

JOHANNESBURG SUMMIT 2002

EGYPT



COUNTRY PROFILE



UNITED NATIONS

INTRODUCTION - 2002 COUNTRY PROFILES SERIES

Agenda 21, adopted at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, underscored the important role that States play in the implementation of the Agenda at the national level. It recommended that States consider preparing national reports and communicating the information therein to the Commission on Sustainable Development (CSD) including, activities they undertake to implement Agenda 21, the obstacles and challenges they confront, and other environment and development issues they find relevant.

As a result, in 1993 governments began preparing national reports for submission to the CSD. After two years of following this practice, the CSD decided that a summarized version of national reports submitted thus far would be useful. Subsequently, the CSD Secretariat published the first Country Profiles series in 1997 on the occasion of the five-year review of the Earth Summit (Rio + 5). The series summarized, on a country-by-country basis, all the national reports submitted between 1994 and 1996. Each Profile covered the status of all Agenda 21 chapters.

The purpose of Country Profiles is to:

- Help countries monitor their own progress;
- Share experiences and information with others; and,
- Serve as institutional memory to track and record national actions undertaken to implement Agenda 21.

A second series of Country Profiles is being published on the occasion of the World Summit on Sustainable Development being held in Johannesburg from August 26 to September 4, 2002. Each profile covers all 40 chapters of Agenda 21, as well as those issues that have been separately addressed by the CSD since 1997, including trade, energy, transport, sustainable tourism and industry.

The 2002 Country Profiles series provides the most comprehensive overview to date of the status of implementation of Agenda 21 at the national level. Each Country Profile is based on information updated from that contained in the national reports submitted annually by governments.

Preparing national reports is often a challenging exercise. It can also be a productive and rewarding one in terms of taking stock of what has been achieved and by increasing communication, coordination and cooperation among a range of national agencies, institutions and groups. Hopefully, the information contained in this series of Country Profiles will serve as a useful tool for learning from the experience and knowledge gained by each country in its pursuit of sustainable development.

NOTE TO READERS

The 2002 Country Profiles Series provides information on the implementation of Agenda 21 on a country-by-country and chapter-by-chapter basis (with the exception of chapters 1 and 23, which are preambles). Since Rio 1992, the Commission on Sustainable Development has specifically addressed other topics not included as separate chapters in Agenda 21. These issues of trade, industry, energy, transport and sustainable tourism are, therefore, treated as distinct sections in the Country Profiles. In instances where several Agenda 21 chapters are closely related, for example, chapters 20 to 22 which cover environmentally sound management of hazardous, solid and radioactive wastes, and chapters 24 to 32 which refer to strengthening of major groups, the information appears under a single heading in the Country Profile Series. Lastly, chapters 16 and 34, which deal with environmentally sound management of biotechnology, and transfer of environmentally sound technology, cooperation, capacity-building respectively, are presented together under one heading in those Country Profiles where information is relatively scarce.

TABLE OF CONTENTS

CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES.....	1
CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES - TRADE.....	2
CHAPTER 3: COMBATING POVERTY.....	5
CHAPTER 4: CHANGING COMSUMPTION PATTERNS.....	7
CHAPTER 4: CHANGING CONSUMPTION PATTERNS - ENERGY.....	8
CHAPTER 4: CHANGING CONSUMPTION PATTERNS - TRANSPORT.....	12
CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY.....	14
CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH.....	16
CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT.....	18
CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING.....	21
CHAPTER 9: PROTECTION OF THE ATMOSPHERE.....	23
CHAPTER 10: INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES.....	25
CHAPTER 11: COMBATING DEFORESTATION.....	26
CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT.....	27
CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT.....	29
CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT.....	30
CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY.....	32
CHAPTER 16 AND 34: ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY AND TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, COOPERATION AND CAPACITY-BUILDING.....	35
CHAPTER 17: PROTECTION OF THE OCEANS, ALL KINDS OF SEAS, INCLUDING ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES.....	37
CHAPTER 18: PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES: APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT, MANAGEMENT AND USE OF WATER RESOURCES.....	39
CHAPTER 19: ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS.....	42
CHAPTER 20 TO 22: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS, SOLID AND RADIOACTIVE WASTES.....	45

CHAPTER 24 TO 32: STRENGTHENING THE ROLE OF MAJOR GROUPS.....	48
CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS.....	52
CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT.....	54
CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING.....	55
CHAPTER 37: NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY- BUILDING IN DEVELOPING COUNTRIES.....	58
CHAPTER 38: INTERNATIONAL INSTITUTIONAL ARRANGEMENTS.....	59
CHAPTER 39: INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS.....	60
CHAPTER 40: INFORMATION FOR DECISION-MAKING.....	61
CHAPTER: INDUSTRY.....	63
CHAPTER: SUSTAINABLE TOURISM	65

LIST OF COMMONLY USED ACRONYMS

ACS	Association of Caribbean States
AMCEN	Africa Ministerial Conference on the Environment
AMU	Arab Maghreb Union
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CARICOM	The Caribbean Community and Common Market
CBD	Convention on Biological Diversity
CIS	Commonwealth of Independent States
CGIAR	Consultative Group on International Agricultural Research
CILSS	Permanent Inter-State Committee for Drought Control in the Sahel
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COMESA	Common Market for Eastern and Southern Africa
CSD	Commission on Sustainable Development of the United Nations
DESA	Department for Economic and Social Affairs
ECA	Economic Commission for Africa
ECCAS	Economic Community for Central African States
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ECOWAS	Economic Community of West African States
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FIDA	Foundation for International Development Assistance
GATT	General Agreement on Tariffs and Trade
GAW	Global Atmosphere Watch (WMO)
GEF	Global Environment Facility
GEMS	Global Environmental Monitoring System (UNEP)
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
GHG	Greenhouse Gas
GIS	Geographical Information Systems
GLOBE	Global Legislators Organisation for a Balanced Environment
GOS	Global Observing System (WMO/WWW)
GRID	Global Resource Information Database
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
IAEA	International Atomic Energy Agency
ICSC	International Civil Service Commission
ICSU	International Council of Scientific Unions
ICT	Information and Communication Technology
ICTSD	International Centre for Trade and Sustainable Development
IEEA	Integrated Environmental and Economic Accounting
IFAD	International Fund for Agricultural Development

IFCS	Intergovernmental Forum on Chemical Safety
IGADD	Intergovernmental Authority on Drought and Development
ILO	International Labour Organisation
IMF	International Monetary Fund
IMO	International Maritime Organization
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IPCS	International Programme on Chemical Safety
IPM	Integrated Pest Management
IRPTC	International Register of Potentially Toxic Chemicals
ISDR	International Strategy for Disaster Reduction
ISO	International Organization for Standardization
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature and Natural Resources
LA21	Local Agenda 21
LDCs	Least Developed Countries
MARPOL	International Convention for the Prevention of Pollution from Ships
MEAs	Multilateral Environmental Agreements
NEAP	National Environmental Action Plan
NEPAD	New Partnership for Africa's Development
NGOs	Non-Governmental Organizations
NSDS	National Sustainable Development Strategies
OAS	Organization of American States
OAU	Organization for African Unity
ODA	Official Development Assistance/Overseas Development Assistance
OECD	Organisation for Economic Co-operation and Development
PPP	Public-Private Partnership
PRSP	Poverty Reduction Strategy Papers
SACEP	South Asian Cooperative Environment Programme
SADC	Southern African Development Community
SARD	Sustainable Agriculture and Rural Development
SIDS	Small Island Developing States
SPREP	South Pacific Regional Environment Programme
UN	United Nations
UNAIDS	United Nations Programme on HIV/AIDS
UNCED	United Nations Conference on Environment and Development
UNCCD	United Nations Convention to Combat Desertification
UNCHS	United Nations Centre for Human Settlements (Habitat)
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDRO	Office of the United Nations Disaster Relief Coordinator
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
UNFPA	United Nations Population Fund

UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNIFEM	United Nations Development Fund for Women
UNU	United Nations University
WFC	World Food Council
WHO	World Health Organization
WMO	World Meteorological Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization
WWF	World Wildlife Fund
WWW	World Weather Watch (WMO)

CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES

Decision-Making: Responsibilities for issues involving the Egyptian Environment Affairs Agency (EEAA), and the Ministries of hold international cooperation: Foreign Affairs; and Finance. The Egyptian Environment Affairs Agency has an active ongoing cooperation programme with many donor agencies (e.g. DANIDA Projects on organization support, environment education and training, environmental information and monitoring, ODA, USAID, etc.). Donors provide assistance in priority areas designated in the Environmental Action Plan of Egypt and the Egyptian National Environmental Strategies. Donors provide assistance in priority areas designated in the Environmental Action Plan of Egypt and the Egyptian National Environmental Strategies. The general policy of Egypt for international cooperation in the field of the environment centers on the following main issues:

- Coordinating the different donor agencies in order to achieve the maximum benefit and avoid duplication of efforts;
- Ensuring the presence of the element of sustainability in all projects and programmes;
- Steering cooperation with developed nations to areas where they possess comparative advantages;
- Maximizing the utilization of indigenous capabilities especially in areas where there are abundant highly qualified national experts;
- Emphasizing the importance of experience and technology transfer particularly in areas where Egypt may still be considered a newcomer, such as Hazardous Waste Management and Environmental Impact Assessment (EIA);
- Encouraging capacity building efforts as being an essential component in all cooperation programmes;
- Developing partnerships and new cooperation patterns that would benefit all parties involved, such as the Gore-Mubarak Partnership between USAID and Egypt, and the Egypt Environmental Initiatives Fund established in cooperation with the Canadian International Development Agency (CIDA) whereby new innovative participatory relations are established between NGOs and the private sector; and
- Cooperating with other developing countries in order to benefit from shared experiences, including the initiation of experts' exchange programmes and training courses in the different areas of specialization where the developing country may have a comparative advantage.

Programmes and Projects: No information available .

Status: No information available .

Capacity-building, Education, Training and Awareness-Raising: No information available

Information: No information available .

Research and Technologies: No information available .

Financing: No information available .

Cooperation: See under **Decision - Making**.

* * *

CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES – TRADE

Decision-Making: Responsibilities for issues involving trade and policies related to sustainable development are mandated to the Cabinet of Ministers in coordination with the competent ministries. The Egyptian Environment Affairs Agency (EEAA) under the Ministry of State for Environmental Affairs (MSEA), the Ministry of Foreign Affairs, the Ministry of Finance, and the Ministry of Economy and Foreign Trade are among those ministries. In addition, a Sub-Committee on Trade and Environment affiliated to the National Committee on enforcement of the WTO agreements, chaired by the Ministry of Economy and Foreign Trade was established in early 1995. The Sub-Committee is in charge of following-up and feeding back the Working Group on Trade and Environment, under the WTO, and of communicating with the Egyptian authorities concerned in this respect.

Programmes and Projects: Egypt has witnessed its reincarnation into a modern liberal private-led economy. Private initiatives are encouraged and the Government is acting as the mediator of progress and the architect of an enabling environment, where prosperity is shared and steady growth assured. The Stabilization programme: It consists of four phases of reform and structure adjustment (since 1991).

Phase 1: 1991, which focused on stabilizing the economy through certain policies as follows:

- improving public finance;
- exchange rate policies (liberalisation of exchange rate);
- tightened monetary policy; and
- deregulating prices, markets and investment.

Phase 2: It was an integral part of the first phase so the first two phases worked together in parallel

- Trade and investment reforms (the new investment Law 8/1997);
- Private sector reform; and
- Privatization process.
 - The number of companies already privatized are about 133 companies, included public companies, banks and infrastructure. Utilities sector in a following stage.
 - Egypt's privatization performance is exceptional because the major share of its proceeds emanates from the manufacturing sector, as opposed to other countries' transactions where the bulk of the revenue comes from the infrastructure/utility sector.
- Financial sector reform:
 - Interest rates ceilings on domestic currency deposits were lifted
 - Rules discriminating against private banks were eliminated

Phase 3 (1996): It was based on a set of mutually compatible and reinforcing policies consistent with the government's objectives, hence this phase focused on four interconnected pillars that feed with each other to achieve the nation's huge potential investment, savings, institutional reform and export promotion

Phase 4 (2000): This phase is focusing on two major roles of the state's development process: the fiscal reform to enhance a competitive business environment, and the human capital development as one of the major pillars of any country's sustainable development.

Status: The budget deficit is slightly above the 3% maximum requirement set for the EMU membership. Similarly, government debt has steadily declined from 55% of GDP in 1993/94 to 46% in September 2000, compared to 60% Maastricht requirement. This was the result of fiscal consolidation and a qualitative restructuring of the fundamentals of the budgetary policy, rather than through privatization process.

Foreign trade and export promotion - The government has undertaken an export led economic policy, where export is the driving power for foreign currency and sustainable development, accordingly it has formed a programme which encompassed these points:

- The government has changed its trade policy from import substitution to export promotion programme in order to increase positively the volume of trade between Egypt and other countries and decrease the current account deficit;
- Modernizing the industry especially in the fields that enjoy competitive advantages such as the spinning and weaving industry;
- Providing export and technical training courses to the businessmen and exporters to gain a new business culture, which is the export culture as before the past 5 years. Businessmen tend to export the rest of the domestic market consumption, therefore that found difficulty in that, but currently under the respect of open economy and competition, the potential commodity must meet the requirements of the potential market in order to break through it;
- Provide incentives and upgrade port services, custom procedures, quality control and product standards;
- Supporting and strengthening the Commercial Representation as one of the most important official bodies that is responsible for the country's economic and trade affairs abroad through extending its offices among the prospective markets for Egypt's export goods.. it reached now about 70 economic and commercial offices abroad;
- Establishing a trade point, which has many branches along the country in order to collect information and data about domestic market that help analyzing the overall export promotion process. It is connected to the international trade points all over the world for information exchange; and
- Egypt's system of mandatory quality controls on imports has been reviewed.

Capacity-building, Education, Training and Awareness-Raising: The human capital development: Egypt has realized that the human capital development is one of the priorities that must be undertaken in its reform programme, hence it works to apply the following:

- Establishment of the Social Development Fund to promote SMEs and encourage young businessmen
- Training and educational programmes among all the professional and vocational sectors
- National awareness programmes to educate people on how to rationalize the resources and protect the environment

Information: Information is available through the website of the Ministry of Economy and Foreign Trade (www.economy.gov.eg). In addition to the monthly and quarterly Economic digest and other publications (such as Investing in Egypt) issued by the Ministry of Economy and Foreign Trade.

Research and Technologies: No information available.

Financing: Egypt is depending mainly on its national income to finance its development projects. Borrowing from international financial institutions is taking place with strict regulations from the Egyptian Government to be able to pay back the debt. The private sector is currently participating in the national economy with more than 50% share and it has been invited recently to invest in utilities and major service projects through the B.O.T. and B.O.O.T. mechanisms. Due to the good relationship of Egypt with the majority of the world and due to its important role in the region, some development projects are co-financed or totally financed by foreign industrialized countries.

Cooperation: Egypt has conducted many different forms of cooperation between different countries in the bilateral, regional, multilateral and international levels. *On the bilateral level:*

- Egypt has signed bilateral trade agreements with Tunisia, Morocco, Jordan, Lebanon, Libya and is envisaged to develop with Turkey and other countries; and

- Egypt is also increasing its trade ties, investment and business opportunities with US, which recently witnessed the signing of a Trade and Investment Framework Agreement (TIFA) as a primary step towards establishing the free trade area between the two countries.

On the regional level:

- Egypt became a member of the COMESA (Common Market for Eastern and Southern Africa) which has great ambitions to set up a Free Trade Area and customs union in the medium term;
- Egypt has signed the Egyptian-EU Trade partnership, which emerged in the Barcelona Declaration in 1995 that included cooperation in three areas: security in the Mediterranean Sea, economic ties and political, social and human rights development. This partnership will establish a Free Trade Area over a transitional period of 12 years, which would provide for reciprocal liberalization of all industrial commodities and, to a significant extent, agriculture trade; and
- Egypt has a key role in formulating the Pan-Arab Free Trade Area Agreement that brings industrial duties down to zero over a period of 10 years applied at regional level.

On the multi-lateral level:

- Egypt is increasing its economic and trade ties between a number of developing countries through integrating in an economic forum as G15 or DD8.

On the international level:

- Egypt is a member of many international institutions and bodies such as the World Bank, IMF and WTO.

* * *

CHAPTER 3: COMBATING POVERTY

Decision-Making: Socio-economic development plans developed by the Government of Egypt aim at eradicating poverty at source. The poverty reduction policies and decision-making process are taking place at the Cabinet of Ministers where each ministry presents its programmes and plans which should match with the national policies concerning combating poverty and relieving burdens from the limited-income sector of the society. The government also cooperates with the private sector and to a large extent with the NGOs through the Ministry of Social Affairs in order to come out with necessary decisions and policies that can be successful nation-wide.

Programmes and Projects: Great effort is exerted by the state to meet the needs of the Egyptian population, to improve their standard of living, and to eradicate poverty. These objectives have been reflected in four consecutive five-year plans for social and economic development. The plans and programmes for combating poverty are based on the articles 17, 23 and 25 in the Egyptian Constitution, which state that development plans should guarantee increase in the national income, equity, rise in standards of living and state responsibility of social security.

Egypt's plans for combating poverty are focusing on several dimensions: education and combating illiteracy, health care services, family planning, raising the standard of living, improving the status of women, and creating employment opportunities for the young growing labour force. The current plans of development are based on: *Economic plans:* including increase and optimal utilization of the national resources to ensure the continuous increase in the national income. *Equity plans:* including plans to increase the per capita share of the national income. *Employment plans:* including providing job opportunities and combating unemployment, and *Social Safety Net:* including expansion of coverage for all social sectors to provide a minimum suitable income to ensure proper living. The Social Safety Net, which integrate government and non-government efforts to support the limited-income and the poor include the following programmes:

- Insurance System (social insurance) which is implemented by the Social Insurance Fund to cover the employees in the Government and the Private Sector;
- Social security pension programme, (continuous monthly financial assistance, one-time financial assistance, support in cases of national or individual crisis, assistance to families of ex-employees) implemented by Ministry of Social Affairs;
- Income provision projects (productive family, disabled rehabilitation for work) implemented by Ministry of Social Affairs;
- Social programmes implemented through the Zakat Fund (an Islamic religion donation from Moslem individuals), implemented by Nasser Social Bank;
- Programmes to create new jobs, implemented by the Social Development Fund and Shorouk programme; and
- NGOs participation in provision of financial and health care services in addition to educational and cultural services.

The social security pension programme provides a minimum income of LE 50 per month. This phase of the programme targets about one million families. Other programmes and projects, which are part of the objectives of the National Council for Women, include the establishment of The National council for childhood and motherhood to provide improved care for the women in general and with attention to the poor women; the Social Fund for Development (SFD) in 1991 with the aim of protecting the poor through providing job opportunities. It was initially designed as a social safety net to minimize the adverse affects associated with Egypt's implementation of the Economic Reform and Structural Adjustment Programme. It has now evolved to also become a vanguard of economic empowerment, quality human resources and an enabling environment for human development.

The Social Fund for Development addresses lower income groups and targets pockets of poverty in rural and urban areas, it focuses more specifically on the following targets groups: Women, New graduates; Unemployed youth; Small entrepreneurs. The main units of the SFD are: The Gender Unit; The Research on Improvement in Standards of Living Unit; The Environment and Development Unit.

Status: Egypt is considered a developing country, which suffers from problems in the economical structure. This is reflected in the rarity of job opportunities and increased unemployment. Egypt is also suffering from increased population growth rate, which negatively impacts the national income growth rate. The rate of increase of birth represents a high burden on the public expenditure pattern, which tries to cover the basic needs. However, major achievements have been realized. A set of laws was issued to assist in combating poverty and raising the standard of living for Egyptians. From those laws: Law 12/1996 for the Childhood concerning providing an income for the child in specific social cases, and Law 87/2000 for social security which extends the social security coverage to sectors of special social cases such as orphans, widows, divorced women, seniors and disabled. On the positive side, and in recognition of the social impact of economic reform and the need to alleviate economic hardship on disadvantaged groups in society, the State has increased the social security pension for families unable to provide for themselves. The social insurance covered 17.5 million citizens in 1998 compared to 15.9 million citizens in 1993. Pension receivers increased to 6.9 million citizens in 1998 compared to 5.9 million citizens in 1993. The number of training centers for productive families increased to 3402 in 1998 and the number of beneficiary families from those centers are about 1 million.

The primary education enrolment rate increased from 85% in 1982 to 96.1% in 2000. 2.8 million housing units were built in the period 1982 to 2000. Sanitary drainage capacity increased from 2.2 million cubic meters per day to 12.83 cubic meters per day (5.8 fold increase). Potable water capacity increased 3.2 times since 1982. Infant mortality rate decreased from 71% in 1982 to 29.1% in 2000. The life expectancy at birth has increased for both females and males. Number of beneficiaries from social security services increase from 10.7 million in 1982 to 17.3 million in 2000. The Unemployment rate decreased from 9.8% in 1993/94 to 7.5% in 1999/2000. Indicators for standards of living show improvements. Per capita power consumption increased by double since 1983, one out of every 11 families owns a private car compared to 17 in 1983, one in every 3 families own a telephone compared to 16 in 1983. Other programmes are the National Programme for Integrated Rural Development “Shorouk” and the Social Integration programme. (More information about “Shorouk” See under Human Settlements - Chapter 7).

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: Information is available at the Information and Decision Support Centres at the central level at the Cabinet of Ministers and at the Governorate and district levels. Other sources for information include CAPMAS and The Year Book. Information on poverty reduction is available at the Ministry of Social Affairs website and the Ministry’s annual statistical book.

Research and Technologies: The National Centre for Social Research is playing an important role in monitoring the social changes and regularly carries researches on societal changes. The Graphic Design Centre is assisting the productive family programme to improve and develop its products to have better marketing potential domestically and internationally.

Financing: Finance is mainly through the State budget (about LE 600 million for the Social Security Programme). Other sources include private sector and NGOs. The Social Fund for Development is also providing finance for small and medium enterprises as well as the “productive families” to establish projects that creates job opportunities. The Social Bank of Nasser is another source for financing efforts in combating poverty. LE 50 million of the “zakat” fund, under Nasser Social Bank, are allocated to be distributed on the poor.

Cooperation: No information available.

CHAPTER 4: CHANGING CONSUMPTION PATTERNS

Decision-Making: Egypt has policies aimed at improving energy and materials efficiency, reducing waste, and modifying the behavior of relevant actors.

Programmes and Projects: No information available.

Status: One of the most important local issues that has been circulating around Egypt is the change from leaded to unleaded fuel and the use of CNG in cars. Egypt has 27.7 motor vehicles per 1000 inhabitants, and policies have been developed to improve the energy efficiency of the transport sector as well.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: No information available.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: No information available.

* * *

CHAPTER 4: CHANGING CONSUMPTION PATTERNS - ENERGY

Decision-Making: The Cabinet of Ministers is the main venue of coordination. Ministerial committees are formed for the coordination concerning specific measures for relevant issues. Delegation of decision-making authority is provided as deemed necessary to local authorities. Responsibility for decision-making relating to energy is with the Ministries of: Electricity and Energy, concerning electric energy production, transmission and distribution; Petroleum, concerning fossil fuel, oil and gas exploration, refining, production and marketing; Transportation, concerning energy-related aspects of transportation; and State for Environmental Affairs/Egyptian Environmental Affairs Agency, concerning environmental issues. The following central organizations are supporting the decision-making process: Egyptian Environmental Affairs Agency (EEAA), concerning energy and environmental issues The Organization of Energy Planning (OEP), for integrated energy planning and policy analysis

Programmes and Projects: Energy planning and policy analysis take place on two different levels. At the national level, studies are conducted on alternative energy policies that encompass economic variables, options for energy resources and ways to achieve an energy supply-demand balance. At the sectional level, studies analyze energy consumption patterns so that proper policies can be set for achieving development goals. The main policies of the energy sector include but not limited to: maximizing the utilization of all hydropower resources through the electrification of suitable barrages on Nile River and its branches, maximizing natural gas utilization for energy production, promotion of the new and renewable energy, electric interconnection with neighboring countries towards the East (through Jordan, Syria and Turkey) and to the West (through Libya, Morocco, Tunisia and Algeria), permitting independent power producers to share in electricity generation (BOOT system), improving efficiency of energy production and use by adopting energy efficiency policies, environment protection by adopting suitable measures in electricity generation, transmission and distribution and capacity building.

The following are programmes and projects, which are implemented to achieve the energy policies. Enhancement of the accessibility of energy to urban and rural households. The national programme for rural electrification has been undertaken since 1971. In 2001, about 98% of the total population had access to the electric energy.

- *Natural gas for households:* Natural gas was supplied to about 1.3 million houses
- *Providing alternatives to unsustainable energy resources to urban and rural households:* The Ministry of Electricity and Energy is promoting utilization of the new and renewable energy resources such as solar energy and wind energy.

Supplying energy to low income households - Although energy prices are moving towards eliminating subsidies, low-income households have privileges of low tariffs for electricity consumption, and relatively low price for kerosene widely used for cooking and relevant matters. The cabinet of Ministers, in coordination with the Egyptian Regulatory Body, controls electricity tariffs and the prices of all petroleum products.

Promotion of wind for electricity generation: An active programme within the Ministry of Electricity and Energy through the New and Renewable Energy Authority. The project aims at installing 600 MW of wind turbine by the 2012.

Integrated Solar Thermal/Natural Gas Power Plant - The New and Renewable Energy Authority has prepared a programme for implementing a series of solar thermal power plants. A 100-150 MW capacity power plant will be established in Kuraymat. The project has a target date of operation during 2004.

Fuel Switching - Cairo Air Improvement Programme furnished Cairo's municipal bus companies with fifty CNG-powered rolling bus chassis. More than 40 CNG fuelling stations are established and about 26,000 vehicles are converted.

Energy Efficiency Improvement and Greenhouse Gas Reduction - On the supply side, energy efficiency efforts resulted significant success. Between 1992 and 2001, the rate of fuel consumption in the electricity sector declined

from 260 to 230 gm/kWh. Consequently, the overall efficiency of the power system increased from 33% in 1992 to 39% in 2001. Since 1984, OEP has been conducting an energy audit programme in different economic sectors to quantify the potential for energy savings. GEF, UNDP and the Egyptian Government jointly financed a four-year project to assist in improving energy efficiency and removing barriers to successful implementation and reduction of GHG emissions from the power generation sector.

Methane recovery from Landfills - A demo project on the recovery of methane generated in landfills. The proposed work plan involves the design and construction of two bioreactor landfill cells in Cairo. On-site training will be provided to the Egyptian staff for future operation and monitoring. The *privatization* programme that Egypt has turned to in order to achieve economic efficiency and effectiveness has expanded to include major infrastructure sectors, including extending communication and electrical powers network. Three BOOT projects in the electricity sector have been contracted to two foreign companies (American and French) for the construction of three electrical power plants with total installed capacity of 2000 MW.

Status: The total installed capacity of the electricity generation has reached 15,920 Mega Watt in 2000/2001 with a percentage growth rate of 9 percent mainly due to the increase in the capacity of the thermal power generation units. Industry is the major consumer of electricity in Egypt with a percentage share of 39 percent followed by the domestic consumption (36 percent). The pattern for sector energy consumption has changed recently. While the industry growth rate shows increase of 1.98 percent, while the transport sector is showing annual growth rate of energy consumption by 5.98 percent. Industry is still ranked first in terms of energy consumption with percentage share of 45.43 percent in 1999/2000. The total energy consumption has increased from 29,542 Million Ton Oil Equivalent (MTOE) in 1998/1999 to 30,848 MTOE in 1999/2000 with a percentage growth rate of 4.41%.

Despite the great efforts of the energy sector in terms of improving efficiency and encouraging renewable energies, there are barriers and challenges facing the development and usage of renewable energy sources in Egypt and promoting energy efficiency. Among those barriers, the high investment and energy production costs of renewable energy such as wind farms or photovoltaic power plants, lack of institutions to provide attractive financial support where the financial sector is still away from investment in the renewable energy or energy efficiency projects. The lack of regulatory and policy instruments, capacity in key stakeholder organizations and institutions to provide Research and Development support is another barrier together with the lack of awareness and information about the socio-economic impacts of using these technologies.

Capacity-Building, Education, Training and Awareness-Raising: The electricity sector established and has continuous development for a large number of Training Centres in its affiliated authorities or companies to:

- provide training in technical, administrative and financial fields
- improve the employees' skills in different aspects and on different levels
- provide oriented training at the power plants training centres, network training centres for undergraduates.
- Specialized institutional training projects:
 - Transmission Training
 - Developing the vocational Training Project
 - Human resource development
 - Summer training for students from high technical institutes and faculties of engineering, to acquaint them with electricity field experience.

The Ministry of Electricity and Energy in cooperation with foreign development agencies established a new leadership development centre with following objectives:

- offering managerial, technical, administrative and financial training programmes for Arab and international electricity authorities
- qualify the young investors projects in cooperation with the Social Fund for Development
- Providing training services for Egyptian companies to train engineers and technicians.

Training abroad is also provided in cooperation with some foreign countries such as Japan, Germany, USA and India in various engineering technical and administrative fields.

At the Ministry of Petroleum, the Organization of Energy Planning is conducting a series of training programmes related to various fields of energy and various levels of energy users. OEP provided training for more than 3000 engineer in more than 200 establishments. OEP also provides training for middle and high management levels in the energy sector. In addition, OEP is providing special training for its personnel in order to build their capacities and prepare them to deal with different energy issues such as:

- energy/economy mathematical models;
- elasticity models for energy pricing and national income; and
- energy demand forecasting models.

Organization of Energy Planning and the Environmental Affairs Agency cooperated with UNDP/GEF in implementing a Training Programme Project. This project focuses primarily on building capacity for Egypt to respond to UNFCCC communications obligations. The project objectives are:

- strengthening Egypt's capacity to comply with the requirements of the UNFCCC;
- institutionalizing the national communication to comply with the UNFCCC; and
- Contributing to the emergence of Egyptian approaches and responses to the UNFCCC.

Many energy conservation related programmes were devoted for awareness rising using different communication tools such as Workshops and seminars, Monthly newsletters, Radio and TV programmes and information on Electricity bills to show ways of energy conservation and improving performance.

Information: The working ministries, authorities, organizations and companies in the energy field have their own statistic mechanisms for follow-up, planning accounting activities and issuing annual reports. These mechanisms are supported by computerized database. The annual reports contain all information relevant to energy and are made available by circulation or published on the Internet at the Ministry of Electricity and Energy website. The Central Authority for Population Mobilization and Statistics (CAPMAS) also issues statistics yearly on energy related issues. OEP has established an energy information centre, which facilitates contact with international information databases and provides information to decision-makers. The Information for Decision-Support Centre at the Cabinet of Ministers (also available on the Internet). Information is disseminated and shared through brochures circulations, conferences, seminars, mass media and Internet communication.

Research and Technologies: Researches in the energy sector are focusing on improving the efficiency of energy generation, transmission and utilization. Other researches are focused on renewable energies such as wind energy and solar energy. The following technologies are being developed for Green House Gas emission reduction in Egypt: Integrated solar-thermal combined cycle power plants, wind farms interconnected to the national grid, efficiency improvement of generating power plants, efficient lighting, electrification of transportation in Cairo and use of compressed natural gas in vehicles.

Financing: The private sector has recently been encouraged to participate in the energy related projects as part of the national privatization programme. Through the BOOT system, the first power generation plant was established in "Sidi Kraire". The National Investment Bank and the National Commercial Bank are major sources for providing finance for the private sector. In addition, the bilateral and multilateral agreements between the Egyptian Government and foreign governments allows for receiving loans with suitable conditions. Other projects are funded through foreign development donor funds.

Cooperation: Egypt has been implementing technical cooperation programmes through bilateral Official Development Assistance and other forms of economic cooperation, which includes training programmes related to management of power generation, transmission, renewable energy, mining and oil refinement technologies as well as energy efficiency improvement. The Organization of Energy Planning is cooperating with international institutions through the implementation of joint projects to enhance indigenous expertise. The experience gained is

transferred to neighboring countries through the execution of joint projects and international protocols signed between OEP and similar international institutions.

Egypt has been participating in the Conference of Parties to UNFCCC and the Meeting of Parties to Montreal Protocol, and making effort to ensure the entry into force of the Kyoto Protocol and the effective implementation of the Montreal Protocol.

The Electric Interconnections between Egypt and neighboring countries:

1. *Egypt – Jordan Link and the five countries interconnection:*

- Power system interconnection between Egypt and Jordan commissioned in October 1998 and being actually implemented. It will eventually permit power transfer between the two countries of the order of 250 MW;
- Sub-regional project interconnecting the power systems of Egypt, Iraq, Jordan, Syria and Turkey that will allow energy savings in all 5 countries and the transfer of power of the order of 600 MW; and
- The first step of the project –interconnecting Jordan and Syria - was accomplished in early 2001, and will be followed by interconnecting Syria and Turkey by the end of this year. The second step of this project consists of interconnecting Iraq, Syria and Turkey and will be completed by the year 2002.

2. *Arab-Magreb Countries Interconnection:* project interconnecting the power systems of 5 North African countries (Egypt, Libya, Tunisia, Morocco, and Algeria).

3. *Possibility of interconnecting and operating the power systems of the 17 Mediterranean countries* (under study).

* * *

CHAPTER 4: CHANGING CONSUMPTION PATTERNS - TRANSPORT

Decision-Making: The Cabinet of Ministers is the main venue for coordination and decision-making. The following Government entities are involved in drawing national policies for the transport sector. The Ministry of transport for transport related issues, Ministry of Interior, for traffic planning and law enforcement, Ministry of Petroleum regarding fuel related issues and The Egyptian Environmental Affairs Agency under the Ministry of State for Environmental Affairs is responsible environmental related issues. Local authorities may be delegated for specific actions or implementation programmes.

Programmes and Projects: Cooperation is taking place between the Egyptian Environmental Affairs Agency (EEAA) and the Ministry of Interior and Ministry of Transport to implement national policies regarding reducing emissions from mobile sources and solving traffic congestion problems in major cities. The following are the main projects in the transport sectors that have environmental dimensions:

Switching to Natural Gas: Cairo Air Improvement Project (CAIP): Cairo municipal bus companies are switching to Compressed Natural Gas – powered busses. Private cars, including taxis, are also encouraged to switch to natural gas. By the end of 2001, fifty public transportation buses and 26000 will be converted to natural gas since 1993.

Fuel cell bus demonstration project: This project is currently supporting fuel cell bus demonstration projects in Cairo, to reduce GHG emission and other pollutants. The demonstration features eight fuel cell busses with associated hydrogen production and supply facilities. The program will run for five years, with three years devoted to driving, monitoring and testing performance.

Hybrid-Electric Transportation Bus Technology: The overall objective of the project is to introduce a viable Hybrid-Electric bus that will have significant benefits and sustainability in various segments of the country. The project is funded by GEF and implemented by UNDP and the Egyptian Social Development Fund. The project will be applied to high priority historical sites starting with the Giza Plateau where the ancient pyramids are located.

Natural Gas Motorcycles: A demonstration project using a Canadian technology developed to reduce the emissions of GHG by converting two-stroke engines used in motorcycles to compressed natural gas (CNG). The project will be implemented in three phases: identification of capabilities and barriers, demonstration of the technology, and a hand-over and transition to the local market. Cairo Air Improvement Project: Switching cars and public transportation buses to run on natural gas.

Underground mass transit system: The second Greater Cairo underground Metro line is currently in operation and the third line is under preparation. The underground-electrified mass transit system is expected to decrease the travel times, decrease pollution and encourage users of surface modes to shift to this fast transportation facility.

Ring Roads: In order to decrease congestion inside cities and reduce travel times and consequently improve fuel efficiency and decrease pollution, ring roads are being established to avoid passing through cities. The ring road around Greater Cairo is currently being completed. Under the B.O.T. system, Egypt has lately started applying it to the transport sector especially for constructing highways such as Alexandria-Fayoum.

Other development projects include the construction of a warehouse container in the Port of Suez, a dock for yachts in Sharm El Sheikh, B.O.T. airports in Marsa Alam and Farafra. The Ferdan Bridge over the Suez Canal is a major national project, which is expected to speed up the development of Sinai Peninsula.

Status: Transport is a fast growing sector in Egypt and its consumption of the petroleum ranks the second (after industry) among all other sectors with a share of the total final energy use by 30.85 percent. Regarding pollution from vehicle emissions, two lines of actions are currently being implemented; the first entails the establishment of vehicle emission testing, tune-up and certification system (VET) aiming at the reduction of pollutants and

improvement fuel efficiency. During 1999, the construction of the first VET station located in Shoubra El Kheima, was completed, and a detailed equipment assessment was undertaken for procurement. About 35,000 cars in Greater Cairo were inspected. The second line of actions entailed the demonstration of the technical and financial feasibility of switching to compressed natural gas. CNG fuel stations are either under construction or actual operation to convert private cars to run on CNG. 26,000 vehicles, including taxis, have been switched to run on CNG. In five years, eight fuel-cell municipal busses will be tested and monitored for performance.

Despite all efforts in the transport sector to decrease pollution and congestion, there are challenges, which impede progress of different projects. For example, the fuel-switching project is highly successful, however, the lack of capital needed to establish sufficient fuelling stations is impeding more progress in that field. Other projects are still in a demonstration phase and if proved successful, will also be challenged by the lack of initial investment. Low fuel costs and low user charges used in the transportation is due to subsidies meant to decrease the socio-economic burden on the major sector of the Egyptian limited-income society. This results in inefficiency of fuel consumption and lack of resources to improve the mass transport sector.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: Information about the transport sector is available at different source. The Organization of Energy Planning (OEP) annual reports about energy include sections on the energy consumption of the transport sector. Information for Decision-Support Centre at the Cabinet of Ministers is another source for information. The CAPMAS issues yearly statistical reports on all sectors in Egypt including transport. Information can also be found on the Ministry of Transport web site.

Research and Technologies:

- Promoting usage of compressed natural gas (CNG) in vehicles (busses and private cars);
- Promoting railway electrification and electrified underground mass transit systems;
- Fuel cell technology; and
- Hybrid electric transport bus technology

Financing: The state budget allocates large sum of funds for transportation infrastructure such as roads and public transportation facilities. The private sector is currently involved in establishing fuel switching stations and infrastructure. Co-finance between the Egyptian side and loans from international development banks and foreign governments may be utilized in major infrastructure projects. Other projects related to implementation of demo project or new technologies may be financed partially by international development agencies.

Cooperation: Egypt is cooperating with international development bodies in order to initiate environmental protection programmes in the transport sector.

* * *

CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY

Decision-Making: The Cabinet of Ministers is the main venue for the Government entities, which are involved in preparing specific policies related to demographic dynamics. Among the government entities is the Ministry of Health and Population regarding population policy.

Programmes and Projects: The strategies and policies of the Ministry of Health and Population (through the Population Council) aim at controlling the population problem by increasing the number of target persons to use family planning tools. Women clubs are established to raise their awareness and provide them with basic literacy lessons. Efforts are done through these clubs to raise woman's economical, social and cultural standards. The Ministry of Health and Population is integrating its efforts with all private entities and NGOs working in the field in order to implement the national strategies on reproductive health and population.

Status: As a result of the governmental efforts, there has been some policies, which have been achieved completely or partially. The following are the reported indicators. The current status for rates of fertility, mortality and population growth is as follows:

- The per 1000 capita natural growth rate decreased to 20.8 in 1996 compared to 24.1 in 1990;
- Birth rate decreased to 26.9 per 1000 capita in year 2000 compared to 30.9 in 1990;
- Total fertility rate decreased from 3.1 births per woman in year 2000 compared to 3.6 births per woman in 1995;
- General mortality rate decreased to 6.1 per 1000 capita in year 2000 compared to 7.1 per 1000 capita in 1990;
- Child mortality decreased to 25 per 1000 births in 2000 compared to 28.2 per 1000 births in 1995;
- Mother mortality decreased from 84 per 100,000 mother in 2000 compared to 174 per 100,000 mother in 1993; and
- Male life expectancy increased to 65.1 years in 1996 compared to 62.8 in 1990, female life expectancy increased to 69 years compared to 66.4 in 1990.

Current health care services:

- 2000 health care units were renovated and equipped to provide the basic health care services for women and family planning purposes;
- 410 units of woman health care were established in all Egyptian Governorates; and
- 480 mobile clinics are in operation to serve remote areas.

Despite all efforts in family planning, which have shown partial success, there are still much to do regarding raising awareness and providing education and healthcare to women and rural families.

Capacity-Building, Education, Training and Awareness-Raising:

- 27 training center established in 27 Governorates;
- 23,639 trainee from different medical professional levels were trained on family planning tools; and
- 540 specialist and technician trained on information and statistics.

Awareness raising

- Increased media campaigns since 1996 (Golden Star Campaign) aimed at increasing public confidence in the health care services provided by the Governmental health care units;
- Female users of the governmental service increased from 20% in 1995 to 57.6% in 1999; and
- There are currently 6000 workers with cultural competency working in the Ministry of Health and Population. Public communication seminars were conducted in all villages since 1996 and there were 14,600 TV-broadcasted hours and 21,900 Radiobroadcasted hours on the different family health topics.

Information: CAPMAS is the main source for statistical information. Information for Decision Support Centre at the central level (Cabinet of Ministers) and at the Governorate level provide information regarding population.

Research and Technologies: No information available.

Financing: Family planning campaigns and programmes for health care are mainly financed by the state budget.

Cooperation: No information available.

* * *

CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH

Decision-Making: The national policies are established at the Cabinet of Ministers. The Ministry of Health and Population participates with main input in the set-up of health policies in Egypt and it supervises the implementation of those policies to achieve the desired objectives. Other ministries such as Ministry of Education, Ministry of Youth and Sports are involved in implementing the national health policies.

Programmes and Projects: (For more detailed information, please see Egypt National Report presented to Istanbul +5). The strategy of the Ministry of Health and Population is based on scientific foundations and applied researches with emphasis on:

- Implementation of Health Improvement Programme with better service from the health budget based on the following concepts:
 - Full coverage
 - Quality
 - Equity that eliminates disparities among different population groups
 - Sustainability
 - Universality of access to primary health care for the entire population.
- Implementing the “family doctor”. Focusing on prevention especially for childhood diseases and prioritizing infection-control programmes
- Adoption of Primary Health Care programme
- Expanding the health insurance coverage
- Focusing on the integrated concept of health for health protection and health promotion.
- Starting implementation of the “healthy Egyptians Initiative” by 2010 as a preventative health programme which will cover:
 - a. Smoking control
 - b. Injuries control
 - c. Maternal and child health care
 - d. Environmental health for health improvement

By Presidential decree No. 99/1992, the Government of Egypt is implementing a national programme for providing health care insurance for students at the school level, which cover now 17 million students. The Ministry of Education is also implementing a national programme for providing health care insurance for students at the school level.

Status: The healthcare service indicators in year 2000 shows the following:

- Total number of hospital beds: 136,253;
- Per capita hospital bed (person per bed): 1: 416;
- Percentage occupancy: 76%;
- Hospital beds belonging to Ministry of Health and Population represent 70% of the total beds in 1999 compared to 60% in 1981;
- Number of ambulances: 752;
- Number of Emergency units: 2353;
- Number of rural health units: 3887;
- Number of countrified health units: 236;
- The health insurance system on new-born babies was implemented since 1/10/97 and the number of insured babies reached 3.5 million in year 2000; and
- The health insurance coverage expanded to cover 44% of the total population.

Despite the continuous efforts of the Government and private sector, the health care service is suffering from lack of budget needed for the increasing expenses of treatment and the high cost of new medical equipment. This affects the quality of the service as well as the number of users of the services who are affected by the shortage.

The implementation of Health Improvement Programme with better services from the health budget based on the following concepts:

Capacity-Building, Education, Training and Awareness-Raising: The training budget was increased from LE 30,000 in the 1980s to LE 44 million in year 2000. The number of trainees increased to 11,529 locally trained and 512 trainees abroad trained. Many media campaigns are in place to support the donations for health care centres and the establishment of new hospitals. An example is the national campaign for combating cancer and the national campaign for blood donation.

Information: CAPMAS and IDSC are valuable sources for providing statistical national information. Information is also available on the Internet at the Ministry of Health web site and the Year Book published on the Internet.

Research and Technologies: No information available.

Financing: State budget is the main source for financing health care programme, however it cannot cover the increasing needs for health care especially in the cases where treatment and medicine require ongoing high expenses. NGOs and socially supported health care centres at the religious institutions (mosques and churches) provide health care services at No or Low cost. The private sector is also contributing to the health care system in Egypt by establishing hospitals, which provide services at full cost. Public participation initiatives are encouraged to give donations to support the treatment and to build new health care centres especially for the children suffering from cancer.

Cooperation: No information available.

* * *

CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

Decision-Making: The Cabinet of Ministers through its Ministerial Committees is responsible for drafting national policies and deciding on national issues. Different ministries and government entities are coordinating activities to promote sustainable human settlement development. Among those entities, Ministry of Housing, Ministry of Local Development, and the local Governorates.

Programmes and Projects: To achieve geographically balanced settlement structure, the Egyptian Government has set several strategic objectives and policy measures.

Objective 1: Achieve a balance between population and existing natural resources to ensure efficient utilization of Egypt's natural resources.

Policy measures:

- Population redistribution over Egypt's natural and economic resources;
- Comprehensive regional development with special attention to frontier and remote regions that have not been targeted by the State in the past; and
- Upgrading and improving the efficiency of large infrastructure facilities

Objective 2: Achieve balanced regional and urban development

Policy measures:

- Re-planning of large cities and major urban centers; and
- Targeting development to small towns and rural areas.

Objective 3: Facilitate balanced development of habitable and non-habitable areas.

Policy measures:

- Direct social and economic development through the construction of large integrated development projects to remote regions along Egypt's borders and the South; and
- Continue the implementation of the national policy for constructing new urban communities.

Objective 4: Develop new towns in desert areas to protect agricultural lands

Policy measure: Plans for construction of 44 cities in locations defined by the National Urban Development Strategy for the Arab Republic of Egypt up to the year 2017.

In order to achieve those strategic objectives, several programmes are in place:

1. National programme for upgrading and development of informal areas in urban areas.

This programme is implemented nationwide.²⁴ Governorates were surveyed to identify areas needed to be upgraded or totally removed. 2 Governorates did not have any informal areas. The total number of informal areas is 1175, twenty of which cannot be upgraded and should be totally removed. The implementation of the programme started in 16 Governorates (11 in phase 1, and 5 in phase 2) which include 916 informal areas.

1.1 The planning and upgrading of Manshiet Nasser:

The aim of this pilot project is to rehabilitate the informal settlement of Manshiet Nasser (located East of Cairo) which is considered as one of the most dense (400 inhabitants/acre), over populated (350 000 inhabitants) and deteriorated areas of Cairo. Manshiet Nasser suffers from deteriorating living and environmental conditions, mainly lack of services, public utilities and open areas; fast encroachment of buildings; and high pollution rates. The main objective of the project is to develop an urban integrated and stable plan for the settlement that takes into account the nature and location of the area, as well as its topography and contour variations; the requirements of the potential inhabitants; the need for green areas and for an integrated road network linking the settlement to the main neighboring areas and roads; and the preservation whenever possible of old buildings still in good conditions. The project is being implemented on site according to the proposed phases, the first of which was completed at the end of 1999. The project includes construction of 6000 housing units, hospitals, schools, etc. It is worth noting that the project aims at enforcing the contribution and participation of all partner groups as an approach to execute the project and achieve its goals through initiating and sustaining a healthy dialogue among different stakeholders (private, public, inhabitants, etc.) by applying an implementation mechanism for Manshiet Nasser. An onsite coordination office for stakeholder representative groups is under establishment.

2. National programme for integrated rural development “Shorouk”

The strategic objectives of this programme are to ensure:

- Continuous improvement in the quality of life of citizens of the rural society; and
- Successive progress in involvement of the rural citizens in achieving the desired improvement.

The general objectives of “Shorouk” programme are:

- a. Development of the local environment
- b. Development of the local economy
- c. Development of the local human resources
- d. Development of the local institutions

Shorouk is based on a specific philosophy, which can be grouped as foundations for the programme. Those foundations are:

- Participation is the core for development;
- Democracy of development;
- Rely on local leadership, youth and woman;
- Governmental assistance to development; and
- Efficiency of development plans.

3. New cities: Seventeen new cities were established and forty-four new cities are under planning to establish new communities and to encourage population to dislocate to the new areas.

4. Mubarak National Project for Youth Housing

In order to determine the major characteristics of this project, several competitions were held in which many specialized architectural firms participated taking into consideration the physical planning and basic services. With specific characteristics (such as a maximum height of buildings determined at 1 ground and 4 floors, and building density of 120 person / acre) this important housing project launched in 1995 aims at improving middle and low-income housing. It seeks to construct 70,000 housing units in 3 stages in a large number of new cities throughout the country. The project has the following reasonable payment terms: the state covers 40% of the cost and offers soft loans of LE 15,000 per unit, payable over 40 years at 5% interest. The project costs about LE 2.75 billion. Of this amount, the state cross-subsidized nearly 40% from the sales of high-income residential areas and dwellings in both new cities and resorts. This is in exclusion of price of serviced land, which is also financed from these revenues. In addition, the State offered LE 1.0 billion in subsidized credit in the form of soft loans of LE 15,000 per unit, payable over 40 years at 5% interest rate. The dwelling units were allocated according to objective criteria, which had been investigated ensure the legibility of beneficiaries.

5. The Future Housing Project: Launched in 1988 under the auspices of Egypt’s First Lady, Mrs. Suzanne Mubarak, the Future Housing Project aims at contributing in resolving the housing problems of the disadvantaged group of society. It constitutes a model of social solidarity and is considered a practical application of the call of the First Lady for a new social contract between the wealthy and the disadvantaged groups of the society. The project benefits from funds from the private sector and from voluntary contributions from citizens. It targets the construction of seventy thousand units in new communities over 3 stages.

6. Potable Water and Sanitary Drainage: Special emphasis was placed on potable water and sanitary drainage, due to the role of these sectors in improving te quality of life in Egypt. This emphasis is reflected in the following state goals:

- Preserving the health of the population by providing a sufficient supply of clean water according to international standards;
- Improving lives of Egyptian citizens by providing water and sewage to all cities, villages and hamlets at affordable costs;
- Enhancing income levels of the population by extendinbg water and sanitart drainage services to commercial, industriuap and touristic establishments; and

- Total investment since 1991 until 2001 reached approximately LE 25.4 billion. (USD\$ 1~ LE 4.0).

It is worth mentioning that Mubarak Housing Project, Future Housing Project and Manshiet Nasser Project are included in the subjects, which were presented by Egypt in the thematic committee during the special session of the General Assembly of the United Nations, Istanbul +5 in June 2001. The Future Housing Project was awarded in the Council of Arab Ministers of Housing and Reconstruction.

Status: In the National Programme for upgrading and development of informal areas in urban areas, the total number of areas upgraded and developed is 268 out of 1155. 410 areas are currently being upgraded. There are 218 areas where work has not yet started. Basic infrastructure provided to upgrade those areas included: electricity, potable water networks, wastewater networks, and other municipal services such as public cleaning and fire fighting. The total area of lands in upgraded informal areas, which were sold to inhabitants, reached 248,821 square meters in year 2000. In Shorouk programme for rural development, basic infrastructure was established in rural areas in addition to improving social, economical and environmental conditions of rural citizens. The infrastructure projects were mainly in construction of water networks, wastewater sewage systems, roads, communication centres and electric networks rehabilitation.

Capacity-Building, Education, Training and Awareness-Raising: Within Shorouk programme, 1066 school classes were built, 35 integrated cultural centre established and 92,332 training and awareness event took place.

Information: Information on the 2 above-mentioned programmes is available at the Ministry of Local Development, and the Information and Decision Support Centre (IDSC). CAPMAS is another source for statistical information.

Research and Technologies: No information available.

Financing: For urban development, the total investment in infrastructure for the upgrade of urban areas since the start-up of the programme reached LE 2131 million mainly from the state budget. For rural development, “Shorouk” programme is financed mainly from the State budget. For the infrastructure, the total expenditure reached about LE 1.2 billion until 2001.

Cooperation: No information available.

* * *

CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING

Decision-Making: The Cabinet of Ministers is the coordinating body regarding national policies and decision-making. The Egyptian Environmental Affairs Agency (EEAA) in cooperation with all government bodies is working to implement Agenda 21 chapters and integrating environment and development in decision-making.

Programmes and Projects: Integrating the sense of ecologically rational management of natural resources and social development while achieving desired economic growth, represents the objective of the Ministry of State for Environmental Affairs and its executive arm, the EEAA. This also represents a challenge for other Government entities and the nation at wide. The environmental policy of the Government of Egypt seeks to implement laws for the protection of the environment through developing institutional and legislative frameworks at national, regional and local levels. The environmental policy in Egypt hinges upon seven directives stated as follows:

- Strengthening partnerships at the national level;
- Supporting bilateral and international partnerships;
- Enforcing Law 4/1994 for the protection of the environment and Law 102/1983 for Natural Protectorates and all other environmental legislations;
- Supporting institutional strengthening and capacity building at the EEAA audits regional branch offices;
- Promoting integrated environmental management systems;
- Integrating the use of market-based instruments in the field of environmental protection; and
- Promoting the transfer and adaptation of environmentally friendly technologies.

Programmes are in place to integrate the environmental dimension into the national planning and development policies, and to provide support for institutions working in the environmental field. The updating of the National Environmental Action Plan (NEAP) has been initiated in 1999. An implementation component of the NEAP is expected to propose a number of well designed programmes and projects responding to the needs of sustaining environmental resources at the level of Governorates. Capacity building and resource mobilization are two other components of this plan.

Status: The Environmental Protection Law issued in 1994 is currently enforced. The law provides for the use of environmental management mechanisms, which include command and control measures such as the setting of appropriate standards, the application of the polluter pays principle (through the implementation of penalties and fines) and the use of environmental impact assessments (EIAs).

A draft National Agenda 21 was prepared which defines the roles of the various government agencies within the framework of the Earth Summit with a view to avoiding overlap of responsibilities. Environmental units are established in sector ministries and at the local government level which coordinate with the national body, the EEAA. A number of pilot projects are already being implemented at the local level. To further enhance the decentralization of environmental management, EEAA is currently in the process of establishing regional branch offices to cover the various Egyptian governorates. The branches are in different phases of completion. The NEAP has initiated a number of local partnerships through an extensive series of training programmes and workshops. NEAP also supported local environmental initiatives varying from tree-planting to preservation and development of Wadi Degla near Cairo. Small business involvement is also promoted to take part in implementing the national action plan.

At the Governorate level, a number of Governorate Environmental Action Plans (GEAP) has been prepared based on a wide scale consultation process with governmental and non-governmental stakeholders. The GEAP experience served as a valuable input to emphasize the linkage between social management, economical development and environmental pollution. Five Governorates have completed GEAPs. In 1997, together with C21 programme launched a process to update its NEAP. It is anticipated that the NEAP will include an assessment of environmental priorities and management programmes required to address emerging challenges within the context of globalization and its impact on the Egyptian economy and social structure.

Capacity-Building, Education, Training and Awareness-Raising: Within the NEAP framework, particular attention is given to training programmes targeting all stakeholders, both at the local and national levels with the aim of developing the ability to participate in the definition of environmental concern and solutions. Training and education, representing cross cutting, are included as components within all environmental initiatives. This is emphasized within the Ministry of State for Environmental Affairs efforts toward decentralization of environmental management. During 1999/2000, the MSEA supported the “Green Corner Initiative” which is implemented under the auspices of H.E. Mrs Susan Mubarak. The initiative targets selected schools and libraries in six Governorates and relies on techniques and interactive tools designed specifically for younger generations with the age group 7-15. During 1999/2000, capacity building activities targeting EEAA staff members included both local and overseas training and participation in overseas environmental courses. A total of 12 staff members received training in the following fields:

- Environmental management;
- Air pollution technologies;
- Industrial wastewater treatment technologies;
- Municipal wastewater treatment technologies;
- Environmentally compatible technologies for the pulp and paper industries;
- Natural resource evaluation;
- Solid waste management; and
- Environmental technologies.

Challenges: The information systems and multidisciplinary expertise required for environmental management in Egypt is still being developed, In addition, the implementation of sustainable development principles generates new tasks to further establish and practically address the links between environment, demography, economics and society. On the regional and global fronts, the Egyptian portfolio is expanding with opportunities and challenges that compound national responsibilities and place additional demands for know-hoe and technology on the Egyptian agenda. Financial resource mobilization is a vital challenge to the sustainability of environmental initiatives.

Information: Currently in process as well are the Environmental Information and Monitoring Program (EIMP) and the Egyptian Environmental Information System (EEIS) Project, which will assist GOE decision-makers to formulate and implement timely and appropriate environmental policies, legislation and programs.

Research and Technologies: No information available.

Financing: The Environmental Protection Law provides for the creation of an environmental protection and development fund to be managed by the EEAA. This fund's objectives are to support demonstration and pilot projects, address environmental disasters, assist environmental research and training, and support environmental promotion activities. It will be financed through state budget allocations, the tourism and environment fund, income from natural protectorates, penalties, fines and charges, and contributions from donors. The Social Fund for Development also provides social loans for projects where environmental and social dimensions are considered. International development agencies are contributing in some environmental protection projects.

Cooperation: Implementation of environmental policy in Egypt relies on a number of cooperation agreements and protocols with international and national partners. Within this scope, the MSEA/EEAA undertakes facilitating, coordinating and/or implementing roles. Environmental programmes implemented with international partners are designed and implemented with a number of line ministries and Governorates where the MSEA/EEAA plays the role of the national focal point. The MSEA/EEAA also include within its structure the Departments for International Affairs and Technical Cooperation. The former coordinates technical aspects related to multilateral environmental agreements in close cooperation with the Ministry of Foreign Affairs. The latter undertakes the technical preparations of bilateral agreements in close cooperation with the Ministry of International Cooperation.

CHAPTER 9: PROTECTION OF THE ATMOSPHERE

Decision-Making: Policies and decision-making regarding the protection of atmosphere is done within two national committees. The first is a ministerial committee formed of: Ministry of State for Environmental Affairs, Ministry of Petroleum, Ministry of Industry and Technological Development, Ministry of Electricity and Energy, and Ministry of Transportation. The second is the National Coordinating Committee for Climate Change and Ozone, which also includes various stakeholders. The Egyptian Environmental Affairs Agency and the Organization for Energy Planning are the central organizations which support the decision making process.

Programmes and Projects: In the Energy and Transportation sector, the following projects have been implemented or under implementation (see chapter 4):

- Cairo Air Improvement Project;
- Fuel cell bus demonstration Project;
- Hybrid-Electric Transportation Bus Project; and
- Natural gas switching programmes

In the Energy sector and with respect to climate change, Egypt participated in the US country Studies Program in a two-phase program on greenhouse gas inventory refinement and vulnerability and adaptation problems as well as a project funded within the same program on drafting a national climate change action plan. Egypt is also implementing a UNDP/GEF capacity building project on climate change. Starting in 1981, the Ministry of Electricity and Energy elaborated a continuous programme for rehabilitating old generating units by ones of higher efficiency. In industry and regarding the protection of the ozone layer, Egypt has launched the Egyptian Programme for Protecting the Ozone Layer.

Status: In the energy sector, promotion of renewable energies is currently an adopted policy. Supported by many international donors, 300 MW of wind turbines are under installation and scheduled to be operating by 2003. The New and Renewable Energy Authority (NREA) has prepared a programme for implementing series of solar thermal power plants. This includes the first Integrated Solar Combined Cycle System (ISCCS) with a 100-150 MW capacity in Kuraymat. This project has a target date of operation during 2004. Natural gas utilization reached 88% of total fuel for all power plants connected to the gas grid. The efficiency of the transmission and distribution systems has been improved through a program for reducing losses within these networks. Between 1981 and 1999, the total losses in the National United Power System declined from 19% to 13.2%. For environmental benefits, all power plants built during the last decade were dual fuel to enable substitution of heavy fuel oil by natural gas.

In industry, ozone depleting substances were banned and the ministerial decree 977/1989 which bans the use of CFCs in the aerosol industry starting from 1990. 34 companies in the foam production sector participated in a program to eliminate and substitute the use of CFCs. The program includes CFC-free technology transfer and training. 20 companies in the refrigeration sector are participating in a program to use CFC-free technologies. 10 companies in the solvents sector are in the process of substituting ozone-depleting substances. A committee was formed to implement the articles of Montreal Protocol regarding the import and use of Ozone Depleting Substances. The Ministry of industry also participated in the national committee on climate change and provided information on the industrial processes which contribute to a large extent in the greenhouse gas emissions like the cement industry, iron & steel, coke...etc. A report was prepared on the national greenhouse gas emissions from industrial processes. To reduce air pollution, several programmes in energy efficiency and energy management were implemented. The programmes focused on improving boilers and furnaces efficiencies, improving steam systems and improving the electric system.

In the transport sector, and through the Cairo Air Improvement Project, fifty municipal busses in Cairo are converted to run on natural gas in Cairo. In addition, 26,000 vehicles, including taxis, have been switched to run on CNG. Currently, the process of inspection and tune-up of more than 4,000 buses of the Greater Cairo public transportation fleet is underway.

As for climate change efforts, Egypt has prepared the first National Action Plan for Climate Change in 1997. Currently, EEAA is updating the action plan. The efforts done in protecting the atmosphere are mainly hindered by: lack of cleaner technologies; and high investment needed to apply those technologies.

Capacity-Building, Education, Training and Awareness-Raising:

- Training centres established in electricity sector;
- Comprehensive training programme by Ministry of petroleum;
- Training energy managers by Organization of Energy Planning (OEP); and
- Mass media awareness campaigns on energy and environment.

Information: Information on air pollution is available at the EEAA. Air quality monitoring stations are gathering data from different sites and transfer it to laboratories for analysis.

Research and Technologies: The following are the technologies introduced to reduce pollution of the atmosphere.

- Fuel-cell technology;
- Hybrid-electric bus;
- Methane recovery from landfills;
- Railway electrification;
- Energy efficient technologies; and
- Renewable energy sources

Financing: Programmes and projects are financed either through state budget or joint financing between government and an international development bank. Other sources of funding include private sector through BOT/BOOT/BOO systems and foreign grants.

Cooperation: Signed and ratified both the United Nations Framework Convention on Climate Change, on 5 December 1994, and the Montreal Protocol on 2 August 1988. Egypt is currently preparing an update for its national communication on climate change. Egypt has been implementing technical cooperation programmes through bilateral ODA (Official Development Assistance) and other forms of economic cooperation, which includes training programmes related to management of power generation and power transmission facilities, renewable energy, mining and oil refinement technologies as well as energy efficiency improvement.

* * *

CHAPTER 10: INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES

Decision-Making: No information available.

Programmes and Projects: No information available.

Status: Egypt has undertaken a number of measures to promote sustainable land management. It has developed land-use maps and has plans to curb industrial and urban encroachment on arable lands. Nurseries have been established for the afforestation of new roads, improvement of existing plantings along roads, and for the establishment and maintenance of gardens. Areas of sand dunes are also being stabilized through tree planting.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: No information available.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: No information available.

* * *

CHAPTER 11: COMBATING DEFORESTATION

Decision-Making: The Ministry of Agriculture has responsibility for forest resources, which are limited due to the countries arid, dry North African climate.

Programmes and Projects: The El Kasr Project is a pilot project, implemented in a region near the City of Marsa Matrouh, which aims at desertification abatement and the sustainable development of the region through community participation with the residing bedouins.

Status: Internationally, Egypt fully supports all initiatives to combat desertification and conservation of the existing forest resources of the world.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: No information available.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: No information available.

* * *

CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT

Decision-Making: Egypt's efforts to combat desertification started in an early stage and were mainly led by the Ministry of Agriculture. A National Coordinating Committee (NCC) was established in response to the adoption of UNCCD requirements. The NCC is currently headed by the deputy Prime Minister, Minister of Agriculture and with membership of representatives from the Ministries of Water Resources and Irrigation, Local Development, Planning and Foreign Affairs. Membership also includes representatives from the Parliament, scientific community, private sector and NGOs.

Programmes and Projects: The National Action Plan for Combating Desertification is currently being prepared. It includes:

- Identification of stakeholders and increasing awareness; and
- Initiating a system of communication for data exchange between stakeholders and integrate the current projects being implemented with the mainstream objectives and action of the NAP.

Several accomplished, current and planned projects were reported in Egypt's report to COP4 including:

- El-Qasr rural development project in the North West coast;
- Integrated soil and water improvement project;
- Shorouk rural development project;
- Water and sustainable agriculture development in Siwa;
- South Valley development project; and
- Identification and monitoring of sand dunes

Status: The national strategy to combat desertification stipulated some of the following policies:

- Increasing the efficiency of using the available water resources;
- Conserving the fertile land resources, reclaiming the degraded land to restore its production and placing more land in the production system; and
- Supporting the agriculture research

The following are some of the projects related to combating desertification: 1) *Modernization of the Egyptian agriculture in the Nile Valley and Delta* - This project is aimed at enhancing agricultural productivity, prioritizing technologies related to efficient irrigation, raising awareness and improving socio-economic services.

2) *Sustainable resource management of the North West coastal zone* - Integrating the population in developing the area by increasing the water harvesting, storage and efficient water use. Build public awareness and capacity and develop replication strategy so that the project activities could be extended to other ecosystems in Egypt and other countries. 3) *Alternative management of resources in the Oasis* - Special attention would be given to the eminent threat posed by the encroaching and dunes, indigenous crops and vegetables will be used as raw materials for a profitable food processing industry and indicators would be used to quantify and assess the achieved outcomes. 4) *Identification, monitoring and stabilization of sand dunes* - Vulnerable regions in the country are: western portion of Aswan. Settlements of El Farafra and El Dakhla Oasis, Nile Valley between Minya and Assiut, human settlements in the northern delta region and the newly constructed El Salam Canal and Kantra-Rafah rail road in Sinai. The project would establish a national system for combating the adverse effects of dunes comprising: a) validation of past Egyptian experience. B) Undertaking interdisciplinary space imagery to show dune characteristics, c) defining appropriate methods and procedures, d) establishing an early warning system and e) defining a reference code for environmental impact assessment. 5) *Afforestation in Egypt* - The general objectives if the projects are: conserving the fertile land against erosion, providing raw materials and additional source for people in rural areas. Improve microclimate conditions and sequestering of CO₂, propagating endangered plant species in national parks, and strengthening the linkage between relevant stockholders. 6) *Desertification Information System* - The objectives of this project are: establishing a national network to share data and

information among stakeholders, defining a set of standard methodologies and procedures that would provide a reference framework to identify priority areas, satisfying the needs of policy makers and local community in terms of dynamic scenarios and impact assessment in several domains, improving the efficiency of NAP by improving the quantity and quality of needed information, and developing and adopting sets of baseline data and indicators to assess progress of implementation of NAP.

It has to be mentioned though, that global commitment to combating desertification has been much delayed. Financing of projects represents major impedance to developing countries, including Egypt, to implement programmes. Moreover, regional cooperation to this end remains ineffective in identifying long-term solutions and a range of alternatives that can be locally adapted.

Establishing the link between combating desertification and poverty reduction is an urgent priority for countries suffering from desertification, particularly in African region. There is a critical need to demonstrate successful practices related to rain-fed agriculture, management of dry land and sand dunes. The weakness of global and regional mechanisms designed to address desertification needs to be addressed as a first step toward effective implementation of such a vision.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: No information available.

Research and Technologies: A strong scientific establishment in the universities and research institutions (such as Agricultural Research Centre) supported the research needs of the agricultural development of Egypt. Three illustrative examples could be given to demonstrate this important contribution:

- Soil testing was adopted as a basis for effective and rational fertilizer recommendations;
- Integrated pest management was introduced to increase yield and minimize pollution; and
- Remote sensing was utilized to assess land capability, monitor sand dune movements and determine the extent of urban encroachment on cultivated lands.

Expansion of the use of drip irrigation and water conservation technologies in new reclaimed lands.

Financing: No information available.

Cooperation: Egypt ratified the International Convention to Combat Desertification in Countries Experiencing Drought and/or Desertification Particularly in Africa on 7/7/95.

* * *

CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT

Decision-Making: No information available.

Programmes and Projects: No information available.

Status: No information available.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: No information available.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: No information available.

* * *

CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

Decision-Making: The Cabinet of Ministers coordinates activities of all ministries in Egypt and set-up national development policies. The Ministry of Agriculture and Land Reclamation is responsible for promoting sustainable agriculture. A strategy is being implemented by the Ministry of Agriculture to promote and encourage sustainable farming practices and technologies. The Ministry of Local Development is involved in development of rural areas. Other ministries are also involved in rural development.

Programmes and Projects: The Ministry of Agriculture is developing agriculture extension programmes that are timely and meet the needs of a growing Egypt amidst a changing global environment. A major focus of the programme deals with decentralizing planning and implementation of extension programmes for rural development of field crops, horticulture, and the production of animals, poultry and fish in order to make local programmes more accessible and meaningful to farmers. The national action programme to combat desertification highlights the necessary national mechanisms to manage the irrigated lands, rain-fed lands and range lands. The Government of Egypt plans to reclaim 150,000 acre annually. The treated sewage water has been channelled into desert and has been planted with tree for production of wood. This has been established in 19 locations, which will have positive impacts on environment and agriculture resources. Currently, two major national projects on land reclamation are taking place: Touthka project to cultivate 540,000 Feddan in Upper Egypt and Salam Canal that will add 600,000 new reclaimed Feddan in Sinai. The National Plant Genetic Resources Unit in Egypt was established in 1995 within the Ministry of Agriculture (NPGRU/E). The unit worked out a National Strategy Plan regarding the activities of the unit.

Status: The Ministry of Agriculture has developed a strategy for agriculture development in Egypt, which has the following main objectives:

- Ensure the optimum allocation, utilization of agricultural resources while conserving and improving those resources;
- Better utilization of comparative advantages to increase exports; and
- Create new opportunities for gainful employment in rural areas.

The studies on the impacts of the agricultural economic policy reform programme on agricultural development in Egypt have shown that Egyptian farmers have been highly responsive to agriculture research findings, agriculture extension, technology transfer and price incentives. The cultivated area increased from 6.2 million Feddans in 1982 to 8 million Feddans in 1998. The value of plant production increased from LE 3.5 billion in 1982 to LE 41.8 billion in 1998. The total production of fruits increased from 2.6 million tons to 6.5 million tons in 1998.

As for conservation and sustainable utilization of plant genetic resources, the following activities have been finalized or started:

- A National Plant Genetic Resources Committee has been established;
- Country report on plant genetic resources activities in Egypt has been prepared and submitted to FAO;
- The NPGRU gave technical advice to members of the national network;
- Working manuals for germplasm collection, processing, conservation, evaluation and data documentation were prepared; and
- A Plant genetic resources station was established in the North East Coast of Egypt.

Integrated pest management in agriculture (IPM): Recognizing IPM as a valuable component of a sustainable agricultural system, the national policy is currently based on the reduction of dependence on agriculture pesticides and enhancement of cultural practices, combined with proved biological and alternative control technologies. A plant protection coordinating steering committee for the recognition and evaluation of IPM components was established in the MOA. The future national development strategy for IPM will focus on the efficient use of natural enemies, new innovative approaches through molecular biology in the critical identification of pest strains, development of induced resistance plant varieties through biotechnology, the establishment of computerized IPM website and the assessment of pesticide risks and benefits.

Rural energy transition to enhance productivity: Activities in renewable energies are undergoing including projects on solar energy utilization for grain drying, thermal control in greenhouses, evaluation of solar pumping systems and use of biogas technology. Other applications under study or implementation include the utilization of plastic houses as field solar dryers, use of cotton stalks to produce biomass to produce energy.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: Information on rural development can be accessed through the IDSC.

Research and Technologies: No information available.

Financing: Most activities in the agriculture sector in Egypt is financed by the private sector. The State budget acts as an extra funding source for major development projects. Loans from foreign development banks as well as private sector in Egypt also participate in rural development programmes. Public participation in financing infrastructure in rural areas provided funds for such projects as in the case of “Shorouk” project.

Cooperation: Cooperation in issues related to sustainable agriculture and rural development is ongoing with several international organizations: IBRD, UNDP, FAO, WFP and UNEP .

* * *

CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY

Decision-Making: The Cabinet of Ministers is coordinating all efforts and is responsible to develop national policies and strategies. The Egyptian Environmental Affairs Agency, Governorates, Ministries of Tourism, Interior Agriculture, Higher Education and Scientific Research, CITES Management Secretariat and the coast guards are involved in the protection of biological diversity.

Programmes and Projects: The National Action Plan for Biodiversity Conservation in Egypt represents a major response to Egypt's commitment to 24 regional and international environmental agreements in the field of Biodiversity and nature conservation. The programmes and projects are designed to achieve the following objectives:

- Develop institutional and human resource capabilities in this field
- Mobilise national resources for biodiversity conservation
- Design and implement integrated management systems for natural protectorates
- Streamline national efforts for nature conservation with global commitment to this end.

The following are brief description of programmes and plans in that field Wetlands Conservation: MedWet Coast Programme. The MedWet Coast programme is a regional initiative aiming at protecting the ecological systems within Mediterranean wetlands and coastal areas. The programme focuses on three main protected areas of international significance:

- Zaranik is located along the northern coast of the Sinai Peninsula and composed of salty marches falling to the east of Lake Bardaweel. The area is significant habitat for migratory birds and endangered Mediterranean Sea turtles. The MedWet Coast programme relies on public participation and the development of eco-tourism;
- Omayed, is located west of Alexandria and accommodating important fauna and flora species. The programme will primarily support biodiversity studies in the area and the implementation of initiatives to protect endangered species; and
- Lake Borollos is situated along the northern coast of the Nile Delta, and considered among internationally significant wetland areas in the Mediterranean. The programme aims at developing an integrated management plan for the lake, taking into consideration present and future economic activities while addressing environmental problems affecting the lake.

Two projects are providing the necessary capacity building component and are the driving force of nature conservation in South Sinai where 40% of then Governorate is presently proclaimed protected areas. Other projects aimed at the conservation of wetlands in the Nile Delta and the Mediterranean coast is under implementation. Development and management of Wadi Rayan in the western desert is currently in action. Plans are in place along the west coast of the Red Sea that is preparing the entire coastal and marine area as a Marine Park, which on completion will be the second largest Marine Park in the world. A GEF/UNDP assisted project on the conservation and sustainable use of medical plants and development of local knowledge is scheduled to start late 2001. Legislation for environmental conservation and the protection of the biodiversity has been promulgated in terms of Law 102/1983 for protected areas and Law 4/1994 for the protection of the environment.

Status: 1- With the restructuring of the Egyptian Environment Affairs Agency in 1992, the Nature Protection Department was formed to oversee nature conservation in Egypt, including the implementation of law 102/1983 for the Natural Protectorates and managing the national network of Protected Areas. A total of 21 Protected Areas have been established in Egypt representing a wide range of critical ecosystems. Civil servants and many NGOs are also involved in implementing or disseminating information related to the department action plan. 2a- Due to its strategic geographic location at the juncture of three continents and its diverse habitats, Egypt has rich plant and animal life. The National Biodiversity Country Study inventoried the plant and animal species in the country. However, because much of the existing information is outdated, field studies are required to assess the current status of Egypt's biological resources. Indications are that Egypt's biodiversity is being lost at an accelerated rate,

with habitat destruction, pollution and over exploitation the main threats to the country's wildlife. For example, based on current trends, unless mitigation measures are taken, Egypt in the next ten to twenty years will stand to lose most of its large animal populations.

2b- To fulfil the country's obligations under the Biodiversity Convention, a National Biodiversity Unit (NBU) was established within the Nature Protection Sector. A workshop on Egypt's biological diversity was held in November 1992, from which a National Biodiversity Action Plan was formulated. The NBU, in cooperation with the scientific community, has since produced a number of landmark studies of Biodiversity, including the National Habitat Diversity Study in 1993 and the National Biodiversity Country Study in 1995. At present the NBU is establishing a National Biodiversity Data Bank to facilitate the monitoring and management of Egypt's biological resources. In 1997 the NBU began development of a National Biodiversity Country Strategy. It is hoped that the Government will be able to raise funds for Biodiversity projects in Egypt, such as those, which have been identified by the National Biodiversity Action Plan. Some of these projects include captive breeding for endangered wildlife, a gene bank to preserve plant and animal genetic resources, and a Natural History Museum to promote biodiversity research and education.

3- Protected Areas have proven to date to be the most important management tool to protect the nations biodiversity. Approximately 8% of the country was protected under law 102/1983, and it is expected that coverage will expand to 15% by the year 2017 by adding another 19 protected areas. The European Community (EC) has been working closely with EEAA (Nature Protection Department) since 1988 in the field of national park management. Collaboration began with the project to develop the management and infrastructure of Ras Mohammed National Park, and was subsequently expanded to establish a protected area network in South Sinai with Nabq and Abu Galum Protected Areas, St. Katherine protectorate and Taba protectorate.

4- A plan for a national system of protected areas has been developed and the management of these areas will make use of the modern technology such as GIS and remote sensing along with other tools. The local economic value of these protected areas and their contribution to the national economy is being investigated particularly through the development of ecotourism. Plans are also in hand for the establishment of a Natural History Museum, a National Gene Bank and a captive breeding programme for rare and endangered animals destined for re-introduction. A database on Egypt's protected areas, the flora and fauna as well as all the international conventions and protocols Egypt has ratified has been established and maintained.

5- Hunting management also plays a role in Egypt's biodiversity strategy. Many different types of hunting take place in Egypt; these are classified as hunting for sport, tourism, subsistence or commercial trade. Hunting has tended to be excessive in Egypt, leading to the depletion of the nations wildlife. Since 1992, Egypt has made significant improvements in hunting management with steps taken to organize sport hunting for game birds, in particular for tourism. To control illegal hunting, a system has been set up to monitor hunting in the desert, and raids have been carried out on shops selling protected species of wildlife. In 1996 a study was conducted with support from DANIDA to explore ways to enhance the implementation of the provisions of Law 4/1994 pertaining to hunting. The study recommended that a hunting management system be devised in Egypt to manage hunting on a sustainable basis with a coordinating body established to oversee implementation of the system. It is important to note here also that there has been considerable improvement in the institutional and legal set-up for the implementation of CITES Convention and the enforcement of related national laws.

Constraints: While gigantic steps towards the conservation of the natural resources are evident, there are still some aspects that need to be improved. The most important of these are those limiting factors that require a great input of financial resources and training. The National Conservation sector lacks the status equal to the task and due to the present low profile, competent, professional and dedicated staff are limited, and due to salary constraints very difficult to recruit. The development of a strong identity for the Conservation Biodiversity Sector will improve the productivity and enhance the support from the private sector. There is a generally low level of environmental awareness in Egypt. The enormous task of public awareness in a large number of population requires a large staff and a vast increase in the present human and financial resources. Environmental control is limited mainly due to

the limited human capacity and low level of environmental awareness. The limited progress in the national conservation education is mainly due to the extreme shortage of staff and the means to produce the necessary material and present a reasonable profile in the media.

The management of some protected areas is limited by a serious lack of appropriate equipment such as boats and moorings in the Red Sea monitoring programmes, or the availability of aircraft to patrol large marine areas. The provision of such equipment would greatly enhance the achievements of the NCS and contribute to the national conservation programme

Capacity-Building, Education, Training and Awareness-Raising: Two EU funded projects are providing the necessary capacity building component for the rangers in the protected areas in South of Sinai. Different projects within EEAA are providing technical assistance and capacity building for rangers along the Red Sea coast. Visitor centres have been built in 11 of the protected areas (with another 2 under construction), along with access roads and staff accommodation. A training centre for ranger training is now established in Sharm El Sheikh and runs regular national and international training programmes.

Information: The Egyptian Environmental Information System is the main source for environmentally related information. A long term programme for monitoring coral reefs in the Red Sea is currently being implemented. A national biodiversity data and information system was designed under the Convention on Biological Diversity,

Research and Technologies: Geographic Information System (GIS) and remote sensing are being used to document the natural and ecologically sensitive sites.

Financing: Entrance fees have been introduced in a number of the protected areas to raised revenues for their management.

Cooperation: Egypt signed the Convention on Biological Diversity in 1992 and ratified it in 1994. Its most recent report to the secretariat was submitted in 1997. Egypt ratified the Convention on International Trade in Endangered Species of Wild Fauna and Flora in 1978 and submitted its latest report to the secretariat in 1996. International cooperation is an important component of Egypt's biodiversity strategy. Egypt has signed more than eight international agreements having provisions for nature conservation. To fulfill the country's obligations under the Biodiversity Convention, a National Biodiversity Unit (NBU) was established within the Nature Protection Sector. At present the NBU is establishing a National Biodiversity Data Bank to facilitate the monitoring and management of Egypt's biological resources. Nature Protection Sector has been active in the conventions and following-up on convention compliance. The Government of Egypt has played a major role in the Biodiversity Convention, and was one of the first countries to sign the agreement in 1992. During the past two years, steps have been taken to improve regulation of international trade in endangered wildlife as obligated under the CITES convention of 1979. Egypt cooperates with a number of international organizations, including UNEP, the European Union, WWF, IWRB, and Bird life international.

* * *

CHAPTERS 16 AND 34: ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY AND TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, COOPERATION AND CAPACITY-BUILDING

Decision-Making: The National Bio-Safety Committee (NBC) composed of number of institutions is the official body responsible for ensuring that biotechnology continues to be safe and facilitating access to modern biotechnology generated abroad. Every organization involved in the NBC is mandated to establish its own Bio-Safety Committee (IBC).

The NBC is formed of EEAA (representing Ministry of Environment), Ministry of Health, Ministry of Agriculture, Ministry of Industry, Ministry of Trade, Ministry of Foreign Affairs, and the Ministry of Higher Education and Scientific Research.

Programmes and Projects: *Technologies:* Egypt has a programme to promote cleaner production. For example, the Egyptian Environment Affairs Agency (EEAA) will continue to administrate the National Industrial Pollution Prevention Program (NIPPP) to promote low cost pollution prevention measures and cleaner production technologies that will yield environmental and economic benefits for industry. Outputs include replicable demonstration projects in the various sectors. The national programme for an Environmental Management System (EMS) was instituted to promote ISO 14000 certification; in the course of that program's ongoing activities, EEAA shall develop, within one year, a work plan for assisting industries to formulate and implement the System. The national program for an Environmental Management System (EMS) was instituted to promote ISO 14000 certification; in the course of that programme's ongoing activities, EEAA shall develop, within one year, a plan for assisting industries to formulate and implement the System. Egypt is currently preparing a National Programme for the Promotion of Environmentally Sound Technologies (EST), formulated along the following sectoral lines: freshwater resources management; waste and hazardous waste management; manufacturing and chemical processing; energy production; and transportation. Programmes of Action will be provided as soon as the overall programmes are finalized.

Biotechnologies: The Egyptian Environment Affairs Agency (EEAA) has initiated several activities and programs, which cover the approach of environmental management of biotechnology in coordination with other line ministers. Each IBC is responsible to:

- Establish a program for inspection;
- Assemble a set of oriented guidelines that comply with the NBC guidelines;
- Review periodically r-DNA researches; and
- Adopt emergency plans covering accidental spills and personal contamination

Status: *Technologies:* Since 1993, a National Ozone layer protection Unit has been fully operational at the EEAA with an established experience record on national and regional levels. A National Ozone panel was also established in partnership with stakeholder ministries and the Federation of Egyptian Industries. The role of the private sector in this regard has also been considered and they are represented in this panel. More than 2400 tons of CFCs have been phased out and the establishment of a Halon bank is underway, so is the implementation of two projects to substitute Methyl Bromide as a fumigant agent. Efforts are ongoing to set up an import and export licensing system that would ensure monitoring, control and reporting of Ozone Depleting Substances consumption to Ozone Secretariat. Resource mobilization for environmentally sound technologies is a critical issue, particularly for small and medium enterprises. A number of projects are designed and implemented to support the SMEs through providing access to credit for pollution abatement activities and the setup of green businesses coupled with disseminating technical know-how. At present, the most present need of the growing Egyptian environmental technology market is to develop and commercialize advanced environmental technologies to support the local manufacturing sector in this respect. National priorities are related currently to integrated solid waste management and air quality monitoring and pollution abatement technologies.

Biotechnologies: A- As a part of its environmental sector strategy, Egypt has a number of objectives concerning the sustainable management of biotechnology. These include expanding the technologies of biotechnology in afforestation and agriculture, eliminating over dependence on agrochemicals by developing the technologies and production of biological fertilizers, raising public awareness regarding the relative beneficial aspects and safe application of biotechnology to contribute to sustainable development, and improving the technologies of biological treatment of water and wastewater. B- While Egypt ratified the Convention on Biological Diversity and signed Protocol on Biosafety, current national legislation does not recognize that being a GMO makes an article different, requiring specific declaration, labeling, handling or treatment, while the international market is bound with such products in health care, food, agriculture, raw materials and industry. The Environmental Law in Egypt makes no mention of GMOs, accordingly, domestically produced or imported GMO could be legally released into the environment and consumed by people and animals with neither notification nor labeling. In 2000, The Egyptian Environmental Affairs Agency, with financial support from UNEP, produced a framework for a national biosafety instrument, including a draft legislation, which has been reviewed by the Ministries of Foreign Affairs and Justice but still needs further review and refinement before it could be sponsored by the Ministry of Environment for legislative consideration.

Capacity-Building, Education, Training and Awareness-Raising: *Technologies:* To facilitate the transfer of ESTs to small and medium sized enterprises, Egypt has a Programme to Strengthen the Industrial Capability to Manage its Environmental Responsibilities. For each category of generators of small quantities of waste, EEAA will prepare mitigation plans, including photo-processing laboratories, dry-cleaning plants, gasoline stations, etc. For medium-quantity generators, EEAA will prepare action plans in such areas as metal founding, lead smelters, tanneries and the electroplating industry. *Biotechnologies:* The Agriculture Genetic Engineering Research Institute is providing training for future high caliber scientists in the field to ensure sustainable biotechnology in Egypt.

Information: *Technologies:* Information on cleaner technologies promoted in Egyptian industries is available at the Egyptian Environmental Affairs Agency. Also, the federation of Egyptian Industries is carrying out a project to disseminate cleaner technologies. Information on these technologies and types of targeted industries can be accessed through the Environmental Department at the Federation.

Financing: *Technologies:* The private sector is investing in new and cleaner technologies to increase their profitability while complying with environmental regulations. However, the public sector, now mostly under privatization, is suffering from lack of finance to upgrade the old polluting technologies. It is expected that through the privatization process, those industries will be able to invest in upgrading their old technologies. Few projects are jointly implemented between the Government (represented in EEAA), the industry and an international institution such as the World Bank. Green loans are being provided to industries for implementing pollution abatement projects. The EEAA has also created the Environmental Protection Fund, which allows industry to utilize for pollution abatement with lower interest rates than the commercial loans. *Biotechnologies:* The research efforts made in this field are mainly covered by the state budget allocated for general research purposes. Private sector is encouraged to invest in research and implementation of new biotechnology applications.

Cooperation: *Technologies/ Biotechnologies:* Several projects are being implemented in industry for pollution control and abatement as a result of several international cooperation agreements.

* * *

CHAPTER 17: PROTECTION OF THE OCEANS, ALL KINDS OF SEAS, INCLUDING ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES

Decision-Making: The Egyptian Environmental Affairs Agency (EEAA) is responsible for Egypt's Sea and Coastal zone policies (Mediterranean Sea and Red Sea). Different authorities are responsible for the implementation of such policies. Ministry of Defence and EEAA are the main controlling, monitoring and patrolling agencies in Egypt. The Ministry of Transport (Maritime Affairs Sector) is responsible for Maritime transport in general and responsible for the implementation of all IMO conventions such as MARPOL 73/78 and London Dumping Convention, 1990 (OPRC) where EEAA is the Competent State Authority. Tourism Development Authority (TDA), Fisheries Development Authority and Egyptian General Petroleum Corporation (EGPC) are among the main users of the coastal zones. Universities and Research Centres are among other authorities that take part in Egypt's decision-making process.

Programmes and Projects: The Framework Programme for Development of a National Integrated Coastal Zone Management (ICZM) Plan for Egypt was prepared in 1996 in which, the major issues confronting the coastal zone were identified. The short-term objectives of the Framework were implemented during the last few years. Now a day, Egypt is implementing the medium term objectives identified by the Framework. A committee for the National Integrated Coastal Zone Management issues was established by a Ministerial Decree 59/1998. A project for preparing an ICZM Plan for the Egyptian Red Sea Coastal and Marine Resources and financed by GEF was carried out in coordination between EEAA, TDA and Red Sea Governorate (1996- 1999). The updating of the National Oil Spill Contingency Plan (NOSCP) was one of the important (1997 – 1998) joint projects implemented by EEAA. The NOSCP was merged and presented to all involved authorities in 1998 and it is fully operational now. Moreover, its mandate was extended to include all kind of marine pollution emergencies but not causality. A continuous Environmental Integrated Monitoring Programme (EIMP) was established in 1997. Currently, the EIMP is operating in full capacity to monitor the air and marine environment at both, the background and the ambient levels. Inspection of Industrial Land-Based sources of marine pollution is maintained through a Central Unit for Industrial Inspection and Compliance in coordination with EEAA Regional Branches and Laboratories. Biodiversity and the conservation of marine life are by themselves continuous activities, Southern Sinai and the Red Sea protectorates are typical Marine Parks where EEAA implement numerous programmes and projects. They are mainly aiming at the protection of existing ecosystems and maintaining their species composition and rehabilitation of damaged ecosystems.

Status: Two completely different seas, the Mediterranean Sea and the Red Sea, border the Egyptian coastline. Each of them has its specific physico-chemical characteristics, biodiversity, ecosystems and problems. Generally, the hazards threatening the coastline bordering both seas are of the same nature but different in magnitude. The Red Sea coastline, being more sensitive and diverse in terms of natural resources, is exposed to numerous threats arising from the conflict in the use of its resources, the shipping activities, the non-point sources of pollution and the sporadic development of its shoreline. As a result of different programmes and projects implemented so far, few hot spots and issues were identified. At present, mitigation measures are being implemented, but the expected results are not yet apparent, as it requires some time to detect positive or negative changes.

The coastline bordering Mediterranean Sea is suffering primarily from a chronic erosion problem. Severe pollution problems are observed in very few locations, especially in front of major cities. Such problems are well identified and mitigation measures were implemented and positive signs began to be apparent. Other less severe problems threatening the Mediterranean Sea coastline is related to shipping activities and sporadic development. An Integrated Coastal Area management Plan was developed for one stretch in the Mediterranean Sea coastline, Fuka – Matrouh area, in cooperation between EEAA and PAP/RAC of the MAP/UNEP (1992 – 1998). At present, EEAA is in the process of preparation of NPA for the Egyptian side of the Mediterranean Sea and the Red Sea.

Capacity-Building, Education, Training and Awareness-Raising: Capacity building is one of the important issues in protecting Egypt's marine environment. Training of EEAA staff and other stakeholder employees is a key

factor to ensure the quality of service provided. This was directed toward Environmental Management, Risk Assessment and Identification, Monitoring and Inspection, etc. Training was carried out as On Job training, through tailor-fit courses, pre-designed courses in competent institutes. Training took place in Egypt, USA, Sweden and Japan. Since 1998, four training courses for Combating Marine Pollution are carried out, on a yearly basis, with the help of one competent educational institute in Egypt, the Arab Academy for Science, Technology and Maritime Affairs. Taking into consideration that protection of the marine environment is a common interest, it was rational to educate other partners and raise their level of awareness toward environmental issues. This was addressed through seminars tailored for specific target groups. The most obvious series was introducing EIA to Tourism Investors Corporations, Bankers and other Governmental bodies. A series of seminars for shoreline cleanup from oily wastes addressed to tourism investors, petroleum companies and other interested groups were organized.

Information: Information and its availability is a crucial issue in environmental management in general. This was well-identified by EEAA. An advanced information system was designed and established in EEAA premises. Data is collected from different projects such as EIMP, NOSCP, and GEF. Moreover, the data is originated from Protectorates and linked to the EEAA information system. Some of the data are accessed from the EEAA Internet web site.

Research and Technologies: Cooperation and coordination in the field of environmental research and technology are encouraged by EEAA. Universities, Research Institutes and lead Governmental Laboratories are integral part of EEAA research facilities. Monitoring programmes are carried out by competent local institutes. Research in the field of mitigation of the impact of oil spills on the coastal and marine environment is carried out by the Local and International Universities and Research Laboratories.

Financing: Financing coastal zone and marine activities is taken over by EEAA through the Egyptian Environmental Fund, the recurrent budget and the investment budget. Some of the activities are jointly financed by donors and the Egyptian Government. Up till now, the mechanism to finance all ICZM Plan activities is not apparent.

Cooperation: Egypt is party to 30 global and regional treaties, conventions and other agreements relating the marine and other aspects of the environment. Two sub-regional agreements with neighboring countries to cooperate and react collectively in case of marine pollution causality. Egypt is very much part of the “global alliance” striving to balance the needs of conservation with the needs of development.

* * *

CHAPTER 18: PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES: APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT, MANAGEMENT AND USE OF WATER RESOURCES

Decision-Making: The Ministry of Water Resources and Irrigation (previously, the Ministry of Public Works and Water Resources) is mandated to control and manage all fresh water resources in Egypt including the surface and subsurface water. In addition to construction, supervision, operation, and maintenance of all the irrigation structures and drainage networks, the Ministry is also responsible for providing all other sectors with their needs of good quality fresh water in due time. The Environment Law No. 4 of 1994 has been issued to protect the environment in Egypt in general. Law No. 4 refers to Law 48 of 1982 for pollution abatement on the water resources in Egypt and mandates the Ministry of Water Resources and Irrigation to implement the law in collaboration with other concerned ministries. Law 12, 1984 is the law governing the management and operation of the irrigation and drainage systems in Egypt.

The Ministry of Water Resources and Irrigation has prepared a National Water Policy till the year 2017 including three main policy themes: 1) Optimal use of available water resources; 2) Water quality protection and pollution abatement; and 3) Development of new water resources in cooperation with the Nile Basin riparian countries. Various interested or affected individuals, organizations, and government entities took parts in the policy development prior approval by the Ministerial Cabinet and People's Assembly. Along the same line the Government completed Land Water Master Plan for the whole country including activities related to water and land use. Through a policy reform Unit with the Ministry of Water Resources and Irrigation had adopted a policy to enhance and promote farmer's participation in operation and maintenance of canal and drain system, which resulted in the formulation so far of around 5000 water user associations.

Programmes and Projects: The following programs and projects are being implemented as per the National Water Policy till the year 2017:

Optimal use of the available water resources (water management for sustainable development) - Several programs has been carried out by the Ministry of Water Resources and Irrigation to optimize the use of the limited and fixed available fresh water resources. These programs will continue till the year 2017 and have so far completed the: Improvement of the Irrigation systems on the branch and field canal level in an area of around 400,000 acres in the old land which is expected to result in saving in the irrigation water by 5-10 %; Installation of tile drainage systems in a area of five million acres and rehabilitation of old drainage network in another 1.5 million acres to leach salt from the soil profile and improve the soil fertility; Rehabilitation of irrigation and drainage pumping stations; Introduction of new varieties as early mature and salt tolerant; and Replacement and Rehabilitation of the existing grand barrages and structure on the Nile and main canals. In the mean time, the government of Egypt intends to reclaim an area of 3.4 million acres to add of the current 8.0 million acres of agriculture lands. The current uses and future plans and needs spatially and temporally are identified and agreed upon through ministerial committees in participatory approach involving all major stakeholders at various levels of the decision making process.

Water quality protection and pollution abatement - Water Quality Status: drainage water in Egypt may be polluted from three main sectors: agriculture, industry, and domestic. Contamination arises from both point and diffuse sources. Inadequate industrial and domestic wastewater treatment plants and the rapid increase of the population and industrial activities have created significant pollution problems with serious health implications. The impacts of pollution are many and diverse but the general picture is the deterioration in the ecological quality of aquatic systems such as phosphorus induced eutrophication and threats to human health and well-beings from nitrates, pathogens, pesticides and other hazardous substances. These pollutants also offset the planned reuse scheme by reducing the amount of drainage water available for reuse for reclamation projects in the future. Currently the government is reusing around 5 billion cubic meters of agriculture drainage water and 0.5 BCM of treated wastewater. However, the government faces multidimensional challenges in sustaining the current reuse and

promoting more drainage water reuse over the next decades. The challenge is to develop pollution control plans that are cost effective, compatible with the state of social and economic development and provide achievable benefits.

The policy theme is realized preventive measures and long-term policies. The preventive measures are carried out through the regular assessment of the water quality status and suitability for various uses in addition to laws enforcement to protect water resources against pollution. The Ministry of Water Resources and Irrigation established and operates a National Program of Water Quality Monitoring in the Nile, canals and drains and lake Nasser. The substantial lab work is carried out by the Central Laboratory for Environmental Quality Management affiliated to National Water Research Center. The monitoring program includes 300 locations for surface water and 230 locations for groundwater. On the other hand, the long term policies to control pollution include: coverage of open conveyance system passing through urban system to closed conduits; coordination committee with other concerned ministries were formulated to put priorities for wastewater treatment plants due to budget limitation; and the introduction of environmentally safe weed control methods (mechanical, biological and manual) and banning the use of chemical herbicides. Subsidies on fertilizers and pesticides were removed and some long lasting effect agricultural chemicals were also banned. Public awareness programs are taking place about the importance conserving Egypt's water resources in terms of quality and quantities.

On the other hand access to safe drinking water and sanitation expected to better protect the water resources from pollution. During the last 20 years 220 wastewater treatment plant were established to increase the potentiality from 1 million m³/day to 8.2 million m³/day (25 lit/day/Person to 110 lit/ day/ person). With regard to drinking water, 1900 drinking water treatment plants were established to increase the potentiality from 5.8 million m³/day (120 lit/day/person) to 18 million m³/day/person (275 lit/day/person) covering 90% of the population.

Development of new water resources in cooperation with the Nile Basin riparian countries (transboundary issues) - Bilateral cooperation with the River Riparian is carried out through joint agreements to develop the river-shared resources. On the regional scale and recognizing that cooperative development holds the greatest prospect of bringing mutual benefits to the region, the Nile riparian including Egypt took an historic step in the establishment of the Nile Basin Initiative. The Council of Ministers of Water Affairs of the Nile Basin States formally launched the Initiative in February 1999, the Initiative includes all Nile countries and provides an agreed basin-wide framework to fight poverty and promote socio-economic development in the region. The Nile countries seek to realize their Shared Vision through a Strategic Action Program, comprising basin-wide projects, as well as sub-basin joint investment projects. The basin-wide Shared Vision Program, a broad based program of collaborative action, exchange of experience, and capacity building. While at the same time, groups of countries - one in the Eastern Nile and another in the Nile Equatorial Lakes region - have identified joint, and mutually beneficial, investment opportunities at the sub-basin level. To raise broader donor support for the Nile Basin Initiative and its portfolio of cooperative projects, a first meeting of the International Consortium for Cooperation on the Nile (ICCON) took place June 26-28, 2001, in Geneva through which the donor community pledged around 140 million USD to support the NBI programs.

Status: No information available.

Capacity Building, Education, Training, and Awareness-Raising: The Ministry of Water Resources and Irrigation accentuate on capacity building, education, and training. Within the last decades around 170 professionals from the National Water Research Center have completed their master and ph. D. from local and foreign universities in various disciplines in water resources management, irrigation and drainage. The Main Training Center of the Ministry is giving annually 200 courses for around 2500 trainees. A specialized training center was also established to give courses in land drainage due the large size of the National Drainage Program the government is implementing. To strengthen the ministry's capacity for awareness raising program the Water Communication Unit was established. The Unit publishes regular newsletters, media announcements and carry public awareness campaigns to prompt water saving and protection measures.

Information: The Main Information Center (MIC), established in 1994, is responsible for collecting, verifying, and publishing the water resources and supply and demand data. It implements many information systems including

irrigation canals attributes, water distributions, and Nile basin rainfall and discharge historical data. The MIC publishes its information through the intranet, and Internet. MIC is currently connecting with different water resources and management regional information centers in the Middle East. Additionally, information, and research findings are disseminated through newsletters, progress reports and via national, regional, and international conferences and seminars. Currently, the cropping pattern is identified by market needs and decided upon solely by farmers. A mechanism is put in place to give early warning about planting time and cropping pattern in all the cultivated lands in Egypt, to help match the supply with actual demand for agriculture. The mechanism is expected to ensure the proper distribution of irrigation water and eliminate water stresses especially in the summer session.

Research and Technologies: Since establishment, the National Water Research Center of the Ministry of Water Resources and Irrigation and its twelve research institutes have carried out mainly applied research and technology transfer that tackle the diverse problems that face the water sector Egypt. Research results and studies related to integrated water management helped, among other things, identifying the quantity and quality of drainage water in Egypt that could be re-used safely for irrigation; evaluation and adoption of proper improved irrigation systems for old and newly reclaimed areas, the hydraulic design and stability of the new Esna barrage, etc. In tackling these various problems, a multidisciplinary approach was used to ensure the proper coverage of all aspects and successful implementation. On the other hand, local and foreign universities and consulting firms were used where relevant and needed. To support the decision and management process of water system, the use of new technology of GIS and remote sensing are widely adopted along with mathematical models and decision support systems. The ministry and the research center are support by a central library with strong links to other relevant libraries and entities to exchange research results and findings.

Financing: Government of Egypt through the Ministry of Finance funds all-freshwater programs and projects. Some of the research and water quality monitoring programs are financed jointly by the Government and international donors.

Cooperation: Egypt is involved in many regional and international organizations that coordinate activities and share knowledge and experiences in the field of integrated water management system. Being one of the ten countries sharing the Nile Water, Egypt is member in the Nile Basin Initiative establish in 1999 and also a member is other similar organizations and networks in the Arab and Mediterranean regions.

Future Issues and Challenges Facing the Water Sector:- The water sector in Egypt is facing many challenges including water scarcity and deterioration of water quality due population increase and lack of financial resources. Fragmentation of water management and lack of awareness about water challenges are also a problem. Further more, technical and financial assistances might be essential at this stage to implement the numerous ambitious programs.

Enhancement of the private sector participation (PSP) in management and operation of the water section Egypt is expected to help facing the above mentioned challenges. However, several models for PSP are yet to be evaluated and tested. Additionally, institutional reform is also needed for water related ministries. Feasibility studies, capacity building and training are key factors to a successful transfer process which turn requires some additional funding.

* * *

CHAPTER 19: ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS

Decision-Making: The following agencies are concerned with toxic chemicals policies: Ministry of Industry, Ministry of Agriculture, Ministry of Health, Ministry of Petroleum, Ministry of Interior, Ministry of Electricity. The Ministry of Environmental Affairs/Egyptian Environmental Affairs Agency is responsible for coordination and follow-up on updating the lists of toxic chemicals. The Ministry of Agriculture regulates pesticides through the Supreme Committee for Pesticides. The Ministry of Industry and the Ministry of Labour control industrial chemicals. The Ministry of Health and Population controls pharmaceuticals. The Ministry of Petroleum controls petrochemicals. The Ministry of Defense controls chemicals used for military purposes, and the Ministry of Electricity and Energy controls chemicals used in facilities as well as radio active sources through the Nuclear Energy Authority affiliated with it. EEAA oversees, with the Ministry of Health and Population and other Ministries, the implementation of the specific section of the Environmental Law 4 that concerns hazardous substances and hazardous wastes. The Customs authority works with competent ministries to control the chemicals trade.

Programmes and Projects: In compliance with the requirements of Agenda 21, Egypt has prepared a National Profile for Chemical Management and submitted it to UNITAR in 2000. In cooperation with the Swiss Government, EEAA has initiated the establishment of an information and management system for the safe handling of hazardous substances. The system includes all hazardous substances imported and locally produced. The system is currently implemented in coordination with the six Ministries indicated in Law 4 as well as the Customs Authority and the Civil Defense Authority. The system aims at setting up an on-line communication network among the aforementioned institutions and EEAA where required information concerning hazardous substances will be available and can be accessed instantaneously. Information on the network includes lists of banned hazardous substances, substances requiring licensing for handling and use, and others that can be handled freely. In addition, guidelines concerning the safe storage, transport and packaging of such substances are available. Also described the licensing requirements by competent authorities as stipulated in law 4 and its executive regulations. Then system will be fully operational by the end of 2001.

Two poison information centers exist at Alexandria and Ain Shams University Hospitals in Cairo. Some treatment of chronic poisoning is undertaken in the context of occupational health at Cairo University., kasr El Aini, where there is also work on pesticides. Some medical toxicology work is reported to have been initiated at the Universities of Menufeya and Assiut. An emergency medicine ambulances service is operating with radio telephone contact in the Cairo area, and in Alexandria and is planned to be extended to the whole country.

Status: Egypt is a rapidly economically growing country with extensive use of chemicals in a wide spectrum of several sectors. While there is high population density in the cities, a significant proportion of the population lives in rural areas where agrochemicals are extensively used. Toxic chemicals are also widely used in a multitude of small-scale workshops and cottage industries, such as textiles, tanning and metal working, found in every town and urbanized areas throughout the country. A growing number of chemicals are used in the home and surrounding domestic environment. Chemicals are inappropriately handled and often poorly labeled. There is poor awareness among the public about toxic risks of chemicals. Some four million tons of chemicals and chemical products are imported per year into Egypt, representing about 95% of manufactured chemicals found in the country. These chemicals include a wide range of toxic substances such as pesticides, amines, solvents, heavy metals, acids and alkalis. With general lack of effective control on emissions of chemicals to air and water and no adequate toxic waste disposal, there is a potential for major problems from environmental exposure of populations to chemicals. The storage and transport in urban areas of highly dangerous chemicals create a potential for major chemical disasters, the risks for which have not yet been properly evaluated. Adequate chemical emergency preparedness and response plans do not exist and the rescue and emergency medical services are not trained to deal with chemical incidents.

Pharmaceuticals, which play an important role in health care, are widely available and increasingly misused; and there is a parallel use of traditional medicines, which are not adequately controlled scientifically, either from the point of view of efficacy or safety.

Unintentionally produced chemicals like the Dioxins and Furans, which are by-products of open burning of municipal and clinical wastes create serious health and environmental problems at dumping sites. Populations may also be exposed to the risk of poisoning by naturally produced chemicals and toxins including plants, scorpions, snakes, and in coastal regions, venomous fish. A variety of natural products are used in traditional products, e.g. coloring additives to food. The composition of such products is often unknown, no evaluation has been made about health risks and the use of these products is not controlled. The infrastructure for dealing with chemical safety in Egypt is limited. An integrated chemical safety programme implemented in a coordinated manner among different responsible authorities does not yet exist. Existing control measures are fragmented and do not provide complete coverage for the country. There is often lack of coordination, even within ministries and authorities.

One of the main basis, the Ministry of Health and Population has established a unit for chemical safety; work has been initiated to survey exposure to chemicals and to prepare a registry of chemical products; to survey chemical incidents; and to develop public awareness on problems of chemicals. The Ministry of Agriculture has excellent laboratory facilities for analysis of chemical contaminants and pesticide residues in food. The use of pesticides in Egypt has been dramatically reduced through advanced integrated pest management programmes (IPM). In 1999, a ministerial decree was issued by the Ministry of Industry, which restricts the handling of 145 toxic substances without permission. A database on hazardous substances and toxic chemicals in industry was established.

The Ministry of industry participated in preparing the workplan for a national strategy for dealing with hazardous wastes and toxic chemicals. Also, it participated in a workshop jointly with the WHO and other ministries to discuss the national programme on the chemical safety. A ministerial decree to ban the use of asbestos in any new industrial establishments or expansions of existing ones. The use and handling of Asbestos is currently restricted and being substituted with other materials. 80 types of pesticides were banned, including Arsenic, Cadmium and Lead. The National Profile of Chemical Management was recently issued.

Constraints: Egypt shares with many developing countries a lack of adequate capacities and capabilities to achieve sound management of chemicals, these include:

- Inadequate capabilities to assess the potential toxicity and to control the nature and purity of imported or domestically produced chemicals;
- Handling of chemicals by inadequately informed or trained personnel, especially operators in small-scale enterprises;
- Shortage of management skills needed to deal safely with technology transfer and with the storage transport and use or disposal of chemicals;
- Lack of effective mechanisms for coordinating the work of those responsible for different aspects of chemical safety;
- Lack of means of coping with chemical accidents, including the treatment of victims and the subsequent rehabilitation of the environment;
- Inadequate legal framework for the proper management of chemicals and for the implementation and enforcement of regulations for industries; and consumer hazardous substances; and
- Lack of adequate system and facilities for treatment of hazardous wastes.

Capacity-Building, Education, Training and Awareness-Raising: Workshop on chemical safety joint with World Health Organization was conducted.

Information: The Ministry of Industry is preparing lists of toxic chemicals and banned substances. Information on pesticides is available at the Ministry of Agriculture. A national chemical information system is under establishment.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: In cooperation with UNITAR, Egypt is currently in the initial stages of the PRTR programme development process during which the involvement of key stakeholder groups and interested parties is sought and initial programme objectives are identified. Special emphasis in Egypt is placed on linking the PRTR work to an ongoing effort to establish a national chemicals information system.

* * *

CHAPTERS 20 TO 22: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS, SOLID AND RADIOACTIVE WASTES

Decision-Making: *Hazardous wastes:* The generators of hazardous wastes are responsible for issues related to their field of activity. The Ministry of State for Environmental Affairs/Egyptian Environmental Affairs Agency is working closely with other government entities such as Ministry of Industry, Ministry of Local Development, Ministry of Health, Ministry of Petroleum, and Ministry of Electricity, Ministry of Agriculture, and Ministry of Interior. *Solid wastes:* Egyptian Environmental Affairs Agency and Governorates are coordinating activities when dealing with solid waste problems. *Radioactive wastes:* The nuclear safety authority under the Ministry of Electricity and Energy is responsible for all safety issues regarding handling and disposal of radioactive wastes.

Programmes and Projects: *Hazardous wastes:*

1. Lists of hazardous substances are developed in coordination with six line ministries. The lists are updated and distributed over the interrelated agencies.

These lists will be subject to continuous revision and updating in view of the national and international activities. A project for management and information system for hazardous substances has been established in EEAA and six line ministries (Ministry of Agriculture, Ministry of Industry, Ministry of Health, Ministry of Petroleum, Ministry of Electricity and Ministry of Interior) in addition to civil defence and customs. This project aims at setting up an on-line communication network among the involved ministries and EEAA where information could be shared and accessed instantaneously. Information on the network include the lists of hazardous substances classified as:

- banned hazardous substances
- hazardous substances that require licensing for handling and use
- others than can be handled and used freely

Guidelines concerning safer storage, transport and packaging for these substances are also available. Plans are in place for extension of the network to other concerned bodies and authorities and establishing the necessary linkage between the information available on the network and the national contingency plan for environmental disaster.

2. Through the environmental policy programme, some guidelines to strength the implementation of the National Law are in place. This includes developing the guiding document for safe storage and handling of hazardous wastes taking into consideration the compatibility issue:
 - licensing and permitting system disposable and others
 - Appropriate treatment and disposal technologies
 - characterization and identification of hazardous substances
3. Some projects for establishing integrated system for hazardous wastes are ongoing. This includes:
 - Integrated management of industrial wastes in Alexandria, the system will include among its components: construction and operation of treatment and landfill facility.
 - Integrated management of industrial solid waste in one of the industrial cities in Giza Governorate (6 October)
 - Site selection of the appropriate for landfill of hazardous waste all over Egypt using GIS and providing the technical specialization for preparation and operation.
 - An integrated environmental management system in one of the industrial areas in Sharkeya (10th of Ramadan City)

Solid Wastes: Solid waste management has been identified among priorities. A national strategy addressing institutional and financial sustainability of solid waste systems was prepared and currently under implementation. The strategy is based on a vision to develop Governorate capabilities in this field to ensure that integrated systems are effectively implemented relying on international experience and sustainable technological alternatives. The following are ongoing programmes and projects in the solid waste management:

- privatization of waste management in pilot Governorates
- plans for construction of sanitary landfills in major cities

- Integrated system for management of construction and final demolition waste and site selection
- Production and distribution of construction waste containers
- Rehabilitation of integrated solid waste management in rural villages

A project for selection of the appropriate sites for landfill of municipal solid waste using the GIS system is ongoing, together with provision of the technical guidance for preparation and operation of these sites. The list of hazardous waste of the health care (HC) activities is produced and distributed. Other lists of agriculture, petroleum, and electrical activities are in the final phase of production and issuance. A national strategy for health care wastes is prepared by EEAA in coordination with the Ministry of Health. EEAA in coordination with the Ministry of Health has issued the safe limits of emissions from HC wastes incineration and the guidelines for using sterilization technologies for treatment.

The Ministry of Health and Population is currently implementing a national strategy and programme for safe management of HCW. A Ministerial Decree for the list of hazardous HCW was issued and a HCW management permitting system has been implemented since 1997.

The national programme for integrated HC waste management demonstrated safe incineration in Cairo University Hospitals is in operation. A central unit for sterilization of HC waste is also in operation.

Status: *Hazardous wastes:* - Industrial wastes: Industry is the main source for hazardous wastes. The generation of hazardous wastes is not confined to large-scale industries. Small-scale industry, small workshops, garages and very small production units collectively produce large quantities of hazardous wastes. Their volume is usually difficult to monitor and quantify. Further more, transport services, hospitals, research laboratories and even household are sources sometimes of dangerous materials. The types of hazardous wastes generated from industrial activities in Egypt are varied according to the industrial sector. The main industrial sectors are textiles, chemicals, and pesticides. Fertilizers, petrochemicals, pharmaceuticals, paper and pulp, steel, metallurgical and food. The chemical industry is by far the main source of hazardous wastes in the developed regions in Egypt. Recent estimates have indicated that about 50% of all industrial activity is concentrated in Greater Cairo and about 40% in Alexandria. The rest is in Delta and Upper Egypt, and new cities.

The Ministry of Industry surveyed and documented the solid wastes from industrial activities of the public sector companies and disposal methods of those wastes including the hazardous wastes. Currently, a list of industrial hazardous wastes is being prepared in order to issue a ministerial decree to regulate the handling and disposal of those hazardous wastes according to Basel Convention. Industrial wastes (including hazardous wastes) are generated from about 24,518 establishments distributed nation-wide. Types and impacts of wastes differ according to the activity, technology uses and location of each establishment. A study was conducted to establish a database on heavy metals in industrial wastewater. The study covered 70% of industrial establishments. Greater Cairo has more than 51% of the total industrial activity, followed by Sharkeya Governorate, Alexandria Governorate then the rest of all other Governorates. It is expected that those three Governorates are the greatest generators of industrial wastes. Due to lack of funding, the study was not completed. The current and future activities of the Ministry of Industry include projects on collection and onsite separation of industrial wastes, relocation of lead smelters, tanneries and textiles from Cairo to new industrial zones, recycle and reuse of industrial wastes, safe landfill of industrial wastes.

Lacking the necessary treatment and disposal facilities, it has frequently been the case that hazardous industrial waste generated by these industries has been disposed in the vicinity of their plants, or in the nearby desert areas or transported to public dump sites mixed with municipal waste, and when improperly land filled, it contaminates the groundwater. Scavengers at dump sites are exposed to serious health hazards when scavenging hazardous substances. The main obstacles impeding the implementation of most of the projects are the lack of funding and lack of trained workers in that field. During 1999, Ministry of Environment initiated a 3 year demonstration project to establish a hazardous waste landfill in the Governorate of Alexandria. The project focuses on the construction of the landfill and mobilizing the participation of large quantity generators across the Governorate.

The completion of the draft national hazardous waste list during 1999 was one of the most significant initiatives implemented. All competent authorities will use this list for better control and safer handling of such wastes.

Healthcare wastes (HCW):- HCW disposed with other municipal wastes had created serious health and environmental problems in Egypt. EEAA in cooperation with the Ministry of Health and Population and Cairo University had developed a pilot demonstration project for an integrated environmentally sound management of health care wastes. The national programme for integrated healthcare waste management demonstrated safe incineration at Cairo University Hospitals. Limits for the safe emissions from HCW incinerators will be issued and reviewed.

Solid wastes: The national municipal solid waste strategy was formed and based on a vision to develop governorates capabilities in this field and to ensure that integrated systems are effectively implemented relying on international experience. Nationwide, a landfill programme was initiated which focuses on landfill citing, identification of alternative disposal techniques and means of elimination of illegal burning of wastes. Currently, an assessment of the feasibility of available areas for landfill citing in each Governorate is being carried put using GIS. Privatization programme of municipal solid waste management is initiated and it started with major cities such as Alexandria. Solid waste management in Egypt is facing institutional and financial barriers. Within the Governorates, human capacity as well as financial resources are missing or weakly existing.

Capacity-Building, Education, Training and Awareness-Raising: *Hazardous wastes* - Regional training centres are established to extend technical and advisory services to Arab states. Capacity building programmes are being planned to establish the experience among users and producers and regulating bodies. Efforts are underway to institutionalize a national framework for hazardous waste management that will initially focus on the 10th of Ramadan Industrial City. In coordination with the Secretariat of Basel Convention, EEAA has established the Regional Training Centre for transfer of clean technologies and management of hazardous wastes. The centre has been established at the Environmental Mitigation Centre – Cairo University and will provide assistance to the Arab Countries. In cooperation with the United Nation Institute for Training and Research (UNITAR), EEAA is currently developing a programme for the Pollutant Release Transfer and Register (PRTR) in Alexandria.

Solid wastes: Media campaigns for properly disposal of solid waste. National workshops are planned in cooperation with the Institute for Public-Private Partnership. The workshops promote private sector involvement and allow an exchange of understanding of the significant role private companies can play in solid waste management.

Information: *Hazardous wastes:* Information Management System network on hazardous wastes is the main source for information. *Solid wastes:* Information about solid wastes is available at the Cleaning authority in Cairo and at the different Governorates.

Research and Technologies: No information available.

Financing: *Hazardous wastes:* Privatization of the management of hazardous waste is providing the necessary financial resources. *Solid wastes:* State budget is covering part of the solid waste management process. The privatization of solid waste management, which is currently taking place, should cover the costs of the SWM.

Cooperation: *Hazardous wastes:* The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal was ratified in 1993. An industrial hazardous waste management plan and implementation programme is being prepared. In cooperation with Denmark, Egypt will implement a pilot and demonstration projects for the treatment and safe disposal of hazardous wastes, as well as with a pilot project for hospital waste management in Cairo. Switzerland will support the development of a hazardous substance, material information and handling system. EEAA has extended support to the establishment of the Regional Training Centre for Hazardous Waste Management and Trans-boundary Transport located at the Centre for Environmental hazardous Mitigation in Cairo University. *Solid waste:* Cooperation with international bodies is taking place to transfer technologies for waste management.

CHAPTER 24 TO 32: STRENGTHENING THE ROLE OF MAJOR GROUPS

Statistical information is available at the CAPMAS and the IDSC about the issue.

Women: Decision-Making: The national Council for Woman (NCW): The NCW is entrusted with eleven mandated aiming at empowering women to play an effective role as major contributors in the social renaissance. The Council has a Board consisting of thirty members of prominent public figures and it performs its functions through eleven standing committees. **Programmes and Projects:** The Government of Egypt ratified the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) in 1981. Since then, the Government of Egypt has pursued policies legislation and programmes to ensure the implementation of CEDAW.

Increasing the proportion of women decision-makers:

Within the mandate of the NCW, the Council is holding conferences, symposia, and seminars on women's issues. Also it is organizing awareness-raising sessions on women's rights, duties and role in society. The council participated actively during the elections of the members of the Parliament in 2000/2001.

The NCW is organizing a symposium on women in the labour market in both formal and informal sectors. Labour specialists, trade unionists, NGOs, women entrepreneurs and small business owners and workers in the informal sectors have been invited to participate.

Eliminate obstacles to women's full participation in sustainable development and in public life:

The second mandate of the NCW is to draw up a draft national plan for the advancement of women and assist in solving the problems confronting them.

Establish mechanisms to assess implementation and impact of development and environment policies and programmes on women:

The standing committee within the NCW on Health and Population and Environment follows up and evaluates the implementation of the public policies relating to environment and health on women issues. It submits proposals, recommendations and observations in this regard to relevant authorities.

Formulating and implementing policies, guidelines and plans for achievement of equality in all aspects of society, including education, training, nutrition, health and in management of the environment:

The NCW is drafting a proposed five-year plan to be submitted to the relevant authorities. This plan will be taken into consideration when drafting the gender component within the Comprehensive National Development Plan. The plan includes all aspects of society such as education, health, social security, environment, labour force and media.

The NCW is establishing a documentation centre to collect information, data, and studies on women as well as conduct its own studies and researches in this area. The studies may include areas related to gender issues such as: impact of structural adjustment programmes on women, the impact of environmental degradation on women, and environmentally sound technologies suitable for small industries.

The NCW has established a strategic partnership with research and statistical institutions through Protocol Agreements, for the scientific access to their databases and for exchange of information. In addition, NCW has conducted a sensitization workshop on gender disaggregated data to decision-makers and planners.

The NCW is planning for a long-term strategy to enhance women status and maximize the role of women in Egypt. NCW's strategy for action in the short, medium and long-terms will be dictated by national priorities and drawn up through a participatory and consultative process. One of the main objectives of the NCW is to empower women to better perform their role towards sustainable and equitable development. Therefore the NCW is planning to establish different programmes suitable for different calibre of women, such as:

- Programme suitable for women are grassroots for the economic empowerment of female-heads of households

- Programme for entrepreneurs to enhance their skills to current and prospective women small business owners
- Programme to involve Egyptian women engineers and technologies in developing environmentally friendly technologies for rural areas.

Status: Egypt aims to empower women and give them an equal and parallel opportunity to men. Along these lines, a number of steps have been taken to achieve equality in all aspects of society including issuing a strategy by year 2000 to eliminate obstacles to full participation of women in sustainable development.

The Egyptian legislation empowers women with many rights to actively participate in the sustainable development process. The Egyptian Constitution declares equality between males and females in all political, economical and social fields. Women have the right to vote in elections and run for membership of political and legislative authorities as well as local councils.

Women participation in Parliament and key leadership posts:

According to the latest data, the percentage of women in high level decision-making, is as follows:

In Government:	Ministerial level	6%
	Sub Ministerial level	4%
In Parliament:	Members:	2%

In the Shoura Council, women representation increased from 3.3% in 1980 to 4.7% in 1992 and reached about 5.7% in 1998.

In 1998, women occupied 15.3 percent of all diplomatic posts.

School enrolment:

Females have a lower enrolment rate compared to males due to their high drop out. In 1999, female enrolment rates increased to 76.9%. A large proportion of female students are still not enrolled. Comparison of male and female enrolment rates at the national level in primary, preparatory and secondary schools (general and technical) in 1996 shows that male students had higher rates than female students did in all types of schools except for commercial secondary schools. Comparing 1996 enrolment rates with 1999 rates indicate that there is still a gap between males and females. However the gap is closing largely due to State's strategies that aim at developing the education system and encouraging girls to continue their education.

Adult literacy rates.

1996 data shows that females have disproportionately higher illiteracy rates than males (50.18 and 29 percent respectively). The Egyptian Government is paying specific attention to improving women's educational status through the "one classroom schools" project. Some 2300 one-classroom schools have been built to teach female school dropouts.

Unemployment

Females accounted for 15.3 percent of the total labour force (15-64 years) in 1996. Generally women tend to occupy clerical, educational, and administrative jobs. Unemployment rates tend to be higher for females than males. In 1986, the total unemployment rate was about 11.1 percent with a disproportionately higher rate for females (25.5%) than males (9.3%). Though the total unemployment rate dropped to 8.1% in 1996, the unemployment rate was 20.4% for females compared to 6.9% for males. In 2000, the national unemployment rate dropped to 7.9%.

Capacity-Building, Education, Training and Awareness-Raising: Educational material and curricula promote gender relevant knowledge. Mechanisms are in place to assess implementation and impact of development and environment policies and programmes on women.

The education, Training and Scientific Research Committee of the NCW started organizing workshops to officials of Ministry of education to ensure mainstreaming gender issues in curricula and educational materials.

The NCW is conducting training workshops for the employees of Ministry of Planning and all officials in other ministries involved in drafting the Comprehensive Development Plan. The objective of the workshops is to develop their capabilities in main streaming gender in all are always based on Gender National Development Framework.

The Women and Development Programme (field survey of squatter settlements) provides training to women to carry out field surveys to identify economic and social conditions of informal areas and means for encouraging women to participate more actively in local environmental development efforts.

Cooperation: The Convention on the Elimination of All Forms of Discrimination Against Women was signed on 16 July 1980; ratified on 18 September 1984. Egypt has ratified the conventions of the International Labour Organization.

The UNDP, UNICEF, UNIFEM and UNFPA have signed a joint collaborative agreement with the NCW to provide capacity building, training on gender mainstreaming and a small grants pilot programme, aiming at supporting the mandate of NCW to empower women.

The NCW is planning to participate in the activities of the Federation of Chamber of Commerce and Industry of the G-15 Countries which declared that Year 2002 will be the year of empowering women in the G-15 Countries. This will assist in establishing South – South communication channels, which could be mutually enriching in terms of sharing experiences.

Children and Youth: Decision-Making: National Council for motherhood and child care, Supreme council for youth and sports. Programmes and Projects: Several programmes are planned and/or implemented to develop skills and raise cultural and social awareness of the Egyptian Youth sector. From those programmes:

- Cultural contests on different activities such as general knowledge and sports
- National travels and camping where lectures and awareness campaigns are being provided
- Providing social and cultural capacity building
- Exchange programmes and travels with foreign countries for cultural exchange and enhancing relationships among the international young citizens
- Participation in international youth conferences and festivals

Status: Egypt intends to ensure that by the year 2000 more than 50% of youth -- gender balanced -- will have access to appropriate secondary education or vocational training. It has ad hoc processes that promote dialogue between the youth and government at all levels and mechanisms that permit youth access to information and opportunity to present their views on implementing Agenda 21.

Currently, there are more than 4000 youth center, 627 of which were renovated and equipped with playgrounds and computers. Capacity-Building, Education, Training and Awareness-Raising: Training programmes are in place for the youth sector in the following:

- leadership training
- training on different activities such as music, culture, arts...etc

Indigenous People: No information available.

Non-governmental organizations: Status: Many mechanisms for NGO participation exist, as detailed in the relevant substantive sections of this report. Egypt considers the inputs of NGOs to be important.

Local authorities: Decision-Making: Ministry of Local Management. Status: The Government of Egypt supports Local Agenda 21 initiatives.

Workers and trade unions: Decision-Making: Ministry of Labour force, General Union of Labour Associations, and General Union of Chambers of Commerce.

Business and industry: Decision-Making Ministry of Industry, Ministry of Economy, Federation of Egyptian Industries and Business Associations. Status: Government policies aim to increase the efficiency of resource use, including reuse, recycling, and reduction of waste per unit of economic output.

Scientific and technological community: Decision-Making: Ministry of Scientific Research, National Research Centres, Universities and Institutes. Status: The scientific community has already established ways in which to address the general public and to deal with sustainable development.

Farmers: Decision-Making: Ministry of Agriculture. Non-governmental organizations: Ministry of Social Affairs. Status: A strategy is being implemented by the Ministry of Agriculture to promote and encourage sustainable farming practices and technologies.

* * *

CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS

Decision-Making: The Cabinet of Ministers is the policy maker for issues related to financial resources and mechanisms for sustainable development.

Programmes and Projects:

The Social Fund for Development (SFD): It was established in 1991 with the following specific objectives:

- The provision of employment for new graduates, the unemployed youth, and workers that may be displaced as a result of public enterprise restructuring;
- The channeling of public investments towards social services;
- The creation of mechanisms to protect and improve the living conditions of vulnerable population groups, and to encourage the participation of NGOs and PVOs in the design and implementation of such mechanisms;

The SFD addresses lower income groups in rural and urban areas, it focuses more specifically on the following targets groups: Women, New graduates; Unemployed youth; Small entrepreneurs. The main units of the SFD are: The Gender Unit; The Research on Improvement in Standards of Living Unit; The Environment and Development Unit. To date, some US\$ 411 million have been distributed as loans to 70,000 small enterprises that have created about 210,000 permanent jobs and 70,000 temporary ones.

The main programmes of the SFD are:

- The Small Enterprise Development Organization (SEDO);
- The Public Works Program;
- The Community Development Program; and
- The Human Resources Development Program.

The Environmental Protection Fund (EPF): It is a fund established under Law 4/1994 within the Egyptian Environmental Affairs Agency (EEAA). Its goal is to stimulate investment in the environmental sector in Egypt to support the government's environmental, social and economic policies. To realize this goal, the EPF provides financial assistance on a competitive basis for projects that benefit the environment. In addition, the EPF seeks to foster partnerships between the financial community and both the public and private business sectors to increase investment in environmental initiatives.

Status: In view of the increasing needs for financial resources to implement various development projects nation wide and in different sector, the Government of Egypt's policy is to engage the private sector in the development plans. The current development plan (1998 – 2002) it is for completing investment projects, pursuing the implementation of the privatization programme, expanding the ownership base for companies previously operating under the public enterprise sector and allowing unrestricted opportunity for the private sector to maximize its role in enhancing socio-economic development.

Recently, the Egyptian economy has scored a remarkable success. The rate of inflation was brought down to 6.4% in 1996/97 against 21% in 1991/92. Foreign exchange reserves leapt to more than US Dollar 19 billion and bank deposits soared to about L.E.175 billion. On the other hand, state budget deficit dropped from 17% in 1990/91 to less than 1% of Gross National Product (GNP) in 1996/97 and Egypt's long and medium-term debts dramatically dropped by 50% to about US Dollar 28.5 billion. In spite of balance of trade deficit, the balance of payments showed a current surplus of L.E. 1.7 billion in 1996/97. However, due to the rise in world prices of staple foodstuffs, the balance of payments showed a deficit of around L.E. 418.2 billion in 1995/96.

Privatization - During the second half of 1996, the Government surrendered its majority share in 30 companies as well as its minority share in 8 other companies. The privatized stakes account for around 1/6 of total assets of state-owned enterprises. The move yielded around US Dollar 1.3 billion, representing about 3.5% of GDP. The Egyptian Privatization Programme aims at the surrender by the Government of its stakes in most on the non-financial public enterprises within the coming two years.

Privatization of Banks and Reform of the Financial Sector The Central Bank of Egypt has further enhanced its supervisory tools and widened the scope of instruments whereby it steers monetary policy, encouraging competition in the financial sector by privatizing joint-venture banks and insurance companies. Out of nine joint-venture banks, only four are still dominated by the Public Sector, through majority shareholding.

Financial Reforms - The overall trend of the state budget is that of sustained improvement. In view of this trend, the Government decided to continue to strengthen the financial structure. On the side of expenditure, civil service is being restructured, where manpower should be reduced by 2% starting this year, in spite of manpower expansions in the education and health sectors. The financial policy for the state public resources is generally based on sustained endeavor to reduce public resources deficit, to bring about a surplus through the following arrangements: A- Control, rationalize and steer public expenditure towards the achievement of socio-economic development goals. The state budget reflects the Government's orientation towards rationalized government spending and utilization of dormant commodity stock. B- Steer public resources toward the best possible utilizations and allocate such resources according to real needs of the community, in such a way as to maximize their socio-economic returns.

Gross National Product

During the last five years, economic activity has led to an increase in gross National Product rates as follows. As regards the commodity production sectors, this activity led to an increase in their growth rates from 2.3% in 1992/93 to 4.2% in 1996/97. Of these, the industry sector showed the highest growth rate, which rose during the same period from 2.9% to 8.4% respectively. As to the production service sectors, they showed a more than three fold increase in growth rate from 2% in 1992/93 to 6.4% in 1996/97. Attention accorded by the state to social welfare was reflected in a rise in the growth rate of the social services sector from 4% in 1992/93 to 6.2% in 1996/97.

Overall State Budget 1997/98

In the draft overall state budget for the year 1997/98, the Ministry of Finance emphasized the following:

- Increasing the new budget from L.E. 77.5 billion in the previous year to L.E. 83.3 billion, an increase of 7.5%.
- Allocating L.E. 29.8 billion for educational, health, cultural, social, and religious services, i.e. accounting for 36% of the new budget against 35% in the previous year.
- Allocating L.E. 25.1 billion for wages and pensions against L.E. 22.8 billion in the previous year at an increase of 10%.
- Allocating L.E. 4.6 billion to foodstuff, housing, transport and medicine subsidies against L.E. 4 billion in the previous year, an increase of 15%.
- Allocating L.E. 9.7 billion to the service bodies against L.E. 8.4 billion in the previous year, an increase of 15%.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: Information can be accessed through the CAPMAS and IDSC.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: Egypt is cooperating with international financial institutions such as the IMF and World Bank in some major development projects.

CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT

Decision-Making: No information available.

Programmes and Projects: No information available.

Status: No information available.

Capacity-Building, Education, Training and Awareness-Raising: Egypt has 46,022 scientists, engineers and technicians engaged in research and experimental development. To improve long term scientific capacity, a number of steps have been taken. These include building awareness and preparedness for emergencies at the local level (APELL); creation of the Environmental Information and Monitoring Programme (EIMP); institutional support to the Egyptian Environmental Affairs Agencies Environmental Information Center, and the Organizational Support Program (OSP) to EEAA (Egyptian Environmental Affairs Agency).

Information: No information available.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: No information available.

* * *

CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING

Decision-Making:

The Cabinet of Ministers is the coordinating body and main venue for government entities involved in shaping the policies of education, public awareness and training. The Ministry of education and Ministry of higher education and scientific research are involved mainly in preparing education policies.

Programmes and Projects:

The Government of Egypt has implemented and planned several projects to improve quality of education. The national project for the development of education aims at the establishment of 1500 schools annually to absorb all students of compulsory education, and to abolish gradually the rotation system that is to be replaced by a full-school day.

Due to the interdependency between poverty and educational attainment levels, eradicating poverty and illiteracy are viewed as equally important challenges that should be addressed simultaneously. Several programmes have been implemented to address the problem of adult illiteracy and positive results have been achieved. Data shows that females have higher illiteracy rates than males. The Government is currently increasing efforts to improve women's educational status through the "one classroom schools" project.

Egypt is also challenged with the lack of well trained technicians and over capacity in university and high school graduates. The Mubarak-Kohl Project to Develop Technical Education aims at achieving two simultaneous purposes, providing the market with highly trained technicians and decreasing the unemployment rates widely spread among university graduates.

Status:

Although the Constitution guarantees equal access of all citizens to free educational services, school enrolment rates as yet have not reached 100%. However, the enrolment rate for mandatory education has increased to 96.1% in 1999/2000. In 1999, enrolment rates increased to 88.8% for males and 76.9% for females.

Several entities have been involved in an ambitious programme to combat illiteracy. The President of Egypt has set the Year 2005 to be the target year to accomplish the national programme to combat illiteracy. Government, NGOs, and private sector efforts are all coordinated to provide literacy lessons for all those in need. Between 1996 and 1999, illiteracy rates declined from 39.4% to 34.2% on the national level. Some 2300 one-classroom schools have been built to teach female school dropouts.

As a result of different efforts in the education sector, the following was achieved.

- Maintenance and renovation of 3000 schools.
- 2000 school libraries are being established.
- The number of new schools has reached 30,570 in 1996/97 compared to 25,606 in 1991/92.
- 7,500 schools have been established from 1992 until the end of the school year 1996/97.

Improving the Teachers' Status: About half a billion pounds have been allocated for the improvement of the teachers' financial status by boosting monthly incentives and examination bonuses.

- 1152 teachers have received training courses in the UK, the US, and France.
- 12,000 teachers have been trained at the Ministry of Education to operate the Internet at schools to help students receive any information needed.
- Increasing the number of scholarships at home and abroad.

Updating Curricula: One of the main targets is to develop curricula in order to cope with scientific development. The education policy aims at introducing new preparatory school curricula for vocational and sports training and introduce foreign languages and computer sciences in all schools and universities.

Using Modern Educational Aids: In addition to computer sciences, the Ministry has developed laboratories at all education levels starting with kindergartens. It has introduced closed circuit networks with their command centre at Manshiet El Bakri, in addition to other centres that are all linked by a fibre optic network. By the end of 1997, 4,000 schools will be fully equipped.

Technical Education: The state is keen on developing technical education in industrial, agricultural, and commercial schools in order to meet the demands of production sectors, to achieve this:

- 5-year course technical schools have been set up.
- Technical equipment necessary for practical training and making use of production institutions potentials were updated.

Elementary Education Development

- Abolishing rotation systems in primary schools starting in 1997/98.
- Application of the mobile class system starting in 1997/98. This will help in increasing assimilation at a rate of 25-30%.
- A national campaign to set up 28,000 kindergartens.

Mubarak-Kohl Project to Develop Technical Education:

- The number of students has increased from 320 to 1350 in 1996/97 at a rate of 420%, while that of firms where students are trained has risen from 65 to 210.
- The project has been set up in seven cities in 1997 compared to only one in 1995 an increase 700%.
- The number of teachers who received training courses in Germany was 14 in 1995 and has risen to 300 in 1997.
- The first training centre was established in October 6 City for technical school students. It admits 240 students in each course, which lasts for three months during 1996/97.
- Promotion of cooperation with the Ministry of Health within the context of the project for training nurses, which started in September 1997.

Challenges: One of the main challenges facing the Egyptian society is the high illiteracy rate especially among females. Despite all efforts that are being done, the illiteracy is still considered to be very high. The main reason for this is due to the “drop-outs” from mandatory education because of the need for children to work and provide extra support for the family. Poverty is seen as a major reason for the “drop-out” of young school students. For females, the weak awareness of the necessity for teaching females especially in the rural society is one of the main reasons for not sending females to schools.

Another challenge is the over capacity in class rooms at all education levels. This results in lowering the quality of education. Although the number of schools built annually and the private universities entering into the higher education system may reduce the classroom capacity, however, thousands of schools are still needed to be built. The budget for building those new schools may fall short in many cases and Government is encouraging the private sector and the citizens to participate in building new schools.

Capacity-Building, Education, Training and Awareness-Raising: The Egyptian Government has developed an Educational and Awareness Strategy to complement all initiatives towards improving the environment. It has reoriented school curricula toward environmental protection, implemented an Environment Education and Training Program, and established an Environmental Auditing Program to improve school environments. Three NGO representatives serve on the Board of EEAA, and the government cooperates with NGOs in other activities, including several training programs developed specifically for NGOs.

Egypt has developed more than 60 training programs for line ministers and organized more than 120 workshops for several environmental bodies (decision-makers - local environmental bodies, etc.), in the area of environment and development. The Government has sought to increase public awareness by establishing several media programmes established during the past 5 years, developing an environmental journal and Green Message for journalist, and implementing an environmental awareness campaign to enforce Law No. 4 of 1994

Information: Statistical information about education in Egypt is available at the IDSC, the Year Book and CAPMAS.

Research and Technologies: No information available.

Financing: The Egyptian Constitution ensures the right of Egyptians to free education on all its stages. The state budget covers education expenses at the school level and the university level. Lately, private education was encouraged and new private universities are established.

Cooperation: Cooperation is ongoing with other countries to develop advanced curricula for the Egyptian education. The Mubarak-Kohl project is one of the biggest international cooperation projects in the technical education.

* * *

CHAPTER 37: NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY-BUILDING IN DEVELOPING COUNTRIES

Decision-Making: The Ministry of Planning and International Cooperation and the Ministry of Foreign Affairs communicate with different countries on issues related to international cooperation in different fields. The Egyptian Environmental Affairs Agency under the Ministry of Environment also has its international cooperation unit which works closely with Ministry of Foreign Affairs regarding international issues.

Programmes and Projects: Several projects and programmes are being implemented with different international bodies as a result of international and bilateral agreements. Most of the projects focus on capacity building and technical assistance in the areas where local capacity is missing or short.

Status:

Egypt is actively seeking to strengthen international cooperation and partnership. An agreement has been signed with the European Union to work with Egypt on capacity building in different areas as well as improving technical capacity. Another agreement was signed with the World Bank, which addresses social and human resources development aspects through the development of a National Social Support Programme for low-income families.

The Egyptian Fund for Technical Cooperation with Africa assisted many African states in building capacity in different professions. More than 6345 Egyptian experts visited different African nations where they usually spend 5 years to transfer knowledge to the host country. The experts were mainly in areas such as: medical care, education, industry, petroleum, agriculture, law and information technology. The Fund is bearing the expenses of those experts and until now, US\$ 160 million were spent. In addition to the long term missions that the Fund sponsors, it also provides technical assistance and training in short missions in areas such as: diplomacy, agriculture, water resources, medical lectures, surgery, civil aviation, security, tourism, fisheries, industry and technology development.

Capacity-Building, Education, Training and Awareness-Raising: Training events organized by The Egyptian Fund for Technical Cooperation with Africa reached 220 and the number of trainees were 5032 in different professions. Recently, the Egyptian Fund started the cooperation with international organizations and donors to provide assistance to African nations. Within the Ministry of Foreign Affairs, the Egyptian Fund for Technical Cooperation with Africa is cooperating with the African states to find solutions for current development challenges. The Japanese International Cooperation Agency, the Norwegian Agency for Development, the UNDP and the FAO are among those international bodies working in the tertiary cooperation programmes with Egypt and African States.

Information: Information about international cooperation is available at the Ministry of Foreign Affairs.

Research and Technologies: No information available.

Financing: Since Egypt has improved its economy to a fairly good extent; the international cooperation is taking the shape of mutually funded projects rather than 100% non-refundable loans.

Cooperation: Cooperation with the international community is based on strong relationship and credibility of the Government of Egypt in implementing the development and capacity building projects.

CHAPTER 38: INTERNATIONAL INSTITUTIONAL ARRANGEMENTS

This issue deals mainly with activities undertaken by the UN System.

* * *

CHAPTER 39: INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS

Egypt is a Signatory of many agreements and conventions in the field of environmental protection. The following are some selected, “post-Rio” conventions/agreements that Egypt has signed, ratified or entered into enforcement classified by environmental category. Information on other conventions/agreements is available at the Ministry of Foreign Affairs and the Ministry of State for Environmental Affairs.

Biodiversity

- Convention on Biological Diversity, ratified in 1994.
- Agreement on the Establishment of the Near East Plant Protection Organization, ratified in 1995.

Climate Change

- United Nations Framework Convention on Climate Change, ratified in 1994.
- Kyoto Protocol on Climate Change signed in 1999.

Desertification

- United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, ratified in 1995.

Law of the Sea

- Agreement Relating to the Implementation of part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, signed in 1995

Marine Pollution

- 1996 Protocol Relating to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972, signed in 1996.
- Amendment to the Protocol for the Protection of the Mediterranean Sea Against Pollution from Land Based Sources, signed in 1996.
- Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment (Jeddah Convention) adopted 1982, in force 1990.

Hazardous Substances and Waste

- Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal, signed in 1996.
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, ratified in 1993.
- Amendment to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, signed in 1995.

Oil Pollution

- Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, 1969, ratified in 1995.
- International Convention on Oil Pollution Preparedness, Response and Cooperation, entered into force in 1996.

Ozone Layer - Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, ratified in 1993 (London) and 1994 (Copenhagen)

Areas and Biodiversity - Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean, signed in 1995.

CHAPTER 40: INFORMATION FOR DECISION-MAKING

Decision-Making: The Cabinet of Ministers has established a specific entity that is responsible to collect and analyse information that will support the decision-making process in all government entities. The Information for Decision-Support Centre was established for this specific purpose.

Programmes and Projects: Under the government policy of transparency and provision of information for supporting development decisions, the IDSC is currently implementing 3 main projects in the field of Information Technology. Those are:

Human Resources Development Programme: The objectives of this programmes are to produce cutting-edge IT professionals, leverage the country's comparative advantage in brain-ware and to support the IT industry by providing fresh resources with leading edge technologies.

Decision Support Sectors: The objectives of this programme are to study and analyze major social and economic issues accordingly, provide policy makers with the necessary recommendations that assist in the decision making process and provide necessary information for the policy makers at all standards and helping the executive leadership in all Managerial Support.

Information Society Building Programme: The objective of this programme is to develop a national information system for human resources to help support the decision making process in coordination with other institutional agencies in Egypt and to enhance the work performance in both the governmental sector and the public enterprise sector.

The Environmental Information and Monitoring Programme (EIMP) and the Environmental Information System Project assist GOE decision-makers to formulate and implement timely and appropriate environmental policies, legislation and programs. The Egyptian Environmental Information System (EEIS) produces timely and accurate environmental status reports, used to inform the Cabinet, others in Government and the public. The EEIS is also used to assist in developing environmental projects and policy options, and in monitoring and enforcing compliance with environmental regulation. The Environmental Information and Monitoring Programme consist of five individual projects, namely: institutional support, coastal water monitoring, air pollution monitoring, database on pollution sources, and reference lab.

Status: Planned and implemented programmes have resulted in the following achievements:

- 1.465 IDSC (Governorates information and decision support centres). Established.
- 79 Information systems.
- 1 Governorate home page.
- 213 Internet access point existing at the Governorates
- 45 IT and Computer Science training centres.
- 300,000 Trained person by the training centres.
- 9,100 Trained person representing total workforce in the GIDSC.
- 53 Twenty First century Kids club.

The Ministry of State for Environmental Affairs (MSEA) and its executive agency (EEAA) have made big efforts in the field of environmental information, which led to:

- increasing the capacity and capability of the MSEA and EEAA to make sound decisions regarding environmental protection and management through the implementation of an environmental information system.
- Increasing and enhancing the availability and accessibility of environmental data and information to the MSEA and EEAA from national; government organizations and academic institutions.

- Establishing a sustainable linkage between the MSEA/EEAA and other organizations involved with the environment.
- Developing an Intranet and Internet web sites to connect the MSEA/EEAA as a National Environmental Information Centre to a variety of stakeholders that will facilitate long-term access and exchange of environmental information.
- Development and implementation of priority initiatives as defined by MSEA to include: hazardous substances management, industrial pollution, contingency planning, impact assessment , environmental indicators, international conventions and protocols and State of the Environment Reporting.
- Establishment of a common environmental database, a meta-base, and data dictionaries to facilitate access and use of the environmental information by the MSEA/EEAA and for external users.
- The development of methodologies and analysis techniques for environmental information that will support the formulation of policy options and decision-making within MSEA/EEAA.
- An operational library and documentation center to support the MSEA/EEAA requirements that would include capability for environmental resource documentation, books , journals, multi-media production, and public awareness and communication functions.
- The implementation of collaborative working agreements between MSEA/EEAA and various government agencies for joint utilization and exchange of environmental information.
- Development of corporate work plan to include human, financial and technical; resource requirements, ensuring the long-term sustainability through the implementation of procedures for acquisition of environmental information, quality standards and maintenance of environmental information.

In recognition of the importance of establishing an information and management system for the identification, registration, categorization and management of hazardous chemicals, MSEA/EEAA developed a comprehensive system for hazardous substances. Efforts were directed towards the collection of data from different sources, which include producers, users, importers, and distributors of chemicals.

The information dissemination component comprises the installation of a computerized network between EEAA and the partner authorities.

Another system was established which aimed to develop a modern national network for ambient air quality, coastal water monitoring and database of pollution sources. Data are collected using on-line monitors and a variety of sampling equipment. A total of 40 sites covering all Egypt have been selected through several site visits and site studies. An additional of 10 –20 sites will be used for simplified passive sampling.

Capacity-Building, Education, Training and Awareness-Raising: The Information technology Institute is producing highly trained professionals in the information technology field. It also organizes training courses for the different Government bodies to be able to utilize information for decision making.

Information: Main sources of information on Egypt’s development plans are:

- Central Authority for Population Mobilization And Statistics. (CAPMAS)
- Egypt State of Information Service (www.sis.gov.eg)
- Information for Decision Support Centre (www.idsc.gov.eg)

Research and Technologies: All tools and software for Information Technology are being utilized and implemented.

Financing: Financial support for the IDSC is through the state budget.

Cooperation: Cooperation between IDSC and leading universities in IT is ongoing. Some projects are jointly implemented with international intuitions.

CHAPTER: INDUSTRY

Decision-Making: The Egyptian Environmental Affairs Agency under the Ministry of State for Environment is responsible for the protection of the environment. All decisions concerning industry-related pollution abatement take place in coordination with the Ministry of Industry and Technological Development. The Cabinet of Ministers is the main venue of coordination where ministerial committees are formed for the coordination concerning specific measures for relevant issues. Delegation of decision-making authority is provided as deemed necessary to local authorities

Programmes and Projects:

Industrial Inspection Survey

During 1999, special attention was given to inspection of industries based on their pollution loads as determined geographically. A survey was carried out for the Kutchner drainage canal in Gharbia and Kafr El Sheikh.

Establish Greater Cairo Inspection Plan

The establishment of an inspection plan for the greater Cairo Region was carried out in 1999-2000. This plan was elaborated in collaboration with Fayoum and the Greater Cairo Regional Branch Offices and targeted all industrial establishments in the region.

Environmentally Friendly Industrial Cities Programme

This was initiated in order to create a flagship to promote environmentally friendly industrial practices and sustainable investments in cleaner technology. The programme included the industrial zones of five new cities, which were selected according to the capacity of their local authorities and the representation of industrial sectors within their locations. The programme relies on facilitating access to financing mechanisms available for environmental investments and extending technical support required to bring industries into compliance with environmental legislations.

Central Inspection Unit

The establishment of a central inspection unit within EEAA, which is being supported in terms of capacity building by several projects, such as Egyptian Environmental information System, Egyptian Environmental Policy program, Egyptian Pollution Abatement Project (EPAP) and Organization Support Programme. In the same context, general industrial inspection manuals and provision on the job training were developed.

Environmental labs

Design of an authorization system for environmental laboratories. This was developed by EPAP in collaboration with the central laboratory at EEAA.

Elimination and reduction of Ozone Depleting Substances

3 industrial sectors are targeted for improvements regarding the use of Ozone-depleting substances. Those are: foam production, refrigeration, insulation and solvent users.

Establishment of the industrial hazardous waste database

A Database is currently being constructed to establish baseline information about the hazardous wastes in the Egyptian industry and the existing regulations dealing with them as a step to issue Ministerial decree to control the handling and transportation of hazardous waste according to Basel Convention.

Status: Industry is a major contributor to the economy of Egypt. Observed evidence suggests that the public sector industry is responsible for more than 60% of industrial pollution. Most of these industries have little or no pollution control. Old technology and production processes also result in inefficient utilization of natural resources and raw materials and further exacerbating pollution problems.

Currently, a National Strategy for Industry is currently being developed. Within the Strategy, there are several Programmes of Action. Details will be provided as available. Among other elements, the Strategy depends upon the following:

- Any new project must be subjected to an Environmental Impact Assessment before final approval;
- All polluting activities are being relocated from residential areas to other, more suitable, sites;
- Industrial Zones are being established in all Governorates for the new investments;
- Production technologies are being improved to minimize the use of raw materials, energy and, as possible, cans, which may be wasted in production;
- Clean technologies and cleaner production will be used as pollution prevention procedures;
- Production quality technologies are being adapted by applying ISO 9000 series and environmental system 14,000 series, whenever it is possible

As for achievements in industry, 34 companies in the foam production sector are participating in a program to eliminate the use of CFCs. The program includes CFC-free technology transfer and training. 20 companies in the refrigeration sector are participating in a program to use CFC-free technologies. 10 companies in the solvents sector are in the process of substituting ozone-depleting substances. More than 2400 tons of CFCs have been phased out and the establishment of a Halon bank is underway, so is the implementation of two projects to substitute Methyl Bromide as a fumigant agent. Efforts are ongoing to set up an import and export licensing system that would ensure monitoring, control and reporting of Ozone Depleting Substances consumption to Ozone Secretariat. *Challenges:* The Egyptian industry is facing major challenges, which slow down the environmental compliance. Firstly, the old polluting technologies that is still in place, especially in the public sector. The huge investment needed for upgrading these industries while facing severe competition adds on the burden of the Industry. Pollution control and treatment costs are excessively high and the allocation of resources for environmental purposes are not favorable for new starting industries in the private sector. The main obstacles can be summarized in three main points: Lack of cleaner technologies, lack of financial resources and lack of awareness of the industrial sector regarding cleaner production techniques.

Capacity-Building, Education, Training and Awareness-Raising: The Ministry of Industry has several programmes targeted towards building the technical capacity of young entrepreneurs and investors/

Information: Information on industrial establishments in Egypt can be accessed through the Federation of Egyptian Industries. The Industrial Compliance Unit at the EEAA is a source for information about industrial pollution and ongoing projects regarding industrial pollution abatement.

Research and Technologies: Some projects were implemented in cooperation between Industry and EEAA to promote Cleaner Technology, pollution control and treatment technologies. Since 1997, there has been a market growth for environment friendly technologies.

Financing: To help industry comply with sound environmental practices, including pollution prevention, abatement and control, an estimated 10-12 billion Egyptian Pounds are expected to be invested over the period 1994-2004. Industrial companies are to provide the equivalent of 3 billion Egyptian Pounds, while donors and international financing bodies would furnish 1.9 billion Pounds. The remaining will be provided by the private sector and NGOs. Some major finance organizations are already contributing in funding pollution abatement in industry such as: World Bank and the European Bank.

Cooperation: Cooperation is being supported and enforced between industry and scientific research centres, universities, and international programmes and organizations in the area of environment and sustainable development.

* * *

CHAPTER: SUSTAINABLE TOURISM

Decision-Making: The Ministry of Tourism is coordinating efforts with The Ministry of State for Environmental Affairs/Egyptian Environmental Affairs Agency (EEAA) and the Governorates in order to promote sustainable tourism.

Programmes and Projects: The EEAA has developed guidelines for preparing Environmental Impact Assessments for tourism developments especially in the environmentally sensitive areas. The Tourism Development Authority (TDA), with the help of the two projects Environmentally Sustainable Tourism and Red Sea Sustainable Tourism Initiative, issued guidelines for best practices in tourism development and introduced Environmental Management Systems for resorts.

Status: Egypt is famous for its wide tourism product. It is the Government policy to encourage the tourism development along the Red Sea Coast. This creates thousands of jobs and provides valuable hard currency income to the country. Recognizing the sensitivity of some of the areas along the Red Sea, many protected areas were declared and specific developments were prohibited. Any new tourism project is obliged by the Environmental Law 4, to submit an Environmental Impact Assessment for the different phases of the proposed development. EEAA is cooperating with Governorates to assist in monitoring environmental impacts from tourism establishments

The main challenge facing the enforcement of environmental regulation is the lack of institutional capacity. Lack of trained personnel and lack of resources for monitoring environmental conditions represent an impeding factor to conserve nature and protect environmentally sensitive areas from potential negative impacts of tourism activities.

Capacity-Building, Education, Training and Awareness-Raising: EEAA is providing training for rangers to monitor violations to environmental regulations concerning the sensitive eco-systems.

Information: Information about sustainable tourism can be accessed through the Environmental Affairs Agency and the Tourism Development Authority.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: Egypt is cooperating with international institutions to provide technical assistance and capacity building for Egyptian institutions to implement and enforce environmental regulations and develop guidelines for new tourism developments.

* * *