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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

TRANSPORT PLANNING AUTHORITY
MINISTRY OF TRANSPORT AND COMMUNICATION
THE ARAB REPUBLIC OF EGYPT

THE MASTER PLAN STUDY
FOR
EGYPTIAN NATIONAL RAILWAYS

FINAL REPORT

December, 1996

JAPAN RAILWAY TECHNICAL SERVICE
DAIWA INSTITUTE OF RESEARCH LTD.
PACIFIC CONSULTANTS INTERNATIONAL

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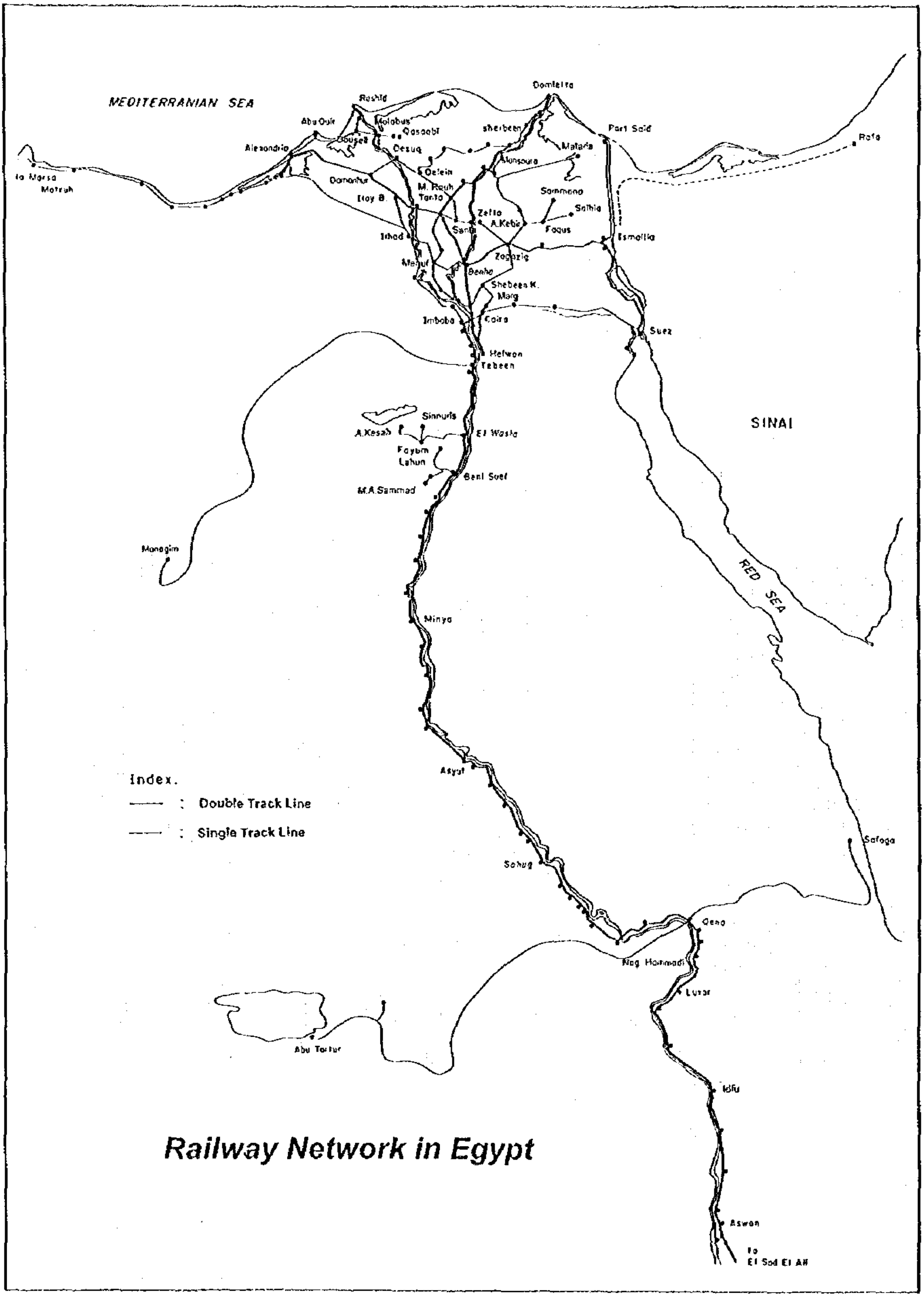
The following foreign exchange rate is applied in the study.

US$ 1.00 = 3.4 Egyptian Pounds (LE)

LE 1.00 = 30.0 ¥

The cost was calculated as of January 1996.



Railway Network in Egypt

PREFACE

In response to a request of the Government of the Arab Republic of Egypt, the Government of Japan decided to conduct the Master Plan Study for Egyptian National Railways (ENR) and entrusted the study to Japan International Cooperation Agency (JICA).

JICA organized a study team headed by Dr. Hiroshi Okada, President of Japan Railway Technical Service (JARTS) and composed of the members of JARTS, Daiwa Institute of Research, Ltd. (DIR) and Pacific Consultants International (PCI). The study team visited Egypt three times between November 1995 and October 1996.

Through the study, the study team recognized that ENR has a railway network in the high population density area along the River Nile and Nile Delta, which is a very advantageous situation for rail transport, and that Egypt is moving towards a market economy, steadily implementing economic reform programs. Under these circumstances, the study team clarified problems regarding ENR's management and finance, and formulated a master plan to improve management and achieve the financial viability of ENR.

To implement the reformation of ENR, the firm resolution of ENR and related government agencies, understanding and cooperation of various related parties, and strong leadership from top government officials are essential.

I sincerely hope that this report will contribute to the improvement of the management of ENR, and that ENR will play an important role in the midst of growing motorization, and contribute to Egypt's society and economy.

Finally, I would like to thank the Transport Planning Authority, Ministry of Transport and Communication, ENR and other related ministries, government agencies, and academics for their heartfelt assistance and valuable suggestions extended to the study team.

December 1996

Kimio Fujita
President
Japan International Cooperation Agency

Letter of Transmittal

December 1996

Mr. Kimio Fujita
President
Japan International Cooperation Agency

Dear Mr. Fujita,

It is my great pleasure to submit herewith the Final Report for the Master Plan Study for Egyptian National Railways in the Arab Republic of Egypt.

The report is the result of the Study carried out by Japan Railway Technical Service, Daiwa Institute of Research and Pacific Consultants International as per the contract with Japan International Cooperation Agency (JICA) from November 1995 to December 1996.

Based on the recent socio-economic situation in Egypt, the master plan has been drown up in the Study to improve the management of Egyptian National Railways (ENR), a major means of transport in the country, as part of our cooperation related to movement towards the market economy in Egypt.

On behalf of the study team, let me express my heartfelt thanks to the Government of Egypt, especially Transport Planning Authority of Ministry of Transport and Egyptian National Railways, for the generous cooperation, assistance and warm hospitality they extended to them throughout entire period of the study.

Our thanks are also due to Japan International Cooperation Agency, the Ministry of Foreign Affairs, the Japanese Embassy in Egypt and the JICA Egypt Office for their valuable advice and support during the Study and preparation of this report.

I sincerely hope this report will be found helpful to ENR in promoting its sound management operation, so that the railway can continuously play a key role in the transport in Egypt by adequately meeting the changes in demand entailed by the economic reform in the country.

Yours faithfully,

Hiroshi Okada

Hiroshi Okada
Leader of the Japanese Study Team
(President,
Japan Railway Technical Service)

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CHAPTER 1 INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The Egyptian National Railways (hereinafter referred to as "ENR") plays one of principal rolls on transport field in Egypt with about 4,500 kilometer route length. However, the railway management is the status of red-ink finance same as many railways in the world, even though the railway plays the important role of transportation in Egypt. For that the government has to subsidize to the railway a lot.

Meanwhile, the Government of Egypt is promoting the Government's Economic Reform and Structural Adjustment Program (ERSAP) to set its finances in order. The government's budget deficit is a source of macroeconomics instability in Egypt. A national plan has been established with the goal of strengthening the supply side of the economy by introducing market reforms. Based on this principle, the government of Egypt plans ENR to become a profitable railway with sound operations.

From this back ground points of view, the Government of the Arab Republic of Egypt (hereinafter referred to as " Egypt") requested to make Master Plan study on Egyptian National Railways in Egypt (hereinafter referred to as "the Study") Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for implementation of technical cooperation programs of the Government of Japan. In response to this request, JICA has decided to conduct the Study.

The Japanese Preparatory Study Team was dispatched by JICA in February 1995, and after discussion with officials of the Government of Egypt, the Scope of Work for the Study was agreed upon between both sides, and signed on February 8th, 1995.

Consequently, JICA organized a Study Team consisting of Japan Railway Technical Service, DAIWA Institute of Research Ltd. and Pacific Consultants International Co., Ltd. The Study Team shall work in close cooperation with the Egyptian Counterpart team in accordance with the agreed Scope of Work and the contents of the Inception Report which was agreed in November 1995.

The JICA Study Team commenced the study from November 1995 and collected relevant data/information in Phase I. The Study Team prepared the Progress Report, which includes an outline of present situations and problems of Egyptian National Railways (hereinafter referred to as "ENR"). The Progress Report was submitted to TPA in February, 1996. Various useful comments on the Report were presented by the TPA. Based on the Progress Report as the result of the data collection/information and these comments, the Interim Report was prepared, and it was submitted to TPA in May, 1996. The contents of the Interim Report was examined with many precious discussion, data/information correction and site survey. As the fruits of the study, the Draft Final Report was elaborated. The Draft Final Report includes the current condition and problems of ENR, Business Improvement Proposal, Business Improvement Alternative, Demand Forecast, Train Operation and Investment Plan, Evaluation of Alternative and Implementation as the these results.

1.2 OUTLINE OF THE STUDY

1.2.1 Objective of the Study

Based on the background mentioned above, this Study is to formulate the Master plan for ENR, which is one cause of the government deficit. The goal is to fundamentally revise the management strategy of ENR, and to make a profitable railway with sound operations. For this purpose, the objectives of the Study are:

(1) Identify future objectives and policies of ENR to achieve financial viability.

(2) Prepare phased development plans for restructuring the management and financial systems of ENR.

(3) Prepare phased development plans for the infrastructure, rolling stock, tractive power, etc., together with economic and financial analysis of each individual project based on free market forces and competition with other modes of transport.

1.2.2 Target Year of the Study

The target year of the master plan is divided into three periods: the first period from 1997 to 2002; the second period from 2003 to 2007; and the third period from 2008 to 2012. The Study mostly focuses on the short term plan until 2002, after 2003 that is examined as the railway strategy plan.

1.2.3 Study Area

The study area is the whole area of Egypt, especially along the railway lines.

1.2.4 Structure of the Study

The Study was undertaken in 6 stages, and the following items were examined at each stage.

PHASE I: 1st Study in Egypt

(1) Explain the Inception Report to Egyptian officials, and discuss basic approaches of the Study.
(2) Collect and analyze existing reports and relevant information on the following topics:
   - Macroeconomics and social analysis.
   - Analysis of basic policy and development plan for transport sector and railway subsector.
   - Analysis of current ENR situation.
(3) Social impact analysis. Study effects of closing unprofitable lines, raising fares, and other actions with possible negative effects on vulnerable sections of society.
(4) Transport survey for demand forecast. Perform transport survey and review

existing data on transport demand. This survey and review will be used to produce a quantitative demand forecast in Phase II.

(5) For each segment, use field trips to examine situation of ENR's facilities, rolling stock, train operations, service level, employee working style, and environment.
(6) Evaluate ENR situation, and identify problems to be solved. Evaluate and classify the situation of each railway segment.
(7) Prepare the Progress Report. Explain and discuss the study, analysis, and problems identified, with Egyptian officials.

PHASE II: 1st Study in Japan

(1) Based on data collected in Egypt, set social and economic framework.
(2) Produce passenger and freight demand forecast based on information collected in Phase I.
(3) Transport fare analysis. Analyze data collected in Phase I, to obtain fare price and cross-elasticity.
(4) Evaluate ENR assets, considering types of assets and valuation methodology.
(5) ENR financial evaluation. Analyze growth potential, profitability, stability, productivity, and break-even point.
(6) Evaluate environmental issues.
(7) Establish basic improvement strategy, based on the study's findings regarding demand forecast, organization, operations, finance, and facilities.
(8) Make alternative improvement proposals, including equipment, organization, fares, and closure of lines.
(9) Undertake initial environmental examination: Examine environmental issues and social environmental issues.
(10) Analyze alternative improvement proposals. Analyze financial results and investments required for each alternative and each segment.
(11) Prepare the Interim Report.

PHASE III: 2nd Study in Egypt

(1) Explain, discuss, and mutually confirm the alternative improvement proposals in the Interim Report with Egyptian officials.
(2) Conduct supplemental surveys to acquire necessary data.
(3) Examine alternative improvement proposals, including organization, sales strategy, finance, and facilities.
(4) Select most appropriate alternative.
(5) Make proposals to improve management efficiency, based on the most appropriate alternative. Consider various alternatives, including privatization and separation of infrastructure and train operations.

PHASE IV: 2nd Study in Japan

(1) Make staged development plan. Consider reallocation of employees, investment in rolling stock and facilities, and propose urgent improvements.
(2) Make concrete proposal to implement staged development plan and improvement proposal..

(3) Complete proposal, staged development plan, and concrete implementation plan.
(4) Produce Draft Final Report covering the entire Study.

PHASE V: 3rd Study in Egypt

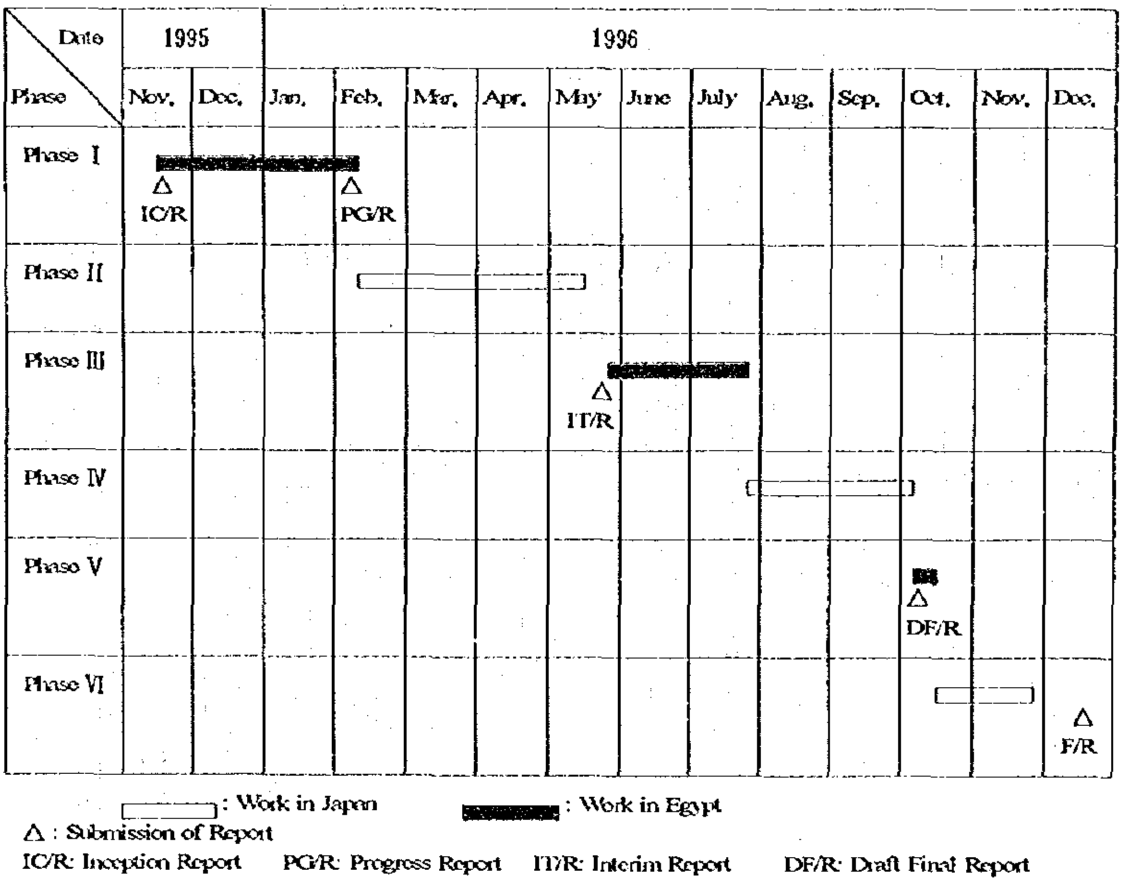
Explain and discuss the Draft Final Report with Egyptian officials.

PHASE VI: 3rd Study in Japan

Receive comments from the Egyptian Counterpart, and finalize and submit the Final Report.

These actual schedule shows in Table 1.2.1.

Table 1.2.1 STUDY SCHEDULE



: Work in Japan : Work in Egypt
Δ : Submission of Report
IC/R: Inception Report PG/R: Progress Report IT/R: Interim Report DF/R: Draft Final Report
F/R : Final Report

1.3 STUDY ORGANIZATION

1.3.1 Organization

The parties directly concerned with implementation of the Study are the TPA Committee as counterpart agency to the Study Team, the Steering Committee which was organized by the Government of Egypt at the start of the Study, JICA, the Advisory Committee organized by JICA, and Study Team. The organization chart is shown in Fig. 1.3.1, and members of these parties concerned are shown in following Chapter 1.3.2.

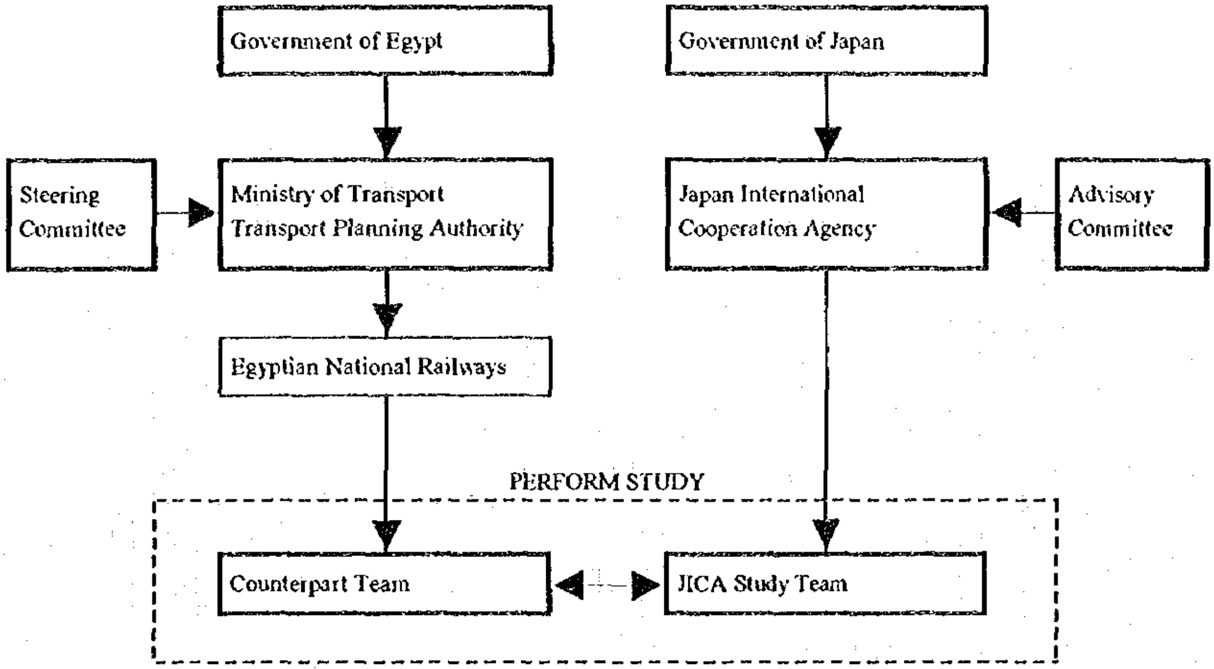


Fig. 1.3.1 STUDY ORGANIZATION

1.3.2 Members List

(1) JICA Study Team

Dr. Hiroshi Okada	Study Team Leader
Mr. Yasumasa Kumamaru	Acting Leader/Financial Analysis
Mr. Michio Fujihashi	Macro-Economy
Mr. Peter Musson	Human Resources & Productivity
Mr. Soichi Kondou	Law & Regulation
Mr. David Saib	Social Impact Analysis
Mr. Masatoshi Kaneko	Analysis of Market
Mr. Kiminari Tachiyama	Tariff Analysis
Dr. Ahmed Hamdy Ghareib	Transport Demand Forecast
Mr. Shigeaki Yamamoto	Information System

Mr. Chuji Suda	Train Operation
Mr. Koji Terado	Rolling Stock & Maintenance
Mr. Hisashi Sato	Permanent Way & Station
Mr. Toshiro Tachi	Signalling & Telecommunication
Mr. Tsukasa Kishimoto	Environmental Analysis
Mr. Toshiaki Sakatsume	Coordinator

(2) JICA Advisory Committee

Mr. Tatsuhiko Suga	East Japan Railway
Mr. Ryousuke Itazaki	Ministry of Transport, Government of Japan
Mr. Noboru Matsumura	Ministry of Transport, Government of Japan
Prof. Kiyoshi Nakamura	Waseda University
Mr. Tsutomu Shibata	Japan Development Bank

(3) JICA Office

Mr. Masami Fuwa	Social Development Study Dept., JICA
Mr. Haruyuki Shimada	Social Development Study Dept., JICA
Mr. Keiichi Okitsu	Social Development Study Dept., JICA
Mr. Shinichi Suzuki	Resident Representative, JICA Egypt
Mr. Hisatoshi Naito	Deputy Resident Representative, JICA Egypt
Mr. Yousuke Tamabayashi	JICA, Egypt
Mr. Mostafa Hussein	JICA, Egypt
Mr. Mahmoud Abd El-Halim	JICA, Egypt

(4) Steering Committee & E.N.R Board

Eng. Ahmed Abu El-Kheir	Vice Chairman, T.P.A
Dr. Ahamed Eisawi Saleh	Advisor to the Minister of Ministry of Transport
Eng. Mokhtar Mostafa Hassan	Head of Central Department for Technical Affairs, T.P.A.
Acc. Oncy Fahim Guirguis	Head of Central Department Economic Affairs, T.P.A.
Eng. Mahmoud Mohamed Marie	Chairman of E.N.R.
Mr. Ezzat Badawi	Vice Chairman of Administration Affairs, E.N.R.
Acc. Bahgat A. Fayed	Vice Chairman for Financial & Budget E.N.R.
Eng. Sami I. Fayed	Vice Chairman of E.N.R. for Technical & Engineering Affairs
Eng. Mohamed Raafat	Vice Chairman for Operation & Regional Area E.N.R.
Ms. Eng. Nawal Taha	Vice Chairman for Construction Sector E.N.R.
Eng. Mohammed Talaat Khattab	Vice Chairman for Permanent way & Signals E.N.R.
Eng. Mohammed Maher Mostafa	President of Operating Agency of Metro, E.N.R.
Dr. Sayed Duhaya	First Under Secretary Ministry of Planning
Dr. Mohamed Sadek Bazeraa	Dean of Faculty of Commerce, Cairo University
Dr. Mohamed Mohamed Youssef	Prof. Of Cost Accounting, Faculty of Commerce, Cairo University
Dr. Ali Soliman Hazin	Prof. of Transport Planning Faculty of Engineering, Cairo University
Dr. Mohamed Tuwfik Baligh	Prof. of Expenses, Faculty of Commerce, Cairo University
Ms. Dr. Hanaa Kheir El-Din	Prof. of Economy, Faculty of Economy & Political

	Science, Cairo University
Dr. Abd El-Rahman El-Hawary	Prof. of Transport Planning, Cairo University
Eng. Mohamed Khattab Azab Hassan	Ex-Vice Chairman
Eng. Abd El-Salam Shaat	Ex-Chairman of E.N.R.
Eng. Ahmed Abdel El-Mottaleb	Ex-Chairman for Metro, E.N.R.
Eng. Hussein Halim	Former Chairman of E.N.R.
Acc. Refaat Ibrahim Yousef	Ex-Head of Central Department Economic Affairs, T.P.A.

(5) E.N.R & T.P.A Counterparts and Executive officials

Eng. Ahmed Sherief El-Sheikh	Director Operation Department, E.N.R.
Mr. Salem El-Sayed Salem	Director Commercial Department, E.N.R.
Mr. Mohamoud Mostafa Houla	Director Financial Department, E.N.R.
Mr. Abdel Wahed Behairi	Director Budget & Costing, E.N.R.
Eng. Micheal Fahmi	Director of Executive Affairs, E.N.R.
Eng. Abdel Hamid Al Ashwah	Director of Signaling, E.R.R.
Eng. Ahmed El Said Hassan	Director of Follow-up Dept., Permanent Way, E.N.R.
Eng. Mahmoud Naguib	Director Workshop Department, E.N.R.
Eng. Zakaria Adel Hamid	Director Rolling Stock Department, E.N.R.
Mr. Gallal Fahmi	Advisor of E.N.R.
Eng. Samir Hamid Nwar	Manager Operation Department, E.N.R.
Eng. Mohamed Saaed Amin	Chief Computer Operation Program/Data Management Dept. E.N.R.
Acc. Safwat Abdel Azim Taha	Head of Commercial Department, E.N.R.
Acc. Roshdy El Khatib	General Manager of Financial Department, E.N.R.
Acc. Adly Kerollos	Manager of Financial Department, E.N.R.
Acc. Saeed Hussein	General Manager of Information System Department, E.N.R.
Eng. Violet Boushra	Rolling Stock & Maintenance, Workshop Dept. E.N.R.
Eng. Hosny Mourad	Vice Director, Rolling Stock & Maintenance, Workshop Dept., E.N.R.
Eng. Yaser Esmat	Follow-up Dept., Permanent Way, E.N.R.
Eng. Mahmoud Shaker	Telecom, Manager of Signalling & Telecom. Department, E.N.R.
Eng. Eid Abd El Reheem	Signal, Manager of Signalling & Telecom. Department, E.N.R.
Eng. Shokri Khalil	Under Secretary of Training Department, E.N.R.
Mr. Ibrahim Gouda	Human Resource Department, E.N.R.
Ms. Mona Fawzi	Public Affairs Department, E.N.R.
Ms. Ragga Hussein	General Manager, T.P.A
Ms. Soda Ibrahim	General Manager, T.P.A
Eng. Amr Fouad Douara	Counterpart for Environment, T.P.A.
Eng. Ghoneeium Abdel Hai	Counterpart for Rolling Stock & Workshop, T.P.A.
Eng. Assem El-Faham	Counterpart for Train Operation, T.P.A.
Ms. Hamida Taha El-Beck	Counterpart for Tariff & Market Structure, T.P.A.
Mr. Kamal Husseini	Counterpart for Track & Station, T.P.A.
Eng. Abdauh Fattoh	Rolling Stock Department, E.N.R.

Eng. Saleh Masoud	Rolling Stock Department, E.N.R.
Eng. Fattah Said	Rolling Stock Department, E.N.R.
Mr. Abdel Moniem Mostafa	General Manager of Planning Department, E.N.R.
Mr. Mohmoud Al Nokrashy Hanafy	General Manager of Information Center, E.N.R.
Mr. Mohamed Mohamed Al Shawy	*Under Secretary, Ministry of Planning*
Eng. Enayat Benyamine	General Manager, Ministry of Planning
Mr. Mohamed Mohamed Al Shawy	

CHAPTER 2 MACRO ECONOMY AND SOCIAL ASPECT

2.1 MACRO ECONOMY

2.1.1 Outline of Egypt

(1) Geography

Egypt is located in North Africa. It enjoys a strategic geographical position since it is at the heart of three continents, Asia, Africa and Europe. It occupies a total land area of 997,739 sq. Km of which only 4% is inhabited.
It has a population of 59 million according to the 1995 estimate of Central Agency for Public Mobilization and Statistics (CAPMAS). The major urban centers are Greater Cairo (Cairo, Giza and Kalyoubia governorates) with a population of 14.5 million, Alexandria (3.4 million), Port-Said and Suez (878,000). On the other hand, the desert region (Red Sea, New Valley, Matrouth and Sinai governorates) has only 691,000 people (1.2% of Egypt's population) in 853,000 sq. Km (85.5% of Egypt's area).
The official language is Arabic.

(2) Climate

The climate is hot and dry, with a mild winter. The hottest month is July with average daily minimum and maximum of 21 and 36 degrees centigrade. The coldest month is January with averages of 8 and 18 degrees centigrade respectively.

2.1.2 Overview of the Economic History after 1952: Table 2.1.3

(1) The era of Nasser (1952-1970)

In the post 1952 revolution period, Egypt was transformed into a state controlled economy. A private enterprise economy was converged into a mixed, state controlled economy through nationalization, especially from 1960 to 1967. The economy became highly centralized and was subject to planned resource allocation -**Etatism**- causing growth in public ownership accompanied by an annual Gross Domestic Product (GDP) growth of 5% after the implementation of the five year plan of 1960/61-1964/65. In addition to nationalization, an **import substitution** strategy was the guideline of the state. Quotas were imposed on imports. Domestic savings were limited, causing reliance on external borrowings. The 1967 disastrous war with Israel, causing the allocation of resources in non productive sectors such as the military, caused a major internal recession.

From 1952 to the early 1960s, the major goal of the state was the redistribution of land in rural areas. Agricultural cooperatives which administered crop rotation and delivered certain inputs represented central control with cropping patterns.

(2) The era of Sadat (1970-1981)

In 1974, Sadat tried to reduce state control by adopting the open door policy -**Infitah**- aiming at encouraging foreign and domestic private investment. Real GDP increased by an average of 9% for the period between 1974 and 1981. The growth had four sources of revenues: oil

exports, migrant workers' remittances, tourism and Suez Canal revenue. These sources depend heavily on external factors, especially the oil market. Investments were directed to the services sector rather than the agricultural and industrial sectors.
The opening policy of 1974 constituted of various components: (a) the floating of the Egyptian pound, which would promote exports; (b) free foreign trade; (c) free domestic trade between public and private sectors; (d) the progressive tax rate; (e) allow foreign banks to operate in Egypt on the conditions of dealing on both hard and domestic currencies; and (f) promote foreign direct investment -FDI- as long as it is in harmony with the state planned goals.

(3) The era of Mubarak (1981-present)

The four sources of revenues contributed to stabilization of economy, maintaining Egyptian autonomy in the early 1980s. By the late 1980s, due to the worsening of the Egyptian economy, population growing over 2.5% annually and foreign debts exceeding $50 billion in the spring of 1990, a structural adjustment program was adopted, aiming at reducing the imbalances of the economy.

(4) Educational system

During the colonial era, education was neglected, since it was assumed that investment in human capital would create an educated elite able to undergo economic development. The 1923 Constitution guaranteed free compulsory education for children from seven to twelve years old.
After the 1952 revolution, progress in the secondary system has been fast, with a 1984 enrollment rate of 70% for males and 46% for females, especially after the charter of 1962 which abolished tuition and made admission free. After 1964 all graduates were given a right to get employed, but the maintenance of this policy has proved to be difficult because of recent labor market circumstances.

2.1.3 Role of the State and National Planning

(1) Planning

1) History
Development planning in Egypt was generally non existent prior to 1952. The economy was run with a system of laissez faire, with certain restrictions on the production of cotton, and some regulations on the exchange rate.
Following the revolution of 1952, the system did not change radically because the new government did not hold a clear and determined economic philosophy. Policies were determined yearly depending on the prevailing circumstances.
The turning point was in 1957 following the Suez crisis of 1956 when basic commodities were unavailable. There was a shortage in supply of wheat, petroleum products, and medical goods. Egypt's first full scale economic plan covered the period of 1960/61-1964/65 and was successful marking a rate of GDP growth of 5%. The 1967 war interrupted the implementation of other successful plans.

2) Five Year Plans (FYP)
After the victorious war of 1973 with Israel, the government gave back attention to economic planning. The FYP of 1982/83-1986/87 focused on improving infrastructure which was

neglected during the years of wars. According to the Ministry of Planning -MOP-statistics, actual investment in transportation and communication amounted to Egyptian pounds (LE) 11.3 billion in the period of the first FYP representing 20.1% of the national economy. In the second five year plan covering the period of 1987/88-1991/92, investment reached LE 20.6 billion and LE 17.2 billion in 1992/93-1994/95. The second FYP focused on economic reform and the increased role of the private sector.
According to the MOP, the third FYP of 1992/93-1996/97 is focusing on maximizing the society's potential. Production is to reach its full capacity in order to have the Egyptian products able to compete internationally in terms of cost and quality.

a. The Third Five Year Plan (1992/93-1996/97)
The basic goals of the third FYP can be summarized as follows:
- Reach a real GDP growth rate of 3 times the population growth rate, reducing at the same time the inflation rate and improving the Balance Of Payment -BOP-.
- Improve the quality of Egyptian products by adopting the latest technologies to be able to compete internationally.
- Increase the role played by the private sector, and the share it represents in the GDP.
- Solve the problem of unemployment by creating new job opportunities through giving incentives to new projects and investments.
- Emphasize regional development to reduce population density and the concentration of population in some areas.
- Give special importance to education and health -**Social Infrastructure**- required for successfully implementing the reform program.

(2) Economic Reform and Structural Adjustment Program (ERSAP): Table 2.1.4, 2.1.5

1) General explanation
Economic reform stands for a series of basic measures in order to stabilize the macroeconomy, that is, rehabilitation of fiscal and monetary status, liberalization of the interest rate, higher prices of public goods and services, adjustment of foreign exchange rate etc. One of the main aims of economic reform is to reform the macroeconomy for smooth introduction of structural adjustment.
Structural adjustment means a package of specific measures to be implemented based on a stabilized macroeconomy. Those are, for example, reform of various systems such as banking, taxation, foreign exchange and legal systems, and some promotion of a market oriented economy through means such as privatization of state-owned companies, rehabilitation of industry, and liberalization of prices, investment and foreign trade

2) Implementation of the ERSAP
The Egyptian economy depended on foreign aid and assistance and was greatly harmed by the burden of debt in the 1970s. Egypt had to accept the ERSAP of the IMF and the World Bank early in the 1990s. Total foreign debt amounted to $41.0 billion and debt service was $2.4 billion in 1991.
The reform program was divided into two phases. The first phase started in the Spring of 1990 through the Winter of 1993. The second phase started in July 1993. The major aim of the first phase is to change a centralized economy with a small private sector into a decentralized, market oriented economy where the scope of development is assigned to the private sector.

3) Result of ERSAP and the target of the 2nd phase

The stabilization process has succeeded, although private sector investment remained weak. Despite the fact that economic growth has been slow due to the reform program, overall progress has been significant (as follows).

The fiscal deficit was reduced from 13.4% of the GDP in 1990/91 to 2.7 % in 1993/94. According to the reform expectations during the second phase, the fiscal deficit is expected to reach 0.5% of the GDP by 1996/97. The tax reform undertaken increased revenue from domestic taxes and decreased the dependence on import duties. CPI inflation was lowered from 21.1% in 1991/92 to 9.0% in 1993/94. Monetary liberalization, manifested by the absence of a ceiling on the interest rate, also took place. The foreign exchange system was unified allowing international capital mobility. The foreign exchange rate has been stable between LE 3.30 and 3.39 from 1990/91 to 1993/94. Energy prices are expected to increase, reaching the international level over a period of five years starting 1994. Food subsidies are to be abolished by the year 2001.

Concerning the trade sector, the government has removed all quotas and non tariff barriers; in addition, it cut tariffs on capital goods to 5%, from 10%. Timetables were formulated concerning privatization, specifying 51% -LE 37.2 billion- of total holding company assets to be sold by the end of 1995. Export promotion became the development strategy for the coming period. Local banks will be able to compete internationally after unification of the currency exchange rate and the raising of the interest rate. Trade liberalization will reduce government intervention in the market. The unfair public industry competition which allowed it to sell its products at lower prices will end, since subsidization of output will be abolished.

2.1.4 Domestic Economy: Table 2.1.4, 2.1.5

(1) GDP

The MOP data show that the real growth rate of GDP at factor cost reached 3.6% (see note below) in 1993/94 at 1991/92 prices, against 2.5% for the previous fiscal year 1992/93. The growth rates exceed those of the developed countries and those are expected to approach developing country growth rates.

(NOTE: This report's economic forecast was based on government data available at the time. The economic forecast was used in the railway demand forecast, which was then used in the forecasts of rolling stock and financial performance. Recent data published shows that 1993/94 GDP was 3.9%, not 3.6%. The GDP growth rate impacts all of these parts, although the difference between 3.6% and 3.9% does not fundamentally impact this report's conclusions. Therefore, for consistency, this report will use the 3.6% figure. The issue is the same for 1994/95 and 1995/96, although it should be noted that the 1995/96 data is likely to be revised in the near future.)

(2) Population

Population is one of the root problems in the Egyptian economy. Population growth control has shown to be possible reflected by the data showing that the average annual growth rate of population was reduced from 2.75% during 1977~1986 to 2.25% during 1987~1995. The total population figure should reach around 59 million in 1995. The media played an important role in educating people about the importance of birth control. Also, the government subsidized contraceptive methods.

Table 2.1.1 GDP of the Countries

	Nominal GDP('93)		Real GDP Growth Rate(%)			
	Billion $	share(%)	1991	1992	1993	1994
Developed Country	**18,754**	**78.2**	**0.8**	**1.5**	**1.2**	**3.1**
USA	6,260	26.1	-0.6	2.3	3.1	4.1
Japan	4,207	17.5	4.3	1.1	-0.2	0.5
EU	6,449	26.9	1.1	1.0	-0.6	2.8
Germany	1,911	8.0	2.8	2.2	-1.2	2.9
France	1,252	5.2	0.8	1.3	-1.5	2.9
Italy	991	4.1	1.2	0.7	-1.2	2.2
UK	941	3.9	-2.0	-0.5	2.2	3.8
Developing Country	**4,371**	**18.2**	**4.9**	**5.9**	**6.1**	**6.2**
NIEs	721	3.0	7.8	5.7	6.0	7.2
South East Asia	403	1.7	6.6	6.3	6.8	7.5
China	545	2.3	8.0	13.2	13.7	11.5
Middle East	581	2.4	3.1	5.5	3.6	0.3
Cent.South America	1,401	5.8	3.5	2.7	3.3	4.6
Transition Economy	**858**	**3.6**	**-11.6**	**-15.3**	**-9.1**	**-9.5**
Russia	348	1.5	-13.0	-19.0	-12.0	-15.0
East Europe	291	1.2	-11.9	-9.2	-1.9	2.8
Total of the World	**23,983**	**100.0**	**1.3**	**2.0**	**2.5**	**3.6**

Source: IMF 'World Economic Outlook', WB 'World Tables' etc.

(3) Unemployment

The rate of unemployment declined from 10.1% in 1992/93 to 9.4% in 1993/94. The increase in private sector investments created 445,000 jobs, resulting in an employment growth rate of 3.2% in 1993/94.
The Egyptian government is preparing a unified labor law which will give employers greater flexibility in hiring and firing employees according to economic circumstances. The new law allows for collective bargaining and the right to strike.

The following policies concerning employment are in the third FYP:
- Present the required incentives to the private sector in order to allow it to perform at its full potential creating new job opportunities absorbing the existing labor force.
- Give special importance to productive investment.
- Study international markets regarding job opportunities for Egyptians abroad.
- Increase productivity through on the job training -OJT-.

(4) Inflation

Prices witnessed a positive trend characterized by a decline in the rate of inflation. On an annual basis, inflation declined from 11.2% during fiscal year 1992/93 to 9.0% in 1993/94. This shows that inflation is starting to decrease after a period of high inflation which accompanied the price adjustment from social to economic prices. This performance is due to reduction in the state's fiscal deficit, slower monetary expansion, and the stable exchange rate.

(5) Fiscal policy

1) The state budget

With the application of economic reform, the fiscal deficit has been reduced. It was reduced from LE 17.0 billion in 1990/91 to LE 3.7 billion in 1993/94. This was achieved through rationalization of government expenditures, and through the development of the tax system such as facing tax evasion, collection of overdue taxes, and improvement of the tax rate. The state budget estimate of 1994/95 was set with the aim of lowering the overall deficit and its ratio to GDP. As a result, the overall fiscal deficit has been reduced to LE 2.7 billion constituting 1.8% of GDP compared to 13.4% of GDP in 1990/91.

On the expenditures side, subsidies were reduced by 44.1% in 1992/93 and 21.7% in 1993/94. On the revenues side, the tax revenue coverage ratio of total expenditures has been increased from 34.1% in 1990/91 to 58.5% in 1994/95.

2) Treasury bills and bonds

The government turned to the sale of Treasury bills and bonds, rather than external borrowing to fund the deficit. The government also enjoys the effect of attracting savings and inflation control by this means. The balance of T-bills was LE 31 billion in December 1994. The Central Bank of Egypt (CBE) issued treasury bonds in April 1995 with a value of LE 3 billion, a semiannual interest rate of 12%, and a maturity period of 5 years. These bonds are exempted from taxes and can be traded on the securities market.

3) Tax reform

The tax reform implemented in 1993 formulated the Global Income Tax Law reducing the marginal tax rate from 65% to 48%, and applying a single rate structure to most sources of income to replace the system of categorized taxes and the general income tax.

4) Subsidies

Direct control of prices for basic commodities to protect the poor is a legacy of the Nasser era. Subsidies covered energy, transportation, and public utilities. The IMF has targeted the elimination of subsidies, which were LE 3.3 billion, representing 5.8% of total expenditures in 1993/94 compared to LE 7.2 billion, 15.2% in 1991/92

5) The third five year plan

During the 3rd five year plan, several achievements were made with respect to fiscal policy as follows.

- With respect to taxation, the fiscal policy is implementing a unified tax system on overall income aiming at promoting social equality. Tax exemption is given to new projects undertaken in the new cities.
- Fiscal policies are also aiming at reducing subsidies and adjusting overall price levels. The structural adjustment program is also taken into consideration. Bonds are issued to improve the position of the Egyptian pound compared to other currencies.

Table 2.1.2 The State Budget (LE Millions)

	1990/91	1991/92	1992/93	1993/94	1994/95
Current Expenditures	29,679	36198	41292	46,097	47,416
Wages & Pensions	9,256	10792	13329	15,010	16,555
Defense outlays	4,205	4,850	5,572	5,873	6,445
Public debt interest	7,046	9,510	13,309	16,498	14,790
Subsidies	5,566	7,237	4,047	3,265	3,967
Social fund	------	------	150	338	250
Capital Expenditures	15,831	11,365	10,931	10,167	10,781
Total Expenditures	**45,510**	**47,563**	**52,223**	**56,264**	**58,197**
Current Revenues	25,608	37,834	43,683	49,418	52,890
Tax revenues	15,503	24,286	27,334	31,373	34,024
Non-Tax revenues	8,372	11,391	13,686	15,011	15,669
Petrol. Authority	3,236	3,715	4,626	4,610	4,443
Suez Canal Authority	1,361	3,015	3,013	2,610	3,132
Local Government	1,733	2,157	2,663	3,034	2,979
Capital Revenues	2,951	3,572	3,020	3,149	2,836
Total Revenues	**28,559**	**41,406**	**46,703**	**52,567**	**55,508**
Fiscal Deficit	**-16,951**	**-6,157**	**-5,520**	**-3,697**	**-2,689**
GDP	126,381	131,057	134,335	139,180	146,696
Fiscal Deficit / GDP	**13.4%**	**4.7%**	**4.1%**	**2.7%**	**1.8%**
Subsidies / GDP	4.4%	5.5%	3.0%	2.3%	2.7%
Tax Rev. / Total Expenditure	34.1%	51.1%	52.3%	56.3%	58.5%

Source: CBE 'Annual Report' - 1994/95 data are preliminary

(6) Monetary policy

Monetary policy has two major objectives. One objective is to promote investment to stimulate growth. Another goal is to reduce inflation to achieve monetary stabilization.

1) Loan ceilings
Credit was regulated by imposing official ceilings on loans, which were ended for the private sector in 1992 and led to an increase in the private sector's share of total domestic credit held within the banking system.

2) Foreign exchange control
With respect to exchange rate, the $/LE exchange rate has been stabilized at 3.39 during 1995. Although foreign exchange has been totally liberalized according to law #38 for the year 1994, the CBE still interferes as a seller and buyer of foreign currency depending on the prevailing market.

3) The function of The Central Bank of Egypt (CBE)
The CBE has certain responsibilities to be achieved as follows.

- Control the discount and interest rates.
- Reserve ratios can also be used to control domestic liquidity.
- Control domestic liquidity by issuing treasury bills and treasury bonds.
- Stabilize the exchange rate of the Egyptian pound against foreign currencies.
- Maintain equilibrium between the rate of return on the Egyptian pound and the rate of return

on the US$.

- Improve banking services and management.

(7) Investment policies

In 1991, the Egyptian Government adopted the system of automatic approval of investment projects in the fields that are not on the negative list involving military, tobacco and investment in Sinai which require a case by case approval.
In January 1995, new reforms under investment law #230 were announced. The approval of the General Authority for Investment and Free Zones -GAFI- became no longer a necessary condition for investment projects with total capital up to LE 50 million. In addition, registration fees were abolished.
In 1994/95, the total number of investment projects reached 3,122 with a total cost of LE 55.6 billion. The number of projects established in free zones reached 483 costing LE 2.4 billion.
Further efforts are to be implemented in order to promote foreign and domestic investment such as lowering tariffs and taxes, and providing long term financing.
In the 3rd five year plan, the following exist as investment policies:

- Unifying investment laws for Arab, foreign and domestic capital.
- Substituting modernized and improved production tools for existing projects to improve productivity.
- Presenting incentives for investment to allow the private sector to contribute more to the Egypt's economy.

(8) Stock markets

In 1994 Egypt had one of the world's best performing stock markets especially after the establishment of Capital Markets law, with growth of 157.9% in dollar terms. However, most investors still prefer to establish closed companies and resort to bank loans. Stock trading in the capital market is also limited. Nevertheless, annual trading volume increased sharply from LE 569 million in 1993 to LE 1,751 million in 1994.

(9) Industry

With the adoption of the open door policy following the oil boom of 1973-74, foreign investors were encouraged to invest in Egypt. In the 1970s, industrial production grew annually 10%. The annual growth rate slowed in 1989/90 to 7%. Then it fell to only 3% in 1993/94. Industrial production varies from processed food to textiles, chemicals, engineering products and electrical goods. The food processing and textile industries are the most important and represent the bulk of manufacturing value added -MVA-.
National targets are focused on **industrialization** and **export promotion** to solve various economic issues. In order to attain the targets, introduction of high technology for production is needed in the form of foreign direct investment -FDI-. To expand exports, formation of an economic block is considered to be effective. It is considered desirable to participate in the **EuroMed free-trade zone**, for its geographical advantage and securing an export market. The zone is to be established between the European Union -EU- and 12 Mediterranean countries by 2010. A partnership agreement with the EU may be signed by October 1996.

(10) Mining

Mining is dominated by crude oil extraction. Reserves were at 3.3 billion barrels in January 1995. By using advanced extraction techniques, the oil ministry believes that an additional 11 billion barrels can be extracted. The Gulf of Suez Petroleum Company -GUPCO- which is a joint venture between Amoco of USA and the Egyptian General Petroleum Corporation, is the largest oil producer turning out around 46% of total oil output.

(11) Agriculture

The share of agriculture in GDP decreased from 25.6% in 1985/86 to 16.5% in 1993/94. The sector accounts for about 30% of total employment, earning foreign exchange through exporting raw materials and processed cotton. Egypt was self sufficient in food and an exporter of agricultural products in the early 1970s, but agriculture declined after that. The government provided major inputs, dictated cultivation patterns, and fixed farm gate prices. These policies were disincentives for farmers, and many of them shifted from cultivation of basic commodities such as cotton, rice and sugar towards less regulated livestock, bringing better financial returns.

(12) Privatization

1) The course of privatization
Privatization is considered to be a long term economic policy goal.
The legal basis for privatization was established in 1991 through law 203, which removed 314 state-owned enterprises -SOEs - with an official book value of LE 85 billion and debts of LE 154 billion, from the control of government to 16 independent holding companies. In principle the holding companies operate as private sector companies with full financial and managerial accountability. Some of these companies are: Bisco Misr, Misr Travel, Coca Cola, cement companies, pharmaceuticals, and fertilizers companies.
In the early 1990s, the Egyptian Government announced its commitment to privatization by announcing a plan for the sale of 125 public enterprises over the following 5 years. The privatization plan of the Egyptian Government consists of offering not less than 25 public enterprise annually starting from 1992/93 to 1996/97. Companies which are national symbols, such as Al Mahalla, Misr Aluminum and Kafr al Dawar, are not intended to be privatized.

2) The situation in 1995
Over the year 1995, the pace of privatization was slow since only 13 public sector companies offered shares for sale. The major reason of the slow pace is due to the valuation process.
At the beginning of 1995, the public share offers of Alexandria Pharmaceuticals, Chemical industries, and North Cairo Flour Mills were over subscribed by 15 times. There were similar oversubscriptions for Al Nasr Textiles and Cloth Co., Amereya Cement Co., and Tora Cement co. During summer, the share prices dropped heavily, which negatively affected investor attitudes. By autumn, the confidence of investors recovered and the market was ready to absorb 500,000 shares put up by Helwan Cement Co. The Government plans to privatize 61 public sector companies during 1996.

3) The Social Fund for Development -SFD-
Unemployment caused by privatization is alleviated through the Social Fund for Development. It was established in March 1991 with $613 million to absorb the impact of price deregulation,

privatization, and public sector reform. The SFD is regulated by the World Bank and funded by the EU, the United Nations Development Program -UNDP- and various bilateral donors. The SFD is designed to support projects for displaced workers and semi-skilled labor. By the end of 1994, 7.8 million people had benefited from SFD projects. The SFD created 56,000 permanent jobs and 140,000 temporary jobs.

4) Two-track approach

Radicalism concerning privatization of SOEs may increase some economic and social problems like unemployment. In order to reduce such problems, it is assumed that a **two-track approach** may be adopted in Egypt. The approach is practiced by establishment of new export-oriented joint venture private enterprises with international competitiveness, funded by advanced countries. It is expected that movement of production and employment into the more effective new enterprises from SOEs would be realized gradually, and privatization and improvement of industrial structure could be accomplished successfully in the long run, avoiding economic confusion.

(13) Regional development

The problems of urbanization, gap between rich and poor, and employment are difficult issues for the Egyptian economy. The UNDP estimates that 46.8% of all economic and social establishments and 23% of the total labor force are located in the governorates of Cairo and Alexandria. In a comparison between rural Upper Egypt and the Cairo Governorate, adult literacy in rural Upper Egypt is half that of Cairo, and GDP per head is 45% lower. According to the SFD, 41% of Egypt's poor live in Upper Egypt, which accounts for only 29% of the total population. Regional development is important to solve these problems.

1) Upper Egypt

a. The objectives

The objectives of the Development Plan are to create new job opportunities in agriculture, mining, industry and tourism, and to improve the level of services and infrastructure.

The goals are as follows: (a) Agricultural land is to be protected, stopping urbanization on agricultural land; (b) The private sector is to be encouraged to develop mining in this region; (c) New cities are to be developed in the desert; (d) Tourism will be encouraged; (e) Dams and reservoirs will be developed to prevent natural disasters such as floods; (f) The existing population's economic and social conditions are to be upgraded; (g) Population growth is to be reduced, and migration is to be directed to new cities.

b. The 3rd five year plan

1995/96 of the 3rd FYP focuses on regional development of Upper Egypt. With respect to agriculture, basic infrastructure will be completed over an area of 127,000 feddans, for an investment of LE 131.6 million. With respect to industry, the phosphate project of Abu Tartour (LE 423.1 million), and the port of Safaga (LE 38 million), are to be completed. For the petroleum sector, the following is allocated to coordinating the sources (LE 29.3 million) and modernizing refineries (LE 21 million). Investments in energy are as follows: A wind powered electric plant for LE 22.3 million, and modernization of Aswan's power plant for LE 109 million. LE 82.7 million is to be allocated to improve roads linking various governorates. LE 197.7 million was allocated to the modernization of schools, and LE 28.5 million was allocated to improve hospitals.

During the two FYPs (1997/98-2001/02 and 2002/03-2006/07), development will expand outside the delta, the Red Sea Coast and Kharge Oasis. The 2nd stage expands over 10 years period from 2002 to 2012, when the emphasis will be on Dakhla Oasis and Farafra Oasis. The 3rd stage will take place from 2007 to 2017, when the emphasis will be on the area of the High Dam and the eastern part of Owaynate.

2) Sinai

a. Characteristics of Sinai

There are several factors affecting the regional development of Sinai. First, Sinai has an important geographic location with respect to international trade. Second, the environmental purity of the area is one of its assets, so industrial development in this area must be non-polluting. Agricultural development requires crops that do not need large amounts of water. Finally, the Sinai can attract tourists because of its religious monuments and seaside resorts. Medical-related tourism and international business tourism can also be successful.

b. Development plan

Sinai's development must cope with the changing international and domestic environment. Important goals are: (a) Integrate Sinai into the structure of Egypt's economy and society; (b) Develop an investment strategy that will cope with the natural, environmental and military security status of Sinai; (c) Secure the Eastern political frontier of Egypt; (d) Redistribute Egypt's population.

A plan for development of Sinai has been established constituting the following. (a) The redistribution of population in order to reach a population of 3 million in 2017; (b) The Northern Coast, with 180 km of Mediterranean coastline, will focus on agriculture, food industry and tourism; (c) The Western border on the Suez Canal will focus on trade, industry and agriculture; (d) The extension of the Western Coast will focus on petroleum and mining; (e) The Gulf of Aquaba will concentrate on tourism; (f) The central part will have small scale industry, mining and agriculture.

c. The 3rd five year plan

Special attention to Sinai is given in 1995/96 of the 3rd FYP. With respect to agriculture, investments of LE 89 million will be made to develop basic infrastructure for 93,000 feddans. Ministry of Water Resources projects are estimated at LE 150 million, covering 400,000 feddans. With respect to industry: reopening a coal mine with investment of LE 68.4 million. Finding new oil reserves by investing LE 65 million. Substituting and modernizing refineries with an investment value of LE 55 million. With respect to the Suez Canal, expanding and enlarging the canal road with investments of LE 36.8 million. Founding a military equipment industry with investments of LE 120 million. Connecting the Egyptian electric power grid with Jordan's, costing LE 120 million. Constructing an electric plant in Al Arish for LE 105 million. Investing LE 91.9 million to continue roads connecting Sinai and other governorates. Investments of LE 81 million in constructing and modernizing schools. Tourism services amounting to LE 38.2 million. Investing LE 12 million to modernize hospitals.

2.1.5 International Aspect of the Economy: Table 2.1.4,2.1.5

(1) Foreign exchange

In April 1994, a new foreign currency law was issued abolishing control over foreign exchange transactions. The law permits any person to transfer any amount of foreign currency out of or into the country. The only foreign exchange restriction is a five year transfer period for any sale of real estate in Egypt owned by foreigners residing outside Egypt. The Egyptian pound in this case remains non convertible and can not be taken outside the country. The exchange rate was stabilized near LE 3.30 against the US$ after 1991, reaching LE 3.389598 at the end of June of 1994.

(2) Balance of payments

In 1993/94, the Balance of Payments achieved a surplus of US$2.1 billion. However, the surplus consists of a $7.3 billion trade deficit and $3.5 billion revenues generated from services such as Suez Canal dues, transfers of $4.0 billion such as remittances from workers abroad and $1.9 billion capital transactions such as foreign direct investment -FDI-.

(3) Trade deficit

Egypt experienced a continuous external trade deficit since before the Second World War. In the early 1970s, the trade deficit amounted to $400 million, which reached $2.37 billion following the open door policy. In 1981, it increased to $4 billion. During the 1980s, a high level of imports was maintained because foreign aid was increasing, oil revenue was available, and private international credit was accessible. Due to pressures to repay debts, Egypt accepted the economic reform program of the IMF in 1987. As a result, the trade deficit was reduced from $8.3 bn in 1989/90 to $6.4 bn in 1991/92. But due to increased demand for imports, the trade deficit increased again to $7.3 bn in 1993/94.

(4) External debts

Due to the inflow of loans, Egypt's external debts rose sharply to reach $40.6 billion at the end of 1993 according to World Bank statistics. In 1988, debts peaked at $52.7 billion. Due to Egypt's position during the 1990-91 Gulf War, debts were reduced to $41 billion. The USA alone wrote off $7.1 billion as military debts. The most important factor in the improvement of Egypt's debts was the May 1991 Paris Club Agreement which consisted of writing off 15% of the estimated $27-28 billion official debts in July 1991. 15% more were written off in March 1993 after completion of the IMF program. A final 20%, equivalent to about $4bn, would be written off if Egypt complied with the conditions of the 1993 IMF Extended Fund Facility -EFF-. The agreement also provided a 30% reduction in interest payments which reduced interest repayments from $3.4 billion in 1989 to $470 million in 1993. The ratio of total debt service to exports was reduced from 26.3% in 1990/91 to 15.2% in 1993/94. The ratio of total debt to GNP was 186.4% in 1988, falling to 104.8% in 1993.

(5) Foreign trade

Agricultural exports were 9.6% of the $2.9 billion commodity exports in 1993/94. Cotton, $84 million, represents only 2.9% of total exports. Industrial and mining products ($2.6 billion), were 90.4% of total exports. Crude oil and its products ($1.4 billion) equal 47.5% of total exports, spinning and weaving goods were 19.8% (a majority of which is cotton yarn and cotton textiles), and metallurgical industries amount to 9.3%. With respect to imports, machinery ($2.9 billion) represents 27.7% of total commodity imports ($8.5 billion) in 1993/94. Livestock ($2.0 billion) amounts to 23.4%, and chemical products to 14.8%.
Due to high capital inflows since 1991, foreign exchange reserves accumulated rapidly, reaching a noticeable $17.5 billion in June 1995, sufficient for around 20 months import cover.

In order to promote trade, the government established a set of objectives to be accomplished during the 3rd FYP. These objectives are: (a) Improve and modernize techniques; (b) Transfer leading technology to the Egyptian labor force; (c) Encourage establishment of bilateral projects and marketing organizations; (d) Promote exports through studying international markets and adjusting prices to compete with foreign products; (e) Provide tax incentives to allow creation of new projects; (f) Promote trade liberalization because protectionism usually limits the volume of trade.

(6) Tourism

Although Egypt has a rich historical heritage, the growth of the tourism sector is restrained by occasional violent actions. Tourism did not operate at its full potential also because the lack of adequate facilities such as the lack of good quality accommodation at the 4-star level and below, as well as the protectionist attitudes of Egypt Air towards charter flights. Nevertheless, tourism became the country's main source of foreign exchange. The number of tourists peaked at 3.2 million in 1992 and decreased to 2.6 million in 1994. Tourism revenue was $1.8 billion in 1993/94.

Tourism is targeted in the 3rd FYP in the following way. The 1995/96 plan allocated LE 1,433.7 million for tourism to serve the following objectives: (a) Modernize the various tourism companies; (b) Open tourist centers in Halayeb and Shalatine; (c) Continue the plan of Sinai which is able to serve various tourist objectives such as time share, religious tourism, entertainment, maritime tourism, safari, health, cultural activities; (d) Complete rest houses on roads, and (e) Improve management of the central tourism system.

(7) Suez Canal and SUMED

The Suez Canal is an important source of revenue with around 17,500 ships passing through it annually. But despite the system of discounts implemented in 1987 to make transit in the Canal cheaper, revenue didn't increase much, and was $2 billion in 1993/94. There are many reasons for this: competition from the Suez Mediterranean pipeline (SUMED); use of the route around the Cape of Good Hope; decrease in the transit of oil from the ex-Soviet Union; and a recession in the tanker market. SUMED has operated since 1977. It is an alternative for the Suez Canal route for oil between the Red Sea and the Mediterranean. It is collectively owned by Egypt, Saudi Arabia, Kuwait, Abu Dhabi and Quatar. Egypt has a network for domestic distribution of oil product and there are crude lines to supply refineries and transfer oil to export terminals. Also, gas links exist to connect producing fields to consumers.

(8) Remittances

Worker remittances reduced the negative impact of declining public transfers from foreign aid and official development assistance (ODA), keeping net transfers high. It amounted to $3.2 bn in 1993/94. This was due to the stability of the Egyptian pound, the interest rate offered on deposits in local currency, and new investment opportunities in T-bills.

(9) Foreign direct investment -FDI-

FDI amounted to $1.3 billion in 1993/94, around 3% of GDP. Most of it is concentrated in manufacturing (50%) and banking (30%). It is essential for industrialization of the economy, and is expected to rise steadily. The World Bank identifies main private investment constraints as follows: (a) Unclear information causing investor uncertainty; (b) Complex and restrictive labor laws; and (c) Time consuming tax administration procedures.

(10) ODA

Egypt was the world's largest recipient of foreign aid in 1991. The level of ODA from Organization for Economic Cooperation and Development (OECD) and Organization of Petroleum Exporting Countries (OPEC) member countries increased from $1.75 billion in 1989 to $9.98 billion in 1991. Japan ODA increased from $110.6 million in 1992 to $2.168 billion in 1993. United States ODA decreased from $1.662 billion in 1992 to $942 million in 1993. Total US aid to Egypt amounted to $2.162 billion in 1993 against $2.052 billion in 1994.

Notes: Bibliography

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Table 2.1.3 Major Historical Events

Period, Year	Historical Events	Major Economic Events
The Era of Nasser	**(1952-1970)**	
23 July 1952	*1952 Revolution.* *Declaration of Egypt as an independent republic.*	*High Centralization -Etatism-* *State Controlled Economy* *Redistribution of Land* *Nationalization Movement*
1956	*The Suez Crisis: Britain, France and Israel attacked Egypt.* *The US intervened and ordered the attackers to retreat.*	*High reliance on Soviets.* *Public sector the engine of investment.* *Import Substitution.* *Investment directed to productive sector.*
5 June 1967	*1967 war between Egypt and Israel.* *Egypt lost and Israel occupied Sinai.*	
The Era of Sadat	**(1970-1981)**	
1970	*Death of Nasser.* *Sadat becomes President.*	*Open Door Policy -Infitah-* *Import Substitution*
6 October 1973	*The October war against Israel.* *Egypt won and recovered part of Sinai.*	*Inflow of Foreign Capital.* *Investment not directed to productive sector.* *High reliance on USA.*
1973-1974	*First oil boom.* *Adoption of open door policy.*	*Consumption boom*
1977-1979	*The peace treaty with Israel was signed during the Camp David Accord in the presence of the President of the US.* *Egypt became the second largest recipient of aid from the US after Israel.*	
1979-1981	*Second oil boom.*	*Heavy debts & reliance on foreign finance*
The Era of Mubarak	**(1981-present)**	
1981	*Assassination of President Sadat by Muslim terrorists.* *Mubarak becomes President.*	*Rebuilding the Infrastructure*
25 April 1982	*Recuperation of Sinai.*	*Implementation of regular FYP*
10 September 1986	*Recuperation of last part of Sinai: Taba*	*Export promotion*
Spring 1990	*Implementation of structural adjustment dictated by the IMF and the World Bank.*	*Economic Reform.* *Trade, Financial Liberalization.*
2 August 1990	*The Gulf War: Iraq invades Kuwait.*	
1991	*Paris Club Agreement.*	*Reduction of debts*

Table 2.1.4 Basic Economic Indicators

	1990/91 Before Economic Reform	1991/92	1992/93 First Phase of E. R.	1993/94
Domestic Economy				
Population, Employment				
Population (Mil)	54.44	55.21	56.43	57.67
Labor Force (Thous)	14,760	15,141	15,571	16,013
Employment (Thous)	13,527	13,742	14,011	14,436
Unemployment Rate (%)	8.4	9.2	10.0	9.4
GDP at Factor Cost				
(LE Mil. at 1991/92 Prices)	* 126,381	131,057	134,335	139,180
Growth Rate (%)	3.7	1.9	2.5	3.6
Per Capita (LE)	2,321	2,376	2,378	2,406
Inflation (CPI %)	14.7	21.1	11.1	9.0
Inflation (WPI %)	17.9	12.1	8.6	6.0
Discount Rate (%)	21.30	19.80	17.00	15.25
Interest Rate (Loan %)	20.16	20.27	18.20	16.6
State Budget (LE Mil)				
Total Expenditures	45,510	47,563	52,223	56,264
Total Revenues	28,559	41,406	46,703	52,567
Fiscal Deficit	16,951	6,157	5,520	3,697
Fiscal Deficit/GDP (%)	13.4	4.7	4.1	2.7
External Sector (US$ Mil)				
Exchange Rate (LE per US$)	3.30	3.322	3.353	3.390
Balance Of Payments				
Exports	3,887	3,634	3,417	3,337
Imports	11,425	10,054	10,728	10,647
Trade Balance	-7,538	-6,420	-7,311	-7,310
Current Account	1,373	3,753	4,548	191
Overall Balance	6,417	5,070	4,022	2,106
External Debt	40,455	41,019	40,517	40,626
Debt Service Ratio (%, Service/Export)	26.3	16.4	15.6	15.2
Foreign Reserves -FR-	3,377	5,970	11,418	13,586
FR/Monthly imports (multiple)	3.9	7.3	15.4	16.4

* estimated by real GDP growth rate
(Source: CBE-Annual Report, IMF-International Financial Statistics, WB-World Debt Tables)

Table 2.1.5 Economic Issues and Breakthroughs

1. Population
Consolidation of women's place -WID-
Spread of modern family plan
Regional Development -Migration-

2. Gap between rich & poor
Industrialization
Infrastructure Investment
Regional Development

3. Unemployment
Industrialization
Regional Development
Vocational education
Social Fund for Development -SFD-

4. Inflation
Control of Money supply
Treasury bills, Treasury bonds
Import liberalization -Tariff & non-tariff barrier-
Stabilization of Foreign exchange rate

5. Fiscal Deficit
Treasury bills, Treasury bonds
Subsidy abolition
Tax collection
Privatization

6. Trade Deficit
Export promotion
Product quality improvement
Industrialization
Currency devaluation

7. External Debt
Paris Club
Implementation of ERSAP
Export promotion
Industrialization

8. Industrialization
Industrial Policy
- Improvement of industrial structure
- Soft loans to Manufacturing Value Added -MVA-
- Export Promotion
- Euro Med Free-Trade Zone
- Foreign Direct Investment -FDI-
- Technological Promotion
- Industrial Park
- Tax benefit
- Privatization
- Two-track Approach

GOALS
Achieve High GDP Growth Rate
Increase Standard of Living

2.2 SOCIAL ASPECT

2.2.1 Role of Social Impact Analysis in the Study

ENR provides services which are vital for much of the population. If any plan to reform ENR is to be realistically implemented, the plan must consider the social impact of such reforms. This section will discuss the status of Egyptian society, and draw conclusions to help guide the Study Team in making proposals to ENR which will minimize negative impacts on Egyptian society. Other sections of the study examine the social impacts of the team's proposals regarding raising fares and closing relatively unused lines.

2.2.2 Status of Egyptian Society

(1) Population

Curbing the rate of population growth has been a major achievement of the Mubarak era. After reaching a peak of 3% population growth in 1985, the population growth rate fell to 2.2% in 1993/94, mostly due to family planning campaigns (CBE). However, population growth is still one of the major factors holding back improvement of life for the general population. As seen below, recent GDP growth has been positive, but population growth absorbed most GDP growth per capita.

Real Annual GDP Change

Item	1988/89	1989/90	1990/91	1991/92	1992/93
GDP	5.0	5.7	1.1	4.4	1.7
GDP/capita	2.5	3.3	-1.2	2.1	-0.7

(Source : EIU)

The Cairo Demographic Center forecasts 1.6% annual population growth from 1996 through 2021. Population growth will absorb much of future growth unless Egypt's annual GDP growth improves considerably. This indicates that low GDP per capita will not be easily solved through general economic growth, and ENR must carefully consider its social impact for a long time in the future.

(2) Employment

The World Bank estimates unemployment at 2.8 million people, 17.5% of the workforce. The Central Bank of Egypt estimates unemployment to be 9.8%. Underemployment affects from one-third to one-half of all workers (EIU). Underemployment is chronic in government enterprises like ENR, and many government employees must find second jobs to earn enough to live. Approximately 10% of the labor force is employed by the government, and the underemployment is a great loss because highly educated workers are often employed in jobs below their qualifications. The government guarantee to provide work for all university graduates has created an eight-year waiting list for government jobs: a 1994 survey found 1.4 million graduates waiting for government posts (EIU).

The bad employment situation means that ENR will find it socially difficult to layoff excess employees. Therefore, this report does not recommend layoffs. One of the main alternatives in this report proposes that ENR reduces recruitment, to slowly reduce the number of staff through retirement of older staff.

(3) Income level

There are many measurements of improvement of income level, but according to the World Bank, Egyptians living in poverty have risen from 20-25% in 1990 to about 34% today. Since the government committed itself to reducing subsidies in 1991, the prices of key items - food, energy, and transport - have risen by 48%, 95%, and 73% respectively). The Study Team proposals consider the impacts on the poorest class of employees and users, as the poor have very little ability to suffer greater impacts of economic adjustment.

(4) Distribution

There are two kinds of income imbalances affecting Egypt: regional imbalances and class imbalances.

- Regional Imbalance

The UNDP Human Development Index ranks the Cairo Governorate at 69th in the world, just behind Turkey, but rural Upper Egypt is ranked 125, behind Cameroon.

The regional imbalance between Upper and Lower Egypt should be considered when making proposals to ENR, which has operations throughout Egypt. The following data provide an outline of regional imbalances :

	POVERTY	Access to HEALTH Services	Access to SAFE WATER	Access to SANITATION
URBAN	28% (in 1992)	100%	92%	95%
RURAL	32% (in 1992)	50%	14%	38%

(Source: UNDP)

- Class Imbalance

The US Embassy in Cairo estimates that at least 5% of the population are affluent by American standards, while about 2% of the population is very wealthy.

ENR plays an important role in distribution of income through its subsidization of fares and its employment of excess staff who would otherwise be unemployed. Most studies on the topic (Cairo University, World Bank, Princeton University) conclude that Egypt's taxation system is slightly progressive, taxing high incomes more than low incomes. Therefore, ENR's policy of income distribution is benefits Egypt's income balance in a small way, as long as resources are not wasted.

Egypt's wide regional and class imbalances were considered when formulating the Study Team's proposals.

2.2.3 Social Aspect Conclusion

Egypt faces serious problems of unemployment, poverty, and income distribution. These problems will not disappear in the near future. To make its proposals realistic and possible to implement, the Study Team considered these issues when making its proposals to ENR, particularly regarding reducing employees, raising tariffs, and closing lines.

2.3 SOCIAL AND ECONOMIC FRAMEWORK

2.3.1 Economic Reform Directed by the IMF

(1) The function of the IMF

The International Monetary Fund (IMF) is an international organization which was established in 1944 for the purpose of maintaining the international monetary system and short-term finance for the deficit of balance of payments -BOP- of member nations. But the function of the IMF changed to assisting developing countries and former socialist countries in the 1980's. Today's mission of the IMF is to provide short-term loans or forgive loans to developing countries with deficits on condition that reform programs proposed by the IMF -conditionality- are implemented as intended. The IMF negotiates with debtor nations by representing the loan syndicate -Paris Club- composed of advanced countries and other international organizations etc. After giving a loan, the IMF monitors the progress of economic reform and decides the propriety of additional aid.

(2) Assisting policy of the IMF

The final purpose of the assistance policy is to introduce a market economy into developing economies. Two strategies are adopted to realize this aim: 'Stabilization of Macroeconomy' and 'Structural Adjustment'.

1) Stabilization of macroeconomy
Economic stabilization means that reducing the fiscal deficit and deficit of BOP, and controlling inflation. It also provides the circumstances in which the market mechanism is able to fulfill its function for making the implementation of structural adjustment smooth. Examples of the policies are as follows.
(a) Budget reduction
(b) Restraint of money supply
(c) Unification and devaluation of foreign exchange rate
(d) Raising or liberalization of interest rate
(e) Raising of prices of public goods and services

2) Structural adjustment
Structural adjustment means some assisting policies composed of liberalization and privatization. These are supported by the IMF, World Bank, and Official Development Assistance (ODA) countries. Examples of the policies are as follows.

a. IMF
Foundation of banking system, taxation system and foreign exchange system

b. *World Bank & ODA countries*
(a) Privatization of state-owned companies
(b) Liberalization of prices, investment and foreign trade
(c) Rehabilitation of industry
(d) Enactment of legal system
(e) Human resource development
(f) Relief of poverty and unemployment

3) Characteristics of the IMF strategy

a. Monetary policy
IMF conditionality emphasizes monetary policy such as state finance, BOP, foreign exchange, interest rate and rescheduling etc., rather than industrial policy such as manufacturing, employment, income and industrial development.

b. Short-term policy
The period of IMF conditionality is ordinarily 1~2 years and the performance of its reform program is strictly monitored every 3 or 6 months by the IMF. If results do not meet the intention of the conditionality, additional loans might not be provided.

c. Laissez-faire
The IMF strategy is based on the economic theory of laissez-faire. The IMF considers that if intervention by government is removed, the private sector will rise strongly. But in case market mechanisms hinder economic stabilization, priority is given to stabilization policies as an exception. For example, the policies of strengthening tax collection and wage control are contradictory to the idea of 'small government' and a free labor market, but those policies are justified for the higher purpose of reduction of fiscal deficit and control of inflation.

d. Radicalism
The IMF demands reform of finance and legal system in a short period first, and leaves economic growth to the market mechanism thereafter. The IMF considers that when many reform programs are implemented at one time, those policies will display maximum effect by synergy. This radicalism is also expected to arouse the interest of the whole nation in revolutionary reform.

(3) Negotiation with the IMF

The process and results of negotiations between the Egyptian government and the IMF are never made public, so the following description should be taken only as reference information. The first phase of the IMF agreement was completed in March 1993 and a new 3-year IMF Extended Fund Facility -EFF- was signed in September 1993. The EFF focuses on consolidating the macroeconomic gains of the 1st phase of economic reform and deepening structural adjustment; especially privatization of state-owned enterprises, reduction of trade barriers, and deregulation of the business environment. Since mid 1994, the Egyptian government and the IMF had opposing opinions over key elements of the economic reform program. The IMF is insisting on accelerating the pace of privatization and on devaluation of the Egyptian pound expecting to encourage FDI and improve export competitiveness. The Egyptian Government refused devaluation because it would increase inflation and might lead to a currency crisis like Mexico. The failure in reaching a compromise hindered the release of $4 billion, the final portion of debt forgiveness which had been decided at the Paris club due by July 1994.

It appears that a consensus to disregard the currency devaluation issue has been achieved. There are 3 basic issues in the program.

- *Privatization*: The IMF claims that the pace of privatization in Egypt is slow and needs to be accelerated so that one public company would be sold weekly including the sale of a public sector bank and a governmental insurance company.
- *Economic legislation*: The IMF complains about the government's failure in implementing the Financial Leasing Law. Achievements have been made in drafting other laws: anti-monopoly, anti-dumping etc.
- *Administrative reform*: The IMF argues that no efforts have been made in this field. However, Dr. Atef Ebeid, Minister of Public Business Sector, declared that there will be changes in the board of directors of unprofitable companies.

In addition, the IMF is against the government's civil servant policy suggesting an increase in pay and allowances declared in June 1995. The reason is that the IMF believes that such a policy is beyond Egypt's capacity and might lead to an increase in inflation.
The IMF also criticizes the issue of the medium and long term treasury bonds as a substitute for short term treasury bills which would inflate the domestic debt to LE 150 billion. The IMF is also asking the government to solve the problem of internal debts between the government and public companies amounting to LE 121 billion which might hinder privatization.

2.3.2 Population

(1) Present state

The census has been performed 11 times in recent 100 years from 1882 to 1986. The figures of the census are as follows.

Table 2.3.1 Population by Census Years (1882 - 1986)

Census Years	Number (1,000)	Growth Rate (%)
1882	6,712	
1897	9,669	2.46
1907	11,190	1.46
1917	12,718	1.28
1927	14,178	1.09
1937	15,921	1.16
1947	18,967	1.75
1960	26,085	2.34
1966	30,076	2.52
1976	36,626	1.92
1986	48,254	2.75

*Excluding Egyptians abroad
(Source: CAPMAS)

As shown in the list, the population growth rate has been comparatively moderate in the recent 100 years. The population of 1995 is estimated to be 58,978,000 (average annual growth rate is 2.25 %) by CAPMAS.
Population grew about 3.8 times from 12,718,000 in 1917 to 48,254,000 during 70 years. In Japan, the population increased from 55,960,000 in 1920 of the first census to 123,610,000 in 1990, so it grew about 2.2 times during 70 years.

The population density of Egypt is estimated at 59 per km^2 in 1995. Japan's population density is estimated at 331 per km^2 in 1994. But the concentration of population in cities is higher in Egypt. The population density of Cairo is estimated at 32,470, Alexandria 10,914, Port-Said 6,480, Giza 4,276 (except desert areas) in 1995. This is considered high comparing with 5,380 per km^2 of Tokyo in 1996.

The "**International population development conference**" was held in Cairo in September 1994. They debated environmental pollution, poverty expansion, sharp increase of refugees, population concentration and expansion of slums in large cities, and proposed breakthroughs. The most important result was that they confirmed that the population problem could not be solved without strengthening the position of women. Population control and sustainable development by the empowerment of women's abilities was targeted. Especially the necessity of a guarantee of both sexes' equality in education, the economy, and reproductive health/rights were stressed to accelerate women's abilities. The future 20 year action plan based on reproductive health/rights was adopted. The plan aims at a decrease of the birth rate, improvement of women's position, promotion of sustainable development by means of diffusion of a modern family plan, and legal and safe abortion.

(2) Forecast

A *population forecast by semi-governorates was performed for the base year of 1994/95,* 1997/98 (the target year for balanced finances of ENR), and the end year of each Five Year Plan, namely 2001/02 (4th FYP), 2006/07 (5th FYP), and 2011/12 (6th FYP).
Official estimates by CAPMAS and the 'Regional / Infrastructure Planning' (Planning) were utilized for the population forecast. The 'Planning' began in 1993 by the Ministry of Planning and UNDP jointly. The main purpose of the 'planning' is to correct the ill-balanced regional development in Egypt and to provide the basic ideas for the 4th Five Year Plan. So it is in harmony with the Sinai Development Plan and includes the inter-regional migration plan by 2017. The process of forecasting is outlined as follows.

1) Basic populations by governorates of each year are according to CAPMAS (1994/95) and estimates of the 'Planning'(1997/98~2011/12), which is forecast by linear trends.
2) Prospective inter-regional migrations are added (or subtracted) to (or from) each governorate's population of 2006/07 and 2011/12 forecast above. The migration forecast was assumed to influence the population from 2002/03 to 2011/12.
3) The migrations are based on the 'Planning', with migrations of 3.7 million from Delta region to Suez, Sinai, Alexandria and south-upper-Egypt regions.
4) For example, 1 million of Cairo are assumed to move to other governorates, and 700,000 are assumed to immigrate to Sinai from other governorates during 2002/03 ~ 2011/12.

The result of the forecast is shown in Table 2.3.2.

Table 2.3.2 Population Forecast (thousands)

ZONE	(1986 census)		1994/95		1997/98		2001/02		2006/07		2011/12	
1. Cairo	6,069	12.6%	6,955	11.8%	7,359	11.6%	8,050	11.6%	8,237	11.0%	8,900	11.0%
2. Giza	3,725	7.7%	4,525	7.7%	5,520	8.7%	6,040	8.7%	6,182	8.2%	6,679	8.3%
3. Kalyoubia	2,516	5.2%	3,045	5.2%	3,679	5.8%	3,982	5.8%	4,075	5.4%	4,403	5.5%
4. South Sharkia	2,282	4.7%	2,819	4.8%	2,981	4.7%	3,243	4.7%	3,519	4.7%	3,786	4.7%
5. North Sharkia	1,133	2.3%	1,401	2.4%	1,459	2.3%	1,612	2.3%	1,748	2.3%	1,882	2.3%
6. East Dakahlia	2,593	5.4%	3,144	5.3%	3,299	5.2%	3,614	5.2%	3,759	5.0%	4,057	5.0%
7. West Dakahlia	891	1.8%	1,082	1.8%	1,142	1.8%	1,243	1.8%	1,294	1.7%	1,396	1.7%
8. Damietta	741	1.5%	898	1.5%	951	1.5%	1,035	1.5%	1,077	1.4%	1,163	1.4%
9. Port Said	401	0.8%	467	0.8%	571	0.9%	642	0.9%	697	0.9%	749	0.9%
10. Ismailia	545	1.1%	681	1.2%	825	1.3%	882	1.3%	956	1.3%	1,029	1.3%
11. Suez	328	0.7%	411	0.7%	507	0.8%	571	0.8%	1,255	1.7%	1,302	1.6%
12. Menoufia	2,222	4.6%	2,672	4.5%	2,854	4.5%	3,142	4.5%	3,269	4.4%	3,527	4.4%
13. South Gharbia	1,931	4.0%	2,303	3.9%	2,474	3.9%	2,669	3.9%	2,777	3.7%	2,997	3.7%
14. North Gharbia	953	2.0%	1,134	1.9%	1,205	1.9%	1,315	1.9%	1,368	1.8%	1,476	1.8%
15. Kafr-El-Sheikh	1,809	3.7%	2,266	3.8%	2,347	3.7%	2,543	3.7%	2,646	3.5%	2,856	3.5%
16. South Behera	1,098	2.3%	1,343	2.3%	1,459	2.3%	1,572	2.3%	1,706	2.3%	1,835	2.3%
17. North Behera	2,150	4.5%	2,630	4.5%	2,854	4.5%	3,079	4.5%	3,340	4.5%	3,595	4.5%
18. Alexandria	2,926	6.1%	3,431	5.8%	3,743	5.9%	4,057	5.9%	4,822	6.4%	5,156	6.4%
19. Matrouh	161	0.3%	186	0.3%	190	0.3%	219	0.3%	238	0.3%	256	0.3%
20. Sinai	200	0.4%	254	0.4%	254	0.4%	310	0.4%	678	0.9%	704	0.9%
21. Fayoum	1,551	3.2%	1,995	3.4%	2,093	3.3%	2,282	3.3%	2,458	3.3%	2,646	3.3%
22. Beni-suef	1,450	3.0%	1,836	3.1%	1,903	3.0%	2,057	3.0%	2,216	3.0%	2,385	3.0%
23. Menia	2,645	5.5%	3,372	5.7%	3,425	5.4%	3,717	5.4%	4,004	5.3%	4,311	5.3%
24. Asyout	2,216	4.6%	2,843	4.8%	2,918	4.6%	3,151	4.6%	3,513	4.7%	3,773	4.7%
25. El Wadi El-Gidid	113	0.2%	136	0.2%	127	0.2%	147	0.2%	160	0.2%	172	0.2%
26. Suhag	2,447	5.1%	3,067	5.2%	3,108	4.9%	3,407	4.9%	3,860	5.1%	4,141	5.1%
27. Qena	2,259	4.7%	2,925	5.0%	2,981	4.7%	3,240	4.7%	3,669	4.9%	3,936	4.9%
28. Aswan	809	1.7%	1,042	1.8%	1,078	1.7%	1,155	1.7%	1,308	1.7%	1,403	1.7%
29. Red Sea	90	0.2%	115	0.2%	127	0.2%	130	0.2%	147	0.2%	158	0.2%
TOTAL	48,254	100.0%	58,978	100.0%	63,433	100.0%	69,106	100.0%	74,978	100.0%	80,673	100.0%
Growth rate		2.75%		2.25%		2.2%		2.2%		1.6%		1.5%

2.3.3 Gross Domestic Product -GDP-

(1) Present state

GDP and the growth rate of the past 3 years are as follows :

Table 2.3.3 GDP at Factor Cost - By Economic Sectors
(LE million at 1991/92 Prices)

	1991/92		1992/93		1993/94	
Commodity Sectors	**65,373**	**49.9%**	**66,886**	**49.8%**	**69,444**	**49.9%**
Agriculture	21,680	16.5%	22,220	16.5%	22,975	16.5%
Industry and mining	21,730	16.6%	22,360	16.6%	23,275	16.7%
Petroleum and products	13,008	9.9%	13,210	9.8%	13,694	9.8%
Electricity	2,220	1.7%	2,296	1.7%	2,390	1.7%
Construction and building	6,735	5.1%	6,800	5.1%	7,110	5.1%
Production Services Sectors	**43,606**	**33.3%**	**44,494**	**33.1%**	**45,782**	**32.9%**
Transport & communication	8,710	6.6%	9,060	6.7%	9,400	6.8%
Suez Canal	6,125	4.7%	5,800	4.3%	6,104	4.4%
Trade	21,730	16.6%	22,350	16.6%	23,250	16.7%
Finance	4,545	3.5%	4,680	3.5%	4,890	3.5%
Insurance	76	0.1%	79	0.1%	83	0.1%
Restaurants, tourism and hotels	2,420	1.8%	2,525	1.9%	2,055	1.5%
Social Services Sectors	**22,078**	**16.8%**	**22,955**	**17.1%**	**23,954**	**17.2%**
Real estate ownership	2,350	1.8%	2,452	1.8%	2,619	1.9%
Public utilities	401	0.3%	426	0.3%	454	0.3%
Social insurance	87	0.1%	92	0.1%	96	0.1%
Government services	9,345	7.1%	9,740	7.3%	10,125	7.3%
Personal services	9,895	7.6%	10,245	7.6%	10,660	7.7%
TOTAL	**131,057**	**100.0%**	**134,335**	**100.0%**	**139,180**	**100.0%**

(Source : Ministry of Planning)

Economic performance since the late 1980s has been unstable owing to the 1990/91 Gulf crisis and Economic Reform Program directed by the IMF. GDP growth slowed down because of a decrease of demand by spending cuts, a jump in real interest rates, a drop in exports due to the reduction of the markets of the former USSR and eastern Europe, a reduction in subsidies, and delays in public-enterprise reform and privatization. But GDP growth rate touched bottom at 1.9 % in 1991/92 and has recovered steadily.

Table 2.3.4 Growth in GDP (at factor cost, constant prices)

	1989/90	1990/91	1991/92	1992/93	1993/94
Real % change	5.7	3.7	1.9	2.5	3.6*

(Source: Annual Report of Central Bank of Egypt (CBE))
*(3.6% was used in this report's forecast. The most recent estimate is 3.9%)

(2) Forecast

Considering the steady stabilization of Egypt's economy, future GDP growth rates forecast in the 3rd FYP by the Ministry of Planning are evaluated as proper, so data of the 3rd FYP were adopted. In the 3rd FYP, GDP growth rates are forecast at 5.4 % for 1994/95-1996/97, 6.5 % for 1997/98-2001/02 (4th FYP period), and the Ministry does not publish forecast data for fiscal years after 2001/02.
Growth rates forecast after 2001/02 were set at 6.5 % in consideration of the future long-term effect of the Economic Reform and Structural Adjustment Program. The result of the forecasts are shown as follows.

Table 2.3.5 GDP Forecast
(at Factor Cost, at 1991/92 prices, in MN LE)

Fiscal Year	GDP	Growth Rate
*1993/94	139,180	3.6%
1994/95	146,694	5.4%
1997/98	173,577	6.5%
2001/02	223,282	6.5%
2006/07	305,915	6.5%
2011/12	419,128	6.5%

* (3.6% was used in this report's forecast. The most recent estimate is 3.9%)

GDP by Sector was also forecast based on the 3rd FYP for the GDP percentage of each sector until 2001/02. The National Road Transportation Master Plan Study of JICA in 1993 (JICA NRT Report 1993) was referred for sector percentages of GDP in years after 2001/02. Annual production in each industrial sector was estimated by multiplying the structural ratio by the total GDP of each year above.
The result is shown as follows.

Table 2.3.6 GDP by Sector Forecast
(at Factor Cost, at 1991/92 prices, in Million LE)

Sector	1993/94 (actual)		1994/95		1997/98		2001/02		2006/07		2011/12	
COMMODITY	**69,444**	**49.9%**	**73,201**	**49.9%**	**86,780**	**50.0%**	**113,202**	**50.7%**	**160,298**	**52.4%**	**226,328**	**54.0%**
Agriculture	22,975	16.5%	23,765	16.2%	26,208	15.1%	30,812	13.8%	37,627	12.3%	45,266	10.8%
Industry / Mining	23,275	16.7%	25,231	17.2%	33,670	19.4%	49,568	22.2%	80,455	26.3%	125,738	30.0%
Oil / Oil Products	13,694	9.8%	14,083	9.6%	14,405	8.3%	15,406	6.9%	16,519	5.4%	16,765	4.0%
Electricity	2,390	1.7%	2,494	1.7%	2,951	1.7%	4,019	1.8%	5,507	1.8%	7,963	1.9%
Construction	7,110	5.1%	7,628	5.2%	9,546	5.5%	13,397	6.0%	20,190	6.6%	30,596	7.3%
PROD. SERVICES	**45,782**	**32.9%**	**48,850**	**33.3%**	**59,705**	**34.4%**	**75,915**	**34.0%**	**100,951**	**33.0%**	**134,539**	**32.1%**
Transport / Communic.	9,400	6.8%	9,829	6.7%	11,109	6.4%	14,736	6.6%	20,190	6.6%	27,243	6.5%
Suez Canal	6,104	4.4%	6,455	4.4%	7,810	4.5%	9,155	4.1%	11,013	3.6%	12,993	3.1%
Commerce / Fin. / Insur.	28,223	20.3%	30,219	20.6%	36,968	21.3%	46,665	20.9%	61,182	20.0%	80,472	19.2%
Tour / Rest / Hotel	2,055	1.5%	2,347	1.6%	3,818	2.2%	5,359	2.4%	8,566	2.8%	13,831	3.3%
SOCIAL SERVICES	**23,954**	**17.2%**	**24,645**	**16.8%**	**27,075**	**15.6%**	**34,162**	**15.3%**	**44,663**	**14.6%**	**58,259**	**13.9%**
Housing / Pub. Utility	3,169	2.3%	3,081	2.1%	2,951	1.7%	3,796	1.7%	5,200	1.7%	6,706	1.6%
Other (Gov. Personal)	20,785	14.9%	21,564	14.7%	24,124	13.9%	30,366	13.6%	39,463	12.9%	51,553	12.3%
TOTAL	139,180	100.0%	146,696	100.0%	173,560	100.0%	223,279	100.0%	305,912	100.0%	419,126	100.0%

2.3.4 Employment

(1) Present state

Number of employees is shown as follows.

Table 2.3.7 Number of Employees, by Sector & Year (thousand)

Sector	1987 / 88	1988 / 89	1989 / 90	1990 / 91	*1991 / 92	Change % 87/8 - 91/2
COMMODITY	**6,841**	**7,003**	**7,170**	**7,354**	**7,542**	**10.2**
Agriculture	4,381	4,432	4,483	4,535	4,588	4.7
Industry / Mining	1,618	1,685	1,750	1,824	1,902	17.6
Oil / Oil Products	31	33	35	36	38	22.6
Electricity	86	90	94	101	103	19.8
Construction	725	763	808	858	911	25.7
PROD. SERVICES	**1,941**	**2,018**	**2,098**	**2,175**	**2,264**	**16.6**
Transport / Commu.	518	544	570	596	622	20.1
Comme./ Fina./ Insu.	1,295	1,340	1,388	1,440	1,491	15.1
Tour./ Hotel / Rest.	128	134	140	139	151	18.0
SOCIAL SERVICES	**3,569**	**3,694**	**3,822**	**3,960**	**4,094**	**14.7**
Housing	197	202	208	214	220	11.7
Social Services	1,123	1,175	1,229	1,289	1,351	20.3
Pub.Utilit./ Gov.Serv.	2,249	2,317	2,385	2,457	2,523	12.2
TOTAL	**12,351**	**12,715**	**13,090**	**13,489**	**13,900**	**12.5**

(Source: Ministry of Planning) *: Preliminary Figures

The largest number of employees are in the agriculture sector, with 33% in 1991/92. The number of employees in the Production Services Sector is the smallest among 3 large sectors. But the increase of the Production Services Sector in the 4 years was 16.6%, the highest of the 3 large sectors. The transportation sector grew 20.1%, fastest of the Production Services Sector. The construction sector grew 25.7%, fastest of all small sectors. On the other hand, the agriculture sector grew only 4.7%, slowest in spite of the largest number of employees.

(2) Forecast

Employment in 1994/95 was estimated according to the 3rd FYP. Forecasts for 1997/98 and after assume that the growth rate of employment depends on the growth rate of GDP.
For example, the average annual growth rate of employment during the 3rd FYP period (1992/93 ~ 1996/97) is estimated at 3.3%, and the estimates of GDP growth rate during the same period is 5.4% and 6.5% during the 4FYP. So the employment growth rate during the 4th FYP and after are expected to be 4.0% (= 3.3 ÷ 5.4 x 6.5).

The result is shown as follows.

Table 2.3.8 Employment Forecast

ITEM	UNIT	3FYP 1994/95	4FYP 1997/98	4FYP 2001/02	5FYP 2006/07	6FYP 2011/12
Population	1,000	58,978	63,433	69,106	74,978	80,673
EMPLOYMENT	**1,000**	**15,322**	**17,004**	**19,892**	**24,202**	**29,445**
Emp / Pop	%	26.0	26.8	28.8	32.3	36.5
GDP Grow Rate	%	5.4	6.5	6.5	6.5	6.5
Emp Grow Rate	%	3.3	4.0	4.0	4.0	4.0
GDP -91/92 price-	M.LE	146,696	173,560	223,279	305,912	419,126
GDP / Pop	1,000LE	2.5	2.7	3.2	4.1	5.2
GDP / Emp	1,000LE	9.6	10.2	11.2	12.6	14.2

Forecast of employment by sector is estimated by the same method as forecast of total employment.
Data on growth of employment by sector and GDP by sector during the 3rd FYP period, and growth rate of GDP by sector during the 4th FYP, which is estimated in section 2.3.3, were used for calculating the growth rate of employment by sector during the 4th FYP and after. Some figure adjustments were made.
The result is shown as Table 2.3.9.

Table 2.3.9 Employment by Sector Forecast (thousands)

SECTOR	1994/95		1997/98		2001/02		2006/07		2011/12	
COMMODITY	8,197	53.5%	8,945	52.6%	10,132	50.9%	11,946	49.4%	14,305	48.6%
Agriculture	4,788	31.2%	4,979	29.3%	5,132	25.8%	5,270	21.8%	5,388	18.3%
Industry / Mining / Oil	2,232	14.6%	2,604	15.3%	3,352	16.9%	4,608	19.0%	6,316	21.5%
Electricity	114	0.7%	123	0.7%	139	0.7%	155	0.6%	174	0.6%
Construction	1,063	6.9%	1,239	7.3%	1,509	7.6%	1,913	7.9%	2,427	8.2%
PROD. SERVICES	2,594	16.9%	3,011	17.7%	3,806	19.1%	5,036	20.8%	6,326	21.5%
SOCIAL SERVICES	4,531	29.6%	5,048	29.7%	5,954	29.9%	7,220	29.8%	8,814	29.9%
TOTAL	15,322	100.0%	17,004	100.0%	19,892	100.0%	24,202	100.0%	29,445	100.0%

Table 2.3.10 **Future Productivity by Sector (LE per employee)**

SECTOR	1994/95	1997/98	2001/02	2006/07	2011/12
Agriculture	4,963	5,264	6,004	7,140	8,401
Industry	17,614	18,462	19,384	21,045	22,562
Electricity	21,877	23,992	28,914	35,529	45,764
Construction	7,176	7,705	8,878	10,554	12,607
Commerce	18,832	19,829	19,946	20,046	21,268
Services	5,439	5,364	5,738	6,186	6,610
Average	9,574	10,207	11,225	12,640	14,234

Future productivity by sector shown in the Table 2.3.10 was calculated by dividing future GDP by sector (Table 2.3.6) by future employment by sector (Table 2.3.9).
As shown in Tables 2.3.9 & 10, the agriculture and services sectors have many employees, but their productivity is low. The number of employees working in the electricity sector is few, but their productivity is very high. It is observed that the Egyptian government plans to change the industrial structure to be more productive.

2.3.5 Gross Regional Domestic Products -GRDP-

There are no data on GRDP, so it was estimated by combining the Future Employment by Sector (Tables 2.3.8 & 2.3.9), Productivity by Sector (Table 2.3.10), and Future Employment by Sector & Semi-Governorate. Future employment by Sector & Semi-Governorate were prepared based on the Census data of 1986 (Table 2.3.11). Some adjustments were made on the results.

The method of these estimates is shown as follows.

(1) Future employment by sector (Table 2.3.9) is divided into semi-governorates by proportional basis of the Census data (Table 2.3.11) for each fiscal year (1994/95, 1997/98, 2001/02, 2006/07 and 2011/12).
(2) Multiplied the future employment by sector & semi-governorate for each of the 5 fiscal years prepared in step (1), by future productivity by sector (Table 2.3.10). Then produced 5 tables of GDP by sector & semi-governorate (GRDP by sector) for each of the 5 fiscal years.
(3) Assembled each total column of the 5 tables prepared in step (2) -GRDP by sector- in one table of Future GRDP by sector (Table 2.3.12).

Table 2.3.11 Employment by Sector & Semi-Governorate in 1986 (thousand)

ZONE	Agri	Mini	Manu	Elec	Cons	Comm	Tran	Fina	Serv	Other	TOTAL
1. Cairo	108	12	532	24	291	292	184	134	676	153	2,406
2. Giza	175	1	77	4	45	33	23	5	61	23	447
3. Kalyoubia	148	1	62	3	26	25	25	6	100	34	430
4. South Sharkia	259	1	43	4	28	27	23	8	137	18	548
5. North Sharkia	184	0	12	1	8	12	9	2	43	9	280
6. East Dakahlia	295	1	56	3	35	36	28	9	151	25	639
7. West Dakahlia	127	0	13	2	12	11	8	2	39	9	223
8. Damietta	68	0	54	1	14	15	9	2	37	5	205
9. Port Said	15	1	11	1	6	17	24	3	40	6	124
10. Ismailia	41	1	9	3	16	10	15	3	35	4	137
11. Suez	9	1	18	2	9	9	13	1	21	3	86
12. Menoufia	250	1	43	4	22	23	23	8	130	18	522
13. South Gharbia	202	1	58	3	25	27	25	9	125	12	487
14. North Gharbia	83	0	60	1	14	11	9	3	50	7	238
15. Kafr-El-Sheikh	282	0	38	2	14	21	15	4	79	12	467
16. South Behera	168	0	11	1	8	9	9	2	47	10	265
17. North Behera	311	1	66	5	22	27	19	4	77	22	554
18. Alexandria	82	4	212	11	83	97	84	26	189	34	822
19. Matrouh	21	2	2	0	4	3	2	0	7	1	42
20. Sinai	20	1	1	1	5	3	4	1	13	2	51
21. Fayoum	256	0	23	2	18	18	12	3	65	8	405
22. Beni-suef	220	0	17	1	16	16	11	4	69	7	361
23. Menia	434	1	28	3	15	28	20	5	113	17	664
24. Asyout	337	1	26	3	21	26	16	5	99	15	549
25. El Wadi El-Gidid	10	0	1	0	2	1	1	0	11	1	27
26. Suhag	344	1	23	2	41	33	17	5	92	23	581
27. Qena	260	2	33	3	57	26	20	4	89	16	510
28. Aswan	65	2	12	6	12	11	10	2	45	8	173
29. Red Sea	2	7	1	0	3	1	2	0	6	1	23
TOTAL	4,777	44	1,541	97	873	868	661	259	2,647	504	12,271

(Source: JICA NRT Report, 1993)

Table 2.3.12 Future GRDP by Governorate
(1991/92 prices, LE million)

ZONE	1994/95	1997/98	2001/02	2006/07	2011/12
1. Cairo	40,334	48,503	63,333	88,396	123,294
2. Giza	5,627	6,702	8,687	12,059	16,728
3. Kalyoubia	5,183	6,123	7,895	10,858	14,922
4. South Sharkia	5,527	6,455	8,217	11,084	14,958
5. North Sharkia	2,344	2,707	3,384	4,462	5,879
6. East Dakahlia	6,637	7,774	9,912	13,412	18,147
7. West Dakahlia	2,061	2,398	3,032	4,055	5,427
8. Damietta	2,864	3,423	4,468	6,283	8,804
9. Port Said	2,014	2,409	3,092	4,189	5,681
10. Ismailia	1,741	2,067	2,660	3,614	4,931
11. Suez	1,464	1,762	2,298	3,199	4,454
12. Menoufia	5,265	6,146	7,820	10,549	14,231
13. South Gharbia	5,503	6,478	8,307	11,339	15,469
14. North Gharbia	3,123	3,716	4,845	6,811	9,537
15. Kafr-El-Sheikh	4,324	5,032	6,360	8,533	11,437
16. South Behera	2,197	2,532	3,167	4,177	5,504
17. North Behera	5,673	6,655	8,498	11,574	15,753
18. Alexandria	14,178	17,078	22,328	31,266	43,726
19. Matrouh	440	519	664	905	1,232
20. Sinai	556	653	834	1,120	1,512
21. Fayoum	3,526	4,090	5,147	6,853	9,124
22. Beni-suef	3,123	3,617	4,544	6,028	7,995
23. Menia	5,554	6,406	8,007	10,551	13,891
24. Asyout	4,785	5,541	6,963	9,237	12,255
25. El Wadi El-Gidid	241	277	351	469	627
26. Suhag	5,121	5,953	7,501	9,982	13,293
27. Qena	4,928	5,780	7,380	10,000	13,574
28. Aswan	1,977	2,324	2,984	4,047	5,513
29. Red Sea	380	457	604	864	1,229
TOTAL	**146,694**	**173,577**	**223,282**	**305,915**	**419,128**

(NOTE: Slight differences arise when GRDP is totalled, due to rounding of figures)

Notes: Bibliography

K. Ohno; Strategy for Transition to the Market Economy; 1995

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CHAPTER 3 CURRENT CONDITION OF ENR AND PROBLEMS

3.1. RELATED LAWS AND REGULATIONS

The Progress Report focused on Law No.152/1980 for establishing ENR (ENR Law). Under the ENR Law, ENR is given the status of a judicial person qualified as a national authority (Article 1), and is entitled to execute all necessary actions to implement its objectives (Article 2). Its capital and source of revenue partly consist of the properties and funds allocated or assigned by the State (Articles 5 and 6), and its activities are generally subject to the supervision of the Minister of Transport (Article 1). Due to the reasons above and other reasons stated under the ENR Law, ENR is required to comply with certain requirements and otherwise coordinate with other governmental organizations. We first need to examine the relevant laws regulations affecting the business of ENR and the relationship with such governmental organizations :

3.1.1 Constitution of the Arab Republic of Egypt

(1) President of the Republic

The President is the Head of the State (Article 73) and assumes executive power (Article 137). Under the Constitution, the President has wide powers, holding the right to appoint the Prime Minister and Ministers, and directly or indirectly affects the operation of ENR business, including appointment of the Minister of Transport and the Chairman of ENR and issuance of relevant decrees. For reference purposes, we quote below the provisions under certain articles which one might consider most important:

Article 109: The President of the Republic and every member of the People's Assembly shall have the right to propose laws.

Article 112: The President of the Republic shall have the right to promulgate laws or object to them.

Article 138: The President of the Republic, in conjunction with the government, shall lay down the general policy of the State and supervise its implementation in the manner prescribed in the Constitution.

Article 139: The President of the Republic may appoint one or more vice-presidents, define their jurisdiction and relieve them of their posts.

Article 141: The President of the Republic shall appoint the Prime Minister, his deputies, the Ministers and their deputies, and relieve them of their posts.

Article 144: (In part) The President of the Republic shall issue the necessary regulations for the implementation of the laws, in a manner that would not modify, obstruct or exempt them from execution. He shall have the right to vest others with authority to issue them.

Article 145: The President of the Republic shall issue the control regulations.

Article 146: The President of the Republic shall issue the decisions necessary for organizing the public services and interests.

In connection with the above, if the President objects to a draft law ratified by the People's Assembly, he shall refer it back to the Assembly within thirty days from the Assembly's communication of it. If the draft law is not referred back within this period, it is considered a

law and shall be promulgated.
If it is referred back to the Assembly and approved once again by a majority of two-thirds of the members, it shall be considered law and shall be promulgated (Article 113).
Under the ENR Law, the Chairman of ENR must be appointed by a decree of the President. But in practice, this authority of the President is delegated to the Prime Minister.

(2) Government

As stated above, the Ministers are appointed by the President. The government consists of the Prime Minister, his deputies, the Ministers, their Deputies, and it is the supreme executive and administrative organ of the State. The Prime Minister shall supervise the work of the government (Article 153). Under Article 156, the Cabinet has powers including the following :

a) Laying down the general policy of the State, and controlling its implementation in collaboration with the President of the Republic in accordance with the Presidential laws and decrees.

b) Directing, coordinating and following up the work of the Ministers, their affiliated organs, and the public organizations and institutions.

c) Issuing administrative and executive decisions in accordance with the laws and decrees, as well as supervising their implementation.

d) Preparing the draft laws and decrees. The Minister is the administrative supreme chief of his Ministry and responsible for the acts of his Ministry (Articles 157 and 126). Under Article 12 of the ENR Law, the system of pricing for its services must be submitted to the Cabinet for its review, and can be implemented by a decree from the Minister of Transport.

(3) Ministry of Transport (MOT)

The business jurisdiction for each Ministry is separately stated under the relevant laws and the businesses under the jurisdiction of MOT will be discussed below.

1) Presidential Decree No.163/1996 for organizing MOT
Apparently under certain law, the President is vested with the right to form a ministry, and under the Presidential decree No.163/1996, ENR is under the jurisdiction of the MOT. Articles 2 and 4 of Decree No.163/1996 reads, in part, as follows :

Article 2:
MOT undertakes the following :

1. (omitted)
2. Creating the necessary plans to establish and develop and support Railway network on the national level so as to make it able meet the demands of national economic and social development plans.
3. Creating the necessary plans to establish an underground metro so as to fulfill the demands of traffic, following up implementation of this network, and operating it at the highest efficiency to achieve the decided targets.

(4 through 18 omitted)

Article 4:

MOT supervises the following authorities:

Transport Planning Authority
Egyptian National Railways Authority
National Tunnels Authority
Roads & Bridges and Inland Transportation Authority
General Authority for River Transport
National Transport Institute
(Other Authorities and Institutes omitted)

Under the jurisdiction of MOT above, ENR business is conducted subject to the supervision of MOT, as provided for under the ENR Law (Article 1).

3.1.2 ENR Law

(1) Object of ENR and New Business

1) The principal purpose of ENR is to establish and operate the railway networks on the national level. For reference, we quote below the object of ENR specified under Article 2 of the ENR Law:
   a) Establish the railway networks, operate them and their related services throughout the Arab Republic of Egypt.
   b) Establish, manage, and maintain the firms and bodies necessary to perform these services.
   c) Implement the projects necessary to achieve its objects, or which are related to these objects, and develop their services.

2) If any new business is to be considered for raising more revenue and hiring more employees, the nature of such business should be examined as to whether or not such business will come under the above listed items. Generally, services to passengers within ENR facilities would be accepted as related services, which would include sale of goods in railway stations and trains, placement of advertisements, and installation of telephone booths. This matter will be further discussed in 3.16.4 below.

(2) Management

The management of ENR is performed by the Board of Directors, the Administration Council, and The Chairman (Article 14). Their respective duties and function within ENR are generally examined in the Progress Report.

(3) Tariff Increase

Decision of the prices and tariffs for the services performed by ENR is one of the principal duties of the Board of Directors of ENR (Article 17) and ENR tariff is implemented by a decree from MOT after submission to the Cabinet (Article 12). This matter will be further discussed in 3.16.3 below.

3.1.3 Regulation on Employment
(Regarding Discharge of Employees)

Decreasing the number of employees is one of the usual means for reduction of personnel expenses employed for the purpose of rationalization of business operations. If ENR considers it necessary to decrease the number of its employees for this purpose, ENR would have to obtain their consent to early retirement, or otherwise resort to the means of discharge. In the latter case, ENR should have the right to discharge under a contract with employees, or otherwise specifically authorized under the relevant laws or regulations. During the discussions at TPA and upon reviewing English translations of the relevant laws obtained in our stay in Cairo, we found no specific provisions for ENR to discharge an employee "without cause". The following is a general survey of the relevant laws dealing with retirement of employees "for cause" or "without cause". "For cause" means such reasons which law recognizes as sufficient for removal from office :

(1) Constitution

The Constitution of the Republic which is a democratic and socialist state contains certain provisions of the status of employees working for the Government. Excerpts are cited here for reference purpose :

Article 1: The Arab Republic of Egypt is a democratic, socialist State based upon the alliance of the working forces of the people.
Article 13: Work is a right, a duty and honor ensured by the State.
Article 14: The State guarantees their (the occupants of public offices) protection and the performance of their duties in safe-guarding the interests of the people. They may only be dismissed for disciplinary reasons, except in cases specified by the law.

ENR is a national authority, the above Articles may not apply to its employees, and other labor laws have their respective provisions for retirement and discharge.

(2) Labor Laws

Certain reasons are provided under the following laws, none of which seem to specifically give a justifiable ground for the employer to terminate employment without causes attributable to employees :

a) Law No. 47 of 1978 concerning the State's Civil Servants System.
This Law applies to issues and matters connected with the Civil Servant System of the State, especially concerning Civil servants of the Government's ministries and administration, and agencies with budgets of their own, as well as the local governments units, and also to workers of Public Authorities where no provision is prescribed in their own regulations.

b) Law No. 48 of 1978 on Public Sector Workers Regulations. This Law applies to workers of Public Sector Companies.
Both Laws of a) and b) above provide for similar reasons for termination of employment, and the following are the categorical reasons given therein :

A. Attaining the age of retirement
B. Medical unfitness for service

C. Resignation
D. Retiring on pension or discharging from service
E. Losing nationality, or lack of reciprocal treatment with respect to nationals of other countries.
F. Dismissal by virtue of a decree from the President of the Republic (Note: the reason for dismissal not specified)
G. Receiving a criminal punishment sentence
H. End of the temporary or casual work period
I. Death of the worker

c) The Labor Law of No.137/1981, as amended

Principally this Law applies to private employment. The causes for termination of employment are listed thereunder, but the items of D through G mentioned in b) above are not specifically listed.

(3) ENR Regulations

a) Discharge

Upon reviewing the relevant provisions of the Chapter 13, we find the following provisions would be relevant to the present issue:

"Chapter 13:--retirement"

Article 109:

The employee retires at the age of 60 according to social law number 79 of 1973. It is possible to extend the working service of any employee not more than 4 years after this age of retirement. The extension is by a decree of the Minister of Transport for employees of high ranking jobs. The extension of other employees is by a decree of the Chairman.

Retirement is for any of the following reasons:

A. Incompetence for medical reasons
B. Resignation
C. Dismissal from employment
D. Loss of the Egyptian nationality
E. Dismissal from employment by the decree of the President of the Republic according to the cases of Private law (Note: the reason for termination is not specified)
F. The employee condemned by a criminal penalty in any of the crimes which are listed in the penalty law or any other crime such as dishonorable or dishonest crimes, until such condemnation is shown to be invalid. The initial judgment does not end the employee's service unless the laborer's affairs committee decides that the employee's stay in work is useless for certain reasons
G. Cancellation of the job
H. Death

Article 113

The employee gets his salary until the last date before abandoning his work as declared in Article 109. In case of retirement for medical reasons the employee gets his salary completely until he exhausts all his medical vacation.

If he asks for resignation, he gets his whole salary until the resignation decree issues or after a month of introducing it. In case of cancellation of the job by a decree of the President of the

Republic, the employee deserves a compensation equal to his salary until he is informed of this decree.

Among the reasons for retirement, items C and G of Article 109 may be relevant, if ENR proposes to decrease the number of employees for rationalization purposes. There is no specific provision to the effect that employees may be dismissed only "for causes", but in discussions at TPA, they generally believe that in practice, ENR employees may not be dismissed "without cause". Nevertheless, Item G above seems to give ENR a legal basis to discharge employees, if ENR no longer needs their current jobs and there are no other jobs to assign to such employees.

b) Retirement age

One relevant comment on the ENR Law. Article 109 provides for the age of 60, but some manual staff hired many years ago who qualify under a specific law may retire at the age of 65.

c) Transfer

Under chapter 9 of the ENR employment regulations, there are certain provisions regarding delegation to do another job (Articles 68, 69 and 72). The purpose of these provisions should be further studied as to whether these provisions are available for any proposed transfer to different jobs within ENR. In practice, often promotion accompanies change of working place, or vise versa. If consent is obtained, transfer could be made to different jobs and/or a different working place. But if no consent is obtainable, whether such transfer to different jobs or different working places is allowed is questionable. So far there seem to be no precedents allowing transfer without consent for the purpose of rationalization of business operation.

3.1.4 Closure of Line in Operation

There are no specific provisions under the ENR Law which require the approval of MOT for closing of operating lines. This is in contrast to the relevant provisions under Japanese laws (the former Japanese National Railways Law and the present Law concerning Passenger Railways Companies and the Japan Freight Railways Company).

This matter of closing lines was generally discussed at TPA, but no particular legal problems were raised, except that a Governorate should be consulted in advance. If this is the case, this matter seems to be one of the ordinary business matters decided by the Board of Directors, and in fact, closing of certain lines seems to be considered now within ENR.

Nevertheless, the following provisions should be noted:

(1) Constitution: Article 63

Under Article 63, every individual has the right to address public authorities in writing with his own signature. Closing of an operating line is an issue of public controversy, especially for people residing along the lines to be closed. If a written petition is filed against closing, MOT may face a situation requiring a political decision to settle such petition.

(2) ENR Law Article 2

As stated above, ENR is generally responsible for the establishment and operation of the Railway network on the national level. The balancing and weighing respective interests and the necessity for sound financial operation would be a valid justification for closing lines.

3.1.5 Labor Union

ENR has many local labor committees which organize the general syndicate for ENR. The activities of these committees are governed by the Law for Labor Syndicates (Law No.35/1976). Under Article 16 of the ENR Law, one representative of the general syndicate members of ENR must be appointed as a member of the Board of Directors, and in practice, one representative for the above syndicate is appointed as a Board member.

The following is our general survey of the role of labor unions under the relevant laws.

(1) Constitution

The only provision providing for the creation and activity of unions is Article 56,which reads as follows:

> "56. The creation of syndicates and unions on a democratic basis is a right guaranteed by law, and unions should be moral entities. The law regulates the participation of syndicates and unions in carrying out social programs and plans, raising efficiency, consolidating this socialist behavior among their members, and safeguarding their funds. They are responsible for questioning their members about their behavior in exercising their activities according to certain codes of morals, and for defending the rights and liberties of their members as defined in the law".

As provided for above, the creation of unions is a right guaranteed by law, and the Labor Syndicates Law provides for the organization and activities of labor unions. Under the Constitution we find no provisions providing for "the three rights of workers" such as organizing unions, collective bargaining, and struggle/strike as provided for under Article 28 of the Constitution of Japan.

(2) Labor Syndicates Law (Law No. 35/1976)

The provisions of this Law apply to:

a) Civil servants in the government, local government units and public authorities
b) Public sector personnel
c) Private sector personnel
d) Cooperative sector personnel
e) Agricultural Workers
f) Domestic servants (Article 2)

Union activity aims at protecting the legitimate rights of their members, defending their interests, improving working circumstances and conditions and particularly taking charge of the following (Articles 8 and 14) :

A) Defending the rights of the workers and attending to their interests

B) Endeavoring to improve working conditions and circumstances

As noted from the above, defending the rights and liberties of its members is one of the principal functions of labor unions, and if discharging or transferring of ENR employees is proposed on a large scale, the response of ENR union would have to be studied accordingly. This Study does not propose discharging or transferring ENR employees.

3.1.6 Privatization

(1) Certain transport businesses are now in the process of privatization under the Public Business Sector Law No.203/1991. This law is the principal law for privatization, under which a holding company is established for the purpose of transferring its shares in its affiliates. Four Nile Companies formed under the Public Sector Organization Companies Law No.97/1983 are strategic ones and will continue to be in their present positions as public sector companies under the jurisdiction of the Roads and Bridges and Inland Transportation Authority. Neither of these Laws would apply to privatization of the ENR business, because ENR, as a national authority, is authorized to form subsidiaries (Article 4 of the ENR Law). The relevant business of ENR could be transferred to such subsidiaries, and ENR may transfer its shares in such subsidiaries to the public as and when its privatization is laid on the action program. Generally, there seems to be no particular problem with privatization from the view point of the availability of legal device or scheme wherein ENR business is to be privatized.

(2) Under the Sub-Chapter of 4.3 below, a guideline for privatization of ENR business will be discussed.

3.1.7 Legal Department within ENR

(1) Currently ENR Legal Department contains about 50 lawyers, who are assigned to 5 departments (head office and local offices). The general manager at the head office undertakes and performs comprehensive duty under the supervision of ENR Chairman, which covers employment matters, review of ENR contracts, participation in ENR committees, and supervision of ENR lawyers appearing before courts. ENR does not retain outside legal counsels or law firms, and if and when necessary, the manager refers cases to certain legal department of State Council for its comments and opinion.

(2) At present no particular problems are raised with the present work scheme. But if ENR business is to be privatized in the near future, it is suggested to consider strengthening the legal department because ENR is a big corporation and the railway business is generally comprised of multiple legal relationships with and among the government, management, employees and passenger/clients and the public. Centralization of all the legal information, and availability of necessary access thereto would facilitate smooth and sound legal operations at ENR.

3.2 RAILWAY NETWORK AND LINE/SEGMENT

The railway network of ENR consists of 43 lines/segments, including one new line which commenced train operation in October 1996

Total line length is approximately 4,401 kilometers.
These lines are classified into 3 classes depending upon the train speed and/or passing tonnage. There are 6 First Class line/segments with 1,403 kilometers, 11 Second Class lines/segments with 787 kilometers, and 26 Third Class lines/segments with 2,211 kilometers.
A conceptual figure of the railway network and outline of each line/segment are shown in Fig. 3.2.1 and Table 3.2.1.
Each line/segment is also categorized as a Main line, Urban/Suburban line or Branch line, as shown in Fig. 3.2.2.

Class	Length	Number of Lines/Segments
1st	1,403	6
2nd	787	11
3rd	2,211	26
Total	4,401	43

Table 3.2.1 Outline of each Line/Segment

(As November 1995)

No.	Name of Line (Station to Station)	Length of Line (km)	Single/ Double Track	Number of Stations	Passen. and/or Freight	Number of train: Passen.	Number of train: Freight	Signal system	Telecom. system	Class of Line	Max. train speed	Remarks
1	Cairo - Alexandria	19	4 Tracks	48	P & F	222	45	Auto.	Radio	1st	90/105	
		190	Double			176	65	Auto.	Radio		140	
2	Cairo - El Sad El Ali	791	Double	177	P & F	182	68	Auto. Tyris Token.	Radio	1st	120/ 110	Track doubling Idfu - Aswan commenced in Oct. 1996
		107	Single			28	17	Staff	Radio		90/70/60	
3	Benha - Port Said	113	Double	34	P & F	67	32	Tyris	Radio	1st	90	
		78	Single			20	9	Staff	Radio		90/70	
4	Tanta - El Mansoura	54	Double	19	P & F	56	12	Tyris	Radio	1st	90	
5	Abis - (Ras El Ten)	10	Double	7	P & F	-	-	Tyris	Radio	1st	70	
6	Helwan - El Marg	41	Double	33	P	270	-	Auto.	Radio	1st	100	
7	Nefisha - Suez	88	Double	16	P & F	18	16	Staff	Radio	2nd	55	
8	Mansoura - Domietta	63	Single	17	P & F	35	9	Staff	Radio	2nd	90	
9	Zagazig - Tanta	57	Single	15	P & F	34	2	Staff	Radio	2nd	70/60	
10	Imbaba - Itay El Baroud	120	Single	36	P & F	37	38	Auto.	Radio	2nd	70	
11	Sidi Gaber - Abu Quir	18	Double	14	P & F	198	2	Auto.	Radio	2nd	70	
12	Qalyub - Menuf - Tanta	93	Single	23	P	55	-	Staff	Radio	2nd	70/55	
13	Ein Shams - Suez	129	Single	20	P & F	22	2	Staff	Radio	2nd	90	
14	Wasta -Fayum - Abu Kesah	61	Single	13	P & F	29	2	Staff	Radio	2nd	70	
15	El Marg - Shebeen Kanater	21	Single	12	P & F	50	4	Staff	Radio	2nd	70/40	
16	El Mamoura - Rashid	66	Single	11	P & F	18	2	Staff	Radio	2nd	70	
17	Mansoura - El Mataria	71	Single	23	P	24	-	Staff	Radio	2nd	60	
18	Qalyub - Zagazig	63	Single	18	P & F	36	14	Staff	Radio	3rd	70	
19	Zagazig - Mansoura	69	Single	20	P & F	34	12	Staff	Radio	3rd	70	
20	Abu Kebir - El Salheia	34	Single	10	P	31	-	Staff	Radio	3rd	70/60	
21	Benha - Zefta	34	Single	13	P & F	24	2	Staff	Radio	3rd	70	

No.	Name of Line (Station to Station)	Length of Line (km)	Single/ Double Track	Number of Stations	Passen. and/or Freight	Number of train		Signal system	Telecom. system	Class of Line	Max. train speed	Remarks
						Passen.	Freight					
22	Faqus - El Sammana	10	Single	3	P & F	22	2	Staff	Radio	3rd	70	
23	Menuf - Kafr El Zaiyat	49	Single	18	P	24	-	Staff	Radio	3rd	60	
24	El Santa - Mahalet Rouh	19	Single	7	P & F	24	2	Staff	Radio	3rd	65	
25	Mahalet Rouh - Damanhur	74	Single	21	P	30	-	Staff	Radio	3rd	60	
26	Benha - Menuf	25	Single	10	P & F	24	2	Staff	Radio	3rd	60	
27	Qabbary - Marsa Matruh	15	Double	31	P & F	16	18	Tyris	Radio	3rd	90	
		279	Single		P & F	16	4	Staff	Radio	3rd	90	
28	Sherbeen - Qelein	81	Single	20	P	36	-	Staff	Radio	3rd	70	
29	Bouseli - El Qassabi	29	Single	10	P & F	12	2	Staff	Radio	3rd	55/40	
30	El Fayum - Sinnuris	12	Single	4	P	20	-	Staff	Radio	3rd	50	
31	Desuq - Motobus	27	Single	8	P & F	14	2	Staff	Radio	3rd	40	
32	Abbassava - Tebeen	20	Single	14	P & F	2	18	Staff	Radio	3rd	40	
33	El Geish - El Magharat	24	Single	-	P & F	2	16	Staff	Radio	3rd	40	
34	El Samala - El Saloum	260	Single	16	P	2	-	Staff	Radio	3rd		
35	Tebbeen - Managim	346	Single	19	P & F	2	8	Staff	Radio	3rd		
36	El Ithad - Qabbary	108	Single	11	F	-	24	Staff	Radio	3rd		
37	Beni Suef - El Lahun	25	Single	10	P & F	18	2	Staff	Radio	3rd	40	
38	Shaweish - Abu El Sammad	12	Single	4	P & F	8	2	Staff	Radio	3rd	15	
39	El Gabal El Asfar	7	Single	2	P & F	2	4	Staff	Radio	3rd	40	
40	Kafr Saad - Kafr Silman	3	Single	2	P	4	-	Staff	Radio	3rd	25	
41	Kafr Batikh - Domiatta Port	15	Single	2	F	-	8	Staff	Radio	3rd		
42	Qena - Safaga	233	Single	14	P & F	2	10	Staff	Radio	3rd		
43	Qena - Abu Tartour	338	Single		F	-	-					October 1996 Commenced
	Total Length	4,401		4 tracks: 19 km. Double track : 1320 km. Single track: 3062 km								

Note: Numbers of train are maximum number of train for both directions per day at the certain section.

Number of passenger train excludes seasonal train, and number of freight train includes no-every day train.

Auto. : Automatic signalling system   Token. : Tokenless sigalling system

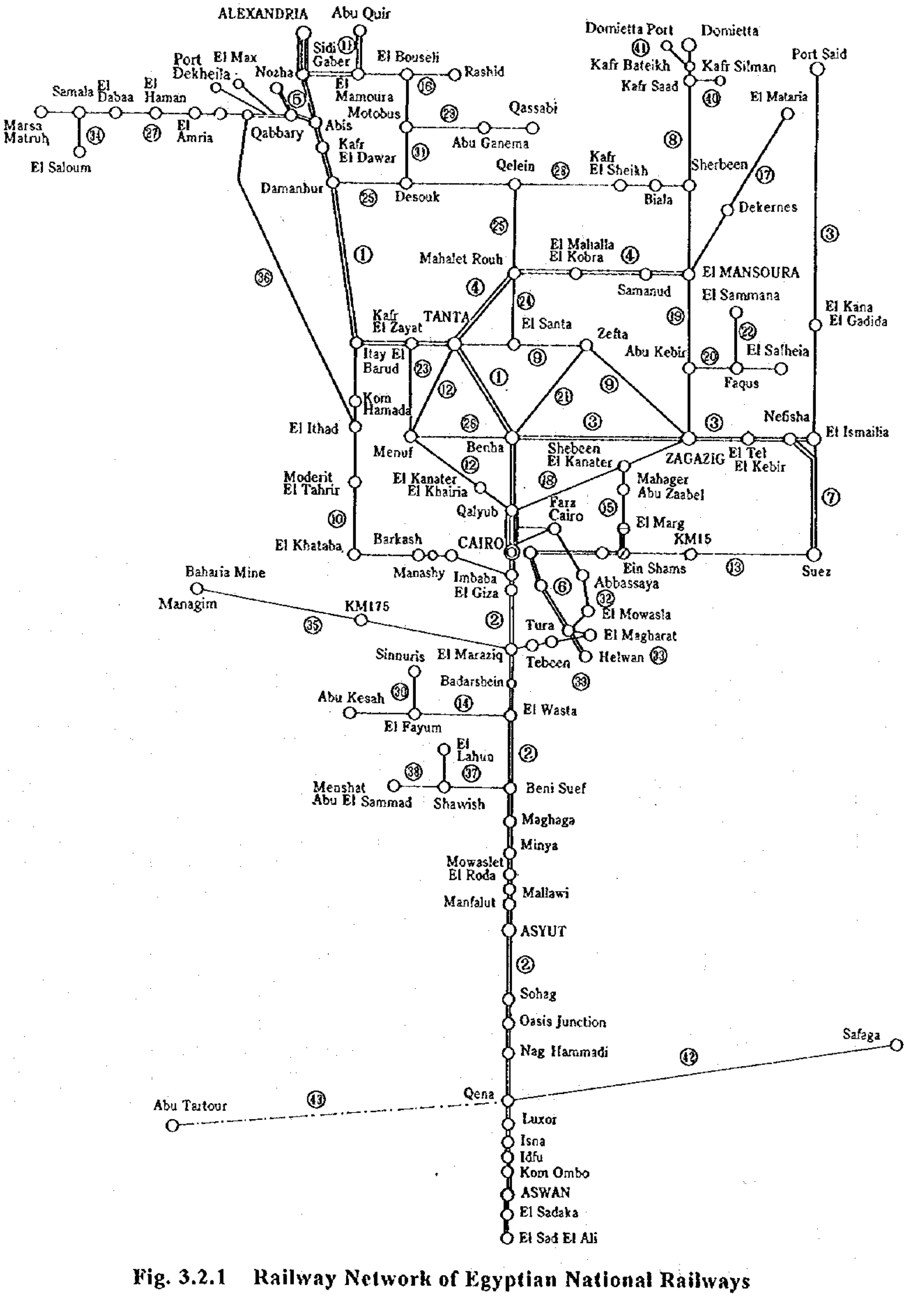
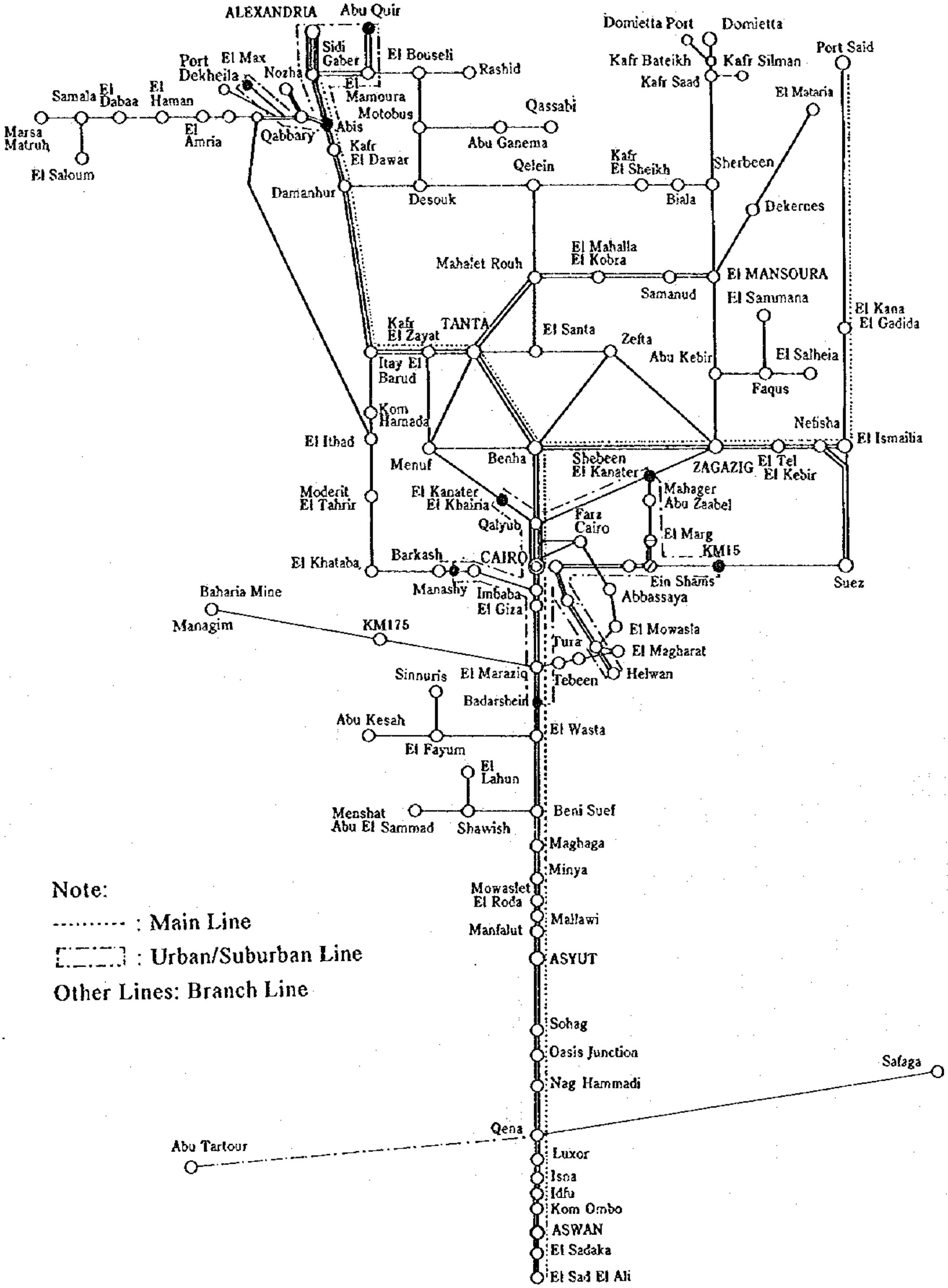


Fig. 3.2.1 Railway Network of Egyptian National Railways



Note:

.... : Main Line

[-.-.-] : Urban/Suburban Line

Other Lines: Branch Line

Fig. 3.2.2 Main Line, Urban/Suburban Line and Branch Line

3.3 TRANSPORT CONDITION AND VOLUME

Passengers and commodities are moved on the inter-city transport system in Egypt using the networks of highways, railways and waterways. Figure 3.3.1 illustrates a schematic presentation of different components of the movement of passengers and freight. Basically, passengers are using the highway or railway network to meet their travel demand, while freight movement is performed using the networks of highways, railways and waterways. Passengers can travel using different modes such as private car and private bus, if available, or they can use public modes which can be further sub-divided into public bus, shared taxi, and railways.

Trucks, trains or barges are commonly used to transport different commodities from production zones or port zones to consumption zones. Trucking operators of both the public and private sectors transport commodities. The railway is operated exclusively by ENR. Barges are operated by public and private sector companies.

The following section will describe the railway sector (in Section 3.3.1) and the sector of competitive modes to the railway such as inter-city bus, inter-city taxi, truck, and inland waterway transport (in Section 3.3.2).

3.3.1 Railway Services

This section outlines railway transport.

(1) Outline of operation services

1) General (Railway Lines)

ENR's railway lines are divided into three categories :

- Main Lines
- Branch Lines
- Suburban Lines

The Main Lines include :

- Cairo to Tanta to Alexandria
- Cairo to Ismailia to Port Said
- Cairo to Asyut to Luxor to Aswan to High Dam

The Branch Lines are all remaining railway lines, except for the Main Lines and Suburban Lines. The Suburban Lines are the lines in the suburban areas of Cairo and Alexandria :

(Cairo Area)

- Cairo to Qalyub to El Kanater El Khayria
- Cairo to Qalyub to Shebin El Kanater
- Kabry Ellamoon (Cairo) to Ein Shams to Shebin El Kanater
- Cairo to El Manashi
- Cairo to Badrasheen
- Ein Shams to El Obour

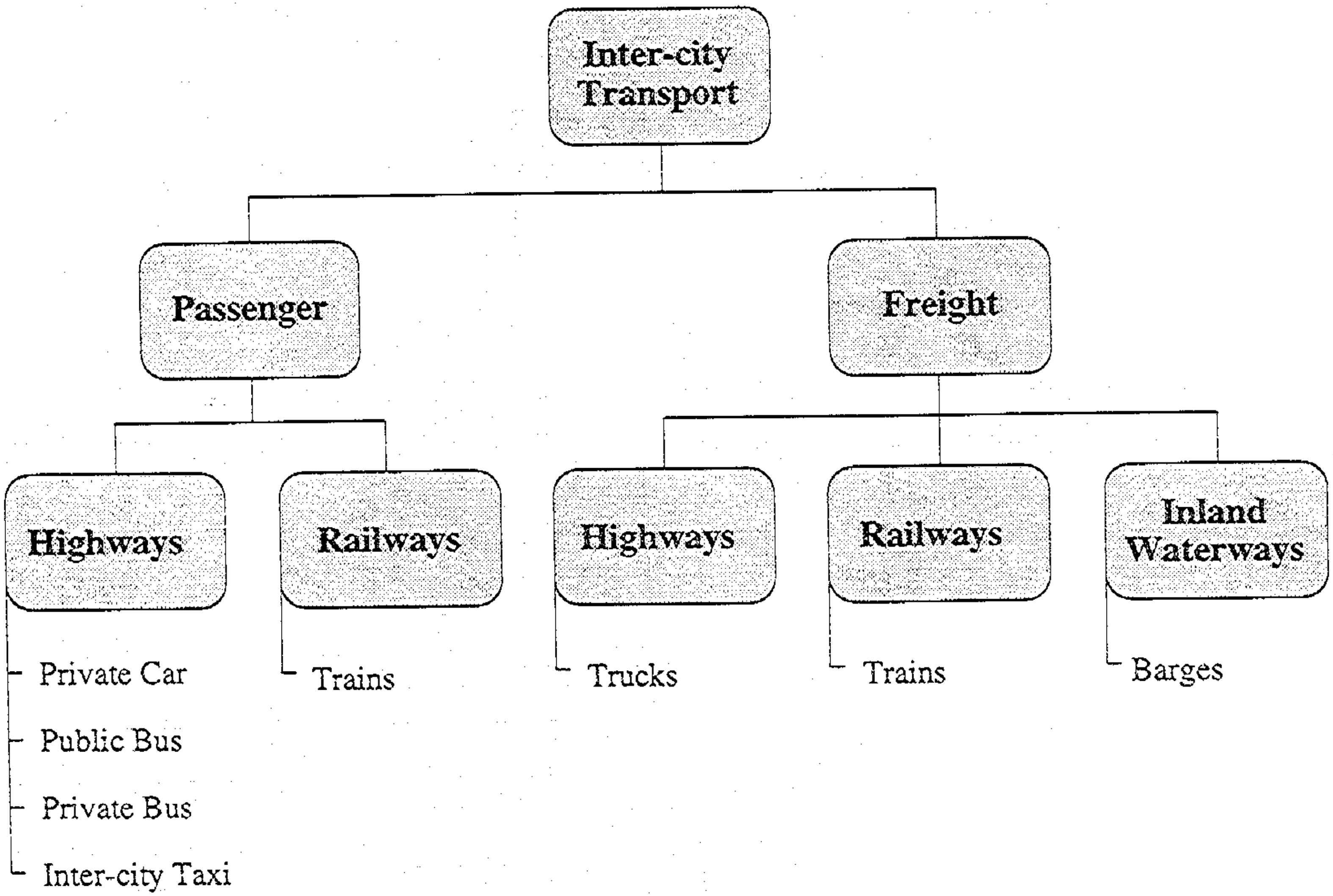


Fig. 3.3.1 Representation of Inter-city Transport System in Egypt

- Metro Line from Helwan to El Marg
  The Metro Line from Helwan to El Marg (Line No.1) is electrified, and the section of Saida Zinab station to Mubarak station is underground. Currently, the extension of Line No.2 (Shoubra El Kheima to El Giza) is under construction. Line No.3 is also planned (Imbaba to Salah Salem).

(Alexandria Area)
- Alexandria to El Max
- Alexandria to Abu Quir

2) Passenger service

a. Service class for passenger trains
On the Main and Branch Lines, the service class of the passenger trains are :
- First Class with air-conditioning
- Second Class with air-conditioning
- Second Class without air-conditioning (Normal Second Class)
- Third Class

As for Suburban Lines, the service class is unified.

b. Type of passenger train
There are basically three types of passenger trains :
- Express Trains :
  Express Trains run at 120 km/hour, stopping only at governorate Capitals and large and industrial cities. There are "non-stop trains" operating between Cairo to Alexandria and Cairo to Luxor to Aswan.
- Semi-express Trains :
  Semi-express Trains run at up to 90 km/hour, stopping at major cities in Egypt.
- Local :
  Local Trains stop at all stations on the route.

Air-conditioned sleeping cars on night trains operate between Cairo - Luxor - Aswan, with First Class coach and Second Class coach.

c. Type of passenger train ticket
The type of ticket of passenger train are;
- Normal Ticket (Nominal Single Ticket)
  The return tickets are issued with some privileges:
  - Daily Return Ticket is issued with a reduction of 25% of the price of two single tickets.
  - Monthly Return Ticket is issued with a reduction of 10% of the price of two single tickets.
  - Season Tickets are issued on a station to station basis with the following periods :
    - 1 Month
    - 3 Months
    - 6 Months
    - 9 Months

- 12 Months

There are discount Season Ticket prices for students, governmental / public sector employees, etc.

- Kilometer Season Ticket

Kilometer season tickets are issued for First Class and Second Class for the following distances :

	Distance	: Validity Period
-	2,000 Km	: Three months
-	3,000 Km	: Three months
-	5,000 Km	: Six months
-	10,000 Km	: Nine months

The subscription distance must be used up during the defined validity period.

When passengers board a train without a ticket, passengers pay a conductor fine in addition to the normal fare.

d. Ticketing system (Seat Reservation System)

A seat reservation is obligatory for all air-conditioned (A/C) First Class and A/C Second Class on the Main Line of Cairo - Alexandria. This is also true on for Cairo - Luxor - Aswan and Cairo - Ismailia - Port Said (only Second Class A/C).

For the luxury train operated between Cairo - Alexandria (Spanish / Turbo / French), reservation is possible at the stations of Cairo, Helwan, Maady , Alexandria, Sidi Gaber (Alexandria), and ENR city offices located in Cairo (10 offices) and Alexandria (2 offices).

For the sleeping car operated between Cairo - Luxor - Aswan, the reservations are made at the ticketing windows of the ACCOR Company, which are located at the stations of Cairo, Qena, Luxor and Aswan.

For the trains other than the sleeping car between Cairo - Luxor - Aswan (First A/C and Second A/C), and the trains between Cairo - Ismailia - Port Said (Second A/C), reservations are made at the reservation windows where passengers purchase a seat reservation slip (paper) manually written together with the normal ticket.

Seats for Second Class without A/C and Third Class do not require a seat reservation. Table 3.3.1 show the summary of ticketing system by class / by type of train.

e. Action Flow Related to Railway Passengers from Ticket Purchase, to Boarding Train, to Exit

Table 3.3.2 shows the action flow related to railway passengers as a process from ticket purchasing, boarding train, riding the train, and exit. This table points out the actual situation and problems at each point of the process, especially for the ticket window at the stations.

Due to problems at the ticket windows, passengers who want to purchase tickets can not purchase tickets just before the train leaves. If there is little time, passengers are obliged to get on the train without a normal ticket, and must pay a fine. Passengers who want to purchase a ticket from the ticket window have a legitimate complaint. This problem should be resolved.

Table 3.3.1 Ticketing System by Class / by Type of Train

Class	Line	Reservation Required Not Required	Section	Type of Train	Windows for Ticketing	Kind of Ticket Computer Print Manual Writting Normal Ticket	Computerized Terminal
First A/C Second A/C	Main	Required	1. Cairo - - Alexandria	Spanish Turbo French	Special Windows	Computer Print Computer Print Computer Print	Yes (Networked to ENR's System) Only at Cairo & Alexandria areas
			2. Cairo - - Luxor - Aswan	Sleeping Car	Special Windows of ACCOR (not of ENR) (*)	Computer Print (*)	Yes (ACCOR's System) (Not ENR's System) (*)
				Other Trains (Seated Coach)	Special Windows	Nominal Ticket + Seat Reservation Slip (Manually Written)	No (Nominal Ticket is issued) by Electrical Machine)
			3. Cairo - - Ismailia - Port Said		Special Windows	Nominal Ticket + Seat Reservation Slip (Manually Written)	No (Nominal Ticket is issued) by Electrical Machine)
Second Without A/C and Third	Main / Branch	Not Required			Normal Windows	Nominal Ticket Only	No (By Electrical Machine)

Source: Hearing from the Commercial Department, ENR and the ACCOR's Ticketing Office of Cairo.

Note: (*) Ticket Issueing of "Sleeping Car of Cairo - Luxor - Aswan" is managed by ACCOR Company (Joint venture Contr
Ticket Issuing is available at stations of Cairo, Qena, Luxor and Aswan.
Only at Cairo station, ticket issueing is made by computer
At Qena, Luxor and Aswan stations, by manual ticket issueing.
Information connection to Cairo is made by telephones.
(In near future, ACCOR's Computr Network connecting each station will be completed.)
ACCOR's computer system is not connected to ENR's computer system.

Table 3.3.2 Action Flow of Railway Passengers From Purchasing, Getting on, to Exit

Action			Actual Situation	Problem Points
1 (a)	Ticket Booking, if Required. (At Station or Booking Office)			*) More Ticket Offices is preferable, considering the passengers' conveniences.
1 (b)	Ticket Purchasing at Ticket Window (At Station)		*) Sometimes, number of Ticket Window is not enough for number of passengers. *) Sometimes, some of Ticket Window does not open. *) Sometimes, timing of open of Ticket Window does not meet to the train departure time. *) Some small-size station has no Ticket Window.	*) Sometimes, passengers who want to purchase ticket can not purchase ticket in just time. *) Consequently, in this case, passengers obliged to get on the train without normal ticket. *) For this point, passengers who want purchase ticket from the Ticket Window has a complain.
2	Checking at Ticket at Entrance (At Station)	There is Checking Gate Facility (Wicket). There is Staff.	*) The staff is not always there. *) Really, sometimes no check is made.	
3	Checking Ticket on Coach by Conductor (On Coach)	Conductor carry out the ticket inspection.	*) In case of passengers without ticket, passengers should purchase the Conductor Ticket with the due fine from the conductor.	
4	Checking Ticket at Exit (At Station)	There is Checking Gate Facility (Wicket). There is Staff.	*) The staff is not always there. *) Really, sometimes no check is made.	

3) Freight transport

Freight transport is classified into the following :

- Non-Express Cargo Transport
- Express Cargo Transport

a. Non-express cargo transport

"Non-express cargo transport" means normal freight transport. Transport is made by freight wagons and trains. Freight transport contracts are made between ENR and customers. Usually, a contract is made for long-term freight transport with a daily, weekly or monthly transport plan according to customer needs.

As for non-express cargo transport, cargoes are divided into 2 types :

- Bagged Cargo
- Bulk Cargo

(a) Bagged Cargo

"Bagged Cargo" is cargo which is bagged or packed. The loading and unloading are carried out by ENR side. In this case, the loading/unloading fee is charged in addition to the normal freight transport fare. And insurance is compulsory, charged to customers.

(b) Bulk Cargo

"Bulk Cargo" is formally termed "Unbagged Cargo". The loading and unloading are carried out by the customer (consignor / consignee). Insurance is basically optional according to the customers' needs.

The freight tariff is the same system for Bagged and Bulk Cargoes.

It is to be noted that even if a cargo is actually bagged cargo, a customer with a siding line facility has an option of classifying it as bulk cargo.

For instance, bagged cargo such as bagged cement is classified as "Bulk Cargo". In the case of a cement factory with railway line siding, transportation of bagged cement is treated as bulk cargo. In this case, the loading and unloading and insurance are the responsibility of the customer. ENR is only responsible for providing an empty wagon and cargo transportation.

Insurance for fertilizers and cotton is compulsory.

The demarcation of responsibility between ENR and customers by cargo category is summarized as below:

Category	Bagged	Bulk	
		Bulk in Nature	Bagged in Nature, but Treated as Bulk (Siding Facility)
Loading/Unloading	by ENR	by Customer	by Customer
Weight of Freight	ENR should report total weight of freight.	Weight of freight is recorded. But, ENR has no responsibility for real weight.	
Number of Bag	ENR should count number of bag.	ENR does not count number of bag.	
Transport	by ENR	by ENR	by ENR
Providing an Empty Wagon to Customer	-	by ENR	by ENR
Insurance	by ENR	by Customer	by Customer
Responsibility for Security	by ENR (ENR Police Department)	by Customer	by Customer

For "Bagged Cargo", ENR covers loading/unloading, transport, and insurance (insurance cost paid by customer). The customer negotiates with ENR only.

For "Bulk Cargo", ENR only provides an empty wagon and transports the customer's contents. As a result, the customer has responsibility for loading and unloading and security of cargo, and the customer should negotiate with an insurance company if required. For "Bulk Cargo", the customer itself must negotiate with several outside authorities/companies.

As shown later, currently over 80% of ENR freight is "Bulk", and its transport is mostly by an exclusive train (block train or unit train) running from the station of origin to destination station without a shunting operation at a shunting yard.

b. Express Cargo Transport

This means transport of parcels on a Passenger or Express Train (usually, a wagon specialized for parcels is used which forms part of the passenger train formation). The parcel weight should not exceed 100 kg per one parcel. Major cargoes transported as parcels are : fresh commodities (meat, fish, vegetables, cereals, etc.) and household packages, motorcycles etc.

(2) Transport activity

1) Passengers

Table 3.3.3 shows the trend of numbers of passengers and passenger-kilometers of ENR (excluding Metro, Metro only, and Total) from 1985/86 - 1994/95.

Table 3.3.3 Passengers Transport Volume of ENR

Year	ENR (Except Metro)					Metro					Total				
	Number of Passengers (Million)	Growth Ratio (%)	Passenger-Kilometers (Million)	Growth Ratio (%)	Average Travel Dist.(Km)	Number of Passengers (Million)	Growth Ratio (%)	Passenger-Kilometers (Million)	Growth Ratio (%)	Average Travel Dist.(Km)	Number of Passengers (Million)	Growth Ratio (%)	Passenger-Kilometers (Million)	Growth Ratio (%)	Average Travel Dist.(Km)
1985/86	624.000		26,232		42.0						624.000		26,232		
1986/87	648.402	3.9%	33,073	26.1%	51.0						648.402	3.9%	33,073	26.1%	
1987/88	580.030	-10.5%	34,167	3.3%	58.9	48.868		733		15.0	628.898	-3.0%	34,900	5.5%	55.5
1988/89	569.127	-1.9%	34,816	1.9%	61.2	72.490	48.3%	1,015	38.5%	14.0	641.617	2.0%	35,831	2.7%	55.8
1989/90	578.210	1.6%	36,253	4.1%	62.7	127.997	76.6%	1,792	76.6%	14.0	706.207	10.1%	38,045	6.2%	53.9
1990/91	612.760	6.0%	40,951	13.0%	66.8	146.455	14.4%	2,041	13.9%	13.9	759.215	7.5%	42,992	13.0%	56.6
1991/92	637.270	4.0%	42,589	4.0%	66.8	280.528	91.5%	3,928	92.5%	14.0	917.798	20.9%	46,517	8.2%	50.7
1992/93	662.761	4.0%	44,744	5.1%	67.5	305.749	9.0%	4,280	9.0%	14.0	968.510	5.5%	49,024	5.4%	50.6
1993/94	670.299	1.1%	46,731	4.4%	69.7	311.948	2.0%	4,367	2.0%	14.0	982.247	1.4%	51,098	4.2%	52.0
1994/95	718.282	7.2%	51,282	9.7%	71.4	328.306	5.2%	4,596	5.2%	14.0	1,046.588	6.6%	55,878	9.4%	53.4
Growth R. 85/86-94/95		1.6%		7.7%								5.9%		8.8%	
Growth R. 90/91-94/95		4.1%		5.8%			22.4%		22.5%			8.4%		6.8%	

Source: Commercial Department, ENR

In 1994/95, the number of ENR passengers excluding Metro was about 718 million, and passenger kilometers were about 51,282 million with an average travel distance of about 71 km. The annual average growth ratios during 1990/91 - 1994/95 of the number of passengers and passenger kilometers were 4.1% and 5.8% respectively. The average travel distance shows a stable increase during 1985/86 - 1994/95.

Appendix 3.3.1 shows the trend of numbers of passengers by line, by type of ticket, and by type of service (excluding Metro) during 1992/93 - 1994/95.

The shares of Main Lines, Branch Lines and Suburban Lines in the total number of passengers are approximately 62-64%, 24-25% and 11-14% respectively. The Main Lines are predominant, with over 60% of all ENR passengers. The Main Lines and Branch Lines show stable increases in numbers of users for all ticket types.
About 20% of passengers use conductor tickets.
Suburban Line passengers declined in 1993/94 and recovered in 1994/95. The decline in 1993/94 was possibly caused by the tariff revision.
In 1994/95, about 50% of suburban line passengers used season tickets; suburban lines are located in urban and suburban areas.

2) *Freight*

Table 3.3.4 shows the trend of ENR freight transport volume by commodity type from 1991/92 - 1994/95 (except parcels). The total freight transport volume and the total ton kilometers are 11.85 million tons and 3,942 million ton kilometers in 1994/95.
The major commodities in terms of share ratio of (tonnage ÷ total tonnage) during 1991/92 - 1994/95 are :

- Iron Ore	(ranging 20% - 23%)
- Wheat	(10% - 15%)
- Coal and Coke	(9% - 13%)
- Petroleum Products	(10% - 12%)
- Phosphate	(5% - 8%)
- ENR Commodities	(17% - 18%)

Freight transport volume showed stable growth in 1992/93 - 1994/95, except for 1991/92-1992/93.

As for annual trends by commodity, the following is observed :

- Petroleum Products show a slight decrease in tonnage, but an increase in ton-kilometers.
- Cement shows a declining trend up to 1993/94, recovering in 1994/95.
- Other Construction Materials show a stable trend with a peak in 1993/94.
- Phosphate shows a fall in 1992/93 and a stable recovery from 1993/94.
- Iron Ore shows a stable trend with a peak in 1993/94.
- Coal and Coke shows a slight decline in 1992/93 and a recovery since 1993/94.
- Wheat shows a fall in 1993/94 and recovery in 1994/95.
- Manufactured Fertilizer shows a declining trend with a fluctuation.
- ENR Commodities (railway materials for ENR itself such as sleepers, rail, etc.) shows a stable trend.

Table 3.3.5 shows the ENR freight transport volume and revenues by commodity type in 1994/95 (except parcels).
The average transport distances are estimated to be about 330 km in total, and 360 km in total excluding ENR Commodities. The longest is Agricultural Products (790 km), followed by Phosphate (760 km) and Other Food Products (700 km).

Table 3.3.6 shows the share of five major commodities (iron ore, wheat, coal and coke, petroleum products and phosphate) in terms of tonnage, ton-kilometers, and revenues (except ENR commodities).
The share of the five major commodities has generally increased during 1991/92 - 1994/95. In 1994/95, the aggregate of these five commodities totaled about 80% both in terms of tonnage and ton kilometers. The five major commodities produce almost 90% of total freight revenues.

Appendix 3.3.2 shows the transport volume of freight of "ENR Parcels" during 1989/90 - 1993/94. The transport volume shows a declining trend.

Appendix 3.3.3 shows the performance of ENR container freight trains in 1992/93 - 1995/96. It is notable that the purpose of containers is "transshipment" from seaport to seaport. Currently, there is no train operation of freight containers other than transshipment. The so-called normal transportation of freight container between seaports and Cairo City is not carried out by rail.

For reference, the number of containers handled at seaports for the years of 1992/93 and 1993/94 are shown in Appendix 3.3.4.

Table 3.3.4(1) Freight Tramsport Volume of ENR

(A) Actual Freight Transport Volume

Commodity	1991/92 Tonnage (1,000)	1991/92 Ton-Km (Mil.)	1992/93 Tonnage (1,000)	1992/93 Ton-Km (Mil.)	1993/94 Tonnage (1,000)	1993/94 Ton-Km (Mil.)	1994/95 Tonnage (1,000)	1994/95 Ton-Km (Mil.)
1 Crude Oil								
2 Petroleum Products	1,175.6	365.6	1,231.7	384.1	1,220.1	411.1	1,157.0	443.2
3 Natural Gas								
4 Cement	244.9	52.5	184.9	39.6	147.5	33.1	208.8	42.8
5 Other Construction Materials	299.9	43.0	279.0	56.8	688.2	129.3	271.3	62.1
6 Phosphate	645.3	460.2	473.2	342.8	657.8	534.4	934.0	706.9
7 Iron Ore	2,323.0	813.1	2,285.5	799.6	2,617.9	916.3	2,393.5	837.7
8 Coal and Coke	916.2	230.0	908.5	249.2	1,162.6	324.0	1,622.2	445.7
9 Other Minerals (Stones)								
10 Wheat	1,459.3	335.7	1,505.7	350.5	1,138.3	269.1	1,794.2	487.0
11 Other Cereals	322.6	74.7	0.0	0.0	0.0	0.0	0.9	0.4
12 Fruit and Vegetable								
13 Sugar Cane	224.3	10.9	300.3	13.3	283.9	15.8	258.3	15.7
14 Fiber Crops								
15 Live Stocks								
16 Animal products								
17 Agricultural Products (Black Honey)	113.6	102.7	99.5	91.0	111.2	94.7	106.6	84.0
18 Sugar	457.2	157.1	406.8	184.4	583.0	220.0	470.3	196.5
19 Edible Oil and Fats								
20 Animal Feed								
21 Beverages (Potable Water)	73.4	39.3	86.9	46.6	71.0	37.7	44.4	23.3
22 Other Food Products (Salt)	39.7	27.5	41.0	28.5	46.1	30.7	52.2	37.0
23 Chemical Products								
24 Metal and Metal Products								
25 Textile								
26 Manufactured Fertilizer	253.7	102.7	109.9	58.3	248.5	135.7	157.0	86.6
27 Pulp and Paper								
28 Lumber and Timber								
29 Other Manufactured Goods								
30 Mixed Commodities	93.3	25.9	170.6	41.4	289.2	61.6	341.2	84.4
31 ENR Commodities	1,748.5	239.4	1,768.6	285.5	1,935.6	294.3	2,038.4	388.7
Total	10,390.5	3,080.3	9,852.2	2,971.4	11,201.0	3,507.8	11,850.2	3,942.0

(B) Growth Ratio to Previous Year

Commodity	92/93 to 91/92 Tonnage	92/93 to 91/92 Ton-Km	93/94 to 92/93 Tonnage	93/94 to 92/93 Ton-Km	94/95 to 93/94 Tonnage	94/95 to 93/94 Ton-Km
1 Crude Oil						
2 Petroleum Products	4.8%	5.1%	-0.9%	7.0%	-5.2%	7.8%
3 Natural Gas						
4 Cement	-24.5%	-24.5%	-20.2%	-16.4%	41.6%	29.3%
5 Other Construction Materials	-7.0%	32.2%	146.6%	127.7%	-60.6%	-52.0%
6 Phosphate	-26.7%	-25.5%	39.0%	55.9%	42.0%	32.3%
7 Iron Ore	-1.6%	-1.7%	14.5%	14.6%	-8.6%	-8.6%
8 Coal and Coke	-0.8%	8.3%	28.0%	30.0%	39.5%	37.5%
9 Other Minerals (Stones)						
10 Wheat	3.2%	4.4%	-24.4%	-23.2%	57.6%	80.9%
11 Other Cereals	-	-	-	-	-	-
12 Fruit and Vegetable						
13 Sugar Cane	33.9%	21.8%	-5.5%	19.1%	-9.0%	-0.6%
14 Fiber Crops						
15 Live Stocks						
16 Animal products						
17 Agricultural Products (Black Honey)	-12.4%	-11.4%	11.8%	4.1%	-4.2%	-11.3%
18 Sugar	-11.0%	17.4%	43.3%	19.3%	-19.3%	-10.7%
19 Edible Oil and Fats						
20 Animal Feed						
21 Beverages (Potable Water)	18.4%	18.5%	-18.3%	-19.0%	-37.5%	-38.3%
22 Other Food Products (Salt)	3.2%	3.6%	12.6%	7.5%	13.2%	20.6%
23 Chemical Products						
24 Metal and Metal Products						
25 Textile						
26 Manufactured Fertilizer	-56.7%	-43.2%	126.0%	132.6%	-36.8%	-36.2%
27 Pulp and Paper						
28 Lumber and Timber						
29 Other Manufactured Goods						
30 Mixed Commodities	82.8%	59.8%	69.5%	48.8%	18.0%	37.0%
31 ENR Commodities	1.1%	19.2%	9.4%	3.1%	5.3%	32.1%
Total	-5.2%	-3.5%	13.7%	18.1%	5.8%	12.4%

(C) Share Ratio

Commodity	1991/92 Tonnage	1991/92 Ton-Km	1992/93 Tonnage	1992/93 Ton-Km	1993/94 Tonnage	1993/94 Ton-Km	1994/95 Tonnage	1994/95 Ton-Km
1 Crude Oil								
2 Petroleum Products	11.3%	11.9%	12.5%	12.9%	10.9%	11.7%	9.8%	11.2%
3 Natural Gas								
4 Cement	2.4%	1.7%	1.9%	1.3%	1.3%	0.9%	1.8%	1.1%
5 Other Construction Materials	2.9%	1.4%	2.8%	1.9%	6.1%	3.7%	2.3%	1.6%
6 Phosphate	6.2%	14.9%	4.8%	11.5%	5.9%	15.2%	7.9%	17.9%
7 Iron Ore	22.4%	26.4%	23.2%	26.9%	23.4%	26.1%	20.2%	21.2%
8 Coal and Coke	8.8%	7.5%	9.2%	8.4%	10.4%	9.2%	13.7%	11.3%
9 Other Minerals (Stones)								
10 Wheat	14.0%	10.9%	15.3%	11.8%	10.2%	7.7%	15.1%	12.4%
11 Other Cereals	3.1%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
12 Fruit and Vegetable								
13 Sugar Cane	2.2%	0.4%	3.0%	0.4%	2.5%	0.5%	2.2%	0.4%
14 Fiber Crops								
15 Live Stocks								
16 Animal products								
17 Agricultural Products (Black Honey)	1.1%	3.3%	1.0%	3.1%	1.0%	2.7%	0.9%	2.1%
18 Sugar	4.4%	5.1%	4.1%	6.2%	5.2%	6.3%	4.0%	5.0%
19 Edible Oil and Fats								
20 Animal Feed								
21 Beverages (Potable Water)	0.7%	1.3%	0.9%	1.6%	0.6%	1.1%	0.4%	0.6%
22 Other Food Products (Salt)	0.4%	0.9%	0.4%	1.0%	0.4%	0.9%	0.4%	0.9%
23 Chemical Products								
24 Metal and Metal Products								
25 Textile								
26 Manufactured Fertilizer	2.4%	3.3%	1.1%	2.0%	2.2%	3.9%	1.3%	2.2%
27 Pulp and Paper								
28 Lumber and Timber								
29 Other Manufactured Goods								
30 Mixed Commodities	0.9%	0.8%	1.7%	1.4%	2.6%	1.8%	2.9%	2.1%
31 ENR Commodities	16.8%	7.8%	18.0%	9.6%	17.3%	8.4%	17.2%	9.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Commercial Department, ENR

Note: Governmental commodities are excluded.

Table 3.3.4(2) Freight Tramsport Volume of ENR

Commodity	(A) Freight Transport Revenues				(B) G.R. to Previous Year			(C) Share Ratio			
	1991/92	1992/93	1993/94	1994/95	92/93 to 91/92	93/94 to 92/93	94/95 to 93/94	1991/92	1992/93	1993/94	1994/95
	(1,000 LE)	(1,000 LE)	(1,000 LE)	(1,000 LE)							
1 Crude Oil											
2 Petroleum Products	8,385.1	10,162.1	12,104.8	13,246.2	21.2%	19.1%	9.4%	12.0%	12.9%	11.6%	9.7%
3 Natural Gas											
4 Cement	1,080.7	947.6	903.0	1,402.2	-12.3%	-4.7%	55.3%	1.6%	1.2%	0.9%	1.0%
5 Other Construction Materials	985.9	1,238.0	3,096.2	1,698.0	25.6%	150.1%	-45.2%	1.4%	1.6%	3.0%	1.2%
6 Phosphate	3,293.8	2,953.1	4,979.3	8,150.0	-10.3%	68.6%	63.7%	4.7%	3.7%	4.8%	6.0%
7 Iron Ore	23,563.3	29,455.3	41,106.3	50,670.8	25.0%	39.6%	23.3%	33.8%	37.3%	39.4%	37.0%
8 Coal and Coke	4,032.2	5,059.7	7,478.7	11,866.0	25.5%	47.8%	58.7%	5.8%	6.4%	7.2%	8.7%
9 Other Minerals (Stones)											
10 Wheat	12,379.5	14,195.9	13,001.4	25,460.0	14.7%	-8.4%	95.8%	17.8%	18.0%	12.5%	18.6%
11 Other Cereals	2,763.6	0.0	0.0	18.3	-	-	-	4.0%	0.0%	0.0%	0.0%
12 Fruit and Vegetable											
13 Sugar Cane	515.8	783.7	919.5	982.7	51.9%	17.3%	6.9%	0.7%	1.0%	0.9%	0.7%
14 Fiber Crops											
15 Live Stocks											
16 Animal products											
17 Agricultural Products (Black Honey)	915.4	915.2	1,124.2	1,190.4			5.9%	1.3%	1.2%	1.1%	0.9%
18 Sugar	2,292.4	2,498.3	3,902.2	3,979.4	9.0%	56.2%	2.0%	3.3%	3.2%	3.7%	2.9%
19 Edible Oil and Fats											
20 Animal Feed											
21 Beverages (Potable Water)	452.7	614.2	577.5	412.0	35.7%	-6.0%	-28.7%	0.6%	0.8%	0.6%	0.3%
22 Other Food Products (Salt)	309.2	348.8	437.8	554.4	12.8%	25.5%	26.6%	0.4%	0.4%	0.4%	0.4%
23 Chemical Products											
24 Metal and Metal Products											
25 Textile											
26 Manufactured Fertilizer	2,101.5	917.2	2,547.1	1,833.0	-56.4%	177.7%	-28.0%	3.0%	1.2%	2.4%	1.3%
27 Pulp and Paper											
28 Lumber and Timber											
29 Other Manufactured Goods											
30 Mixed Commodities	784.6	860.0	2,839.6	2,400.5	9.6%	230.2%	-15.5%	1.1%	1.1%	2.7%	1.8%
31 ENR Commodities	5,795.4	7,979.6	9,202.7	12,955.7	37.7%	15.3%	40.8%	8.3%	10.1%	8.8%	9.5%
Total	69,651.2	78,928.7	104,220.2	136,819.7	13.3%	32.0%	31.3%	100.0%	100.0%	100.0%	100.0%

Source: Commercial Department, ENR

Note: Governmental commodities are excluded.

Table 3.3.5 Freight Transport of ENR in 1994/95

Commodity	1994/95 Traport Volume (ton)	(%)	Transport Ton-Km (1,000)	(%)	Revenues (LE)	(%)	Average Distance (km)	Average Rev./ 1,000 Ton-km (LE)
1 Crude Oil								
2 Petroleum Products	1,156,950	11.8%	443,168.6	12.5%	13,246,228	10.7%	383.0	29.89
3 Natural Gas								
4 Cement	208,816	2.1%	42,788.2	1.2%	1,402,161	1.1%	204.9	32.77
5 Other Construction Materials	271,301	2.8%	62,071.0	1.7%	1,698,016	1.4%	228.8	27.36
6 Phosphate	934,010	9.5%	706,902.0	19.9%	8,149,997	6.6%	756.8	11.53
7 Iron Ore	2,393,498	24.4%	837,666.3	23.6%	50,670,833	40.9%	350.0	60.49
8 Coal and Coke	1,622,241	16.5%	445,659.9	12.5%	11,865,963	9.6%	274.7	26.63
9 Other Minerals (Stones)								
10 Wheat	1,794,152	18.3%	486,952.9	13.7%	25,459,991	20.6%	271.4	52.28
11 Other Cereals	936	0.0%	444.4	0.0%	18,293	0.0%	474.8	41.16
12 Fruit and Vegetable								
13 Sugar Cane	258,318	2.6%	15,727.1	0.4%	982,735	0.8%	60.9	62.49
14 Fiber Crops								
15 Live Stocks								
16 Animal products								
17 Agricultural Products (Black Honey)	106,583	1.1%	84,048.3	2.4%	1,190,352	1.0%	788.6	14.16
18 Sugar	470,287	4.8%	196,537.2	5.5%	3,979,404	3.2%	417.9	20.25
19 Edible Oil and Fats								
20 Animal Feed								
21 Beverages (Potable Water)	44,390	0.5%	23,265.7	0.7%	412,015	0.3%	524.1	17.71
22 Other Food Products (Salt)	52,220	0.5%	36,999.3	1.0%	554,429	0.4%	708.5	14.98
23 Chemical Products								
24 Metal and Metal Products								
25 Textile								
26 Manufactured Fertilizer	156,974	1.6%	86,591.3	2.4%	1,833,042	1.5%	551.6	21.17
27 Pulp and Paper								
28 Lumber and Timber								
29 Other Manufactured Goods								
30 Mixed Commodities	341,178	3.5%	84,426.4	2.4%	2,400,464	1.9%	247.5	28.43
31 ENR Commodities	2,038,364	-	388,735.2	-	12,955,745	-	190.7	33.33
Total	11,850,218	-	3,941,983.8	-	136,819,668	-	332.7	34.71
Total Excluding ENR Comm.	9,811,854	100.0%	3,553,248.6	100.0%	123,863,923	100.0%	362.1	34.86

Source: Commercial Department, ENR

Note: Governmental commodities are excluded.

Table 3.3.6 Share Portion of Major Five Commodities in Total Freight (Except ENR Commodities)

Share Ratio (%)	1991/92			1992/93			1993/94			1994/95		
	Tonnage	Ton-km	Revenue	Tonnage	Ton-km	Revenue	Tonnage	Ton-km	Revenue	Tonnage	Ton-km	Revenue
Iron Ore	26.9%	28.6%	36.9%	28.3%	29.8%	41.5%	28.3%	28.5%	43.3%	24.4%	23.6%	40.9%
Wheat	16.9%	11.8%	19.4%	18.6%	13.0%	20.0%	12.3%	8.4%	13.7%	18.3%	13.7%	20.6%
Coal and Coke	10.6%	8.1%	6.3%	11.2%	9.3%	7.1%	12.5%	10.1%	7.9%	16.5%	12.5%	9.6%
Petroleum Products	13.6%	12.9%	13.1%	15.2%	14.3%	14.3%	13.2%	12.8%	12.7%	11.8%	12.5%	10.7%
Phosphate	7.5%	16.2%	5.2%	5.9%	12.8%	4.2%	7.1%	16.6%	5.2%	9.5%	19.9%	6.6%
Total of Above 5	75.4%	77.6%	80.9%	79.2%	79.2%	87.1%	73.4%	76.4%	82.8%	80.5%	82.2%	88.3%
Grand Total Except ENR Comm.	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

3.3.2 Competitive Modes

This section refers the current condition of transport modes which compete with the railway, i.e. inter-city bus and inter-city taxi for passenger transport, and truck and inland waterways for freight transport.

Prior to the description of transport by inter-city bus, inter-city taxi, and truck, the infrastructure for these modes, especially highways, is outlined separately. (The infrastructure of inland waterways is outlined later in subsection of (5) Inland Waterways.)

(1) Highways

The network of inter-city major highways consists of the roads connecting the governorate capitals with each other, and connecting each governorate capital with major cities located in the same Governorate. The responsibility for constructing, upgrading and maintaining the inter-city highway network is due to the General Authority for Roads and Bridges & Land Transport (GARBLT), in the Ministry Of Transport (MOT). However, the local authority in each governorate is responsible for the roads connecting the marakez and villages within the boundary of the governorate. The total length of inter-city paved highways under the jurisdiction of GARBLT is 18,770 km as of June 1995.

GARBLT is dividing the highway network under its control into nine geographical districts, while a tenth district is represented by the toll express roads directorate. Each district is in charge of construction, upgrading, and maintenance of the highway links lying in its territory. Appendix 3.3.5 shows the location of the central offices of these districts and their notations. The tenth district is responsible for the operation of all toll roads, and for maintenance which is paid for by toll revenues, irrespective of the geographical locations of the roads.

(2) Inter-city bus

The registered numbers of vehicle of buses and taxies are shown in Appendix 3.3.6. Note that the category of buses includes public (inter-city and urban) and private. The category of taxies includes inter-city and urban.

1) Inter-city bus operators

Currently, the transportation by inter-city bus is provided by the following three types of operators:

- Four public bus companies (West Delta, Middle Delta, East Delta, and Upper Egypt);
- The Federal Arab Land Transport Company;
- Public buses operated by the governorate authority in the major governorates such as Cairo and Alexandria.

2) Four public bus companies

a. Administrative Authority and Holding Company

Before the introduction of Public Business Sector Law (1991), the Ministry of Transport was the administrative authority for management of inter-city buses.

Introduction of this law changed this authority. The four public bus companies were affiliated under the Holding Company for Transport which was created in the Ministry of Business Sector. Not only the four public bus companies, also the five public trucking companies and the two public inland-waterways companies were affiliated under the Holding Company for Transport.

The above law was created with the intention to privatize every public company. Every public transport company is now in the process of preparing to be privatized.

Since 1993, the above conditions have changed further. The formation of the holding company has changed as described below :

The affiliated transport companies are distributed between three (3) holding companies. Holding Company for Transport, the Maritime Holding Company and the Metallurgical Industries Holding Company. The relationship between each holding company and the public transport companies is shown in Fig. 3.3.2. (There are now 17 holding companies under the Ministry of Business Sector, including those related to other business sectors). Since 1993, the bus, trucking, and inland waterways public companies have not been subsidized.

The four public bus companies are still 100% owned by the Holding Company for Transport. Each bus company can make investment decisions (i.e. purchasing fleets), with ex post facto approval by the holding company.

Also, the four public bus companies are now in the process of preparing to privatize.

b. Performance

The major service area for each of the four public bus companies are shown below :

- West Delta Bus Company	:	Area of West Delta
- Middle Delta Bus Company	:	Area of Middle Delta
- East Delta Bus Company	:	Area of East Delta
- Upper Egypt Bus Company	:	Area of Upper Egypt

However, there are some operations between each territory under agreement between the two bus companies, with both providing the same services on the route.

The kind of bus services are roughly summarized as below, although the types of services differ by bus company (sometimes, the service class naming also differs by bus company) :

(Express and seat reservation)
- Bus with luxury facility (with air condition (A/C), video and toilet)
- Bus with A/C and video
- Bus with A/C
- Bus without A/C

(No seat reservation)
- Express class (without A/C, stopping at major cities)
- Economy class

Appendix 3.3.7 shows the performances of the operating revenues / costs, and the transport volumes of the four public bus companies.

In 1994/95 the four public bus companies transported 580 million passengers a total of 15,673 million passenger-kilometers, with an average passenger travel distance of about 27 km. The transport volume during 1988/89 - 1994/95 showed a declining trend both in the number of passengers and passenger-kilometers, with an average annual decline of 7.9% and 3.5% respectively.

The four public bus companies generated operating profit in general from 1988/89 - 1991/92, but suffered losses after 1992/93, although revenues increased from 1992/93 - 1993/94. But revenues fell again in 1994/95. The average revenues and costs per 1,000 passenger-km has nearly doubled from 1988/89 - 1994/95, and since 1992/93 costs exceed revenues per 1,000 passenger-km. In 1994/95, costs were 16.8 LE, exceeding revenues of 16.5 LE per 1,000 passenger-km.

Study Team interviews at some of the four public bus companies revealed that the main sources of higher costs include costs for personnel and vehicle spare parts. To increase revenues, various actions were taken, including rental of real estate.

Appendix 3.3.8 shows financial results of the four bus companies in 1990/91, 1993/94 and 1994/95.

This table reveals that the number of buses decreased during 1990/91 - 1994/95. The bus kilometers and number of passengers also decreased. However, the average daily operation kilometer per bus increased.
This suggests that the bus companies have tried to re-arrange and integrate their bus routes, shifting to routes with more passengers.

3) The Federal Arab Land Transport Company

The Federal Arab Land Transport Company is a 100% government owned public corporation, administrated under the supervision of the Ministry of Transport. This company operates the luxury type buses with A/C, video, and toilet, called "Super Jet Bus". The major difference between this company and the four bus companies is the service area is over all Egypt (not limited to one area of Egypt), and international.
The Federal Arab Land Transport Company had about 120 buses in 1996.
The number of passengers is as below:

(1,000 persons)

	Domestic	International	Total
1993/94	1,249	102	1,351
1994/95	1,260	134	1,394

The major bus operation routes and fares are shown in Appendix 3.3.9.

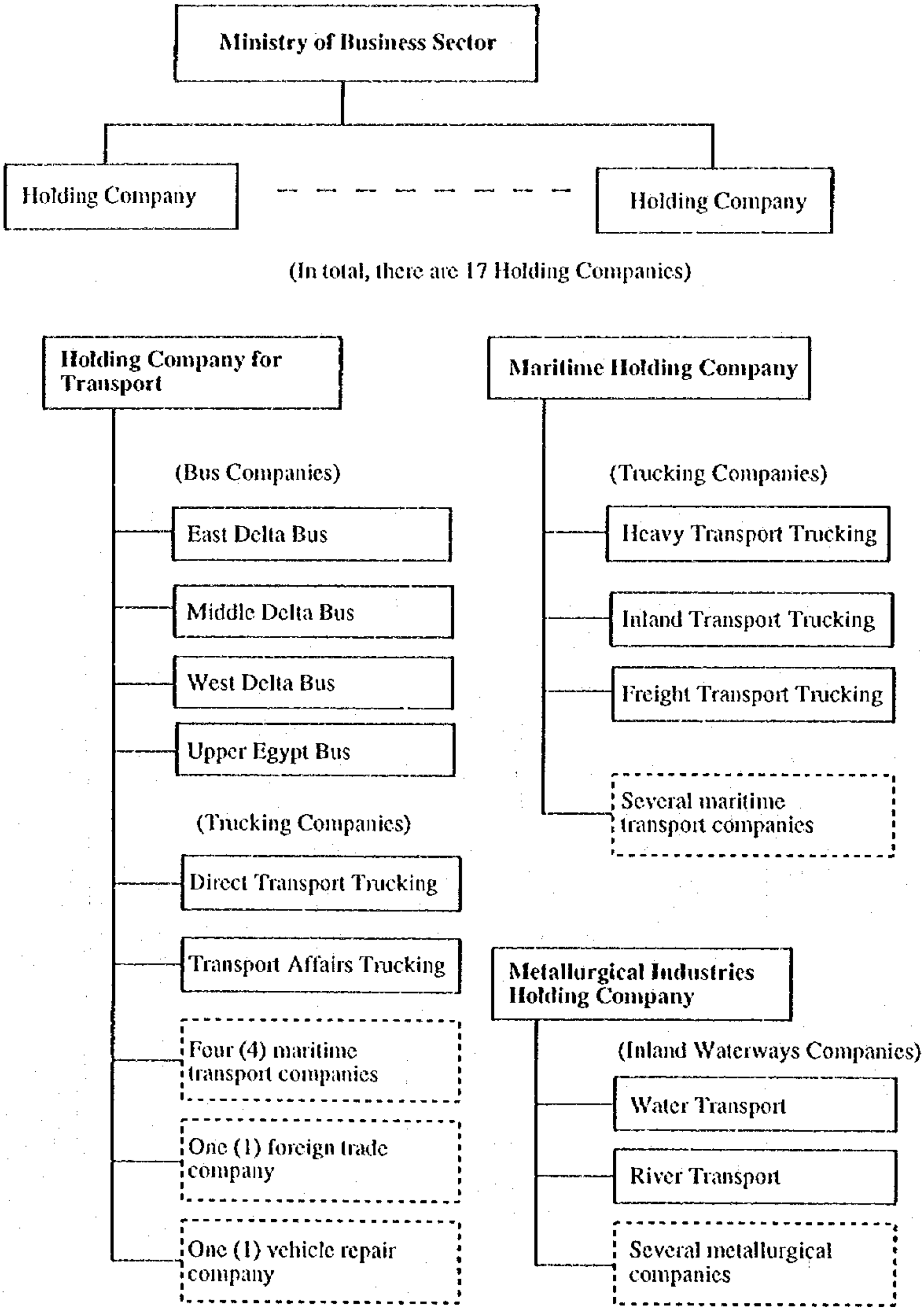


Fig. 3.3.2 Relationship between Holding Companies and Transport Companies

4) Public buses operated by governorate authorities in the major governorates

Public buses operated by the governorate authority in the major governorates such as Cairo and Alexandria provide bus within the governorate. However, according interviews with some of the four public bus companies, a few governorate bus routes cross into neighboring governorates, although these routes are legally limited to within the governorate.

5) Market conditions

According to interviews with some of the four public bus companies, inter-city bus service by the four public bus companies faces severe competition with the following modes :

- Railway
- Inter-city taxi
- Public buses operated by the governorate authority

a. Railway

According to interviews with some of the four public bus companies, railway competition with the economy class bus service is especially severe. In particular, bus routes face severe competition along lines where railway track was doubled, resulting in a shifting of users from buses to the railway, due to improved railway speed and frequency.

Note that some of the four public bus companies thoroughly investigate the railway time table along the related bus routes, and devise their bus timetables based on this investigation.

b. Inter-city taxi

The routes of inter-city taxis are not limited. The taxi can be flexible about its route, in accordance with the needs of passengers at the taxi terminal. In this respect, bus service faces strong competition from inter-city taxi.

c. Public buses operated by the governorate authority

As mentioned previously, a few routes of the public bus operated by the governorate authority cross the border to neighboring governorates, although routes are legally limited to within the governorate. This creates severe competition with the four public bus companies. Consequently, some staff of the four public bus companies emphasize a that the problem of these illegal bus routes should be settled.

(3) Inter-city taxi

1) Services

The inter-city taxis are mostly operated by owner-drivers. However, some drivers rent their vehicles.

Two types of vehicles are used for inter-city taxi : (1) station wagons (mostly Peugeot) with 7 seats; (2) microbuses with 11 to 16 seats. The fare of Peugeots and microbuses are mostly the same.

Generally, inter-city taxis run more frequently than inter-city buses.

Usually, routes of inter-city taxis begin at a taxi-terminal with destination at a Markaz center. Unlike inter-city bus service, inter-city taxis have no timetable. When the vehicle is full with passengers, the taxi begins its journey. In the terminals, inter-city taxis queue according to their destination. Taxi drivers can alter their destination in accordance with the needs of

passengers in the terminal. From this viewpoint, the management style of inter-city taxi can be defined as a private operator.
Vehicle registrations and licenses of inter-city taxis are administrated by the governorate.

2) Market conditions

As mentioned above, driver-owners mostly operate inter-city taxis. Inter-city taxis are considerably more frequent and flexible than buses. This makes inter-city taxis a strong competitor to the bus and railway. The menace of inter-city taxis as a strong competitor to buses was pointed out at interviews with some public bus companies.
On the other hand, problems in terms of safety of inter-city taxis is sometimes reported. It is obvious that for a long distance trip, inter-city taxis are less comfortable than with the bus and railway.

3) Comparison of fares / travel times of railway / bus / taxi

Appendix 3.3.10 shows a comparison of fares of railway, bus and taxi between Cairo and other major cities in Egypt.
Generally, the fares of "buses with A/C" are higher than those of "railway 2nd class without A/C", and lower than those of "railway 2nd class with A/C". On the Cairo - Alexandria route, the fare of "bus with A/C, video & toilet" is nearly the same as that of "railway 2nd class with A/C (Spanish / Turbo)", and lower than that of "railway 1st class (with A/C)".
Regarding the comparison between bus and taxi, the tendency of fares varies, and in general the travel time by taxi is less than by bus.

(4) Truck

1) Trucking operators

Currently, there are both public and private sector freight trucking operators.
The public sector trucking operators are :

- Five public trucking companies (Direct Transport, Heavy Transport, Inland Transport, Transport Affairs, and Freight Transport Trucking Company).
- Trucks owned and operated by public sector companies (manufacturing companies, etc.) and the Ministries.

The private sector trucking operators are :

- Private truck operators organized through the trucking cooperatives.
- Large private sector trucking companies.
- Small private truck operators and trucks owned and operated by small private sector companies (manufacturing companies, etc.).

The following section covers the five public trucking companies, the private truck operators organized through trucking cooperatives, and the large private sector trucking companies.

2) Five public trucking companies

a. Administrative authority and holding company

As mentioned previously in the section of "Inter-city bus", currently the five public trucking companies are affiliated under two holding companies, Holding Company for Transport, and Maritime Holding Company, which are in the Ministry of Business Sector. While the

trucking companies Direct Transport and Transport Affairs are affiliated under Holding Company for Transport. The trucking companies Heavy Transport, Inland Transport, and Freight Transport are under Maritime Holding Company. 100% of the stock in each public truck company is held by its holding company. Each truck company can make investment decisions (like purchasing trucks), with ex post facto approval of the holding company.
The five public truck companies are now in the process of preparing to be privatized.

b. Performance

The basic transport activities of the five public truck companies are related to export/import of commodities. However, they also serve domestic commodity transport. The major seaports served by each company are as follows:

- Direct Transport : Safaga Port
- Heavy Transport : Damietta Port
- Inland Transport : Alexandria Port
- Transport Affairs : Port Said Port
- Freight Transport : Adabiya Port (Suez Port area)

However, their activities are not limited to the above ports. The five companies have no limitations on inland routes.
According to interviews with some of the five companies, the current major consignors are Ministry of Supply (wheat, flour, rice, beans seeds, sugar, etc.), cement company, petroleum gas company, and other private companies.

Appendix 3.3.11 shows the performances of the operating revenues / costs, and the transport volume of the five public trucking companies.

The 1994/95 total transport volume by the five public trucking companies was 7.3 million tons and 2,001 million ton-kilometers, with an average transport distance of about 274 Km. The transport volume during 1988/89 - 1994/95 showed a declining trend both in tonnage and ton-kilometers, with an average annual decrease of 8.3% and 3.4%, respectively. Note that the rate of decrease of ton-kilometers is less than that of tonnage.
In general, while the five companies generated operating profit during 1988/89 - 1990/91, they suffered deficits after 1991/92. Although revenues increased, the increase in costs exceeded that in revenues during 1991/92 - 1994/95. In 1994/95, the deficit decreased compared with deficits in 1992/93 and 1993/94.

Although ton-kilometers decreased, the average annual growth ratio of the average revenue per 1,000 ton kilometers during 1988/89 - 1993/94 is 11.4%. This is considered a result of tariff increases during this period.
While the average annual growth ratio of the average revenue per 1,000 ton kilometers during 1988/89 - 1994/95 is 11.4%, that of the average cost is 12.6%. Since 1991/92, costs exceeded revenues. In 1994/95, revenues per 1,000 ton-km were 77.9 LE, but costs were 77.9 LE.
According to interviews at the companies, the main sources for increasing costs were personnel and vehicle spare parts.

3) Private truck operators organized through trucking cooperatives

The trucking cooperatives are organized in units for each governorate, and are under the control of each governorate. The members of cooperatives are individual operators. The condition of cooperative membership is ownership of less than five trucks per member. According to information obtained from the trucking cooperatives' Central Committee in

Cairo, the cooperatives had 13,110 members and 15,204 trucks in 1993 (average 1.2 trucks per member). In 1993, they transported 26.2 million tons, generating operating revenues of 163.6 million LE (6.2 LE per ton). Trucking Cooperative activities during 1985 - 1993 are shown in Table 3.3.7. The numbers of members and trucks were stable during 1991 - 1993.

Table 3.3.7 Activities of Trucking Cooperative

Year	Number of Members (a)	Number of Trucks (b)	Total Freight Tonnage (1,000 ton) (c)	Operating Revenues (Million LE) (d)	Number of Trucks per Member (b)/(a)	Operating Revenues per Ton (LE) (d)/(c)
1985	12,112	13,161	22,096	134.1	1.09	6.07
1986	12,590	13,521	22,798	145.2	1.07	6.37
1987	13,001	14,139	22,949	145.6	1.09	6.34
1988	12,112	13,626	23,110	149.2	1.13	6.46
1989	12,590	13,986	23,812	151.3	1.11	6.35
1990	12,800	14,604	23,963	151.8	1.14	6.33
1991	13,110	15,204	24,628	153.7	1.16	6.24
1992	13,110	15,204	25,154	157.2	1.16	6.25
1993	13,110	15,204	26,163	163.6	1.16	6.25

Source: Trucking Cooperatives' Central Committee in Cairo

Their transportation areas are mostly within each Governorate. However, inter-governorate transportation is also available. The current major clients are Ministry of Supply (60% in tonnage) and the private sector (40%). Up to three years ago, there was sub-contracting from public trucking companies. But at present, there is no sub-contracting from public trucking companies.

The function of the trucking cooperative committee in each governorate is as follows :
The trucking cooperative committee in each governorate receives orders from consignors, then distributes these orders to members, and the payments from consignors will be made through the committee, with a commission fee of 5% of the payment.

4) Large-size private sector trucking companies

According to interviews with some of the five public companies, there are at least 15 large-size private sector trucking companies in Egypt, with 25 - 30 trucks at each company.

5) Market conditions

According to interviews with some of the five public trucking companies :

- The public trucking companies consider themselves to dominate other freight transport modes (railway and inland waterways) because of trucking's ability to provide "door to door service" and "speed" of truck transport.
- The public trucking companies dominate other trucking operators such as cooperative trucking operators because of the capability to mobilize many trucks for large quantity freight transport and more reliable transport management, although cooperative trucking operators have lower fares.

- The public trucking companies consider large private sector trucking companies to be strong competitors.

(5) Inland waterways

1) Waterway network

The inland waterway network comprises a set of navigation lines which pass through natural channels (Nile River, etc.) and several artificial canals.
The General Authority of River Transport (GART) categorizes the navigable inland waterway network into a series of navigable lines. GART categorizes the waterways into three classes:

- First class waterways :
  These are the waterways with locks which permit the navigation of two units sailing at a time, each having a net loading up to 920 tons, a width of 7.5 m, length of 90 to 100 m, and a draft of 1.50 up to 1.80 m when fully loaded. These waterways have locks with dimensions not less than 100 by 16 m and most of bridges across them are elevated type. The total length of first class waterways is about 1,500 km.
- Second class waterways :
  These are the waterways which branch from first class waterways, having locks which permit the navigation of a single sailing unit of 30 up to 50 m, and width of 6 to 7 m. Total length of these waterways is about 1,850 km.
- Third class waterways :
  These are navigable waterways which branch from second class waterways, having characteristics equal to or less than the second class waterways. Total length of these waterways is about 350 km.

GART has the following major functions: i.e. 1) maintenance and development of navigable channels, 2) providing licenses for motorized inland waterway boats, and 3) planning and research for inland waterway transport.

2) Inland waterway fleet

As mentioned above, GART is the governmental authority providing licenses of motorized inland waterway boats. Sailing boats are licensed from relevant governorates, within which they normally operate, and are considered to be used for short distance transport.
The two public companies (the River (Nahri) Transport Company and the Water (Maaii) Transport Company) in the field of inland waterway transport occupy a great part of transport capacity. In addition to these two public companies, there is Sugar Company which possesses mechanical barges for their own transport of sugar and molasses from upper Egypt to Cairo and Alexandria. Also, the private sector has fleets.
According to GART statistical data, changes in the number of fleets in 1992 and 1995 are as below:

	1992	1995
Nahri Transport Company	171	160
Maaii Transport Company	124	120
Sugar Company	199	155

Source: GART

Information from the information center of GART shows the different commodities transported using the waterway network. Appendix 3.3.12 shows the commodities expressed in tons and ton-kilometers during 1991 - 1995. The average decrease of ton-km was 1.6%. However, tons increased slightly (0.8%), as shown in Appendix 3.3.12.

Since 1993, the two public companies in the field of inland waterway transport have been in the holding company (Metallurgical Industries Holding Company) which is under the Ministry of Business Sector. At present, these two inland waterway public companies receive no subsidy, and are in the process of privatization.

Appendix 3.3.13 shows the operating revenues / costs and the transport volumes of the two public inland waterway companies.

In, 1994/95 the two public inland waterway companies transported 2.420 million tons and 1,109 million ton-kilometers, with an average transport distance of about 460 km. From 1988/89 - 1994/95, average annual decline was 4.4% for tonnage, and 3.6% for ton-kilometers.

The two companies suffered constant deficits during 1988/89 - 1994/95. Although revenues increased, costs increased faster than revenues.
The average annual growth ratio of the average revenue per 1,000 ton kilometers during 1988/89 - 1994/95 was 10.3%, but average cost grew 11.9%, and average costs were greater than revenues every year (1994/95 average revenues of 31.5 LE, average costs of 37.6 LE).

(6) Overview of transport market conditions

Based on interviews with some authorities, the following is an overview of passenger and freight transport market conditions :
Currently, the transport market is a "free market" in terms of market entry and tariff.. Regarding market entry, for passenger transport, anyone can establish an inter-city taxi (Peugeot or minibus, not large buses). Anyone can enter the trucking business.
Regarding tariff, the public bus companies can now revise tariffs without permission of the governmental authority, after obtaining the agreement of the holding company. The public trucking companies can now revise tariffs without permission of the governmental authority, and also without agreement of the holding company. (Previously, tariffs were controlled by governmental authorities, but now they have no control.)

(However, considering the current severe competitive condition among transport operators, it may be easier to decrease tariffs than to raise tariffs).

Reflecting the above general situation, the following is to be noted :
Especially for passenger transport (inter-city taxi business), the free "market entry" can result in a price war, creating safety problems from excessive reductions of vehicle maintenance costs. For such a situation, some Governmental control will be required.