-propenal	Herbicide	Magnacide – Aqualine	Toxic	Exremely Hazardous (EH)	Banned
58. Thionazin [297-97-2]	O,O-diethyl-O-pyrazin-2-yl phosphorothioate	Nimatocide	Nimafos-Zinofos	Toxic	Exremely Hazardous (HH)	Banned
59. Barban [101-27-9]	4-chlorobut-2-ynyl-3-chlorocarbanilate	Herbicide	Carbyne	Toxic	Discontinued to be used as	Banned

COMMON NAME & CASRN	CHEMICAL NAME	USES	TRADE NAMES	Type of Danger	Degree of Danger According to WHO Classification	Control Standards for Handling
					pesticide	
60. Chlorthiamid [1918-13-4]	2,6-dichlorothiobenamide	Herbicide	Prefix	Toxic	Discontinued to be used as pesticide	Banned
61. Di-allate [2303-16-4]	S-2,3-dichlorallyl-di-siopropyl (thiocarbamate)	Herbicide	Avadex	Toxic	Discontinued to be used as pesticide	Banned
62. Parathion (Thiophos) [56-38-2]	O,O-dimethyl-O-4-nitrophenyl phosphorothioate	Insecticide	Fostox-penncap E-Folidol-Niram	Toxic Probable Carcinogen	Exremely Hazardous (EH)	Banned
63. Methyl parathion [298-00-0]	2-chloro-2-diethyl carbamoyl-1-methyl-vinyl-dimethylphosphate	Insecticide	Fostox metil – Penncap M –Kafrol oil	Toxic	Exremely Hazardous (EH)	Banned
64. Phosphamidon [13171-21-6]	Diethyl –1,3-dithiolan-2-ylidene-phosphoroamidate	Insecticide	Dimecron – Apamidon	Toxic	Discontinued to be used as pesticide (EH)	Banned
65. Phosfolan [947-02-4]	Diethyl-1,3-dithiolan-2-ylidene-phosphoroamidate	Insecticide	Cyolane – Cylan	Toxic	Discontinued to be used as pesticide (EH)	Banned
66. Mephospholan [950-10-7]	Diethyl-4-methyl-1,3-dithiolan-2-ylidene phosphoroamidate	Insecticide	Cytrolane – Cytrolane/Endrin (Mixture)	Toxic	Discontinued to be used as pesticide (EH)	Banned
67. Azinophos – methyl [86 – 50 – 0]	S –3,4 dihydro-4-oxo-1,2,3,benzo triazin –3-ylmethyl –O,O – dimethyl phosphorodithioate	Insecticide	Guthion – Gusathion – Gusathion/Tamaron	Toxic	Highly Hazardous (HH)	Banned

COMMON NAME & CASRN	CHEMICAL NAME	USES	TRADE NAMES	Type of Danger	Degree of Danger According to WHO Classification	Control Standards for Handling
68. Flucythrinate [70124-77-5]	α-cyano-3-phenoxybenzyl(S)-2-(4-di-fluoromethoxyphenyl)3-methylbutyrate	Insecticide	Cybolt-Cythrin-PayOff	Toxic	Discontinued to be used as pesticide	Banned
69. Methidathion [95-37-8]	S-2.3-dihydro-5-methoxy-3-ylmethyl-O.O-dimethyl-phosphrodithioate	Insecticide	Supracide- Ultracide- Oleosupracide	Toxic possible Carcinogen	Highly Hazardous (HH)	Banned
70. Nicotine [54-11-5]	(S)-3-(1-methylyrolidin-2-yl)	Insecticide	Nicotine sulphate	Toxic	Highly Hazardous (HH)	Banned
71. Piperophos [24151-93-7]	S-2-methylpiperidinocarbonylmethyl-O,O-dipropyl phosphorodithioate	Insecticide	Rilof-Avirosan	Toxic	Highly Hazardous (HH)	Banned
72. Methoxychlor [72-43-5]	1,1,1-trichloro-2,2-bis-(4-methyl-phenyl)ethane	Insecticide	Marlate-Saitofos(mixed with parathion)	Toxic	Highly Hazardous (HH)	Banned
73. Chinomethionate [2439-01-2]	6-methyl-1,3-dithiolo[4,5-b] quinoxalin-2-one	Fungicide	Morestan	Toxic	Highly Hazardous (HH)	Banned
74. Fluorodifen [15457-05-3]	4-nitrophenyl-α,α,α-trifluoro-2-nitro-p-tolylether	Herbicide	Preforan	Toxic	Highly Hazardous (HH)	Banned
75. Endosulfan [115-29-7]	(1,4,5,6,7,7-hexachloro-8,9,10-trinor-born-5-en-2,3-ylene bis methylene) sulphite	Insecticide	Thiodane-Cyclodan-Malix-Thimul-Thiofor	Toxic	Highly Hazardous (HH)	Banned
76. Inorganic Cyanide Compounds [74-90-8] , [143-33-9] , [592-01-8]	Hydrogen cyanide (Hydrocyanic acid), Sodium cyanide,Calcium cyanide	Insecticide, Fungicide, Herbicide	Cyanogas-Cyangas-Cymag-Sodium Cyanide- Calcium cyanide	Toxic	Highly Hazardous (HH)	Banned
77. Ortho Anisidine						

COMMON NAME & CASRN	*CHEMICAL NAME*	*USES*	*TRADE NAMES*	*Type of Danger*	*Degree of Danger According to WHO Classification*	*Control Standards for Handling*
[90-04-0]						

The National Profile for the Management Of Chemicals in Egypt

An Executive Summary

April 2002

1. Preamble:

Within the international policy framework for the sound management of chemicals, recommendations of chapter 19 of Agenda 21 call for the coordination of international and regional activities as well as intensification of international cooperation. As an important element in this regard, the Intergovernmental Forum on Chemical Safety (IFCS) recommended that individual states should take stock of the national structure for the chemicals management in the from of a "National Profile" (NP). The aim of the NP is to provide relevant information on the overall management system, the areas of responsibility and procedures, as well as the effectiveness of the specific rules and regulations associated with chemical substances.

The United Nations Institute for Training and Research (UNITAR) published a guidance document for this purpose to ensure international compatibility.

In conformity with that, the Egyptian Environmental Affairs Agency (EEAA) published the first version of such NP in 1996. The Ministry of Health and Population (MOHP) in collaboration with the World Health Organization (WHO) in the year 2000 issued another document entitled "National Profile and Strategy of Chemical Safety ".

This document is an updated version of the NP prepared by the Ministry of State for Environmental Affairs (MSEA) as mandated by the Egyptian Hazardous Substances Information and Management System (EHSIMS) project of the EEAA as the national coordinator, and within the available present information, making fullest use of previous documents.

Gaps in all relevant system information do still exist. They have been fully identified and are going to be addressed to the maximum possible extent in the preparation of the next version of the NP as an immediate follow-up action in collaboration with all ministries and agencies concerned.

This Executive Summary (ES) is published as a separate document in order to allow the widest possible dissemination to all key decision makers, as well as to serve the purpose of informing other member countries of the IFCS about the Egyptian National Chemical Management Status.

The ES highlights the main points and key observations in the various chapters of the NP report dealing with the legal, institutional, administrative and technical aspects of the national system for managing chemicals. In addition, an endeavor is made to make a preliminary overall assessment of the national chemicals management situation by addressing some of the following questions of relevance. Others will be left for further discussion, elaboration and will be revisited in future editions.

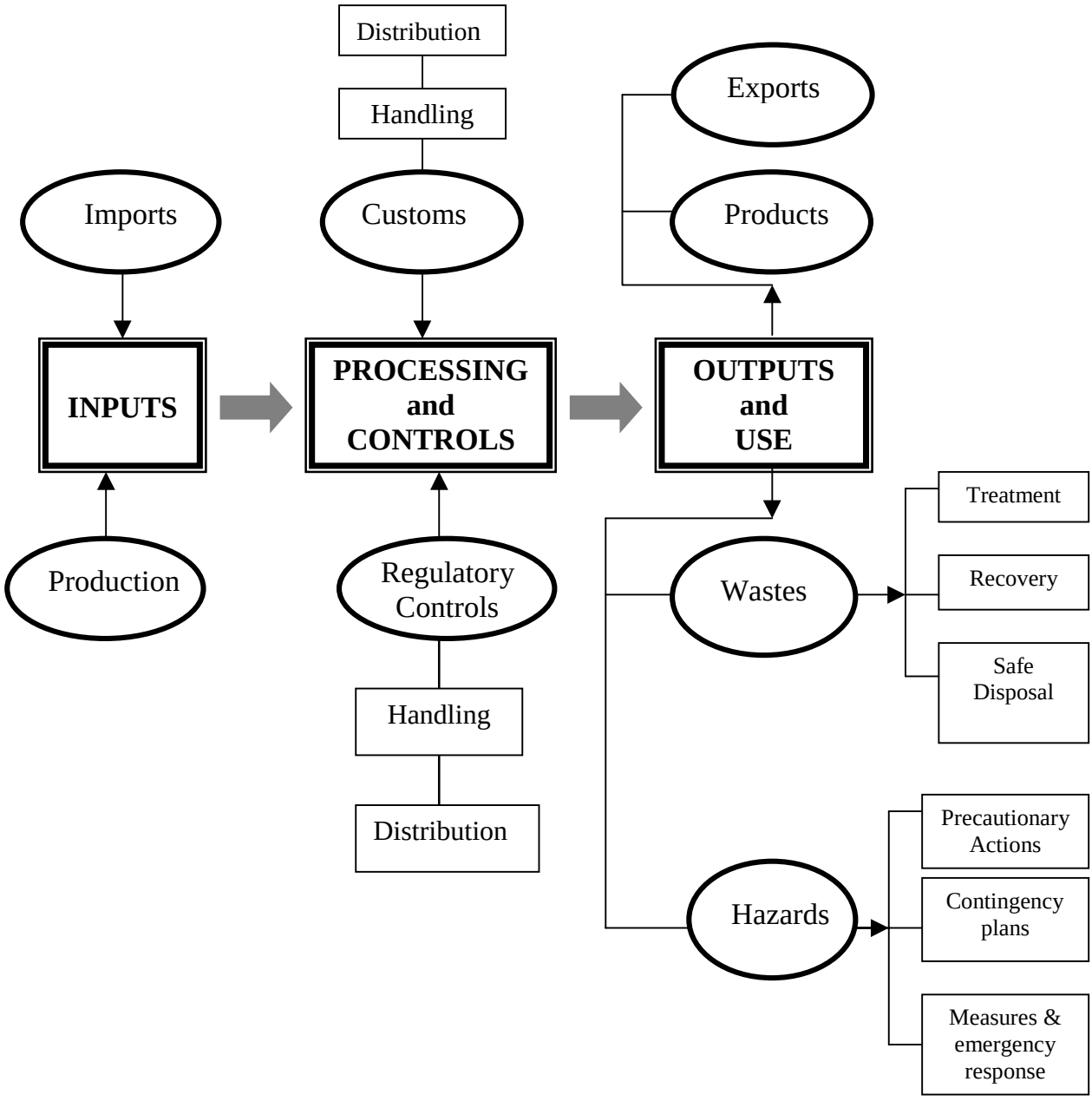
1. What are the priority problems related to chemicals import, use and disposal?
2. What are the opportunities for improving national legal instruments related to chemicals management, including relevant risk management / reduction activities?

3. What lessons can be learned from the process of preparing the NP to improve co-ordination of activities and participation by all concerned parties (governmental and non-governmental) in chemical management?
4. What can be done to improve information collection, review and analysis to support chemicals management? What actions should be taken to improve accessibility to such information by all the concerned ministries and other government institutions and non-government institutions?
5. What actions can be taken to improve the national "safety culture" including improved awareness by workers and the public concerning the potential risks associated with chemical production, import, export, handling, storage, use and disposal? What actions can be taken to improve risk communication?
6. How can sufficient human, technical and financial resources be mobilized to help ensure that priority activities are undertaken for the sound management of chemicals? How can the best use be made of resources available in governmental and non-governmental organizations such as industry research institutes, universities, labour groups, consumer and environmental organizations, and other grass roots organizations?
7. What can be done to advance current activities for the implementation of existing national legal instruments and international agreements? How can international activities in which the country participates become more effective in helping to strengthen national programs?
8. What opportunities are available for assuring close linkages among relevant multi-and bilateral programs? What internal mechanisms should be established to promote improved co-ordination of assistance activities? What are the priorities for technical assistance (multi-lateral and bilateral) such as training, information, consultants advice, etc. ?

9. What actions should be undertaken to ensure that the NP is utilized to the desirable extent? What actions should be taken to promote, distribute, translate or otherwise facilitate access to the Profile? What actions should be undertaken in order to ensure that the NP is periodically reviewed and updated, as appropriate?
10. What key conclusions/recommendations emerge from the preparation of the NP? What follow-up activities should be pursued towards strengthening the national scheme for the sound management of chemicals?

2. The Overall Chemicals Management System

The principal elements interacting within the national chemical management structure are shown in the following figure



With the accelerating economic activities in Egypt, increasing amounts of chemicals are imported or locally manufactured for various uses including household, several consumers, industrial and agricultural purposes.

For instance, in 1998-1999, the value of industrial chemical production totaled around 2200 million Egyptian pounds and the workers involved exceeded 192000; whereas about 1400 tons of pesticides and 194 million Egyptian pounds worth of fertilizers were used in agriculture. Accordingly, a large fraction of the population are being exposed to hazardous chemicals both occupationally and otherwise throughout the various stages of the chemicals management system life cycle.

3. National Background Information

♦ Geographical borders:

Egypt is bounded as follows:

1. To the north, by the Mediterranean Sea with a 995 km long coast
2. To the east, by the Red Sea with a 1941 km long coast.
3. To the northeast, by 265 km long borders with Palestine and Israel.
4. To the west, by 1105 km long borders with Libya.
5. To the south, by 1280 km long borders with Sudan

♦ Area and Population:

- Egypt has the total area of about 1002000sq. kilometers of which 3. 6% are populated.
- The estimates of population inside Egypt on the 1st July 2001 reached 69.5 millions.
- The estimates of population growth rate in 2001 reach 1.69% .

♦ Cairo is the capital of Egypt and it ranks the twenty first in the order of world cities.

♦ Arabic is the official language of Egypt.

4. Major Problems and Priority Concerns

The Major Problems and Priority Concerns related to chemicals production, import, export and use emanate principally from the national (guided by international) needs, strategic policies and mandates for safeguarding health, safety and environment.

The major problems and deficiencies in the present structure generally include inadequate capabilities throughout the whole system, lack of effective coordination mechanisms, improper means for coping with accidents and their deleterious impacts, weak enforcement of regulations, unreliable and scattered information sources, and absence of appropriate public and professional awareness. The technical side has much to aspire for starting from proper chemicals handling and storage till safe and secure final waste disposal.

♦ Priority Concerns encompass:

- Establishing a continuously updateable and properly classified inventory of all chemicals in use in Egypt, their sources, life cycle, use sites and characteristics.
- Building up a suitable national network for safe handling, storage, use and disposal.
- Devising a practical and fast accident and emergency precautionary and response system with appropriate built – in contingency plans, monitoring and control components for maximum chemical risk reduction.
- Maintaining a self-regulating well-coordinated national institutional systems that can easily spot and correct defaults.
- Strengthening the legal instruments in support of strict execution.

- Creating a sustainable national program for raising awareness of chemical risks among workers and the population at large.

5. The legal and Regulatory Infrastructure: -

Chapter 4 of the NP report covers in detail the various legislative and regulatory aspects pertaining to the management of chemicals. Various Laws and decrees are compiled in table 4.A.

In essence and through the Environmental Law No.4 of 1994 and its Executive Regulations (ER) of 1995,the MSEA undertakes the national coordinating regulatory function for environmental protection and pollution control. The Law has a specific comprehensive chapter regulating the management of hazardous substances including chemicals.

In addition other ministries and agencies have issued many other legislation's governing import, manufacture, trade and use of chemicals covering different areas as:

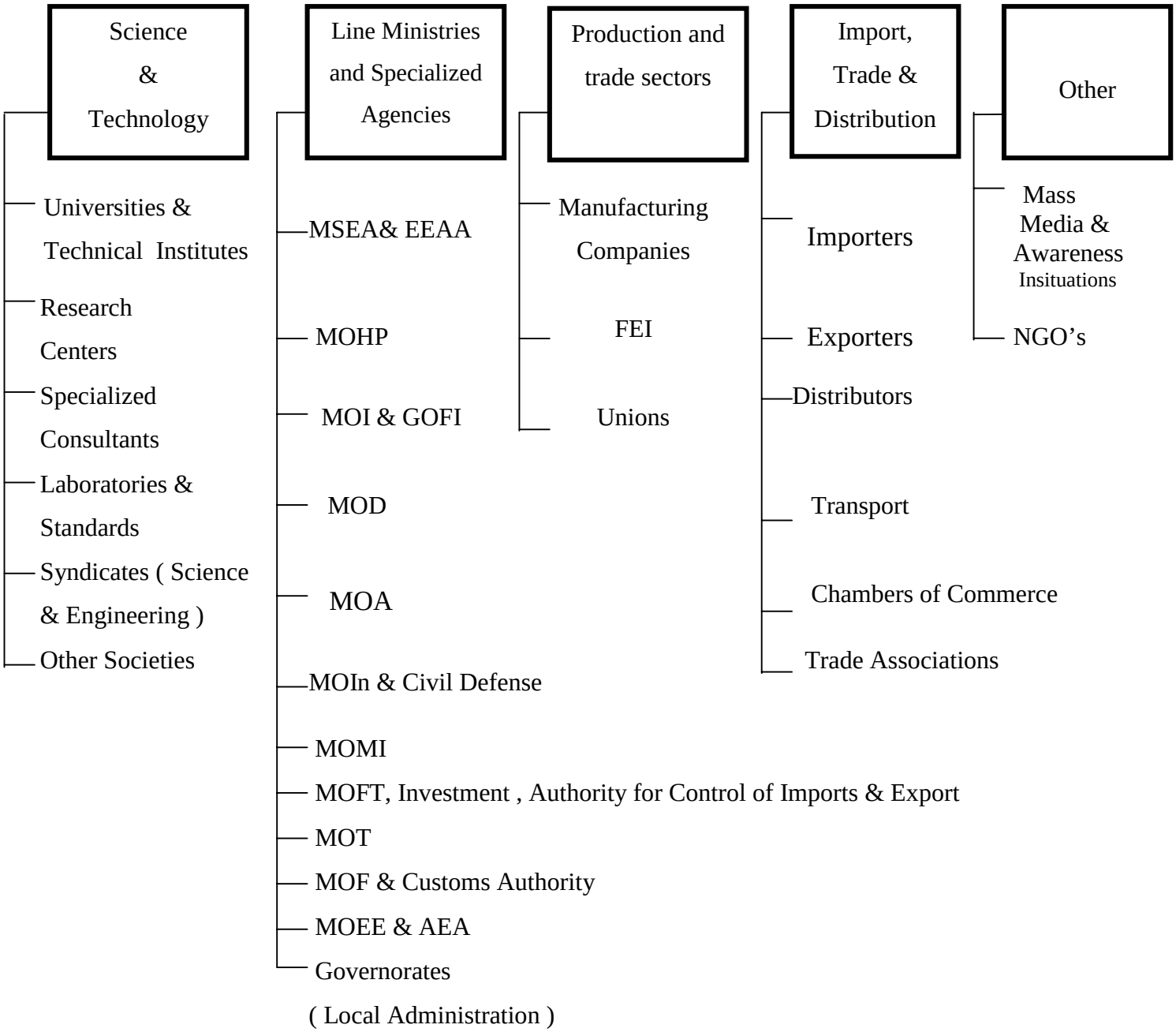
1- The Ministry of Industry has issued laws and regulations governing importing, manufacturing, trading, and handling of chemicals used in industry.
2- The Ministry of Agriculture has issued laws and regulations governing importing, manufacturing, trading, and handling of chemicals used in Agriculture.
3- The Ministry of Petroleum has issued laws and regulations governing importing, manufacturing, trading, and handling of chemicals used in petroleum.
4- The Ministry of Health has issued laws and regulations governing importing, manufacturing, trading, handling and usage of pharmaceuticals, radioactive substances and insecticides.
5- The Ministry of Interior has issued laws and regulations governing importing, manufacturing, trading, and possessing and usage of explosives.

6- Regulations governing operation of nuclear reactors and atomic energy activities and monitoring of radiation levels and disposal of radioactive wastes are the responsibility of Atomic Energy Authority affiliated to the Ministry of Electricity and Energy.

Analysis of the present situation and in view of previous working experience tends to indicate that the present regulatory infrastructure is to an extent compatible with international trends. Perhaps it may need some adjustments, reinforcement and ultimately unification to meet fully the national and international mandates. The most important aspect however, would indulge proper enforcement coupled with educated general and technical awareness.

6. The Institutional Infrastructure

The key elements of the institutional infrastructure of relevance are compiled in the following Figure.



♦ Science and Technology (S & T) Institutions:

Egypt is endowed with rich S & T institutions with a qualified professional manpower of around 120,000. S&T institutions encompass universities, institutes of higher studies, research and development (R & D) centers, information, standards and quality services, in addition to consulting firms, scientific societies and syndicates.

This myriad of institutions provides many valuable services including teaching, training, specialized studies and investigations. They do research in the various areas of chemical management, safety and hazard assessment. Their laboratories are relatively modern, well equipped to do almost any type of relevant analysis or experimentation. Their experts form a basic component in technical committees, advisory councils and standards setting.

♦ Key Ministries and Agencies

The **Ministry of State for Environmental Affairs** (MSEA) and the **Egyptian Environmental Affairs Agency** (EEAA) are essentially policy-making, planning and co-ordinating agencies that work through the implementation of Law no. 4/1994 concerning environmental protection. The Law has a special chapter on hazardous chemicals. They set standards and supervise environmental monitoring, co-ordinate the work of other agencies with respect to chemical safety and prepare a plan for dealing with chemical emergencies in which all other agencies participate. The EEAA reviews environmental impact assessment of new and extension projects.

The **Ministry of Heath and Population** (MOHP), through its directorates and centers, is involved in chemical safety. The General Directorate of Occupational Health has a unit for chemical safety and keeps a register of hazardous chemicals used in Egypt. It supervises chemical safety in work places and keeps record of cases of chemical intoxication that are treated in the MOHP .The Directorate co-operates

with the WHO in implementing various programs in the field of chemical safety. It is active in the field of training and public, awareness. It also supervises the poison information centers run by the MOHP, which are complemented by three other centers run by universities; two in Cairo and one in Alexandria. the Directorate of Emergency Medical care is responsible for the immediate care of cases of chemical intoxication. The General Directorate of Environmental Health supervises hazardous, materials and hazardous waste generated by health establishments and license clinical waste disposal. The Directorate runs the air-monitoring network, does water analyses as appropriate and approves chemicals used for water treatment. The MOHP sets standards and specifications for water used for drinking, household purposes and for recreation. the General Directorate of Food Control sets limits for food additives and food contaminants, inspects and analyses imported and locally produced foods and those on the market for safety and investigates food poisoning outbreaks. The Directorate of Central Laboratories does laboratory analyses for water, food and biological fluids to help implement various legislation of the MOHP and other agencies .It does regular analyses required for the implementation of law no. 48/1981 concerning the protection of the water of the Nile River and waterways from pollution.

The research institute of Medical Entomology carries out lab-oratory and field research to examine the efficacy of pesticides and provide information important for registration of pesticides used for public health and household purposes. This information is used by the Drug Policies and Planing Center, which gives approval for registration of these pesticides as well as pharmaceutical chemicals to the Central Directorate of Pharmacy, for registration, which is its responsibility The General Organization for Health Insurance carries out Periodic medical examinations for workers exposed to hazardous chemicals.

The **Ministry of Manpower and Immigration** (MOMI) is responsible for the health of workers. Labour law no. 137/1981 has a special chapter devoted to occupational safety and health. The executive regulations and Ministerial Decrees set standards for work place exposures and specify conditions to be observed to ensure safety in the use of chemicals. Safety and health inspectors in governorates inspect work places to ensure the proper implementation of the Labour law. The **National Institute of Occupational Safety and Health** (NIOSH) is attaining, research and service-rendering institution and assists in revision and updating maximum allowable concentrations.

The **Ministry of Agriculture** (MOA) deals with the registration and safe handling of agricultural pesticides and fertilizers monitors food for pesticide residues.

The **Ministry of Industry** (MOI) regulates the importation and use of industrial chemicals and restricts the importation and handling of hazardous chemicals except after permission and under supervision. It prepared a list of chemicals used in industry. It also defines places and methods of treatment and disposal of hazardous chemical waste.

The **Ministry of Business Sector** observes environmental safety in industries under its authority.

The **Ministry of Housing Utilities and Urban Communities** (MOHUUC) issues standards and-safe procedures for industrial, commercial and other work places, which are implemented by the inspectors of the Ministry of Manpower.

The **Ministry of Water Resources** (MOWR) implements legislation to protect the Nile River and waterways from pollution with all kinds of waste. Permits may be issued for the disposal of treated liquid waste provided certain standards are observed. Standards are issued by the Minister of Water Resources after consultation with the Minister of

Health. Regular inspections of the waste disposed of in the waterways are carried out with. the assistance from the Surface Water Police and the MOHP

The **Ministry Of Petroleum** (MOP) implements chemical safety precautions in petroleum companies and has its own emergency plan for dealing with oil spills.

The **Civil Defense Authority** of the **Ministry of Interior** (MOIn) has plans for emergency actions, trains personnel, inspects sites of potential risk and co-operates with other agencies in case of emergency.

The **Customs Authority** and the General Organization for Control of Export and Import make sure that all imported chemicals comply with specifications and that restricted chemicals are not permitted. They cooperate with agencies for which these chemicals are imported.

The **General Organization for Investment and Free Zones** observes safety procedures in establishments that are set under the Investment regulations.

♦ The Production and trade sectors: -

These constitute the operational side of the system. They include companies , federations , associations and unions .

♦ Other elements: -

Include the mass media and the NGO's which are influential in disseminating information and raising awareness among the public.

7. Data Access and Use

Reliable data and information systems are key to the establishment of a viable system for chemicals management. In the following, a brief overview is made in this regard.

♦ Sources

The Central Agency for Mobilization and Statistics (CAPMAS) is the national focal point for general data and information such as production, import and export statistics. A complementary source is the Information and Decision Support Center (ISDC) at the Cabinet of Ministers.

For chemicals, however, a number of specialized sources exist. These are principally located at EEAA, MOHP, MOA, MOI and MOP. Other databases are being revised, established or planned in such locations as the General Organization for Petroleum and Customs.

Several private sector companies have been compiling data particularly with regard to pharmaceuticals.

EEAA through its Egyptian Hazardous Substances Information and Management System (EHSIMS), website: www.ehsims.org has built over the past few years the most comprehensive database and information system for hazardous substances including chemicals, which at present has reached 5232 chemical. Information includes data on physical and chemical properties, chemical and commercial names, registration numbers, hazard classification, environmental and health effects, first aid and emergency response measures in case of fire, explosion, spills or leaks. It also gives regulations and guidelines for handling chemicals throughout the whole lifecycle including labeling, storage transport and disposal of wastes. Unified lists including: banned chemicals, chemicals that require permit to be imported and those that do not, as well as permitting forms and procedures have been prepared. In addition, training and awareness programs are undertaken. International databases and

literature are also made available. The activity is still on going and new chemicals, parameters and guidelines are being added.

EEAA, through this system, has proved in practice to be a viable national mechanism for **interminesterial coordination** and overall management. Its information network connecting all concerned parties has been completed and well running. All information is now available on CD-ROM.

Other important databases are kept at the Drug Policy and Planning Center (DPPC) and the Chemical Safety Unit of the MOHP. The first accommodates a register of the approved pharmaceutical chemicals, and another of the pesticides used for public health and household purposes, while the second has one for hazardous chemicals.

Despite all these improvements, some gaps still exist particularly pertaining to hazardous wastes. Intensive efforts and initiatives are being undertaken on the national level to fill these gaps, update and continuously improve the quality of existing databases.

8. International Linkages

Egypt has a very strong presence, participation and involvement in international organizations and agreements concerned with the management of chemicals. In addition, bilateral cooperation and close relations exist with most developed countries and some developing ones. In particular, many donors have close links with and even representation in EEAA. Most international organizations like the Intergovernmental Forum on Chemical Safety (IFCS), UNEP-IRPTC, FAO, WHO, UNIDO, ILO and WB have permanent offices in Egypt.

Egypt is a signatory / participant of most international agreements. These include: Agenda 21, UNEP London Guidelines, FAO Code of Conduct, Montreal Protocol, ILO Convention 170, UN

Recommendation for the Transport of Dangerous Goods, Basel Convention, GATT/WTO agreements, Chemical Weapon Convention, Convention Concerning Prevention and Control of Occupational Hazards caused by Carcinogenic Substances and Agents, Convention on the Prohibition of the Development, Production and Stock-Piling of Bacteriological and Toxin Weapons and on their Destruction, Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, Stockholm Convention on Persistent Organic Pollutants (POP's), and Rotterdam Convention on the Prior Informed Consent procedure for certain hazardous chemicals and pesticides in international trade.

Furthermore, Egypt is actively involved with international and bilateral donor agencies, mostly in the form of specialized projects, which are fully described in the body of the report. Examples comprise: the EHSIMS project with the Swiss Agency for Development and Cooperation (SDC), the EEAA Regional Laboratories Network and the Environmental Monitoring and Training Project with the Japanese International Cooperation Agency (JICA), EIMP Project (information management) with the Danish International Development Agency (DANIDA), Egyptian Environmental Policy Program (EEPP) with USAID, the Egyptian Environmental Information System (EEIS) with the Canadian International Development Agency (CIDA), the Industrial Pollution Abatement Project (EPAP) with Finland, and the Integrated Industrial Waste Management with the EU.

In essence, Egypt has built up over the years strong national capabilities and experiences to effectively link the national chemicals management system with the appropriate international arena. Refinements and extension are definitely underway.

9. Awareness/Understanding of Workers and the Public

Awareness has become increasingly a basic component part of all activities related to environment, health and safety as a manifest of the principle "the right to know" and thus to be alert to risks and aware of consequences. This has been fully reflected in the legal and regulatory mechanisms, as well as in relevant activities of the government ministries and agencies, other institutions and NGO's.

Foremost among the legal instruments is the environmental Law No.4 of 1994 and its Executive Regulations. Several articles are dedicated to the kind of information and roles regarding raising public awareness and educating/training the workers that handle chemicals. Particular reference should be made to Article 5 in the Law and Article 31 in its Executive Regulations. Some other ministerial decrees such as Decree No.116 of 1991 are of interest. This decree identifies the key establishments in this area such as the Industrial Safety Institute (ISI) and the National Institute of Occupational Health and Safety (NIOHS).

The MOSE and EEAA are taking a leading role in dissemination of information and endeavors to raise public awareness, train and educate relevant institutions and workers. Several relevant departments have been established within EEAA such as the Central Department for Information and Environmental Awareness, Training and Human Resources Development Department, Public Awareness Department, Student Awareness and Media Department, and the Environmental Educational Department.

The majority of the most programs and projects encompass a basic component for awareness, dissemination of information and training. Most relevant of these are the EHSIMS (which has been described before and has a very pertinent component), the Industrial Pollution Abatement Project, and Integrated Industrial Solid Waste Management Project.

EEAA, in collaboration with the Ministry of Information, is producing many TV and Radio programs, and in cooperation with the Ministry of Education is introducing materials for environmental and chemical awareness in the various educational curricula.

Several donors are also very active in the area of public awareness and training. Similarly, the efforts of some NGO's are continuously augmenting.

Despite all these efforts, much well-planned and coordinated efforts are still needed. Of particular importance, specific training and educational courses are required for technical personnel to create a critical mass of certified workers in the field of chemicals management. MOSE/EEAA are actively working in this direction.

10. Concluding Remarks: -

The Egyptian national system for managing chemicals has been rapidly developing and improving over the past few years. Still, it leaves much to be desired. Remaining incapabilities and deficiencies in the various system elements are continuously posing a very serious threat to health, safety and environment. Urgent well-planned, coordinated and internationally supported actions need to be taken to rectify this extremely dangerous situation. It is indeed a foremost national priority problem of outmost concern.

Ongoing endeavors particularly through the national coordinated efforts led by the EHSIMS project of the EEAA will contribute very definitive additional contributions in many periority areas. Some of the many aspired actions have been already outlined under the priority concerns section. Some additional complementary actions can include:

- Building expertise in the various functional areas of the chemicals management system through specialized education, training and continuos learning.

- Establishing a practical tracking system to keep all chemical flow in the country within strict control.

- Encouraging community participation and involvement in the chemical safety programs.

11. Epilogue

In essence, a well functioning sustainable chemicals management system should exhibit a coordinated interplay of certain capable and efficient core components encompassing:

- Explicit national policies that would induce a supportive enabling environment and overall guidance. Such policies are at present mostly implicit and need to be reviewed and formalized.

- A legal structure that translates the policies into an applicable enforceable regulatory framework that sets best practices (through guidelines, codes of practice and standards), relationships (roles, responsibilities and linkages), controls and accountability measures. Many elements of this do exist, but need revision, amendments and ultimately be unified under a special legislative structure.

- Accurate, accessible and up-to-date information that constitutes the basic pillar of the system and allows accurate tracing of the flow and fate of chemicals throughout their management cycle. Much has been accomplished in these regards, but gaps have to be gradually filled.

- An integrated institutional structure capable of sound and well-managed execution. To an extent, there exists a good basis for this, that is being progressively strengthened.

- Human resources skills and expertise-wise that are capable of “doing the job right”. A large generalized workforce exists, but needs more specialized education and training to build up the needed certified manpower.

- Availability of the proper technical infrastructure comprising appropriate operational entities, laboratories, emergency measures and facilities that are compatible with a sound integrated chemicals management system. The present base in Egypt required much change, addition and technological upheaval.

- Sufficient funds and cost recovery to allow the establishment of a sound and sustainable system. This aspect requires close review and analysis.

- A high level of responsive public awareness, positive behavior and attitudes towards chemicals handling. Much effort has been initiated in this area through well-planned and organized campaigns. Still, much more is needed.

In addition, such system should be tailored to the local conditions, while being compatible with both the regional and international contexts.

Thus, in the final analysis, we may conclude that the basic system elements do exist in a preliminary state, but much need to be done gradually and progressively towards having a modern, safe and sound system for the management of chemicals in Egypt.